The California Tech

California Institute of Technology

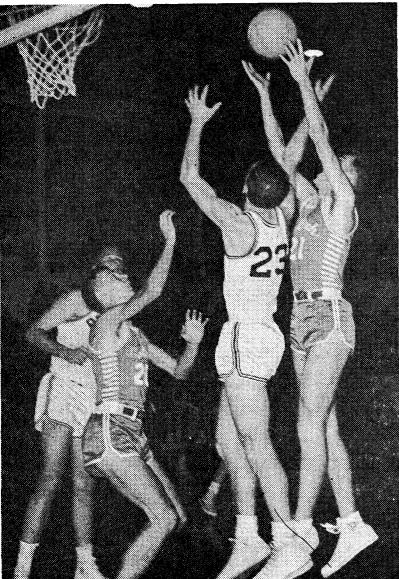
Volume LX.

Pasadena, California, Thursday, February 12, 1959

Number 17

Jovin Heads ASCIT Nominees

Beavers Edge Pomona



Tech forwards Larry Brown and Len Maley outmaneuver George Zwerdling and an unidentified Pomona player. Tech won the contest, 52-49.

Student EPC Suggests Major Changes In Phys-Ed Program

A revolutionary new physical education program has been submitted to the ASCIT Board of Directors by the student Educational Policies Committee on the bases of the results of the recent student PE poll.

The poll was taken through the student houses, Throop Club,

Drive Closes Friday; Sets \$2400 Goal

Student solicitors have been contacting all Techmen this week to raise money for the annual ASCIT Charities Drive. A goal of \$2400 has been set for the drive, which ends tomorrow.

Contributions will be given to the World Universities Service, the Muscular Dystrophy Association, and the Pasadena Community Chest. Students have the option of specifying one charity to receive their money, or having it split among two or all three. Donations can be put on next term's bill.

Tom Tisch is general chairman of the drive and Clyde Zaidens is his assistant. The five house chairmen include Walt Johnson, Blacker; Russ Pitzer, Dabney; Tom Tebben, Fleming; DDick MacAnnaly, Ricketts, and Fletcher Gross, Throop Club.

and personal letters to other offcampus men. Results of the questionnaire are as follows:

(1) Approximately half the student body graded the present system as "Fair."

(2) A large percentage of the students considered the major faults with the PE system to be the conflict with afternoon labs, that too many hours are required, that too many years were required, that it lacks variety, that there was really no physical education and that are both good and poor athletes in the same game. In addition, an overwhelming majority of the students were in favor of a twograde grading system rather than the traditional A through F manner.

(3) More than half the students believe that PE should be required for four years.

(4) About half of the Techmen questioned go out for Interhouse sports, mainly because it is an enjoyable way to fulfill PE requirements.

In light of these results, the (Continued on page 10)

First SCC Victory In Five Years

By Bob Koh

A determined Beaver quintet battled back from a five-point deficit to hand Pomona a narrow 52-49 cage setback Saturday night on the Caltech court to annex its first SCIAC triumph in five years.

The overjoyed Beavers, after grabbing their initial victory of the long campaign, carried Coach Gene Rock off the floor amid the cheers of an enthusiastic and highly partisan home crowd. The win was the first conference victory since the Caltech championship team of 1954 swept to the loop crown.

An all-around team effort, plus the inspired ball-hawking of Guards Mel Holland and Dave Blakemore sparked a 10-point last-ditch rally.

With the scoreboard reading 47-42 for Pomona, the host Beavers seared the cords for 10 points while limiting the taller visitors to a pair of free throws.

Leading scorer John Stene and forward Len Maley were inserted in the game at this point after Coach Rock had given them a brief respite. Maley promptly netted a shot under the basket to up the score to 47-44, and the victors were off and running.

Blakemore hit on a short driving shot and lanky center Bill McClure converted a charity toss to deadlock the score at 47-47 with about three minutes remaining.

Holland, a defensive standout all evening, swished a one-hand set to shove the Beavers ahead permanently. Stene, who contributed 17 points to the Caltech offense, connected on a long set and then retired via the foul route with 1:39 left in the game.

(Continued on page 9)

Election Calendar

Mon., Feb. 16—Candidates' statements for the California Tech due no later than 7:30 p.m.

Tues., Feb. 17 — Nominations close for all ASCIT offices.

Tues. - Thurs., Feb. 17-19— Speeches by candidates at meals in student houses and Throop Club.

Mon., Feb. 23—Election rally. Tues., Feb. 24—Elections.

ASCIT Slates Jerry Gray At Formal

Featuring Jerry Gray's Orchestra, the annual ASCIT Formal is scheduled for Friday, February 20, at the International Ballroom of the Beverly Hilton Hotel, corner of Wilshire and Santa Monica.

Bids can be obtained free from house and Throop Club social chairmen. Profits from the ASCIT Jazz Concert last fall will be added to the usual budget, allowing the free admissions.

"Everybody has worked really hard on this dance and I hope everybody can go," said ASCIT Social Chairman Ken Dinwiddie.

Special arrangements for tuxedoes have been made at Dedrick's and for corsages at Ralph's Flower Mart, just north of Colorado on Hill. Tech students have only to present student body cards to take advantage of the reduced rates.

Photos at the dance will be available from Bunny's of Pasadena. One five-by-seven and one wallet-size print will cost \$3.50.

Caltech's Beavers will hold their second term party—a cocktail social at Dave Spencer's home—as a prelude to the formal.

Seven Offices Uncontested

Fifteen men have been nominated as candidates for 11 ASCIT offices. As a result of a BOD ruling made Monday, nominations for all 11 of the offices will remain open until next Tuesday.

Tom Jovin, incumbent ASCIT secretary, heads the list as the only nominee for president.

Tom Tebben was nominated for ASCIT vice-president.

Nominees (as of Wednesday afternoon) for the other offices include:

Secretary—Bill Bauer, Jim Wooster.

Treasurer—Carl Morris.

Activities Manager — Tom Tisch. Business Manager—Don For-

rest, Howard Weisberg. Social Chairman—Ken Casey. Representative-at-Large — Al

Armstrong and Bob Koh.
Editor of The California Tech
—Cleve Moler.

Secretary of the Board of Control — Carl Hamilton and Skip Stenbit.

Campaigning will officially begin Sunday night when posters go up between the engineering buildings. The candidates will give short talks in the student houses and Throop Club, beginning Tuesday. The California Tech will carry statements by all the nominees in next week's issue.

Chang Chosen Frosh Veep

Dick Chang was elected freshman class vice-president in a run-off election held Tuesday. He will succeed Al Armstrong.

A tie vote in the runoff between Zell Cantrell, Tim Litle and Larry Nordell for the remaining frosh Board of Control position resulted in election rule difficulties that had not been resolved as of yesterday.

Russian Scientists Peruse Tech Campus

Five Russian scientist-educators met face-to-face with crowds of Caltech students Friday evening, in an hour-long session that climaxed the Russians' visit to the Tech campus.

The touring group had little to say that was startling or unexpected about Caltech versus Russian education, but they managed to leave behind a larger store of anecdotes than any visitors of recent memory.

Caltech's Dr. Fred Lindvall hosted the Russians during their campus stay. He visited Russia last fall with a similar group of American educators in an exchange that was arranged jointly by the State Department and the Soviet Ministry of Education.

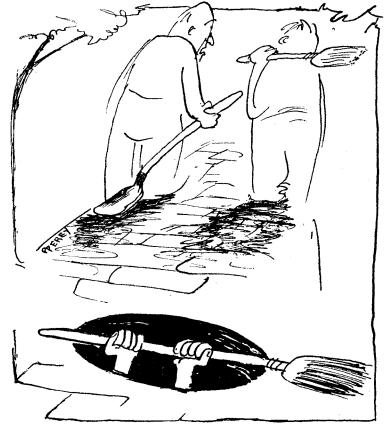
Among the many questions the Russian delegates poked at their hosts, the one that stood out was directed to a California Tech staff member during the afternoon tour through Aeronautics and Hydro labs. The Tech staff-

(Continued on page 10)



Norris Huse

Five Russian engineers on State Department sponsored visit inspect Tech Hydro Lab. Pictured are, from left to right, Professor Davankov, Professor Bogoroditskii, Dr. Alexander Kosloff, Caltech Russion professor, Professor Lebedev, Comrade Michael Milder, and Professor Atroschenko.



