

Week of Activities Scheduled For Seniors

Seniors! Your week is coming! Yes, Seniors will have the week of June 5 to June 9 to recuperate in, before that last shove into the outside world.

"Beside Commencement Day, the most important day of the week is Senior Class Day, on Thursday June 8. There will be activities going on throughout the day and Seniors are urged to invite their parents and friends for an interesting day at Caltech," stated Stan Boicourt, Senior Class president, who is in charge of Senior Day activities.

Starting at 9:30 there will be a film on Palomar shown at Culbertson Hall.

Two demonstration lectures are scheduled—one at 10:45 and the other at 1:00 P.M. There is a good chance of these lectures being the two favorites—High Voltage by Dr. Sorenson and Liquid Air by Dr. Watson.

Then at 2:30 P.M., Class Day Ceremonies begin in the Dabney Hall of Humanities. Dr. Stock will be the speaker.

GOOD LUCK
SENIORS

Four o'clock brings the President's Tea on the Athenaeum lawn. Of course, Seniors, parents and guests are invited to this too.

The beginning of the week has activities also.

Tuesday, a Faculty-Senior softball game will get underway at 2:30 P.M. Seniors' parents should have a good time watching the game.

On Wednesday, an Alumni Dinner and Meeting will be held at 6:00 P.M. at the L.A. Athletic Club. The speaker will be Dr. Clark B. Millikan on the subject "Caltech and the Supersonic Age."

A slight fee of \$1.50 for the Seniors and \$3.00 for others will be charged. Reservations must be made at the Alumni Office by June 2.

SENIOR WEEK PROGRAM

Tuesday, June 6—Faculty-Senior Softball Game, Tournament Park—2:30 P.M.

Wednesday, June 7—Alumni Dinner Meeting. Time: 6:00 P.M.

Place: L. A. Athletic Club.

Speaker: Dr. Clark B. Millikan. Subject: Caltech and the Supersonic Age.

Dinner: Seniors \$1.50, others \$3.00. Reservations: Alumni office by June 2.

Thursday, June 8—Class Day.

9:30 A.M.—Palomar Film—Culbertson Hall.

10:45—Demonstration lecture.

1:00 P.M.—Demonstration lecture.

2:30 P. M.—Class Day Ceremonies, Dabney Hall Humanities, Dr. Stock—speaker.

4:00 P.M.—President's Tea, Athenaeum Lawn, Seniors, Parents, Guests.

Friday, before 2:30—Pick up Caps and Gowns, Lower Fleming.

3:50—Line up under Arcade (Ricketts-Fleming)

4:30—Commencement Exercises.

9:00—Jr.-Sr. Prom, semi-formal, L.A. Breakfast Club.

CALIFORNIA TECH

California Institute of Technology

Friday, May 26, 1950

NO RIVET
THIS YEAR

Volume LI.

No. 29

Associates Visit Tech Saturday

Luncheon, Demonstration, Tours of Tech, Feature Afternoon Program

One hundred and fifty benevolent, wealthy local citizens visited the campus last Saturday to enjoy the program planned for them by students and associates, to learn more about the work and needs of Caltech, and to see each other again. The occasion was the 1950 Associate's Day.

President Lee A. DuBridge, Chairman of the Board of Trustees James R. Page, and other institute officials spent their time talking with the Associates when they weren't taking in the lectures and movies on the program of the day.

Student Guides

The ten student guides who showed the touring Associates around the campus were able to demonstrate what a Caltech undergraduate is really like, provide local color, and to answer questions in a manner that would compliment our fine campus and yet show where new money was needed for improvements.

Mr. Page and Dr. DuBridge welcomed the Associates, each of whom give to the Institute \$1000 a year for ten years, at a buffet luncheon held in Dabney Gardens.

Bio's Talk

After lunch the Associates were shepherded to 119 Kerckhoff to hear the first series of talks. Dr. Fritz Went gave a closeup of the activities in the Earhart Plant Lab, with some slides. Another amusing and instructive talk was forthcoming from Dr. Pauling on proteins and enzymes. Movies on virus research were shown by Dr. Max Delbrück, during his explanation of the virus research going on at the institute.

Next the Associates were ushered to 155 Arms to hear more talks, at a session presided over by Drs. Stock and Bacher. Pictures from Palomar were shown by Dr. Ira S. Bowen, and Dr. Albert E. J. Engel showed some slides made from rock sections rather than film.

