

# The California Tech

California Institute of Technology

Volume LVIII

Pasadena, California, Thursday, January 31, 1957

Number 14

## ASCIT nominations scheduled next week

Candidates for ASCIT offices will be nominated at eleven o'clock, Thursday, February 7, in Culbertson Hall. Two weeks later, elections will be held and the winners will serve from third term of this year through second term of 1958.

The ASCIT offices are: president, vice-president, secretary, treasurer, first representative-at-large, second representative-at-large, athletic manager, publicity manager, rally commissioner, head yell leader, editor of the **California Tech**, business manager of the **Tech**, editor of the **Big T** and business manager of the **Big T**.

## House singers exercise vocal cords for sing

Rehearsals for the fourth annual Interhouse Sing got under way last Monday.

This year the contest number will be **Hangtown Gals**, a California folk song. Besides the contest number, each house will sing a number of its choice, and at the end of the program all the houses will sing the **Alma Mater** together. The Caltech Glee Club will also perform.

### Directors

The directors for each house have been chosen. Bob Johnstone will do the honors in Blacker, Al Forsythe in Dabney, Luis Coux in Fleming, and Walt Weiss in Ricketts.

### Principals

The Sing will be held on February 18 in the gym. Dr. Ingersoll will act as master of ceremonies, and Dean Eaton present the trophy is held by will present the trophy. At will present the trophy. At present the trophy. At present the trophy. At present the trophy.

## South African problems told by Munger during recent visit

by John Lango

"I one asked an Afrikaaner how many people there are in South Africa. He replied 'Three million.' This is the number of whites. There are ten million more, but they are non-whites and they 'don't count.'"

So said Edwin Munger, the American University Field Staff member, who stayed on campus this past week.

Dr. Munger spent most of his time in the Union of South Africa. He has been a member of AUFS for some time, having been at Caltech before in 1953. He was the first Fulbright Scholarship recipient to go to Africa.

### Explosive situation

The peculiar and explosive racial situation in Union of South Africa defies rational analysis, according to Dr. Munger. The whites colonized South Africa much as our settlers colonized the American West; "The only good Bushman is a dead Bushman" was a well mouthed catchism. The Boer War between the Dutch and English settlers developed antagonisms which persist to the present. Immigrants such as Indians and Jews created touchy racial problems. But worst of all was the "Bushman" problem; apartheid is the modern solution.

The natives, "Bantu," "Zulu," or what have you, existed as tribal units, prior to white invasion. The impact of Western civilization has caused the disintegration of these tribal units with an accompanying destruction of tribal culture. Natives, responding to lucrative job offers, migrated to the cities. There, with no tribal social custom to bind

(Continued on page 4)

## Undergraduates attempt to raise \$3500 in school-wide Charities Drive next week

The annual ASCIT Charities Drive with a goal of \$3,500 will begin Monday and last through Friday. Rube Moulton, ASCIT Veeep, is chairman of the drive, and he has announced that a "trophy" will be given to the house contributing the most on a money-per-man basis.

### Announcements

#### Early appointment

Effective immediately, appointments for interviews must be made by 5 p.m., two days prior to the desired interview.

#### Harvard Business School

Dean Guinn Smith, Assistant Dean of the Harvard Business College, will be on campus Wednesday, Feb. 20, to interview interested students. Dean Eaton's office is arranging details.

#### ASCIT Formal

Formal invitations for the forthcoming ASCIT Formal are now available from Dave Leeson, 49R; Dick Kirk, 35D; and Herb Rauch, 61F.

#### Analog Computers

Dr. Charles Wilts, popular instructor at Tech, will speak on "Analog Computers" at the AIEE-IRE Student meeting this evening, Thursday, January 31. Refreshments will be served. All interested students are invited to attend.

### Frosh elections

Lee Hood was re-elected president of the freshman class Monday, and he and the new slate of officers will serve for the remainder of the school year.

First voting was done on Thursday during the assembly and the run-offs were conducted Monday at 11 a.m., under the direction of the old officers.

The complete roster of new officers includes President: Lee Hood Vice Pres.: Kent Frewing Secretary: Ron Arps Treasurer: Chuck Slocum Athl. Mgr.: Wes Shanks Board of Control Representatives:

Dave Butterfield and Frank Greenman

### If at first . . .

Believe it or not, the Y film committee has announced that **Death of a Salesman** will definitely be shown this Sunday, February 3. Two showings are planned, one for 7:30 and one for 9:30 pm. This film was supposed to be shown at the end of last term, but due to complications, never arrived.

## "Leaders of America" brings Oppenheimer here for week

J. Robert Oppenheimer will arrive on campus on Thursday, February 28, as the first man on this year's "Leaders of America" program. Oppenheimer, who is in charge of the Institute for Advanced Study at Princeton, will remain until March 5 and participate in a series of events designed to bring maximum contact with Caltech men.

At present, his exact program is still not definite. The emphasis will be on informal gatherings, featuring bull sessions in house lounges, and talks in a private residence off campus. An Open House will probably be held on Saturday, March 2, and a summary address on Monday, March 4. The program is now being submitted for his approval.

### Previous leaders

Last year the Y-sponsored program brought Paul Hoffman, William O. Douglas, and Ralph Bunche. The tenor of their visits was somewhat different from that planned for Oppenheimer. Dr. Oppenheimer expressed the desire to take part in as informal a type of program as possible; he suggested an arrangement whereby students could come and visit with him in the privacy of an off-campus residence during set hours, a procedure he successfully participated in at another college.

Contrariwise, last year's Leaders participated in more formal meetings: classroom, coffee-hour, scheduled discussion groups and speeches.

### Sponsored by Millikan

The Leaders of America program is sponsored chiefly by a grant from Robert A. Millikan for the purpose of bringing people of world importance to campus.

Third term this year, Sarvappelli Rhadakrishnan, a vice-president of India, will visit Caltech, perhaps necessitating a change in name for the Leaders program.

This "trophy" will be a meal served by the faculty with entertainment also provided. Since meals are not served to members of Throop, they will receive an extra amount of entertainment if they win the contest.

Throop will contact off-campus students who are not members of one of the student houses. Each-house will contact an assigned portion of the graduate students for contributions to the drive. A house chairman will solicit students in "his" house.

Charities that receive money from the drive are World University Service, Pasadena Community Chest, American Cancer Society, and American Heart Association. \$1,000 has already been contributed to the drive.

For more information about the individual charities see page 2.

The house chairmen are Reed Saunders, Blacker; Tony Torillo, Dabney; Ron Dettling, Fleming; Bob Ingram, Throop; Dave Leeson and Jerry Swedlow, Ricketts.

## Moroccan tells of Mid-East troubles

Dr. Robert Smith Shea, Director of the American School of Tangier, will give an illustrated talk on "Morocco and the Middle East Crisis" at 7:30 p.m., Wednesday, February 5, in the Y lounge. He will give a similar talk before a special Y Graduate Student-Faculty Lunch Forum to be held at the Athenaeum on February 5.

### Diplomatic Corps

As a former member of the U. S. Diplomatic Corps, an eyewitness of Morocco's fight for independence, and a personal friend of the Sultan and many other government officials, he has an excellent background for analyzing the emergence of Afro-Asian nationalism in general and the French Moroccan position in particular.

## Engineer to assay jobs in other lands

A. J. Ackerman, internationally renowned consulting engineer on hydroelectric projects, will speak this afternoon on "Should Engineers Enter Foreign Employment?"

To seniors and grads in the engineering options who have an eye towards possible foreign employment, this program of the Civil Engineering Seminar at 400 in Room 206 Engineering will have special interest.