"Where's Fred?"

The Fifth Column

Don't Step On That Crack: You'll Ruin A Day's Work

By Brad Efron

"Pick a little, talk a little, pick a little, talk a little, Pick, pick, pick, talk a little, pick a little more. . .'

"Pick a little, talk a little, pick a little, talk a little, Pick, pick, pick, pick, pick, pick, pick. . ..

"Raspberries, strawberries, da da da da da. . ." "Jim, you're in my territory."

"Here's to the girls in the countryside. . ."

"That's my brick you're picking between."

"The ones we drink them to. . .

"You know I get sixth-from-the-endies. Sammy gets fifths, you get sevenths, but the sixths have always been mine."

"It's a long, long time, from May to December. . ."

"We've always been friends, Jim. Ever since the WPA days, we've always been friends."

"But the days get short...

"Remember those days? We were up at the other end of the walk then."

"When you reach September. . ."

"Everyone was on relief in those days."

"And those few precious days, I'll spend with you. . ."

"All these years, Jim, and I've never picked between your bricks, not once." "And those few precious days I'll spend with YOUUUUUU."

"Jim, you're a dirty scab."

"Pick a little, talk a little, pick a little, talk a little. . ."

Secretary's Report

Many questions have been asked regarding the operation and maintenance of the proposed cabin on Mt. Baldy and whether it would be put to sufficient use to justify buying it with ASCIT surplus funds. In order to consider the various problems involved and come up with definite recommendations, a committee was appointed by the Board of Directors; its members are Dr. A. Ingersoll, Godfrey, Jovin, Dinwiddie, and Toth.

Clearly, a cabin such as the one on Baldy would be of great use to the Ski Club, student houses, YMCA, and other student groups in need of a place for meetings, conferences, or merely relaxation. The Mt. Baldy cabin is approximately one hour away from the campus, and located near the main road about half a mile from the ski lift. It can sleep 25 in comfort and more on a more informal

The purchase price of \$7800 is admittedly an impressive sum. A down payment—say of \$3800—and a ten year mortgage on the balance would, however, make ASCIT financing possible. Rental to outside groups over the winter could provide a considerable income. perhaps enough to cover the mortgage payments in addition to the maintenance costs, estimated at \$160 a year.

Continuous responsibility for maintaining and operating the cabin could be given to a joint student-faculty committee.

FROSH CLASS ELECTIONS—REVISION OF PROCEDURE The great number of runoffs made necessary in the course of the last frosh class election has prompted Election Committee Chairman Doug Shakel to recommend changes in the election system.

To date, four runoff elections have been held, the last of which produced a tie in the office of Board of Control representative. In the interests of fairness, candidates will not be eliminated in an arbitrary manner but rather be placed on yet another ballot.

The suggestion made in regard to the Board of Control is that the class representatives be elected at staggered intervals, that is, one at the regular time in May, and the other at the time of ASCIT elections. This system would accomplish a double purpose: a) decrease the probable number of runoffs in any given election, and b) provide the BOC with continuity it does not now possess.

Tom Jovin, ASCIT Secretary

Fineman's Shilling Scandal Sheet **Reviews Rare London Reunion**

down the job of chief of the California Tech European Bureau while he attends St. Andrews University in Scotland on a Fulbright Fellowship. His correspondence continues this week with the fourth installment of his latest entertaining letter.

> LONDON 29 DECEMBER 1958

(Continued from last week)

The Moral Philosophy instructor Wernham, by the way, liked my Hobbes-slashing assigned paper on the Social Contract; we had quite a long talk about it when he came to Sallies for dinner one night. This vacation I have to read some Hume and Kant in preparation for next term. I think I'll try to worm my way into the philosophy department here a little more; I hear there are seminars on Witt-

As for the research, it is in about the state I described it in No. 3-i.e., I am still working on the galvano meter amplifier. The output of the monster as I built it was about 80 decibels too low and overwhelmed with hum: the whole output section from the phototube on will have to be completely and meticulously rebuilt. Most of the lack of prog-

Joe Fineman, '58, is holding ress is due to my own extreme sloth; I hope I can pull out of it next term and get some physics done.

> I came down to London Friday, December 12, and spent the first night in London University's Connaught Hall, a thricecondemned tenement sizably grubbier than 44 Irving, even more so than the Old Dorm, full of rowdy, raunchy characters from all over the world, including one R. W. Fiddler, Fleming '58 ME. He introduced me to his friends and we went out and had a steak dinner and swapped sheafs of letters and Fleming

> Connaught is graced with a near-psychotic housekeeper who was in no mood to do Fiddler any favors since he had proved himself innocent when she accused him of stealing money from his gas meter, and besides he had shown at various times that he did not give a care what she thought of him, so I could not be put up there and had to find my own pad for the duration, a Fleming-single-size thirdfloor room in a nearby small

ATTENTION EGGHEADS!

For Rent: Unfurnished apartments. Contemporary, indoor-outdoor living. One and two bedrooms.

477 S. El Molino SY 5-2121

hotel, decent and with a good breakfast, 15s. (\$2.10) a day.

Fiddler and I left Tuesday morning on what was to be a five day tour of Norfolk Broads; but after we got started we decided to relax instead and just traipse around East Anglia and get back by Friday. We had a fine time for a couple of days, asking in each town what was worth seeing there, and spending nights in boarding houses recommended by the local police.

But Wednesday night in Norwich an intestinal flu that had been going the rounds in Connought caught up with Fiddler, and he had a bad night and felt weak after an hour of driving the next morning, so we put his Vespa scooter on the train and rode down to Cambridge, returning to London the same way the next day. The net result was that we saw a lot of old churches

(Continued on page 4)

The California Tech

EDITOR: Mike Milder EDITORIAL BOARD

Cleve Moler
John Todoroff, Carl Gottschall
Marty Carnoy
Gerhard Klose Sports... Feature Copy ... STAFF: Pete Bickel, Carl Gottschall, Bob Koh, Roger Noll, Arney Perey, Stan Sajdera, Lance Taylor, John Golden

BUSINESS MANAGER: Howard Weisberg Circulation: Sid Leibovich, Neil Sheeley

Entered as second class matter November 22, 1947, at the Post Office in Pasadena, California, under the act of March 3, 1879.

THE UNIVERSITY OF CHICAGO

Invites

GRADUATE STUDENTS

MATHEMATICS, PHYSICS, AND ENGINEERING

On Campus Interviews **FEBRUARY 18**

The University's Institute for Air Weapons Research has challenging positions in the study and analysis of weapons systems. The studies integrate operational, technical, and scientific knowledge to obtain a mathematical model valid for quantitative appraisal of the systems' effectiveness. The operations are an assignment from the Air Research and Development Command, United States Air Force.

The opportunities for professional advancement and formal and informal education are excellent.

> SEE THE PLACEMENT SERVICE FOR YOUR INTERVIEW

Amiin And The Arts

By Joel Amiin

David Schuster is a grad student in chemistry, who doubles as a professor every Wednesday night when he teaches, the weekly music seminar in Dabney Hall Lounge. This week he has lent his musical talents as a guest of "Amiin and the Arts."

"Last Thursday night, Josef Krips conducted the Los Angeles Philharmonic in the second and last of his programs with the orchestra this season. The selections were the Suite from Igor Stravinsky's 'Firebird,' Walter Piston's Viola Concerto and Gustav Mahler's Symphony No. 1 in D Major.