Particle None

"The classes at the Institute are small and we do not usually have to demonstrate to so many people, but afterwards you may come up front in small groups and see the effects of the subatomic particles I have been telling you about in this cloud chamber. If you wait around long enough one of the new particles may show up, or who knows, you might discover another particle yet unheard of," said Dr. Carl D. Anderson at the close of his talk on the two new particles. None of the Associates reported any new finds.

Tea Finale

The visitors were then confronted by three choices. They could tour the Engineering Labs, see Dr. Sorenson's high-voltage demonstration, or take in a

(Continued on Page 4)

ASCE Given Report Award

Caltech's ASCE student chapter was recently awarded the Certificate of Commendation for its annual report covering the calendar year of 1949 by the national organization.

The basis for the award is 80 per cent on the number of meetings, percentage of CE's who are members, field trips, and other activities; and 20 per cent on the content and appearance of the annual report.

There were three such awards in the Western States for 1949. In order of award, they were Caltech, U. of Colorado, and Texas Tech.

Credit

Credit for the award goes to both this year's officers, Max Kreston, president, Abe George, vice-president, Don Schmid, treasurer, Bob Smith, corresponding secretary, and Ed Pyatt, recording secretary; and to last year's officers headed by Chuck Forrester.

Attention Juniors!

The last class meeting of the year will be Monday, May 29th, in 206 Dabney, at 11:00 a.m. The purpose of this meeting will be to discuss general plans for next year—especially financial plans. It is hoped that the painful ordeal of extracting class dues can be performed during first-term registration, next fall. In order to do this legally, an approval must be reached in a general class meeting—so turn out Monday, hear the complete financial story, air your views, and support your class.

Y Banqueteers Hear Faust

"We lack criterions to judge our actions by," said Dr. Clarence Faust, Stanford's dean of faculty of the Arts and Sciences at the annual Y dinner last Thursday night at the Athenaeum to a full house of over 200 faculty, friends, and students.

The after dinner talking was marked by informality on the part of the turkey stuffed speakers.

Dr. Faust's talk was well received by the guests and many people commented that his talk was a novel and noteworthy approach to the problems of the mechanized age through religion and higher education.

Dance Decor Done By Instituters

Decorations at the ASCIT "Satan's Stomp" were another accomplishment of the Caltech Instituters, who have been doing such unpublicized jobs all term under Joe Cain, new proxy of the group.

Swaroop Bhanji Deo, Mike Lourie, and Phil Orville were in charge of designing and arranging the decorations for the Stomp.

Teddy Einwohner, Tom Stockebrand, and Jack McEwing coordinated the Instituters in the houses, who collectively put in more than 100 man-hours of work preparing for and cleaning up after the dance last weekend.

Honors, Trophies Given At Annual Awards Assembly

LaTourrette Wins Tau Beta Frosh Award; Honor Keys, Debate Gavels Presented

Outstanding students of the campus were honored by the ASCIT at the annual Awards Assembly presided over by Dave Hanna, ASCIT athletic manager, this morning in Culbertson. At the assembly were presented honor keys and certificates, the Tau Beta Pi outstanding freshman award, debate gavels and jewels, the "snake" trophy, the Scott tennis trophy, the Alumni baseball trophy, the interhouse trophy, the varsity rating trophy, and letters for sports.

Honor Keys

Honor Keys were presented by ASCIT President Ulrich Merton to 21 men in recognition of their participation in extracurricular activities. Receiving Keys for the second year were Oliver H. Gardner, Ulrich Merten, J. Michael Sellen, Charles M. Steese. Those receiving Keys for the first time were: C. James Blom, William P. Cox, Carl E. Fox, William A. Freed, James B. Hendrickson, Richard M. Libby, David B. MacKenzie, Anthony J. Malanoski, Leon C. Michaelson, B. Robert Parnes, Noel E. Reed, Donald F. Royce, Bert Snider, Bruce B. Stowe, Jesse L. Weil, Stanley Groner.

Outstanding Frosh

Tau Beta president, Bill Whitney, presented the Tau Beta Pi outstanding freshman award to James LaTourrette.