### Wide background

Mr. Ackerman speaks from a wide background of engineering experience in the U. S., South America, and Asia. As recent chairman of the Ackerman Committee on Engineering Education of the American Society of Civil Engineers he has had much to do with policies of pro-

(Continued on page 3)

## New Board ruling ends minor sports

Last Monday the ASCIT Board of Directors passed a motion eliminating the distinction between major and minor sports in regards to athletic awards.

In the same motion the junior varsity award was changed from a "circle T" to a "block T." In a second motion the frosh numerals were changed from three inches to two inches.

Earlier in the meeting the Board defeated a motion to refer to the student body the question of eliminating the sweater awarded in the first year. This would have involved moving the jacket down from the second year to the first.

Carmichael and Nierlich voted aye, while Rauch, Leeson, Van Kirk, Converse, and Moulton were opposed. Kirk abstained.

## Basketball claims Beavers' attention

Highlighting this weekend's social activities are basketball games with Redlands and the University of California, Riverside, on Friday and Saturday nights, respectively.

In observance of Ground Hog Day, Fleming will hold a party Saturday night; and Blacker, with due respect for music, will hold a skiffle band party.

After Friday's game a dance will be presented by the freshman class in cooperation with ASCIT.

### California Tech

Editors-in-chief — Tom Dodge and Frank Kofsky  
Managing Editor — Bob Walsh  
News Editor — John Lango

News Staff..... Dave Leeson, Bob Lushere,  
Alan Berg, Lance Wallace, Ted Bate,  
Steve Emanuel, Alan Carlin  
Feature Editor — Mike Milder  
Brad Efron, Howard Weisberg, Ford Holtzman,  
Dave Gilson and Gary Yale Breitbord  
Sports Editor — Dick Van Kirk  
Tony Leonard  
Photography..... Dave Gross, Randall Schmitz

Business Manager — Ed Park  
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## Letters to the Editor

## Campus Brewins

# ASCIT asks for your money in combined Charities Drive

This year's ASCIT Charities Drive begins next Monday. You will receive, either today or tomorrow, a letter telling you about the drive, as well as some material from the four charities involved. Before you toss the letter in the fireplace or the nearest circular file, take a close look at what has been sent to you.

Since you will be asked by one of your fellow students to contribute to the Charities Drive, you might like to know where your money will go if you choose to contribute. The four charities included this year are very worthy of your consideration. Briefly, their functions are as follows:

**WORLD UNIVERSITY SERVICE**—This organization is student-supported and exists solely for the purpose of providing funds for needy students throughout the world. \$1000 of the money you will contribute to WUS has already been used to help Hungarian Refugee students. The remainder of the WUS funds will go to help other students in nearly every country of the free world.

**PASADENA COMMUNITY CHEST**—The Chest represents 36 local welfare organizations, thus eliminating separate drives during the year. The funds it receives are split among these causes according to need. Among the Chest member agencies are the Legal Aid Society and the Boy Scouts of America.

**AMERICAN CANCER SOCIETY**—This organization is dedicated to fighting cancer through research and public education. Money received goes to finance cancer research in hospitals and laboratories, to make the public aware of cancer and its treatment, and to help those people stricken by cancer who are unable to help themselves.

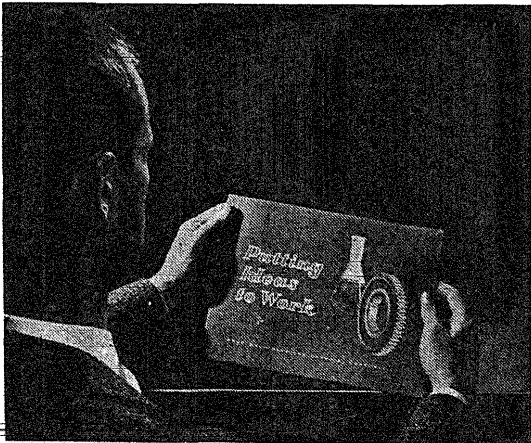
**AMERICAN HEART ASSOCIATION**—Money given to this group is channeled into research to combat heart disease and also into public education and welfare work.

All four of the above organizations are helping to build a society which will be a better place in which to live for us and for our families. So don't throw that letter away too fast; read what it has to say. Remember that this is the only time in the year you are asked to contribute to charitable organizations.

ASCIT is proud to sponsor the Charities Drive for such fine organizations as the ones I have listed above. We hope you will support them and us next week when the solicitor comes to see you.

Rube Moulton  
ASCIT Vice President

## ENGINEERING STUDENTS TO DISCUSS INDUSTRY CAREERS



Students majoring in chemical, mechanical, or electrical engineering are now scheduling appointments to obtain information on Food Machinery and Chemical Corporation, a major national producer of diversified machinery and chemicals. Company representatives will visit the campus on February 11 and 12.

Arrangements for individual interviews may be made through the local college placement office.

To the Editor of the California Tech:

In a few weeks ASCIT elections will be upon us. The major offices will be avidly discussed, but not much thought will be given to the lesser elected offices of the Associated Students. The Editor and Business Manager of the Big T are such offices. At this time I am making an appeal to someone, anyone, to give these offices some serious thought.

For one of creative, artistic instincts and organizational ability the Editorship of the Big T is a realistic opportunity for him to express himself and demonstrate his competence. In addition to the satisfaction of a job well done, the Editor receives a salary of \$175.

For one who likes to meet people, to try his hand at salesmanship, and get a slight amount of business experience the office of Big T Business Manager is certainly a rich plum. Receiving a commission of twenty per cent on the advertising sold, the Business Manager can make himself quite a bit of change considering that there is between three and five

**Troll tells traumatic tale**  
"Sad stories were cheap in Phlegming this week as competition for the coveted Golden Goose Award ended in a crashing blaze of ennui. The Gook's Tale was infinitely sadder. Being potted out of his mind, and being in the company of Bad Companions, the Stalwart Gook took himself to a Non-Home. Prepared for the ritual, the Yellow Peril faced his opponent.

The opponent stared with dis-thousand dollars worth of advertising sold.

Having been Big T Business Manager for two years, I can appreciate the increased simplicity of the job that comes with a little experience. Therefore I propose to show interested parties the ropes in hopes that they might run for the office. I certainly would give the elected manager the opportunity to become intimately acquainted with the routine, which should prove invaluable to him next year. Besides he can make some money this year. If anyone is just slightly interested, I urge him to contact me.

WALT PETERSEN  
Big T Business Manager

favor. "Look, sonny boy," said the opponent, "Are you sure you're ready?" The Suntanned Irishman took this traumatic thrust with equanimity. With oriental fatalism, he shrugged; replied, "I guess that's about the size of it."

**Nasty note numbs neurotic**  
Phlegm Engledangle trolled into the lounge at noon and took a letter from the E box. His brow beaded with sweat at the sight of the return address. Tearing the envelope open, he read the letter, uttered a low cry and fell into a swoon. Just the first few lines were not hidden by whitened knuckles. "My Dearest," it said, "I must see you soon. I've missed my last two . . ."

**Quite queer quotes**  
D. Carmichael "I only had it up to seven thousand in second and then I hear this ticking noise BANG BANG BANG BANG"

**Blacker boy's boozy betrothal**  
Reitah (from Blackah) became wed last Saturday. After his new wife carried him and his fifth of Jack Daniels (not in a bottle) down the aisle, the (Continued on page 6)

### A Campus-to-Career Case History



## "Top training in a top company"

"One of the chief reasons why I joined the telephone company was the excellent training I was offered," says Marvin J. Merrigan, E.E., Iowa State, '53. "In any long-range career you're bound to miss something important if you don't start in with fundamentals.