"The playing of the orchestra in the 'Firebird' Suite was typical of the sorry state the group has reached these days as a result of too many guest conductors and no permanent conductor to mold the various instruments into a homogeneous ensemble. The entrances were downright ragged, there were many wrong notes and one sensed that the group had little personal involvement in the music at hand. This was not helped by an interepretation in the 'Firebird' that was very stiff, straightforward and uninspiring. The mysterious opening section emerged very unmysteriously, while the tempo toward the end was so slow as to drag unmercifully. (The strange sounds emerging from the brass didn't help matters any.) This music is decidedly not Mr. Krips' cup of tea.

Viola Concerto Well Played

"The novelty of the evening was the Piston Viola Concerto, played beautifully by the Philharmonic's first violist, Sanford Schonbach. This work has recently won the Pulitzer Prize as the outstanding orchestral composition heard in New York in 1958. There is certainly nothing objectionablely interesting or inspiring in it to warrant rushing to hear another performance of the score. The second movement is very lyrical and the last movement, scored for a large orchestra, has some diverting moments, including a long cadenza for the soloist. However, the range and quality of the viola are such that little of real brilliance and dramatic impact can be written for it. (As a foil to the solo violin it does quite well, but when put into the spotlight it just does not done a workmanlie job, but like most of the music of the New England school, the concerto does not leave a lasting impression or carry a desire for a rehearing.

"The Mahler First requires a huge orchestra which, on the whole, did a very fine and occasionally brilliant job of playing a very difficult and involved score. While it is a youthful symphony, Mahler's orchestral technique here is never faulty and he managed to supply an imaginative score with an even more imaginative orchestration. The contrast in the first movement between the quiet, mysterious opening, with its strange cuckoo calls and fanfares, and the heroic theme which climaxes the movement was not as well wrought as has been on other occasions. (Likewise, the tender trio did not have sufficient wistfulness to contrast with the rough, boisterous scherzo.)

Funeral March Subtle

"The satirical Funeral March on 'Frere Jacque' was done very subtly, especially in the use of percussion. The tender middle section was particularly beautiful. But the glory of the work is the exuberant, triumphal finale and here the evening really came alive. Krips loosened up, the orchestra got into the mood and we had a performance of the first order. The climaxes were huge and overwhelming, as they must be, but they were all scaled down in relation to the final inexorable climax. Here, all the forces gave everything they had and the triumphal ending was answered by an ovation on the part of the responsive audience.

"This is the type of musicmaking we should expect from our orchestra all the time and which we seldom hear these dark days. Let us hope Eduard Van Beinum will be back to reshape the orchestra before it completely falls apart under the burden of too many guest conductors with too many idiosyncratic styles."

Hams Handle Radiograms

Guaranteeing at least 75 per cent "speedy-delivery" service, the Caltech Radio Club has started a new, free message-handling program. Any student or faculty member can slip his message copy under the club's door in T-2, and several times a week members will dispatch them to be relayed by ham throughout the world.

In addition to the 75 per cent hurry-up promises, the club also pledges eventual delivery on at leeast 90 per cent of all messages

Mobilgas Seeks More Observer

Twenty observers for the Mobilgas Economy Run are urgently needed and should apply to the Industrial Relations office, Room 113, Throop, before next

The final run will begin April 5 and continue until April 9, in the first week of third term. Observers will receive \$1.50 an hour make the grade.) Piston has and meal costs for break-in runs, and possibly more for the final

Announcements

PRE-REGISTRATION

Third term pre-registration will begin on Monday, February 23, in the Registrar's office.

IRE PICTURES

Pictures of the IRE-AIEE for the Big T will be taken Friday, February 13, at 12:30 p.m., in the courtyard between Fleming and Ricketts

RADIO CLUB

Big T pictures of the Radio Club will be taken Friday, February 13, at 4 p.m., in the Fleming-Ricketts courtyard.

NEWMAN CLUB

Father Divine, a Catholic priest, will address the Newman Club tonight at 7:30 in 205 Dab-

Arrow cotton Wash-and-Wears earn their way through college

Why spend date money sending shirts home? Just wash and dripdry these Arrow cotton wash-andwears and you're ready to go.

Only Arrow offers so wide a range: your favorite styles of collars and cuffs in oxford and broadcloth, in white, solids and patterns.

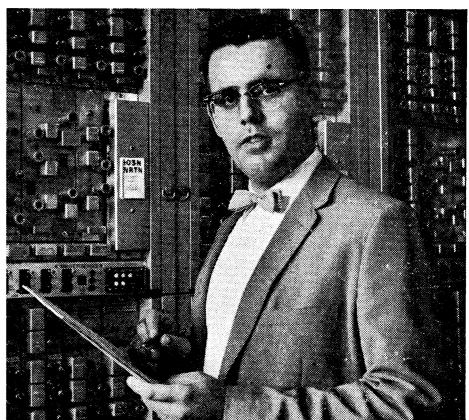
And every shirt features exclusive Arrow Mitoga®-tailoring. \$4.00 up.

Cluett, Peabody & Co., Inc.





A Campus-to-Career Case History



"I wanted a job I could grow with -and I've got it"

H. James Cornelius graduated from oratories. This 19-month course of study owarthmore College in 1954 with a B in Electrical Engineering. He's been "growing" ever since with the Bell Telephone Company of Pennsylvania.

After an initial 44-week inter-departmental training course, Jim was made Facility Engineer in charge of the fastgrowing Norristown-Pottstown area. In that capacity, he engineered over half a million dollars' worth of carrier systems and cable facilities between major switching centers.

Today, he is one of 50 young engineers from the Bell Telephone Companies chosen to attend a special Operating Engineers Training Program at Bell Labtechniques and new concepts in electronics which signal a new era in telephony. It involves both classroom theory and practical laboratory applications.

When Jim and his colleagues return to their companies, they'll review major engineering projects. This will assure the best use of equipment for current engineering, as well as for expected new developments in communications.

"I wanted a job I could grow with," says Jim, "and I've got it. I can't think of a better place than the telephone company for an engineering graduate to find a promising future."

Many young men like Jim Cornelius are finding rewarding careers with the Bell Telephone Companies. Look into opportunities for you. Talk with the Bell interviewer when he visits your campus. And read the Bell Telephone booklet on file in your Placement Office.



COMPANIES

Fineman's Shilling Scandals

(Continued from page 2)

(very beautiful but mostly rotting for lack of money and parishioners), some of the Cambridge colleges, and a good deal of each other.

Though we had roomed toginning of our frosh year, we had drifted apart over the years, and talked a long time about Flemgether for two weeks at the being, as if we were strangers meeting for the first time but having many friends in common. Actually we are very similar people but had solved the problem of how to be happy though intelligent at Caltech in somewhat different ways; I was relieved to find that we could, Fleming gone, communicate again.

He is at London on a two year Marshall scholarship, but is tired of ME and wants to go back to CIT and get a PhD in physics; he is taking mostly physics courses now but finds Imperial College inadequate.

Fiddler went off to St. Albans to spend Christmas week with an English family, and I have been here in London, seeing friends, filling out application forms, and whatnot. I went up to Cambridge again December 24 with Bill Bartley (Harvard '56) a Fulbright Philosophy student at London School of Economics whom I met on the ship on the way over, to hear the carol service in Kings College Chapel. I have been to a couple of London

U. students' parties by invitation of Gary Stein, from New York, who is at Edinburgh for the year and whom I met at a songfest to which he came with another American St. Andrews student who was also visiting London.

The first, an enormous brawl that spread over a whole floor of a half-plastered building in the vast reaches of outer London, was populated mainly with devotees of Trotskyism, pacifism, liquor, sex, and various combinations of these. The second. mostly students from the B. W. I,. was more sedate, though the hostess was disappointed when I left at 2300 to catch the tube home when the party was going to go on all night. This is one nuisance of the London underground-it shuts down about midnight. I understand they run goods trains through it in the wee hours of the morning.

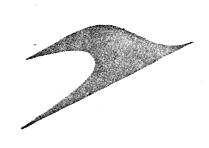
I am not yet sure what I am going to do with the last week of vacation; I would like to get up to Scotland for the New Year, which is a drunken orgy there, whereas it is not even a real holiday in England. Stein is going to be in StAs; maybe I can persuade Fiddler to go up, despite the expense. Fiddler wants to have enough money to take a car home with him so he has not been doing much traveling.