The Tau Beta Pi Freshman Award is presented annually to some freshman who has, throughout his first year, demonstrated outstanding qualities of scholarship and character, and who has participated wholeheartedly in non-academic activities, according to Bill Whitney, Tau Beta president. It was emphasized that the award is based upon achievement rather than future promise, although it is hoped that receiving the award may encourage the recipient to maintain his ex-

(Continued on Page 4)



Millikan—"Two supreme Elements in Progress"

Mr. Caltech — this is Robert Andrews Millikan, Nobel laureate, and prime mover behind the educational and scientific institution that is and has been Caltech.

More than any other one man, he, as past chairman of the Executive Council, and director of the Norman Bridge Laboratory of Physics from 1921 to 1945, has directed the educational policies,

has gathered enthusiastic support for Caltech from Southern Californians, and has guided the physics research program,

which early earned Caltech's graduate school a

rating as one of the top

three scientific schools in

this country.

An Athlete's Handshake

We entered his large book-lined office, with the portrait of Alfred A. Noyes in one corner, and the bust of Einstein in the other, with some hesitation; any such semi-legendary figure as Dr. Millikan is bound to inspire a little more than respect in two lowly Tech reporters. But he soon put us at ease however, and greeted us cordially with an athlete's handshake.

He looks exactly as photographs and portraits show him; with a full head of white hair, and a benign, kindly smile, very readily given, we discovered, as he sat down to await our barrage of questions.

The firmness of his grip earlier had reminded us that during his college years at Oberlin, he was a student director of gymnastics, and, in fact, almost became a physical education instructor, instead of a physicist.

We asked him whether he had ever regretted his decision to go into physics; he replied first by giving a bit of his background; as a Mississippi valley farm boy, with swimming holes and skating ponds nearby, plenty of chores to do, and a remodeled barn as a gymnasium to work out in, it wasn't surprising that he passed his freshman physical examination high above the other entrants. "I chinned the pole 35 times," he recalled somewhat proudly.

Although many of his friends urged him to become a gymnast, after his second year at Oberlin when he was introduced to physics, he definitely decided to choose science as a career.

Hard Work Necessary

... Besides teaching gymnastics during his seven years at Oberlin, Dr. Millikan went out for track—he was top man in his class in the 100 yard dash.

When asked how important he considered extra-curricular activities, among which were athletics, he replied, "The Caltech student should enter into as many extra-curricular activities as he has time for."

But he added a qualifying statement about the particular importance of hard work and serious attention to studies during the first few years of college, in order to lay the habits and form the reputation of a serious student. Giving a special bit of advice to the freshman class, he said, "You're at the age when everything depends on how you get started."

"Girls in by 8:00"

During his own college days, he had "not a vacant half-hour," he added. Smiling, Dr. Millikan reminisced, when speaking of class dances he had attended, "Then (during 1888-91) the girls had to be in by 8:00 p.m." This left him time enough to get to his 9:00 gym class.

(Continued on Page 2)

Check Your Kids

A nursery for pre-school children of students taking degree will be available in Throop Club lounge at four P.M. on Commencement Day, June 9. A committee from the Women's Club of the Institute will be in charge, pre-registration before Wednesday, June 7th, would be appreciated. Please call Mrs. Pickering SY. 8-2570 or Mrs. Neher at SY.7-9638 if interested.

Two New RA's For Houses Announced

Next year Ricketts and Dabney Houses will welcome new Resident Associates. Filling the positions of Harry Ellis and George Smith next year will be Dave Mason and Don Norris.

Don Norris, the new Dabney RA, is a graduate of the U. of Toronto and is now working for his PhD in geology.

Dave was a member of Tau Beta Pi at Tech in '43 and took his PhD here in '49. He is now an instructor in chemical engineering. From '43 to '46 he was in the naval aviation ordnance.

Campus Calendar

FRIDAY, MAY 26	11:00 ASCIT Award Assembly, Culbertson
1:30 Varsity Golf Tech vs. Santa Barbara at Annandale C.C.	
SUNDAY, MAY 28	7:30 Film Classic Series in Culbertson "The Blond Bombshell"
MONDAY, MAY 29	7:30 Film Classic Series in Culbertson
TUESDAY, MAY 30	12:00 Y Frosh Lunch Club
WEDNESDAY, MAY 31	7:30 Orchestra Rehearsal in Culbertson 9:00 Glee Club in Culbertson

**Does This Nut
Fit Your Bolt?**
by the Monkey Wrench

Two weeks ago, in this column, we kicked around some of the questions and gripes coming from students and threw in a couple of our own. It is not our purpose to make this column a griping board but we find ourselves with what happens to be everybody's favorite gripe, which has come to a head recently, and it appears to be worthy of discussion at this time.