"I decided that the telephone company's two-year training program was the best possible foundation I could get for a career. I was rotated through every department in the company during my two years. It was strictly on-the-job training, and every day was different and interesting. The experience was terrific. To my training as an electrical engineer there have been

added the skills and know-how of a telephone engineer.

"At the end of my training I was made a plant foreman in Peoria, Ill. My crew is responsible for maintaining telephone service in one-third of the city. It's a job that lets me contribute a lot to the business, and to my career as well.

"I'll say this about the future—you don't get stuck in a niche in the telephone company. Careers lead to executive positions. There's opportunity for advancement everywhere, and for a lot of people, too. Top training, in a top company, really prepares you for advancement."

Marvin Merrigan is with Illinois Bell. There are rewarding career openings in other Bell Telephone Companies, Bell Telephone Laboratories, Western Electric and Sandia Corporation. See your placement officer for more information about career opportunities in the Bell System.



Bell Telephone System

# Secretary's Report

**SPORTS AWARDS CHANGED** After considerable discussion, the Board voted to eliminate the present distinction between major and minor sports. All first year lettermen will receive the same award—the letter and sweater which are presently given to lettermen in “major” sports. Under the current system lettermen in so-called “minor” sports (water polo, cross-country, soccer, and golf) are rewarded with inferior sweaters and circle “T” letters. All second year lettermen will receive the varsity jacket which is presently given for a minor sport. The minor sport jacket was chosen because the sleeve style was much preferred by most lettermen over the sleeve style of the major sport jacket. Junior varsity awards which presently are a circle “T” will be changed to the standard four-inch block “T”.

**FROSH NUMERALS** The size of freshman numerals will be changed from the present six inch size to the two inch size. These numerals may be worn on the sleeve of a varsity sweater or jacket. According to Athletic Manager, Glenn Converse, the changes which will go into effect next September will save ASCIT more than \$150 per year.

**ASCIT FINANCES** After careful consideration, Treasurer Don Nierlich predicted that this fiscal year ASCIT may run a surplus due to increased enrollment. The net total ASCIT assets as of June 30, 1956, were in excess of \$5000. Invested with the Institute and earning interest is \$3100, while the balance of almost \$2000 is working capital which must be kept in the bank. This is to tide ASCIT over during lean times during the year. The \$3100 with the Institute are not all our own, either. ASCIT presently owns approximately 160 caps and gowns which the seniors use to graduate. These caps and gowns are rapidly deteriorating and many of them will need replacing in the near future. Thus much of this \$3100 is reserved for this purpose.

**SPORTS AWARDS NOT CHANGED** The previous discussion of finances was essential before the board considered the proposal to give varsity jackets to first year lettermen and letters to second year lettermen. The \$600 per year which could be saved by the change was weighed against present ASCIT finances. After careful consideration, the board defeated the proposal 6-2.

**ASCIT FISCAL YEAR CHANGE** The proposal of Don Nierlich to change the ASCIT fiscal year from ending June 30 to ending March 31 was discussed. Although the Board was in favor of the proposed change in the By-Laws, official action by the Board cannot be taken until March 11, according to these same By-Laws. Then the proposal will be submitted to the student body for a vote at the same time ASCIT elections are held. This proposal will also contain a provision to have the outgoing board prepare a proposed budget for the following fiscal year.

As yet undecided is the term of office of the Treasurer. Should he leave office as soon as his books are closed? Or should he continue in office for the first five weeks of third term to help set up the new books and aid the board in the adoption of a new budget?

**Herb Rauch**  
ASCIT Secretary

# DOUBLED AND REDOUBLED

by Gary Breitbard

North  
S—J 9 6 5  
H—A K Q  
D—A 8 6  
C—Q 10 8

West  
S—Q 8 7 4 3  
H—6  
D—2  
C—J 7 6 5 3 2

East  
S—10 2  
H—5 4 3 2  
D—K Q J 10 7 5  
C—9

South  
S—A K  
H—J 10 9 8 7  
D—9 4 3  
C—A K 4

Bidding:	South	West	North	East
	1 H	Pass	2 H	Pass
	4 C	Pass	4 D	Pass
	5 H	Pass	6 H	Pass
	Pass	Pass	Pass	Pass

Opening lead: 2 of diamonds.

In a rather sound attempt for a little slam, South found himself in the predicament of having two little diamond losers with nothing to slough them on. However, by obtaining an exact accounting of the opponents cards, the declarer was able to squirm out of this apparently hopeless position.

East is marked with at least five diamonds by his non-vulnerable overcall. West's lead of the deuce is the clincher; it can only be a singleton, leaving East with six diamonds. After taking the ace on the board, the declarer pulls two rounds of trump and notices a black card falling from West's hand. The distribution is now obvious. West is left with nothing but black cards, while East, who must have had ten red cards, holds exactly three black cards.

After pulling the rest of the boys, successive leads of the ace, king of spades and the ace of

clubs leave East with a completely red hand. The drop of the ten of spades from East's hand now inspires the declarer with a possible way to make the bid. If he can create two entries to the board it will be possible to set up a spade trick from his holding there. He therefore takes what is known as a “marked finesse,” leading the 4 of clubs from his hand and playing the 10 from the board with perfect confidence.

Ed Krehbiel, observing the play, was impressed by its obscurity and yielded to the temptation to explain to the rest of the spectators that South had erred. Undaunted, the declarer led the jack of spades from the board, dropping the king of clubs from his hand to unblock the suit, leaving the queen as a possible entry.

West was thrown into the lead with the queen of spades, and through no act of will power

could he change his clubs and spades into diamonds. He reluctantly led to the board's good tricks, realizing that South had no way of getting there without his help.

Howie Bloomberg, as yet a virgin bridge player in the lounge circuit, expressed amazement at the degree of complexity of the play and the astounding facility with which the declarer seemed to maneuver the holdings to his own ends, his rapid visualization and execution of the attack. Howie said: “What a crazy guy!”

## ENGINEER

(Continued from page 1)

Professional organizations toward engineering education. He is coming to Los Angeles to address the 9th Annual College-Industry Conference Jan. 30 on the subject, “What Should and What Should Not be Done by the Engineering School.”

**STATE** SY. 2-7139  
RY. 1-0385

Kirk Douglas  
**“LUST FOR LIFE”**  
and  
**“SILENT WORLD”**

**COLORADO**

Gary Cooper  
in  
**FRIENDLY PERSUASION**

**UPTOWN**

“JULIE”  
and  
**“You Can't Run Away From It”**

**UNITED ARTISTS**

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**THE IRON PETTICOAT**  
and  
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*Marguerite Higgins*

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**Enjoy** the difference! More people smoke Camels, year after year, than any other cigarette of any kind. Try Camels—they've really got it!

**MUNGER**  
(Continued from page 1)

them, they established one of the world's greatest crime, dope, and prostitution rates. There, they are discriminated against, being forced to live in segregated areas and observe all around them the things "For Europeans Only."

Apartheid is the frenzied solution of the National Party under Strydom. The National Party is almost wholly Afrikaaner (Dutch and Huguenot). Party, in position, the United Party, is English and fringe Afrikaaner. Both stand for segregation; both are white parties. Even though the United Party polled 50.1% of the votes cast in the last election (since the disenfranchising of the Cape Coloured, only the white can vote) they failed to elect a Prime Minister because of vote distribution.