I shall probably be at Harvard next year; am applying also to MIT.



COMING TO CALTECH WEEK OF FEB. 16





This is the ideal car for campus life and off the campus, too. Costs little to buy, little to run. Only 14½ feet long, parks where others can't. Seats six in comfort. Minimum overhang and virtually no "dead" weight provides exceptional handling qualities. Choice of engines: (both require only low-cost regular gas) "6" or "8". With 4-barrel carburetor and dual exhaust option, the V-8 Lark really moves. Models available are 2-door, 4-door, hardtop, station wagon. Many options, too, including reclining seats... perfect for vacation trips. See this honey of a car on your campus. Watch for The Lark.



Winter Concert Prepares

by Carnoy

A small group of musicians huddled under the goal posts at the east end of the Rose Bowl. The pretty twirler from Whittier, Diane Florence, blew her whistle and led the dozen marchers and her twirling three-yearold sister onto the green gridiron single file. They zigzagged back and forth, almost in chaos, and somehow managed to form an "O" for Oxy and a "C" for Caltech. Then all the lights went off and Diane Florence twirled her flaming batons.

That was all that the student body saw of the Caltech Band in 1953, officially. Ricketts and Blacker men could hear the band once a week practicing on the Athenaeum lawn during football season, and many of them would join them for a little jam. But that was six years ago, when there was no organization, and no director.

Deichman Takes Lead

In the fall of 1956, John Deichman, formerly orchestra director, took over the reigns of the New Caltech Band. Even though there was no marching in the Rose Bowl, the band played at all the home games of the football team and some basketball games as well. The first ASCIT support went to the purchase of new sweaters and drum heads, and that warm Spring of '57, the Great Band gave the First An-



By Griffen

With the new Caltech Ski Hut proposal kicking around, and several snow parties on the social calendars just about now, Griffen decided to roll out his sleeping bag, brush the dust off his ski togs and take a week end up in the snowless mountains.

Since there is no snow, it might be wise to bring along some form of entertainment to while away the early February evenings. A phonograph is in order, with piles of fireplace type records . . . like "One O'clock Jump" or "Roll 'Em" or "Goin' to Chicago" or like that. Then bring lots of food-cheese spread, the makings of onion dip, caviar, wheat thins, and the

So far, the week end doesn't sound any different than an ordinary Saturday night right at the old school. However, Griffen has some use for the sub-zero mountain air, which will make the two days quite memorable. This employs a famous Finnish custom of taking a very hot shower and then running for the strenuous events to follow.

He then prepares the mixture for the evening. Percolating some after-dinner coffee, he adds approximately one-third ethanol (180 proof) before serving to all his friends. The coffee keeps them awake as they slide to the floor one by one. Griffen never needs a date to the snow party: he always has two or three by the time it's all over.

Snow Job

1 liter ethanol

1 can Medaglia D'Oro afterdinner coffee

1 expresso machine

Make coffee according to instructions. Add sugar, ethanol. Sit back and wait.

nual Spring Concert. "It was," in doze guys play priddy good even the words of Al Forsythe, band manager for four years, "typically mediocre." But the band was going places.

As the following Fall rolled around with more football and a winning squad, the band won with it. Twenty-four pieces strode onto the field at halftime during that immortal Oxy game and a winter concert followed in Culbertson, and then, to highlight the fine year, the Second Annual Spring Concert was held between Ricketts and Fleming. And this time it was not "typicaly mediocre."

Band Grows

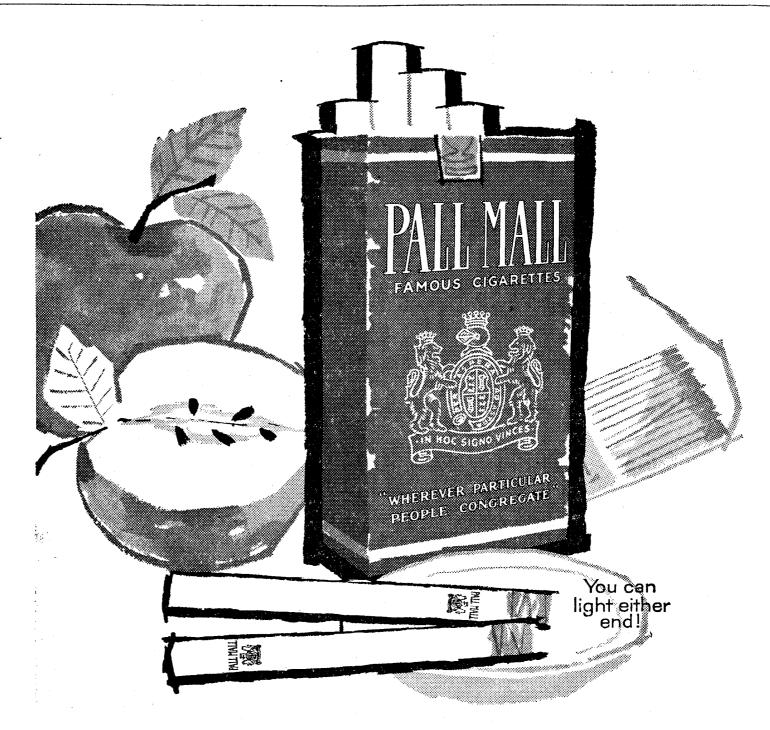
The band has grown to thirtytwo pieces this year, and played at away as well as home games. An Oxy rooter was overheard to say at a recent contest, "Gee,

doe dey are all phydacists and chemidsts and all like dat." More success heaped on. Disneyland asked the band to play one afternoon in the center of their "town"-1900 like.

Very fortunately for Techmen, they do not have to travel to Anaheim to hear this great group perform. On February 26 in Culbertson during Assembly period the band will give a concert, exclusively for Caltech students and their friends, and admission is free. It has been rumored that a Key of G glockenspeil player is still needed to play the band's rare instrument.

Numbers played will include: "March to the Gallows," "76 Trombones," "Night on Bald Mountain," "Variations on a Folk Song," "On the Square," and many other of your favorites.





Get satisfying flavor...So friendly to your taste!

See how Pall Mall's famous length of fine tobacco travels and gentles the smoke-NO FLAT makes it mild-but does not filter out FILTERED-OUT that satisfying flavor! FLAVOR! NO DRY SMOKED-OUT TASTE! HERE'S WHY SMOKE "TRAVELED" THROUGH FINE TOBACCO TASTES BEST Pall Mall's famous Travels it over. You get Pall Mall's under, around and length travels and famous length of the Outstanding... through Pall Mail's finest tobaccos gentles the smoke naturally . . . money can buy. and they are Mildl CA, T. Co. Product of The American Tobacco Company "Tobacco is our middle name"

CAMPUS BREWINS

Feed Foiled

Kindly Mike Jones provides T. Bergstresser with date. After potty hunger strikes, so ravenour foursome repairs to nearby Le Barfoo for fuel. Girls toddle off for repairs. Suddenly waitress rushes up mumbling, "You must order now, we close soon." Thinking quickly, trolls order two hamburgers, two French dips. Starving dates return to find feast set before them. Bergstresser sinks beneath table as date shrieks, "I can't eat that . . . I'm a vegetarian."

Things That Go Bump

M. Carnal at Drub snow party: "Get offa my back, honey . . . I wanna go to sleep." Another more wiley Darb arrived at party with electric blanket. Morning revealed blanket turned off on floor. Explained Darb,, "It got too hot in there."