We refer to Buildings and Grounds, the department whose job it is to keep the roof from leaking and the ice plant growing. There will always be someone who charges that B&G does unnecessary work. That is not our concern here. Deterioration is always most evident to the people who are trying to prevent it. But we feel justified in criticizing B&G for doing much of their work inefficiently and at far greater cost than is needed. Many examples of this are on record. We will give four.

Room Stackings

Anyone who was around on Senior Ditch Day is well aware of the fact that the other classes did not confine their activities to studying while the seniors were gone. Most of the horseplay consisted of room stacking but a few of the boys got excited and removed everything from a couple of the rooms. Light fixtures, plumbing, woodwork, etc. Admittedly, this is going too far. The people responsible realized this and in most cases put the rooms back together again.

We can understand why B&G would want to check up and make sure the work had been done properly. However, when they ran up a bill for \$80 for work in two rooms which consisted of putting in some molding, replacing some light fixtures, putting back two closet doors, fixing a sink, doing some fill-in work and generally looking around; and then proposing to paint all the woodwork in both rooms for \$90, although only a part of either room, needed painting, it appeared that someone ought to squawk.

A meeting was arranged between B&G, house officers and Mr. Tahnam. As a result the bill for repair work still stands but the houses will only be charged for a part of the painting, that for which the students are responsible—\$40 worth. Other cases were brought up there.

Window Replacement

One and a half hours needed to replace a window pane! Two men were sent to look over the job. They took out the broken pane and cleaned up the frame. Both men went back, got a new pane and returned only to find that it was too large. Both men went to cut it down and returned to find that it was too small. Somehow a pane of the right size was acquired. One man then spent twenty minutes sitting at the top of a ladder trying to tell the other man on the

ROBERT A. MILLIKAN INTERVIEW

(Continued from Page 1)

During his career, he usually kept to a twelve hour or longer work day, which he calculated out for us would leave twelve hours for eating, sleeping, exercise, and reading. Dr. Millikan said, with the proper amount of exercise such a schedule could be followed; whether such a schedule should be followed by the Caltech undergraduate is a matter, he stated, "which should be left up to the individual."

Seeing that he had participated so much in athletics during his undergraduate years, we broached the subject of the proposed new gym in Tournament Park.

Physics Problems

"One of the first things that I tried to get (when he came here as chairman of the executive council in 1921) was a gymnasium," he said, adding, that it was felt that such a gym was not absolutely necessary because of the preponderantly mild Southern California climate.

Turning to more academic matters, we inquired what he thought about the problem-course method of teaching physics. During his years at Oberlin College, his knowledge of physics was largely self-taught, and gained by working problems, we learned from his autobiography. As far as teaching physics at Caltech is concerned, he said to us, "It's the best way to learn the subject. If you can't work the problems, you don't know the material. Solving problems will illuminate physical principles far more than a lecture series could," he said, adding that "the author of a textbook will be almost certain to include material earlier in the chapter with which to work the problem."

He himself worked through the whole of Sylvanus P. Thompson's ponderous and at that time new (1891) *Dynamo Electric Machinery* to satisfy the requirement for a Master's degree at Oberlin. Dr. Millikan informed us. Rising from his chair he walked to his book-shelves and handed us the copy to peruse—we agree, it was ponderous, and looked more than a little difficult, as we glanced through the yellowed pages.

Compulsory Assemblies?

The next question we put to Dr. Millikan concerned the weekly compulsory chapel services or inspirational services held before the war. When asked whether he thought such an assembly

(Continued on Page 4)

THE SQUARES' CIRCLE

I should like to take this opportunity to express my thanks to the Instituters for their work on the decorations at the ASCIT dance Saturday.

Of particular note were the services rendered by Mike Lourie, Swaroop Bhanji Deo, Phil Orville, Tom Stockebrand, Jack McEwing and, of course, Institutress Prexy Joe Cain, who coordinated the working parties.

Thanks also to Marian Farwell of Pomona and Jeannette Gow of Scripps for their terrific devils.

Their efforts helped us all to enjoy the dance just a bit more and made for a very nice evening.

**BOB DAVIS,
First Rep.**

ground about some metal clips for holding the pane in the window. Both men then went to get the clips and when they returned they decided that they weren't needed. And so on.