Under the policy of apartheid, non-whites would be moved to certain areas, where they would live apart from the whites, who themselves would be "segregated" in other areas. As a utopian extreme of the Southern (U. S.) ideal of "separate but equal," it offers certain immediate advantages. However, some of the whites see the profuse limitations. Blacks and coloured are necessary as cheap labor for white businessmen and already businessmen in some areas who have many of them are unwilling to make the sacrifice. Besides this, a few dissident whites oppose it on ideological grounds; but these are too few; their voices are engulfed.

Dr. Munger spoke dismally on the outcome of developments in South Africa, especially as to the possibility of solutions. "There are no solutions. We can only pick up the pieces."

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careers  
in  
**research!**

Attractive openings now available in the following sections:

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- Wind Tunnel Operations
- Machine Computation
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**INTERVIEWS:**  
Tuesday, February 5

See your College Placement Officer for an appointment and a copy of our brochure.

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February 11

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**RAYTHEON MFG. CO.**  
Waltham 54, Mass.

## \$1000 from Caltech used for Hungarian student refugee aid

The World University Service has received close to \$100,000 from American universities for aid to Hungarian refugee students. Caltech's \$1000 check was one of the first received.

### Scholarships offered

Out of the approximately 1,000 Hungarian students who have reached the United States, close to 600 have already been interviewed. About 500 complete scholarship offers from approximately 300 institutions have been received. Fifty Hungarian students already have been tentatively assigned to American colleges.

World University Service has been interviewing these students, soliciting scholarship offers, working with the Institute of International Education and a committee of distinguished educators to match student qualifications and backgrounds with scholarship offers, providing room and board for the student refugees until they are placed in colleges, and helping to establish and maintain, under IIE auspices, intensive English training programs.

All of the funds will be distributed for relief operations, because administrative expenses are being paid by a Ford Foundation grant.

### Student aid

Part of the contributed \$100,000 has been used for supplementary food, clothing, housing and medical care. However, the committee that is coordinating the Hungarian student refugee relief program in Vienna was able to secure the assistance of the Austrian government and several other agencies for many of these services. This permits most of the funds contributed by American colleges to be used for relocating the Hungarian stu-

dents and fulfilling material relief functions as the programs of other relief groups come to an end.

## Youth Hostels will provide summer travel

Students at Tech interested in travelling through the United States and many foreign countries during summer vacations should be acquainted with the unique opportunities for inexpensive and interesting world travel provided by American Youth Hostels, Inc.

The AYH is a non-profit, non-sectarian, non-political corporation, organized exclusively for charitable and educational purposes, and is open to everyone. Specifically, the purpose of AYH is "to help all, especially young people, to a greater understanding of the world and its people, primarily through out-of-doors educational and recreational travel."

The AYH has had 23 years experience planning hostel trips all over the world. The organization maintains hostels in 28 countries, and offers a choice of

(Continued on page 7)

Welcome!

### CAMPUS BARBER SHOP

in the Old Dorm

Hours: 8-5:30 Price: \$1.50

Phone: Ext. 212

Two Barbers on Monday & Friday

## Students to hold discussion on European tours

"European Travel" will be the subject of an informal meeting in the home of Wes Hershey tonight at 7:30. Dr. William Olson, professor of political science at Pomona College, will show a movie on travel in Europe. Wes will show some slides of the trip that he made a few years ago.

Following this, the group will discuss the problems of a student travelling in Europe. Olson, who will lead a group tour this summer, and West will serve as resource people.

The student who wishes to travel in Europe must first decide whether he wants to travel alone or in a group tour. If alone, he must decide on mode of transportation: bicycle, car, train, or bus. He is faced with language barriers, and money exchange problems.

The meeting is open to all those interested, from people planning a trip this summer to armchair enthusiasts. Wes Hershey's home is at 391 South Holliston, slightly north of San Pasqual.

## Campus to Career

An executive of the Warner & Swasey Co., leading manufacturers of machine tools, textile machinery, earthmoving equipment, and other precision machinery, will visit California Institute of Technology on February 6th to interview high caliber men with technical backgrounds or mechanical interests who are looking for a career in research, development, engineering, sales, manufacturing, or finance.

This medium sized company offers either immediate productive employment or programs planned to prepare you rapidly for positions of responsibility in line with your background, training, and objectives.

See your placement director to arrange an interview, or write direct to: C. W. Ufford, Director of Industrial Relations,

### The Warner and Swasey Co.

Cleveland 3, Ohio

**PROBLEM:** To evaluate the all-round career advantages offered by the widely diversified activities at Divisions of North American Aviation, Inc.

**FIRST STEP:** GET THE FACTS in man-to-man interviews, on campus

February 6, 7, 8

**YOUR OPPORTUNITY**  
in  
research and development  
of missile systems

at



California Institute of Technology

### JET PROPULSION LABORATORY

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Active participation in the quest for scientific truths •  
Definite job security • Opportunity to expand your own knowledge • Full utilization of your capacities •  
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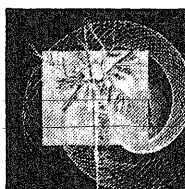
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**ELECTIONS**

(Continued from page 1)

**Vice-President**

Besides taking over the duties of the president during his absence, the vice-president is chairman of the Board of Control and a member of the honor point committee. He is in charge of the charities drive and the blood program. Like the president, he must be a junior when elected.

**Secretary**

The secretary keeps a record of the meetings of the Board of Directors and the Board of Control. He carries on all ASCIT correspondence and is responsible for the publication of these records.

**Treasurer**

The treasurer receives ASCIT funds, keeps the accounts of the money spent and received, and also is a member of the Board

of Directors. In addition, he audits the books at the beginning of the year.

**First Representative**

As social chairman, the first representative is in charge of ASCIT social events. He also is a member of the honor point committee. When elected, he must be a sophomore or junior.

**Second Representative**

The second rep, who must be a freshman when elected, is a member of the honor point committee. He assists the Tech in keeping a calendar of activities, and keeps the bulletin board in Throop.

**Athletic Manager**

In charge of all athletic award banquets and assemblies, the athletic manager also serves as a member of the Board of Directors and the Athletic Council. He makes recommendations for awards and also buys them. He

recommends team managers for approval of the BOD.

**Publicity Manager**

Besides taking care of publicity not handled by the news office, the publicity manager has a flexible position and has many miscellaneous, interesting jobs not delegated to other officers.

**Rally Commissioner**

The rally commissioner presides over the Rally Commission, the official entertainment committee of ASCIT. He is responsible for the organization and presentation of assemblies, rallies, student parades and game preparations.

**Yell Leader**

The head yell leader, often a freshman when elected, is responsible for organized yelling at all athletic contests and rallies.

**Tech Editor**

The editor of the Tech is

responsible for the publication and editorial work of the paper. He receives a salary of \$200 a year.

**Tech Business Manager**

The Tech business manager is responsible for advertising selling and layout, bookkeeping, billing and financial reports for the paper. He receives a 30 percent commission for local advertising and 4 percent for national advertising.

**Big T Editor**

The editor of the Big T is responsible for the editorial makeup of the yearbook, and he receives \$175 for the year.

**Big T Business Manager**

The Big T business manager has the job of selling and advertising for the annual and also makes the advertising layout. He is guaranteed a 20 percent commission of advertising re-

ceipts, and may make up to 10 percent extra if a profit is made.