Frosh Phumper

Soggy Scurfrosh R. Joule, Potassium Hydroxide, Judas Slaverfooled, and Cherry Dungoven besiege Beak and date at Barf Dranz. Language of trolls is full of quaint idiom and wondrous figures of speech. Noxious

burble from Joule is drowned out by righteous bellow from Slaverfooled, "Shut up, you stupid spzx!" "We're sorry," apologizes Dungoven, "but these dumb bnzhekbs can't control their speech." Potassium Hydroxide is set to chime in, but Beak manages to get red-faced date out of range in time. Later, thinking himself obscured by fog, Joule adjusts hydrostatic head near handy tree. Sadly for Joule, fog is on inside. Also sad for Phelegm Swill Gram and date who happened along at wrong

Mightier Than the Sword

Wooely Bear plays droll game of skill with date Mau Mau to guess five-letter word by guessing letters, assembling word. She gets letters okay, but cannot find word. "Give me a hint, huh Wooley, hub?" pleads wench. "It's part of a man's body," clues Bear . "Is it a hard word?" "For some people." Blush! "Err, ahh, uh, mmm," mumbles wench. "Well, what is it?" asks Bear. "Can I whisper it?" implores date. "No!" "Pleeze "Okay." "Mumble, mumble, mumble."

"Wrong!" gloats Bear. "The word is SPINE! And you have a dirty mind!"

Brown Burbles

K. Brown, Phlegm symbol of purity, was heard to utter the following cryptic sentence: "There is nothing like a dame . . . I hope!"

Fan Mail Dept.

Dear Beak:

I wasn't going to write to you again until I had received some word from you, but after reading this week's California Tech. I cannot refrain from sending a communique of some sort! I simply am unable to understand how you can bring yourself to write such pornographic drivel . . . if it is still you at the other end of the pencil? If you have the urge to literary creation, I am certain that you are capable of turning out an opus of much greater value, not to mention one of greater social acceptability. Even James Jones isn't crude all the time. It just seems like a terrible waste of time as well. Quit, for heaven's sake. Love,

Mommy.

Jazz Beat

by Lloyd Kamins



The Mastersounds

World Pacific Records, Pacific Jazz Series PJM 403, featuring: Monk Montgomery, Fender electric bass; Buddy Montgomery, vibes; Richie Crabtree, piano; Benny Barth, drums.

This is a nice album. You could play it for your mother. It is pleasant, and at times enjoyable for its own sake. Unfortunately, it is not good jazz.

The group is quite clearly patterned after the MJQ. The overall tone is delicate, precise, and deliberate. Emotion is curtailed for the sake of form, and much effort has been put into creating a sense of unity, unduly contrived. As does the MJQ, the Mastersounds devote a good deal of attention to their head choruses, obviously choosing their

numbers for their applicability to interesting arrangements.

Heads Laboriously Contrived

The heads are always individual entities. They are laboriously contrived, and though complex and intriguing, have little connection with the remainder of the track. Devices are used for their own intrinsic value—as devices. Everything must be intricate. Fugues, countermelodies, and the like are absolutely essential. The songs, however, are masked by the arrangements, the basic value of the harmonic changes losing preference to the cute qualities of the added frills. Although the importance of the song itself seems to have been lost, the heads are still good in their own right.

I cannot conceive of anything excusing the presence of the electric bass. It is far too similar to a musical saw. At its best, it sounds like the low strings on a guitar. The sound is admittedly not unpleasant, but the fullness, the richness of the bass is lost. So is the drive. Perhaps I am a reactionary, but I doubt if this monstrosity will take its place with the invention of Adolphe Saxe.

Vibist Good

The vibist is good. His entrance are well-conceived, emotion laden, and powerful. The group cannot support him, however. They have not his drive, his impetus, and the solo becomes just that. Perhaps with some other group.

I don't know if the flat piano the mushy bass, or the mechanical drums are most responsible for the lack of any semblance of swing. It seems to be a cooperative effort .

As I said before, though, the album is a pleasant one. The heads are interesting, and the solos won't bother anybody. The tunes are well picked and highly developed—only one developed —except in the solos.

CROWN

129 N. Raymond

PERFECT FURLOUGH Tony Curtiss

2nd Feature

"RESTLESS YEARS"

Drugs Sundries Cosmetics Tobaccos CALIFORNIA REXALL **PHARMACY**

555 S. Lake SY 2-3156

Breakfast Lunch Dinner

Welcome to

THE CAMPUS BARBER SHOP (In the Old Dorm)

ALL HAIRCUTS \$1.50

Two Barbers to Serve You

THINKLISH

PUT IN A GOOD WORD AND MAKE \$25

We're paying \$25 each for the hundreds of Thinklish words judged best! Thinklish is easy: it's new words from two words—like those on this page.

Send yours to Lucky Strike, Box 67A, Mount Vernon, New York. Enclose your name, address, college or university, and class.

English: VALISE FOR A TRUMPET

Thinklish: TOOTCASE

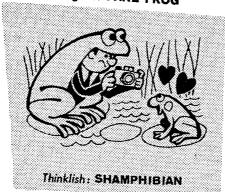
English: DIVORCE PROCEEDINGS

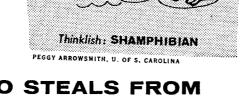
JOYCE BASCH, PENN. STATE



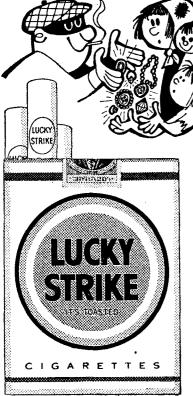


English: FAKE FROG





English: MAN WHO STEALS FROM THE RICH AND GIVES TO THE POOR



Thinklish translation: To smuggle loot, this fellow dons his plunderwear. For street fighting, he wears a rumblesuit. He totes his burglar tools in thuggage. The only honest thing about him is the Luckies in his pocket. (Like law-abiding folk, he enjoys the honest taste of fine tobacco!) In the old days, he'd be called a robbin' hood. Today, this churlish but altruistic chap is a (good + hoodlum) goodlum!

Get the genuine article



Get the honest taste of a LUCKY STRIKE

Product of The American Tobacco Company - Tobacco is our middle name

RALPH DANNHEISSER, U. OF MISSOURL

Thinklish: SPLITIGATION

PHYLLIS DOBBINS, U. OF WASHINGTON

(C) A. T. Co



The Mt. Baldy cabin ASCIT is thinking of buying is nestled among the pines and fog an hour's drive from Tech.

The Tech Takes A Visit To The Mt.Baldy Cabin

Two weeks ago the California Tech reported that the Board of Directors is considering a proposal to purchase a \$7800 cabin on Mt. Baldy. ASCIT presently has a \$4100 surplus which would supply the down-payment.

The cabin is about a mile below the ski lift and lodge area on Baldy. It takes a little over two hours for the 80-mile round trip.

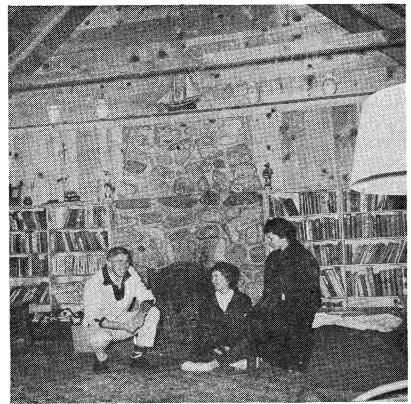
From the outside the cabin looks just like a mountain cabin

From the outside the cabin looks just like a mountain cabin should. It's on a fairly steep hillside and is surrounded by pine trees and boulders.

The inside of the cabin is also typical. There are four rooms, plus a loft and a bath. The knotty pine paneled living room has a fine stone fireplace and a thick rug. The two bedrooms are nothing fancy, but are clean and moderately roomy. The kitchen has an electric stove and water heater to complete the setup.

All in all, it's a pretty nice place.

Moler



ASCIT rep. Tom Tisch and friends Dorothy Nissen and Marcia Northrup went along on The Tech's inspection of the \$7800 cabin.

Gallagher Sets Lunch Talks On North African Problems

Charles Gallagher, this year's third AUFS representative, enters the second half of his campus stay tomorrow when he will speak to the YMCA Undergraduate Lunch Forum on the problems of Arab North Africa. The meeting will be at noon at the Training Table, and will feature an informal question-and-answer session.

On his second college circuit for AUFS, Gallagher concentrates his attention this year primarily on the problems raised by Arab Nationalism. Dating back to 1875, Arab Nationalism envisions definite, if not well thought out, goals of unity, independence, and progress for all Arab people. He will speak on Arab Nationalism itself, its relations to the West, and on U.S. foreign policy in dealing with it.