A faucet was broken in Fleming courtyard. Two men came, with no tools, to fix it. After a lengthy conference they made a number of trips to the shop for tools and parts, most of which turned out to be useless for the job. All this was done before they had taken a good look at the thing to see what was needed. A couple of hours passed before they got a job done which should have taken a half hour.

Dance Floor

There is always the case of the dance floor. B&G requires that they put it together. If the group using the floor does not have a man there to check upon them, the men from B&G may take all afternoon to do a job which should take an hour or two. The social chairmen of the houses have had to protect their budgets by doing just that. Someone has had to see that they didn't sit around most of the time they were supposed to be there working.

B&G holds a contract with the other departments. This, they say, is to keep people from going off campus to have their work done. The claim is made that they can do the work for less. They should! They have no overhead for space and facilities: their men are non-union.

But if they do the work for less and do it well, why would anyone go off campus? Or, if B&G isn't convinced of this, shouldn't they take it upon themselves, as long as they bind everyone to using them, to make sure there is no reason for anyone to want to go elsewhere?

Of course, we could set up a system whereby each B&G man is followed around and checked on. But we are under the impression that this is not a kindergarten. We don't have time to follow anyone around. If work needs to be done and B&G wants to do it, fine. But let's get it done and, as they say, for less. Otherwise B&G does not serve its purpose and we should look elsewhere.

**Who Dealt
This Mess**
By JOHN ROGERS

There are two occasions in which the old saying, "Always pull trump before fooling around," is not correct. One occurs when the trump suit would be dangerously shortened so that control of the opponent's long suit will be lost or so that losing cards cannot be ruffed. The other occasion comes when there is not time enough both to pull trump and get rid of other losers.

The following hand is an instance in which all of declarer's trumps must be used for ruffing:

S —
H Q,J,9,6,5
C 10,8,7,6,5,4,3,2
D —
S A,10 S K,Q,J,9,6,4,3
H 4,3,2 H —
D 9,8,10 D A,K,Q,J,7,3
C A,K,Q,J,9 C —
S 8,7,5,2
H A,K,10,8,7
D 6,5,4,2
C —

The bid is four hearts. The opening lead is the king of clubs, which south trumps. If south now leads trump three times in order to exhaust all his opponent's hearts, he will, even with all the high trumps, take just three heart tricks and four ruffing tricks for a total of seven. The contract will then be set three tricks.

Trump

The correct plan for declarer is simply to lead spades and diamonds from his hand, trumping on the board, and returning to his hand with four club leads. By this method south will make ten tricks, and thereby the contract, by ten trump tricks, between the two hands.

How to Set

It should be noticed that west could set the contract by leading a trump on the opening lead, thereby reducing declarer's trump length.

The following hand is one in which south, the declarer at five diamonds, does not have time to take out his opponent's trump:

S K,J
H 8,6,4,3
D J,10,7,3,2
C A,9
S 9,7,5,4 S 8,6,3,2
H K,10,5 H Q,J,9,7
D 6 D A,5
C K,Q,J,10,8 C 5,4,3
S,A,Q,10
H A,2
D K,Q,9,8,4
C 7,6,2

The opening lead is the king of clubs, which south takes in dummy with the ace. Now if declarer leads trump, west will take

(Continued on Page 4)

CAMPUS BREWINS

The masses are asses—Heraclitus

Sadly pondering this bit of ageless wisdom from the Golden Age, the Beak put aside the dog-eared text and sat contemplating, with infinite understanding, the degraded state to which humanity had sunk since those glorious days. Then, all the compassion of which his great soul was capable welled up within him, and he was forced to remove a tear from the corner of his eye.

And yet there was a brighter side to all this misery—a pewter mug amongst clay chamber pots, so to speak. In one week he could retire from the turmoils and frenetic activity of his life, too close to this world. He could retire to that retreat which he alone knew, that mountain top where he could in solitude contemplate his navel, or any other thing equally worthy of contemplation.

Regaining control of his emotions, he strengthened himself to observe one last time the follies of his fellow beings. Buttoning his rough house coat of woven-wire hyper-tweed about him, he set out into the smoggy night to be a voyeur.

Who Was Fust?