**CAMPUS BREWINS**

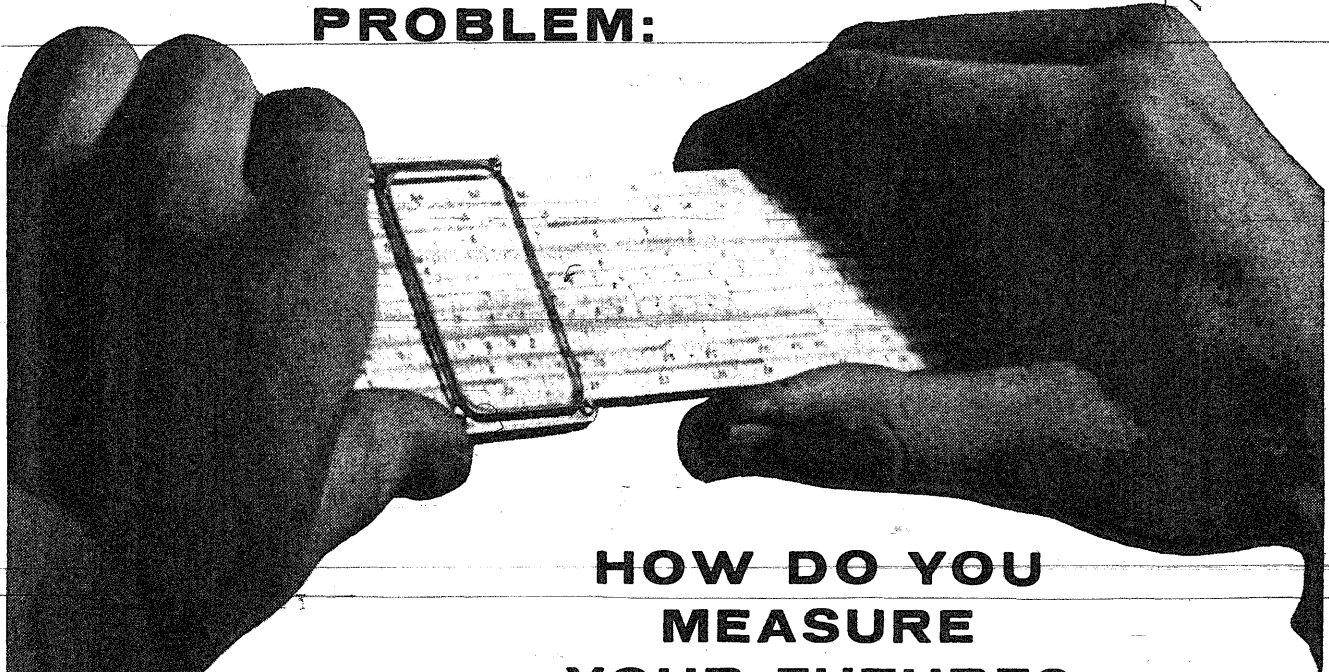
(Continued from page 2)

happy celebrants made it to the reception. Gibbs enjoyed only the beginning, unless he enjoyed his illness in the middle and his little nap at the end.

A sweet young sorority girl present fascinated the troops. Johnson liked her voice. Morton liked her pretty blue eyes. Benning admired the swiftness of her wit. John Carney was fascinated by her also. She danced away with Carney, to the disappointment of the troops but he later said he was disappointed by her also.

Harold and Harfordian date were the Life of the Party, 'til Jhohn blushingly said they were leaving because he wanted to play. Drums at the Junior Class party.

**PROBLEM:**



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# audience

## Theater

by Dick Kirk

It is not often that a play can successfully run the gauntlet of misery, repulsiveness and humor without tripping over its feet, but *A Hatful of Rain*, currently at the Huntington Hartford, takes these emotions in stride to develop a hard-hitting drama of dope addiction. "Junkies" in drama are really not very new, and this show doesn't have much more to say than *The Man With the Golden Arm*, but Michael Gazzo's script brings new terror and revulsion to the subject.

## Plot

Mark Richman plays Johnny Pope, war hero, who gets hooked while in the hospital and kicks the habit only to fall again.

Johnny loves his job, has no money to buy dope, has already run through his brother's bank roll, and the pusher is into him for another \$800. The brother's father, a cold, self-righteous individual with no feelings for the needs of his sons, roars onto the scene to muddle matters worse.

In his efforts to conceal and break his addiction, Johnny alienates his father and practically pushes his marriage on the rocks. His brother, who is the only one in the family that knows he is hooked, stands by him in his pitifully futile attempt to set himself straight.

The hopeless addict, his miserable pregnant wife, the gruff father, a nearly broken marriage, the frustrated love of the brother for the wife, and the pushers, who are addicts themselves, spread depravity across the stage to deliver a fascinatingly horrible evening.

## Guardino

Two scenes seemed particularly memorable. Harry Guardino, the brother, turns in a humorous yet moving drunk scene. Throughout the play he seems to have a real feel for his role. He is, perhaps, the only one in the show that makes the audience think that it is watching a person instead of a good actor. The pushers get

## TRAVEL

(Continued from page 5)

22 different vacation trips in North and Central America, Europe and Japan. The trips range in length from four weeks to three months, and the all-inclusive costs range from \$135 to \$1325; an average figure for a continental American tour is \$350, and for European trips, \$750.

Most of the trips are made by bicycle, with moderate hiking, the longer distances being covered by train. A few of the more comprehensive tours are conducted via station wagon. Inexpensive dormitory accommodations are provided with resident houseparents in charge.

Participants travel in co-ed groups of about ten members, supervised by leaders employed by AYG. These leaders are typically teachers, professors, or social workers. The members participate in the community activities of the group. The leaders assign among the members the duties and responsibilities, giving each member an opportunity to learn and contribute. "The simple living, the sharing of work, the stimulation of interest in cultural pursuits, make desirable intellectual demands on the individual which are not often a part of his everyday life."

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together for one scene of concentrated degradation, and though there might be some question as to whether the scene is artistic or sensational, it is effective.

## Vivian

Vivian Blaine seemed a little ill at ease at first, but she eventually warmed to the role of the pathetic wife. Mark Richman and Frank Silvera are good as the addict and father. Steve Gravers—dark glasses, French coat, etc., seemed like a greasy interpretation of a theatrical hood, but he was effective in spite of this.

Under Frank Corsaro's direction emotion exploded from the stage scene after scene in a tight drama of despair.

All in all . . . Best seen in a couple of years.

*A Hatful of Rain* closes February 8. The Huntington Hartford Theatre is located on Vine between Sunset and Hollywood Boulevards; curtain at 8:30, dark Sunday. Weekend prices, \$2.20 to \$4.95. Tickets should be pur-

chased two to three days in advance.

## Movies

by John Laufe

### The Artistic Double Standard

"Baby Doll," the film creation of Tennessee Williams, has touched off an interesting controversy. *Time Magazine* and other learned sources have branded it everything from "obscene" to "unfit for the public eye."

I saw the movie. I was not prompted to see it by such articles. I saw the names Williams and Kazan and that was enough inducement. Afterwards I heard about the obscenity. This is curious, because while seeing it, I didn't react at all to the supposed obscenity; on the contrary, I reacted very favorably to what I considered were a good, compact plot, enlightened editing, beautiful photography (the black and white was much better than color would have been) and excellent acting, especially by the "doll" and her husband.

## Plot

In brief, "Baby Doll" is the story of an immature girl bride who won't sleep with her husband, yet has promised to on her 20th birthday.

She married him, a much older man, because her dying mother wished her to be cared for after her death. The man offered a home and wealth. His wealth is evanescent; his home ramshackle. He runs a cotton gin which breaks down and is threatened by more modern competition.

The movie begins on these motifs: she reacts because he isn't actually capable of giving her the shelter he promised. He is frenzied by her impending twentieth birthday.

Added to this mess is a mad Sicilian who seeks a confession of arson from the husband and ends up winning the doll.