Gallagher's schedule for the rest of this week includes a dinner tonight at the Athenaeum, followed by a lecture on Algeria and speeches to the Economics 100 class and the Lunch Forum tomorrow. Next Tuesday he will meet with the History 5 and 124 classes, and on Wednesday, the Geology Club.

'Individual' Theme Set For Scripps-Caltech Confab

The relationship of the individual to society is the topic that will be discussed at this year's Scripps-Caltech Student-Faculty conference. The annual conference, which is sponsored at Tech by the YMCA, will be held from February 27 to March 1.

Thirty-five Scripps women will attend the meeting, along with 35 Tech men and about 30 faculty members from both schools, according to Mike Peters, Caltech chairman.

The conference will again be held at the Firestone Boy Scout Camp, 15 miles southwest of Pomona.

Faculty members making keynote speeches include Dr. John

Weir, Dr. Paul Saltman, Professor of Biology of UCLA and a Caltech alumnus; Dr. Arthur Campbell, Dean of students at Harvey Mudd, and Dr. Edgar Reckard, Chaplain of the Associated Colleges. Several other Tech faculty members will also attend.

In addition to the talks and discussions, there will be plenty of time for recreation and social activity, Peters emphasized.

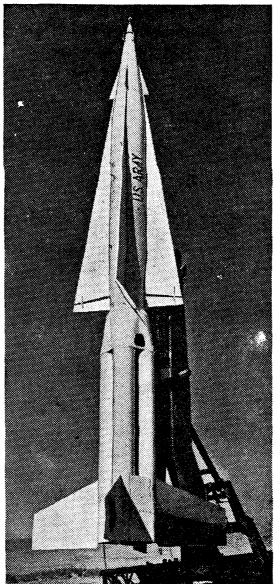
The Tech half of the sign-up will be on a first-come-first-served basis and will begin at noon next Thursday in the Y office. Total cost for the three-day conference is \$10.50.

Y Play Set Next Sunday

A play by T. S. Eliot, "Murder in the Cathedral," will be presented by the Caltech YMCA next Sunday, February 15, at 8 p.m. at the home of Beach Langston, 420 South Parkwood, Pasadena. Admission and refreshments will be free.

The play, starring Ken Dinwiddie, concerns the life of St. Thomas a' Beckett, with comparisons to the life of Christ. Written in verse, the play is highlighted by a woman's chorus.

Appearing also in the production will be Bob Blandford, Gary Hachtel, Tom Morton, Mike Peters, Ken Scholz and Jim Ulleman.



Ready for action, the Nike Hercules was created by the successful team of U.S. Army Ordinance, Western Electric, Douglas Aircraft, and Bell Telephone Laboratories.

CALTECH

Seniors and Graduate Students

in

Engineering

Physical Science

talk over your future

FEBRUARY 18 & 19 with the Bell System



Pacific Telephone

Technical graduates for engineering and administrative positions on the West Coast.



Technical graduates for engineering and administrative positions in field engineering, manufacturing and defense projects throughout the United States and at the Princeton Research Center.



Technical Graduates for research and development work in one of the world's foremost research labs in the New York area.



Enginering and physical science graduates for the research, development and design of atomic weapons systems at Livermore, California.

PLACEMENT OFFICE

As I See It

by Russ Pitzer

Spring Sports Take Spotlight

MIT is pretty proud of its Leonard and Lannes Purnell swimming team this year, according to a recent edition of "THE (MIT) Tech." Some of their better marks posted in swamping Tufts are as follows: 400-yard medley relay, 4:16.6 for a new school record; 100-yard freestyle, 55.6; 220-yard freestyle, 2:28.9, and for the 440-yard freestyle, 5:29.1.

Some approximate Caltech varsity times corresponding to these are: 4:15.0, 55.0, 2:30, and 5:20, respectively. In the other events Caltech times are much better, so that in a meet, the Caltech varsity could win all but one or two events. The Caltech frosh could probably beat the MIT varsity, also. Too bad MIT is so far away . . .

The first baseball game will be against Cal Poly next Wednesday on the Caltech field. Fred Newman, who has elected to sit out this season, will be missed at shortstop, but Skip Stenbit and Karl Poole, up from last year's frosh, should bolster the squad. Whittier seems to be the favorite to take the conference crown this year.

The first track meet will be the Conference Relays at Claremont on February 28. Tony should turn in outstanding individual performances in the 880 and the javelin.

Tennis has started again and it is rather early to make a fore-

Caltech's best chance for success this spring is the swimming team, which could well be a championship team. Sophomore Gary Tibbetts and Senior Don Owings are both top prospects. The first meet is tomorrow against Mt. San Antonio.

Flem Footballers Rout Throop Club

Thursday afternoon Fleming's Klokemen rolled over Throop Club in a Discobolus football game, 26-0.

Fleming received the opening kick and the first play - an Engelberg to Laderman pass traveled the distance for six. An Engelberg to Shans pass converted and the win was never in great danger thereafter.

Throop's main offensive weapon — the power run — worked fairly well, but timely interceptions staved off any serious penetrations.

Frosh Cagers Squeeze By Pomona

Little Beavers Head for .500 Season Record

Playing their best game of the year, Caltech's frosh cagers staged a tense come-from-behind rally in the waning moments of the game to take a close 46-45 victory from the Pomona frosh Saturday night on the Beaver hardwood.

This win completed a twogame sweep by the two Beaver court squads and reversed an earlier double-overtime Pomona frosh win. With this victory, the frosh upped their seasonal slate to a respectable 6-6.

Pomona held a close lead through the early part of the final half and had a 44-40 advantage with about three minutes remaining on the clock. Dean Gerber, dependable guard, put against an all-court press, which turned the tide. Gerber pilfered a pass and whipped it downcourt to John Arndt, who dumped in an easy bucket. Roger Noll, a tower of power for the victors, dropped in his 13th and 14th points of the contest to knot the score and Gerber, who tallied 11 points, sank the final two foul throws for the win.

With 29 seconds remaining on the clock and the score 46-45, Pomona had possession of the

ball when the scoreboard failed. This caused some confusion about the time remaining and the Pomona five didn't get off a final shot.

Pomona led in the first half but the little Beavers sunk two fast baskets to make the intermission score 28-28. Noll took over scoring duties and handled rebounding when Gerry Clough, usually top scorer, suffered a slump.

The Pomona man-to-man defense was tiring so the visitors switched into an all-court press. Caltech took advantage with several quick baskets but then faltered. Pomona guards Ken Morimoto and Jim Armbrister repeatedly stole the ball and the Beavers couldn't move up-court. The winners utilized a tight defense and consistent boardwork in fending off the Pomona five, which used a strong bench to good advantage.

BASKETBALL SCIAC Standings Whittier 2 Redlands 4 Occidental2 CALTECH 1 Pomona 1 All Games W Whittier13 Redlands11 Occidental9 Pomona 4 12 CALTECH 1 Top Scorers Ave. Murphy, Oxy17.7 Mason, Whittier16.0 Morse, Redlands15.5 STENE, CALTECH13.8 Pejsa, Redlands13.3 Whitener, Oxy12.3 Johnston, Whittier12.0 BROWN, CALTECH11.6

Frosh Netmen **Snare Win**

A promising frosh tennis squad showed great potential in handily defeating Pasadena Nazarene College's frosh Monday afternoon, 7-1-1. Dick Hess, Art McGarr, Ray Barglow, Dave Sellin and Maury Genud all won their singles matches, while Mc-Garr and Sellin, along with Barglow and Weinshilbaum, teamed

up to win their respective doubles matches. Bob Hearn and Cedron Jones were tied in their doubles match when darkness forced a cessation of the meet.

Saturday the frosh journey to Claremont to play Webb School in what promises to be a much tougher test than the first one.

'What careers are available?'' "Where would I work?"





A DOOR IS OPEN AT ALLIED CHEMICAL...