His wanderings took him eventually to the Fleming Stag, held for additional intimacy at the local Elks' Club. The atmosphere was accordingly fetid and steamy, and the visages therein ensnared wore Fustian stares. Heavyweight pugilists Barrie and Katz gave dancing instruction to the assembled multitudes, and the Sicilian trepak was featured. Hours of confused scuffling proved nothing more than a lack of both spunk and condition on the part of both contestants. Fittingly, the affair was adjudged a draw, and piquant fruit rinds were served to the exhausted participants.

The atmosphere did not lag however, and thrill upon thrill were soon to succeed each other. The customary annual awards were made: ex-social chairman Bud Klarfeld procured the most enviable one, while Sellen held the company enthralled as he debited intimate but interesting information pertaining to those assembled.

Outgoing Pope Barrie thereupon revealed his spiritual successor, George Cooke, and the customary christenings were forthwith performed. The Beak cannot but await with baited breath what this selection will augur. These important matters having been attended to, the evening became exceedingly ripe, as such evenings will, amidst an atmosphere of ever-increasing smoke and beer fumes.

The subsequent entertainment was unanimously declared to be

more semiprof than anything else, and the Beak cannot but concur.

The Great Fall

In another metropolitan quarter, how to choke while plunging from the water-wagon was brilliantly demonstrated by Mono-aspirin Corbato. At a small party in honor of a departing friend, several moles of gracious living were assimilated into his defenseless grey cells. Finding themselves in so agreeable an environment, they implanted themselves therein and proceeded to open the gates of Corby's ego. After three weeks of little or no exercise, however, his ego was in no condition to be stimulated, and returned to its inner regions, disgusted with this dry world, and more especially with the lack of Angostura at its gates.

Overcome by an overwhelming drowsiness, our hero gently placed his physiognomy upon a stone wall which happened to have got in his way. Upon his recovery, he returned to the party, only to discover that his friends had taken on a mottled, striped appearance, characteristic of zebras. Solicitous scrutiny by friends revealed that F.H.'s plastic spectacles had been neatly scratched, thus producing the singular effect.

Dismayed by the loss of his expensive, rose-colored windows, through which he was wont to consider Smythe problems, he climbed back on the water-cart. Satan Stomps

Helping him to resume his accustomed place, ephemerically occupied, the Beak then turned to another Saturday night affair, public sponsored instead of private. Satan's Stomp proved to be a mitigated success, except for the absence of the much-publicized Dr. Faust, which was keenly felt by all present.

Ted Smith was espied squiring his customary miniature date, much to the envy of everyone, while the Olympic Kubic, caving around with abandon, was seen to do nothing much of anything. Liquid libations proved to require notarized birth certificates, but the Beak's dismay at this was offset by the sight of house-lover Knoepfle escorting a somewhat Wagnerian date, who appeared to be beyond him in more than one respect.

The story of the week belongs to Ray Bowerman. This Junior engineer engaged in the formidable project of getting down to 110th St. and South Broadway to see one of his late high school friends (female). This is the third week that Bowerman has tried this and the third time he has failed.

The last attempt occurred Saturday night, when Ray, fortified

The California Tech

Published every Thursday during the college year except during examinations and holiday periods.

California Institute of Technology
1201 East California Street, Pasadena, Cal.
Subscription rates: \$1.50 per year.

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

Offices: Lower Fleming
Telephone: SYcamore 6-7121 Ext. 180

Bob Kurland, Editor

EDITORIAL STAFF

Managing Editor.....Charlie Steese
News Editors.....Duane Marshall, Budd LeToursneau

Sports Editor.....Jesse Weil
Feature Editor.....Bill Whitney

News Staff.....Tom Benson, Tony Malanowski, Duane Marshall, Lawrence Starr, Ed Pyatt, Stan Groner, Al Eschner, Bob Madden, Ed Worrell, Scott Lynn, Jim LaTourette

Special Writers.....Carl Fox, Bill Whitney, John Rogers, Bob Stanaway

Sports Staff.....Perry Vartanian, Jesse Weil, Ed Welch, Steve Pardue, Dick Tracy, Dave Nowns, Leon Michaelson

Copy Staff.....Barney Engholm, Chief; Charles Benjamin, Dick Rodbury, Bob Cobb, Don Tierney, Mike Mecherikoff, Photographers.....John Boppert, Chief George Stranahan, Bob Parnes

BUSINESS STAFF

Manager.....Bill Bradley
Circulation Manager.....Chuck Walker
Business Staff.....Charlie Steese

by nectar from the Gods, took off in his automobile. Unfortunately, he made a wrong turn on Huntington Drive which caused him, twenty miles later, to run across California St. just about the time he figured he was in Watts. This and his school work must be too much for Ray. Monday night he was heard swearing that there was a rabbit (that he had seen for the last several months) which roared across Tournament Park, exactly at the same time each day, twice a week.