The plot is shallow in the sense that all Williams plots are shallow: filled with intense, violent emotion to which, when one looks in retrospect, there appears to be no fundamental sense.

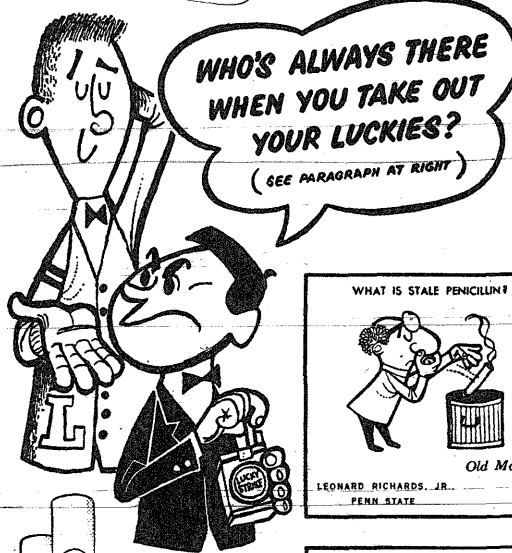
Yet nowhere did I react to the obscenity. It did not seem obscene because I was not expecting it and because I am used to reading short stories and novels which contain much more so-called "dirt" and yet are written as valid reflections of society, and are accepted as such.

## Double standard

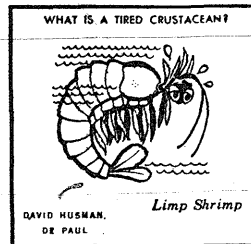
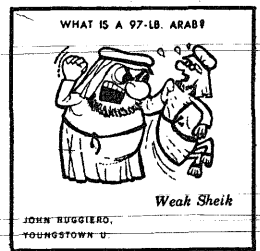
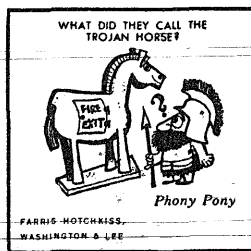
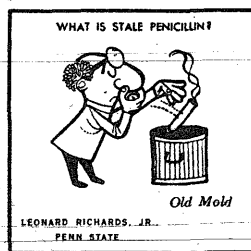
This brings me to the theme of this article: that a double standard of judgment exists in two mediums of art (actually more). That movies in general have the "real" sex, along with a half a dozen other aspects, so hashed up, diluted and soft-soaped, that all we see is the star-gazing type of romantic love; a type of love that is a minor force in the formation of many marriages.

Fiction, after such court cases as occurred over "Tobacco Road" and "Ulysses" (Miller's "Tropic of Cancer" is still banned by the Customs Department of the U. S. Government), is pretty free to be as the authors desire.

# Sticklers!

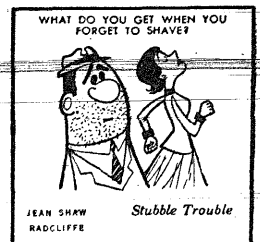


SIT DOWN in the common room, take out your Luckies—and who pops up to share the fun? None other than that friendly, familiar figure, the *Lounge Scrounge!* He's a sly guy, too; he knows which cigarettes taste best—and he knows just who carries 'em. Luckies taste better to buyers and borrowers—and no wonder! A Lucky is all cigarette . . . nothing but fine, mild, good-tasting tobacco that's TOASTED to taste even better. Light up a Lucky right now. You'll say it's the best-tasting cigarette you ever smoked!



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# Shy's hoopsters play host to three tough cage teams

Caltech's winless hoop squad takes on three games in the next four days, and during that interval they have a good chance to break into the win department. All games will be played on the Tech court.

The Beavers' long loss string could well be broken Saturday at the expense of the University of California at Riverside. Riverside has been taking substantial lickings from the same foes that the Beavers have been playing. In fact over the season the Tech squad has looked better by comparison of scores. Last week UCR took a 70-31 trouncing from Redlands University. A few days before Tech lost to the same team, 66-41.

# Poets smash Beaver five, take loop lead

Fred Newman's 21 point scoring spurge was not enough to offset the abilities of a smooth working Whittier squad, as the Poet basketballers took an easy 74-46 win over Caltech in an SCC contest Saturday in the losers' gym. Whittier emerged from the contest as leaders in the first round of conference play with a 4-0 record, while Caltech's losing streak was lengthened to 34 games.

The Poets started the game at a rapid scoring pace, pulling to a 16-8 lead after five minutes of play. Late in the first half Whittier had a commanding 44-22 lead, as Bob Bland and Chuck Hasley paced the Poet pointmakers. Bob Osborne hit on several long jump shots for Whittier to aid the cause. Newman scored three quick baskets for Caltech to bring the score to 44-28 at halftime.

Caltech started the second half as though the Beavers meant to make a contest of it. With Newman gunning in shots from all angles, Caltech pulled to within 12 points, 50-38, with thirteen minutes left. About this time the Beavers hit another cold streak, and Whittier pulled to a decisive lead. The game ended with the reserves from both sides seeing plenty of action.

Bland and Hasley hit 12 points each to pace Whittier's well-balanced attack, while Newman's 21 point effort took high point

If the Saturday game looks encouraging for Beaver rooters, they can look for trouble in the other two games. On Friday night the Beavers play Redlands to start the second half of league play. The Bulldogs are firmly entrenched in second position in league standings having absorbed their only loss at the hands of front-running Whittier. Redlands will be led by forwards J. R. Perkins and Sam Gardner.

On Monday afternoon the Beavers will meet probably their strongest opponent of the campaign, the Los Angeles State Diablos. The coach of the team, Sax Elliott, has enjoyed nationwide publicity with his basketball experiments. During previous seasons he has used polka dot basketballs, twelve foot high baskets (two feet over the standard height) and two years ago Life Magazine covered his scheme of using elevator shoes to increase the height of his players.

This season Coach Elliott is sporting a very good team. The Diablos have defeated such outstanding southland teams as Cal Poly at San Luis Obispo and University of California at Santa Barbara. With 6 ft. 8 in. center Tony Davis in his starting five, Elliott no longer needs elevator shoes for his players. Bill Laemie, 6 ft. 4 in. forward, has also been outstanding for the Diablos.

honors for Caltech. Dick Van Kirk scored seven points for the Beaver cause.

# Tech begins tank practice

With three weeks of hard calisthenics behind them, Coach Web Emery's swimmers are busily preparing for the coming season. Orange Coast IC is the first foe for the Beaver swimmers, defending SCC champs, and the conference relays at Redlands open the league season. Orange Coast comes to Caltech on March sixth, while the conference relays are slated for the ninth of March.

Despite graduation losses, Emery has several good swimmers as holdovers from last year's championship squad. The returning lettermen are led by Clarke Rees, who holds practically every school swimming record, as well as three conference records.

The Beavers are particularly strong in the freestyle and backstroke events. Lettermen Rees, Ed Park, and Vince Taylor team up with sophomores Bob Blanford to give Caltech good depth.

# The Sports Corner

by Dick Van Kirk

Whether most people realize it or not, spring sports are almost upon us. Track practice has been under way, despite the inclement weather, for three weeks, and the Interhouse meet is but nine days away. The tennis season opens in sixteen days, and the golfers, swimmers and baseball players are busily preparing for the coming seasons. Last year's spring sports provided the highlights of the school year, with two conference-championship teams, one second place team, and a national champion in track and field. Prospects are good for a similar performance by this year's spring athletes. The final touch to a term filled with excellent athletic events and teams would be an increased interest and attendance on the part of the student body. How about it?