AND THIS MAN CAN GIVE YOU THE FACTS

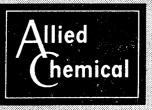
You'll want to note the date below. Our interviewer will be on your campus then, ready to answer your questions about a career in the chemical industry . . . and to point out the advantages of pursuing that career at Allied.

You'll find it worth your while to get the facts about a company that has twelve research laboratories and development centers, over one hundred plants, and a nationwide network of sales offices. It's worth learning all you can about a company that makes over three thousand different products-chemicals, plastics, fibers-with new ones coming along every year.

Come prepared to ask our interviewer what you want to know: What kinds of jobs? Which products? What opportunities for advancement? Which location?

FOR THE CAREER FACTS YOU NEED SIGN UP NOW FOR AN INTERVIEW!

> BASIC TO AMERICA'S **PROGRESS**



61 BROADWAY, NEW YORK 6, N. Y.

DIVISIONS: BARRETT . GENERAL CHEMICAL . NATIONAL ANILINE . NITROGEN . PLASTICS AND COAL CHEMICALS . SEMET-SOLVAY . SOLVAY PROCESS . INTERNATIONAL

ALLIED CHEMICAL CAMPUS INTERVIEWS

A future for: Chemists, Chemistry Majors, Engineers (Chemical, Mechanical, Electrical)

TUES. FEB. 17



Poets Favored Saturday Night

Tech Hosts First-Place Whittier; Stene Hits for 24 vs. Cal Western

Whittier's Poets, rampaging class of the SCIAC basketball conference, make their only appearance of the season on the Tech floor Saturday night. Led by tall center Herm Mason and 6-ft. 4-in. forward Bill Johnston, the Poet quintet has amassed a 13-won, 7-lost over-all record against tough competition and is heavily favored over the Beavers. Whittier is unbeaten in conference play.

In their last two games the Poets edged Pasadena College for the second time, 66-62, and trounced Claremont-Harvey Mudd to the tune of 65-35.

Caltech played some of its sharpest ball of the season Monday afternoon in losing to Cal Western, 75-68, in an evenly matched contest. Star forward John Stene led the early attack with sharp sets from the corner,

Varsity Nets Conf. Victory With Upset

(Continued from page 1)

Pomona's persistent fouling in the first half probably cost them the win, since the accurate Beavers cashed in on 21 of 29 free throws in the initial period. Caltech only made four field goals in the first half but went to the dressing rooms with a 29-28 half-time lead due to deadly gunning from the charity stripe.

The winners held a shaky advantage throughout the first half until Pomona jumped off to a four-point lead with about five minutes left in the first period. Stene led a Tech surge which pushed the score to 29-28.

The Pomona team, holding a height advantage, dominated the backboards before intermission but the Beavers, led by Maley and Blakemore, started rebounding in the final half. The lead switched hands continually early in the second period with two quick buckets by pesky guard Blakemore, saving the Beavers at one point.

Dave Lynn, consistent rebounder and top scorer for the visitors, collected four fouls in the first period and fouled out early in the second half. Lynn, top threat for Pomona, scored eight points in the first half and finished with a 12-point total.

The loss of Lynn, plus the tight man-to-man defense of Caltech, which picked off numerous passes, hampered the Pomona offensive drive in the final period

Maley, 6-1 forward, alternated at center with McClure and swished the nets for 10 markers, second high for the Beavers. Maley's presence at center, plus Soph Larry Brown at forward, produced the most efficient Beaver five.

pacing the Beavers to a constant five-point first-half advantage. Stene, hitting at a 50 per cent floor average, totaled 24 points for the game, a season individual Tech high.

Sophomore guard Bill Ripka began to hit in the style that made him the frosh conference star last year in the second half, rifling in five buckets to keep Tech in the game.

However, Cal Western's fast and hard-driving forwards Takahashi and Greenwood riddled the Beaver defense with short hooks and lay-ins to keep the game even with two minutes to play. Then Stene lost his shooting eye under the pressure and also fouled out while Greenwood hit a beautiful lay-up and two perfect free throws to reach the final count.

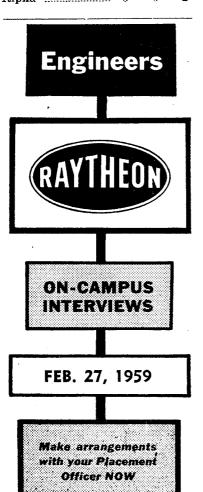
Taahashi had 21 points for the game, Greenwood 19, and center Hammond 16.

Cal Western (75)

· I	·C.	FT.	F.
Takahashi	10	1	4
Anderson	0	0	0
Greenwood	8	3	3
Hammond	6	4	3
Keating	0	0	0
Johnson	1	0	3
Lewis	4	3	3
Fugate	3	0	1

Caltech (68)

]	FC.	FT.	F.
Maley	3	2	0
Brown	2	1	0
Stene	11	2	5
McClure	2	3	2
Arps	0	0	0
Holland	2	4	2
Blakemore	2	2	3
Rinka	5	0	2



Swim Season Opens Friday In Tech Pool

The varsity swimming team opens its season here against Mt. San Antonio Junior College Friday at 4:15. Mt. San Antonio in the past has had erratic seasons—one year being one of the best of the junior colleges and the next not showing any strength. Coach Webb Emery has no reports on the team this year, so Friday's contest should be interesting.

In the AAU races Sunday, several varsity men got their first taste of competition this season. The meet was held on a time basis with everyone competing in heats. Don Owings of the Beavers captured third place in the 200-yard breast stroke with a respectable 2:37.5. Although this was the only place gained by Techmen, several other good times were posted. Sophomore Gary Tibbitts swam the 440 in 5:20.5 to chop five seconds off his former standard. Keith Brown and Robert Bland also turned in encouraging times for

NOTICE

There are two life guard positions open for the summer program at the Caltech Alumni Pool. Those interested should see Webb Emery for more details.

Interhouse

Dabney Rates The Favorite As Interhouse Track Begins

The field events of the Interhouse Track Meet will be run this afternoon at Tournament Park. Tomorrow the track events will be run and the final standings decided.

Dabney, power laden with experienced men, is favored to win the meet. Fleming and Ricketts, though probably weaker than in former years, should also be in contention for top honors with distinct possibilities to pull an upset. In addition, Blacker seems stronger this year than formerly, in fact, strong enough to rate as a definite dark horse.

In the javelin, Hugh Keiffer of Blacker should place tops and John Shier of Fleming looks good for first in the discus.

The high jump pit will see last year's co-winners Jewett and Price returning to assuredly take top places. Likewise in the broad jump, Dabney will have three men entered who have each placed two years in a row, Kuli, Christman and DePicciotto,

In the dashes slated for tomorrow, Dabney appears strong with Siegel and Linson. Fleming's frosh Hascall has bettered their times, however, as has Klett, an off-campus frosh. In the distance races, deGasten, who won the 660 last year, should repeat, and Gregorick is favored in the 1320.

The final event, which may well decide the outcome of the meet, will be the relay race. This promises to be a close battle between Dabney and Blacker.

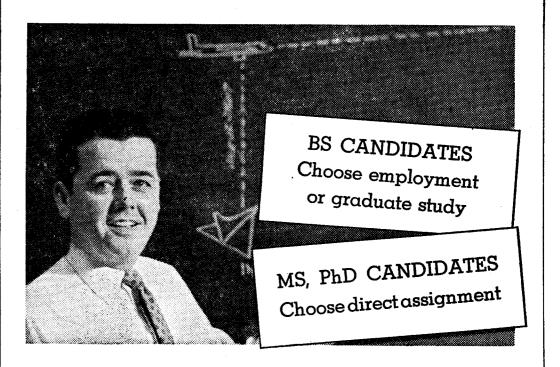
Bowling

The Bowling Trophy changed hands nominally Friday afternoon when Dabney's bowling team successfully defeated defending Throop Club's keglers, 2274-2131.

The trophy itself, due to an unfortunate accident, was smashed and so will be temporarily out of circulation, though the claim to its possession is still up for challenge.