Let's not forget, however, that Caltech has some winter sports. With three games in the next four days, the varsity basketballers are going to be mighty busy. Prospects are good for a win in one of the games. The University of California (Riverside branch) team seems to be in about the same predicament as the Beaver hoopsters, with wins coming few and far-between. Saturday's battle shapes up as a close one.

Plug of the week dept. . . . There comes a time in every writer's career when he must stop using tact and hedge-words and bluntly put his message before the public. My time is here, so here's the message. HELP!!! I need some sportswriters. Anyone with a little knowledge of sports and an interest in newswriting could sure help me out. I need a sports staff.

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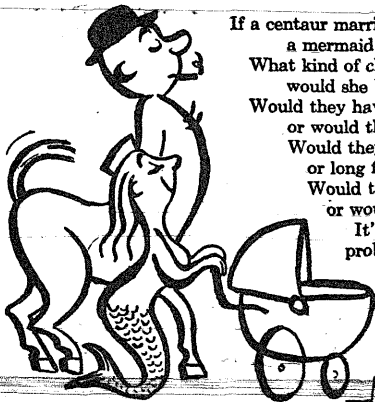
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IT'S FOR REAL! by Chester Field

## THOUGHT



If a centaur married a mermaid fair, What kind of children would she bear? Would they have hide or would they have scales? Would they have hooves or long fishy tails? Would they eat seaweed or would they eat hay? It's one of the problems of the day.

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# Caltech scores 41 points, but Broncos rack up 53

Caltech's varsity cagers had victory within their grasp Tuesday afternoon, only to fade in the final minutes to lose a 53-41 decision to the Cal Poly Broncos. The game was played in the Scott Brown gymnasium.

Playing in their most evenly matched game to date this season, the Beaver hoopsters exchanged the lead with Cal Poly several times throughout the game. With seven minutes left in the game Caltech moved into a 37-36 lead, but the Beavers scored only four points in the remaining time, while Coach Bob Stull's Broncos raked up 17 points.

### Close first half

The first half was close all the way. Caltech moved to a 6-3 lead with three quick baskets by Jim Welsh, Larry Kraus, and Glenn Converse. Cal Poly pulled ahead, 7-6. Then it was 8-7 for Caltech. After eight minutes of play the Beavers enjoyed a 12-9 lead, but the boys from San Dimas scored nine points while Caltech was slipping gears to move six points ahead. The halftime score was 26-20 in favor of Cal Poly.

Both teams were plagued by bad cases of slippery feet in the first half. Twelve infractions for traveling, or taking steps, were called, and in addition many of the rebounds were taken on the first bounce off the floor by the defensive team.

### Caltech takes lead

The second half began with both teams swapping baskets for several minutes. With twelve minutes left in the game Caltech began to rally from its six point deficit. After trailing 34-28 the Beavers took advantage of intercepted passes and fast breaks to surge ahead 37-36, bringing the forty Caltech rooters in the stands to their feet in a minor uproar.

At this point Al Miller took charge of things for Cal Poly, scoring three quick baskets to put the Broncos ahead by six. Encouraged, Cal Poly stretched its margin to 49-37 before Caltech was able to score again. The rest of the game was occupied with stalling tactics by Cal Poly and frantic efforts on the part of the Beavers to regain their scoring punch.

### BOX SCORE

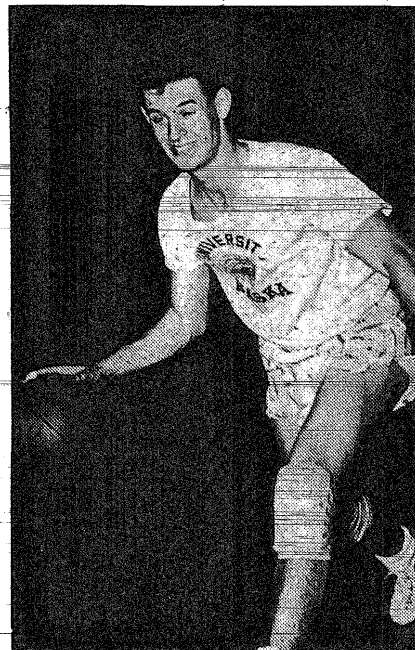
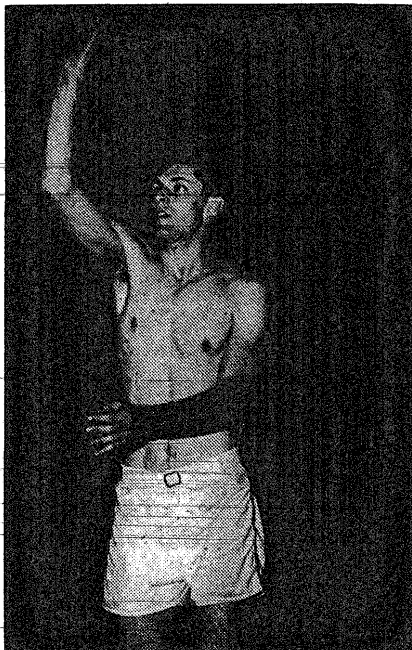
Caltech	fg	ft	pf	tp
Converse, f	3	24	0	8
Bloomberg, f	2	0-1	3	4
Kraus, c	3	4-6	2	10

Welsh, g	3	1-3	1	7
Newman, g	6	0-1	4	12
Rauch, c	0	0-1	0	0
Van Kirk, f	0	0-1	2	0
Bass, g	0	0-0	0	0
Magdaleno, g	0	0-0	0	0
<b>Totals</b>	<b>17</b>	<b>7-17</b>	<b>12</b>	<b>41</b>

### Cal Poly

Player	fg	ft	pf	tp
Cota, f	1	0-0	4	2
Swinger, f	1	1-1	1	3
Ochoa, f	0	0-0	0	0
Miller, f	11	1-2	1	23
Scroggs, f	1	1-2	2	3
Hogan, c	0	2-4	1	2
Arais, c	0	1-2	0	1
Gee, g	1	1-3	2	3
Singh, g	7	2-3	1	16
<b>Totals</b>	<b>22</b>	<b>9-17</b>	<b>12</b>	<b>53</b>

Halftime score, Caltech 20, Cal Poly 26.



JIM WORKMAN and JIM WELSH, senior guards, are shown in drills for the heavy basketball slate awaiting the Caltech hoopsters. With five games in the next nine days, all the Beaver basketballers will see plenty of action.

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We will be on campus soon to interview mechanical, chemical, electrical, and civil engineers. See the Placement Office for an appointment.

### Frosh Sports

by Brad Efron

Whittier's freshmen poets, suffering from writers' cramp, fell victim to an upset-minded Tech basketball crew last Friday. Headed by high-scorer Mel Holland, the frosh led all the way, winning easily, 48-40. This marks the season's second victory for Coach Priesler's eager-Beavers. Tomorrow at 6:30 p.m., the team will try to make it two in a row when they play Redlands in the Caltech gym.

### Horsehidors meet

Ed Preisler, varsity baseball coach, has asked that all candidates for frosh or varsity baseball for the 1957 season report to an organizational meeting next Monday, Feb. 4, at 4 p.m. in the lecture room of the athletic center prior to attending the Caltech-L. A. State basketball game.

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# ASCIT Secretary

Elections will be held next month. Why not run for ASCIT Secretary?

What would you do?

"Here is a letter from the Swiss Institute of Technology. It's in German. Answer it." You wouldn't "attend to all correspondence of the corporation." "What do you mean by 'passed unanimously'? I abstained! You misspelled my name even!" You would "keep a record of the proceedings..." But don't stop there.

Your Secretary's Report in The California Tech is the most direct way the board can communicate its actions and feelings to interested students. Here you use your ingenuity and literary skills to help stir up interest in events of ASCIT as well as to narrate weekly happenings to the BOD. On controversial issues, such as the current question on athletic awards, you should present a concise explanation of how the Board acted and why.

You publicize the agenda of meetings which students may wish to attend, as when Model UN delegation was chosen. Your job is to "keep the student body informed" to quote a much-used election phrase.

In the Board you act as parliamentarian. You keep track of the ideas of members and organize them to speed up action and help voting.

According to the By-Laws, the Secretary is a non-voting member of the Board of Control who records the minutes. True, you do not vote, but your considered opinion is just as important as that of every other member of the BOC when a case is being tried. That is a big decision when a person's future is being weighed. When you are the one checking the scales, you think a long time before you decide. Sometimes, when the time is 5 a.m., and the BOC is still working, and you are still writing, you will wistfully think back to the simple days before you were elected secretary.

Caltech is at a distinct disadvantage. At most schools the Secretary of the Associated Students wears a skirt and sweater. To get elected she usually needs to wear them better than most. Wise men say the secretary should know how to spell, type, and take minutes. However, don't let that discourage you. I can't.

All these things consider before you run for office, because this position is not as "flexible" as that of Publicity Manager. And then, after a mania of campaigns, when you are finally elected, forget about all your promises and all your reforms and just do the best you can and enjoy yourself.

## Dr. Gutenberg awarded prize

Dr. Beno Gutenberg, Director of Caltech's Seismological Laboratory, has been awarded the Emil Wiechert Medal of the German Geophysical Association in appreciation of his accomplishments in seismology and in the investigation of the earth's structure.

This is the second award of the medal, founded in 1955, for outstanding accomplishment in geophysics.

**CARL'S CALTECH BARBERS**  
906 E. California  
SYcamore 3-2554

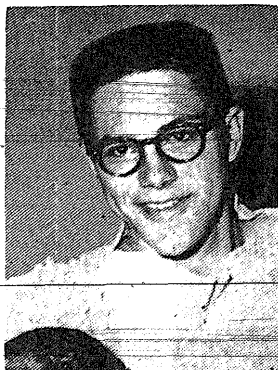


Photo by D. Groco  
Herb Rauch

## Tech receives additional gold from Associates

Caltech received \$2,858,900 in gifts and grants during the six months ending Dec. 31, 1956, according to Albert B. Ruddock, Chairman of the Board of Trustees.

Of the total amount, Ruddock said, \$1,039,000 was for endowment, \$1,596,500 was for current operations, and \$123,400 was for plant and building purposes. In acknowledging the gifts, he stated that there were 130 donors, including corporations, foundations, individuals and government agencies.

Major gifts added to the principal of the endowment fund, he reported, were \$525,000 from the Ford Foundation for faculty

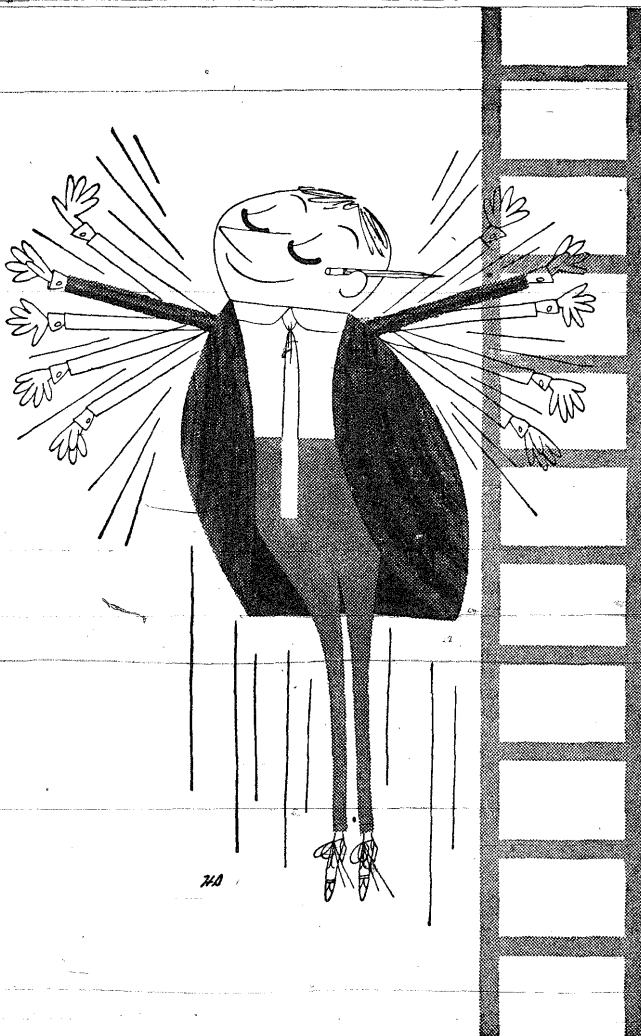
salary increases, and \$500,000 from the Rockefeller Foundation for research in chemical biology. Major additions to plant and building funds were \$75,000 from the Kresge Foundation, for expansion of seismological research laboratories, and \$28,000 from the Carl F. Braun Trust Estate for chemical biology laboratory facilities.

Of the gifts for current operations, Ruddock said, more than a quarter million dollars came to the Institute as "unrestricted money," to be used at the discretion of the administration and trustees. The largest bloc of such funds, \$184,135, was given by Caltech's Industrial Associates, a group of corporations with which the Institute maintains close contact. Including the Industrial Associates, 59 business corporations gave the Institute a total of \$526,000 in the half-year period.

## New Placement Office decision

Many men have been making appointments for interviews the day before the interview is scheduled. This causes extra work and confusion in the Placement Office because the schedules must be retyped. Notices are given sufficiently in advance by bulletin board announcements and the California Tech so that appointments can be made early. It has been requested that applicants help lighten the load on the Placement Office staff by observing the following new regulation:

Effective immediately, appointments for interviews must be made by 5:00 p.m. two days prior to the desired interview.



**ENGINEERS**  
and  
**SCIENTISTS**

*we'll be on  
the campus*  
Monday & Tuesday,  
Feb. 4 & 5  
*to discuss  
your future at  
Boeing*

*...where you can rise to the top*

Right now you're in the process of making one of the most important decisions of your life.

Your decision is important to us, too, because we are interested in engineers and scientists who want to get ahead. We're coming to the campus to give you the facts you need to judge whether Boeing can help you reach the goal you have in mind.

The fact that Boeing is an "engineers' company" is important to your success. At Boeing, you'd work with, and for, engineers—men who talk your language, understand and appreciate your work.

Boeing encourages graduate study, reimbursing full tuition and fees, plus an additional amount for incidentals. Every six months, each Boeing engineer is given a merit review—a personal opportunity for recognition and ad-

vancement. The company's steady, rapid growth assures plenty of opportunities to move ahead. At Boeing, engineers hold positions right to the top.

Another advantage: Boeing assignments are interesting. You'll work on such famous projects as the 707, America's first jet transport; the intercontinental B-52, the nation's principal long-range jet bomber; the supersonic BOMARC guided missile, and top-secret programs that probe beyond the frontiers of the known. At Boeing, you'll be in a young, expanding industry, one with its major growth still ahead.

So whether you plan a career in civil, mechanical, electrical, aeronautical or industrial engineering, physics or mathematics (or related fields), drop in for a person-to-person discussion about your future at Boeing.

Personal interviews on **FEB. 4 & 5**

See your Placement Office for time and location

**BOEING**  
AIRPLANE COMPANY  
Seattle, Washington Wichita, Kansas Melbourne, Florida