Leading the Dabney pinbusters were Dennis Paull and Doug Christman with series of 481 and 492, respectively. John Everitt and Bob Calaway turned in Throop's best efforts with 482 and 478 totals.

A challenge by Ricketts followed hard on the heels of the Dabney victory. The darbs meet the Rowdy team in a match scheduled for Friday of next week.



... As an RCA Engineer

Receive your MS in Electrical Engineering, Mechanical Engineering or Physics at RCA's expense, through the RCA Graduate Study Program. At the same time, you're beginning your RCA career as an engineer on a fully professional level, getting a head start in the field you prefer. RCA pays the full cost of your tuition, fees and approved texts while you take graduate study part time at the University of Pennsylvania or Rutgers University.

Or, you may prefer a different path ahead... RCA Design and Development Specialized Training. Here is another of RCA's programs for careers, in which you begin by working full-time on planned technical assignments. Experienced engineers and interested management guide your progress. You may receive assignments in design and development of radar, airborne electronics, computers, missile electronics, television, radio and other equipment fields, as well as in Electron Tubes, Semiconductors and Components. MS, PhD Candidates are eligible for direct assignments in the above mentioned fields.

There's a lot more that's extremely interesting about an RCA engineering career. You should have these facts to make a wise decision about your future. Get them in person very soon when an RCA engineering management representative arrives on campus—

Right now, though, see your placement officer. Get squared away on a specific time for your interview. And get your copies of the brochures that also help to fill you in on the RCA picture. If you're tied up when RCA's representative is here, send a resume to:

Mr. Robert Haklisch, Manager College Relations, Dept. CR-11 Radio Corporation of America Camden 2, New Jersey

Tomorrow is here today at RCA



RADIO CORPORATION of AMERICA

Eight Seminary Students Start Y Visit Monday

Eight west coast seminary students will start a four-day Y-sponsored campus visit Monday, doubling with volunteer students in each house. They will spend most of their time in informal bull sessions with students in the houses and the Y lounge.

They will all be guests at faculty dinners Tuesday and Wednesday nights. Sign-up lists for students interested in the dinners will be posted in the Y lounge. The Seminarians will also meet with the Upper-class Lunch Forum on Wednesday and the Grad Sack Lunch Forum on Thursday.

Jack Stegman of Pacific Lutheran and Wayne Strom of the Berkeley Baptist Divinity School will stay in Fleming; Jack Stanley of Pacific School of Religion and Mike Meyer of Hebrew Union College will stay in Ricketts; Harvey Fields of Hebrew Union College and Jim Carbough of San Francisco Theological Seminary

EPC Suggests P.E. Changes

(Continued from page 1)

EPC has formulated a new plan to meet the PE need. First, all freshmen would be required to take one full year of calisthentics and exercises, under the direction of Coach Nerrie or a qualified upperclassman. During the next three undergraduate years, students must take from three to nine terms, preferably six, of either the same course given freshmen or a series of special classes for instruction in special sports, such as the present Karate class. Of course, the present tradition of allowing credit for interhouse and intercollegiate athletics will continue, as well as exemption from PE for those students taking AFROTC.

The purpose of the poll was to provide help to the faculty EPC in deciding the future PE program. The FEPC was concerned with student opinion on the matter before they formulated any specific policy. At present Dr. R. H. Sabersky, chairman of the FEPC, favors reducing the PE requirement to only two years.

Interview Schedule

Friday 13—Hoffman Laboratories, Inc. (n.s.), Continental Can Co., Argonne National Laboratory.

Monday 16—Airesearch Manufacturing Co. (n.s.), Pan American Petroleum Corp., Sperry Gyroscope Co., Bayonier (n.s.), General Electric Co.

Tuesday 17 — General Electric Co., Allied Chemical & Dye Corp., Rand Corp., ACF Industries, Consolidated Electrodynamics Corp., Transducer Division (n.s.)

Wednesday 18—Institute for Air Weapons Research, Richfield Oil Corp., The Bell System.

Thursday 19—Convair - Fort Worth (n.s.), The Bell System. Friday 20—Convair-Fort Worth (n.s.), Bendix Computer Division (n.s.), U.S. Naval Ordnance Test Station, General Telephone Co. (n.s.), Merck Sharp & Dohme. will stay at Dabney, and Noel Phelan of the Southern California School of Theology and Alan

General chairman for the visit is Dave Cassel, and the funds for the program come from a grant from the Danforth Foundation

Green of the Pacific School of

Religion will stay at Blacker.

Russians Leave Impressions, Anecdotes

er had just explained to the curious Russians that the beards he and his companion were growing were for a student costume dance. Panteleimon Lebedev, delegation leader and Administrator for the Soviet Mniistry of Higher Education, wanted to know: "What happens to those who don't grow beards?"

About sixty Techmen and dates gathered in Ricketts lounge to

meet with the Russian educators during their after-dinner visit to the student houses.

"We hesitate to compare the quality of American and Russian scientific education," the guests answered as soon as they were seated and had time to hear the first question from their hosts, "but our engineering students attend classes 30 hours a week, compared to your 18, our

summer vacation is only tw_0 months, compared to your three, and our curriculum spans five-and-one-half years."

"Do the Russian students do much dating with young women?" asked one Techman.

"Well, in the first place, 40 percent of our students are women," came the reply, which was greeted by laughter and applause. "Our students are not Monks!"

Monday, Feb. 16

THE GARRETT CORPORATION

AiResearch Divisions

will be on campus to interview

ENGINEERING STUDENTS

B.S. - M.S. - Ph.D. candidates

The Garrett Corporation is one of the most diverse research, engineering and manufacturing organizations in the aircraft, missile and technological fields.

From AiResearch laboratories have come pioneer developments in aircraft and missile components and systems. Today 90% of the free world's aircraft use AiResearch equipment.

Garrett divisions and subsidiaries are creating a variety of products, including

industrial turbochargers and marine equipment, and are supplying sales and service to airframe companies, airlines and the military.

Project work is conducted by small groups in which individual effort is more quickly recognized and opportunities for learning and advancement are enhanced.

With company financial assistance, you can continue your education at fine neighboring universities.

• TYPICAL PROJECT ACTIVITIES •

Electronic air data computers, pressure ratio transducer instruments, electrical systems and motors and generators.

Preliminary design from analytical and theoretical considerations for high-level technical work in aerodynamics, stress analysis, thermodynamics, heat transfer, cryogenics, pneumatics, nuclear power and mathematics.

Auxiliary power units and control systems for

various types of missiles.

Air and vapor cycle refrigeration turbines, hydraulic and mechanically driven pressurization compressors.

Jet engine and rotating machinery design and analysis involving combustion, turbomachinery, gas dynamics, thermodynamics and aerodynamics.

Gas turbine auxiliary pneumatic and electric power units.

• ORIENTATION PROGRAM •

In addition to direct assignments, an eightmonth orientation program is available to aid you in job selection. You participate in Garrett project and laboratory activities and work with engineers who are outstanding in their fields. Your orientation will include familiarization with sales and contract administration.

JOB OPPORTUNITIES

Thermodynamics
Aerodynamics
Missile Accessories
Combustion Analysis
Chemical Engineering
Mechanical Engineering
Instrumentation
Gas Turbines
Stress Vibration
Preliminary Design
Engineering Analysis
Physics
Vibration Engineering
Gear Design

Laboratory Engineering
Cryogenics
Pneumatics
Mathematics
Electrical Engineering
Transistors
Instrument Design
Electronics
Analogue Computers
Cycle Analysts
Control Engineering
Computer Programming
Space Physics and Ionization
Sales Engineering

Missile APU Analytical Design
and Development
Magamp Design and Development
Liquid Oxygen
Air Turbines
Air and Freon Centrifugal
Compressors
Welding Engineering
Sensors and Servos
Connecting Networks
Electronic Flight Data Systems,
Controls and Transistor Circuitry
Air Conditioning and Heat
Transfer



CORPORATION

9851 S. SEPULVEDA BLVD., LOS ANGELES 45, CALIFORNIA