On Sunday morning some of the more enterprising frosh of the ASCIT came home from the Oakmont, donned jeans and went out again at 4 a.m. in the morning. Only when the sun rose was the fruit of their labors revealed for all Pasadenians to see. The T was again cleaned off.

Next Train for Nirvana?

They say the guttered candle always gives one final spurt; the condemned man always eats his last hearty meal; and so it is with us. For lo, this is the last of Das Braun till another year.

Before we, the Beak, haste away to our own private Nirvana, first we too must pass the final trial by Fire—you know what.

Apropos of trials by fire, we cannot but view with admiration, as a gesture unparalleled in princely condescension or unexcelled in savior faire, the action taken by the Institute in formally inviting the Seniors to their own graduation. Such thoughtfulness and graciousness make us almost humble. An after-thought, though—Emily Post would have been sure to add an RSVP.

And so, buttoning our rough house coat about our chin, we trudge off toward the hills.

For tonight we'll merry merry be

For tonight we'll merry merry be

Tomorrow we'll be sober.

"SMARTEST UNDER THE SUN"

Get ARROW Basque Shirts HERE TODAY!



\$1.25 up

Drop in today and see our new collection of

Arrow basque and gaucho knits. They're perfect for golf, tennis, and beach wear—casual, colorful and comfortable. Your choice of stripes, solid colors or white!

HOTALING'S

TWO STORES FOR MEN

54 E. COLORADO ST.

921 CLOSED DURING REMODELING

FOR ARROW UNIVERSITY STYLES



Engineer Golfers Rally To Take Conference 2nd

The four graduating seniors on the golf team carried Caltech to second place in the Conference golf tournament held last Friday at Whittier's Hacienda Country Club. As it turned out the two juniors on the team just went along for the ride. The team had hoped to take home the winning trophy, but a barrage of high eighteen hole scores dropped us into second behind the favored Pomona.

Last After 18

Play started on the first tee at 8:00 in the morning, with the dew still on the ground and a chilling wind blowing down the Hacienda "venturi tube." At the end of the first eighteen Pomona led by two strokes over Oxy, with Tech and Whittier holding down the tail end. The second eighteen was a different story as the Beavers pulled themselves up by the shoestrings and climbed into second by five strokes. After all the smoke had subsided and the score board could be read we found that Pomona had totaled 654, Caltech 665, Oxy 670, Whittier 672, Redlands only had two men representing their school and their two man total compared with the others four man scores was 323.

High Scoring

The individual scores were not (Continued on Page 4)

58% of Tech Men in Sports

Director of Athletics Hal Muselman announced this week that Caltech is again approaching pre-war conditions as far as student participation in athletics is concerned.

58% Participate

Out of an average enrollment over the year of 681 students, 393 of these took part in some form of organized sport other than P.E. This includes varsity, frosh, and interhouse sports. Percentagewise this is 57.71%; the pre-war high was about 75% participation.

When these figures are broken down, it is found that 82 men were in only intercollegiate competition, 128 in only intramural sports, and 183 took part in both intercollegiate and intramural sports. A total of 265 men were in intercollegiate athletics and there were 311 in the intramural program. The percentages of the whole student body are 38.91% and 45.67%, respectively. These figures show a very healthy and active interest in sports at this school but the athletic department still hopes to get a larger proportion of the students into competition.

The above figures are very good when one considers that 212 students or 31.13% of the whole are excused from all athletic participation because of age or military service. However, many of these men come out anyway just for the love of the sport.

Rowdies, Red Top Houses

When the above figures are broken down by house, we find Ricketts and Fleming sharing the lead for most participation. The Red is ahead of all others in men in intercollegiate sports with 63 and a percentage of the house of 57.80.

In Interhouse the Rowdies show the way with 68 men turning out for a rousing 64.15%. Ricketts also is ahead in total number of men out for all types of sports with 82. All the houses but Throop had between 63% and 77% of their membership out for some sort of sport.

Although Throop always has a large number of men out, its percentage of participation is always less than the rest because many of the members are older

It is among those men who (Continued on Page 4)

Frosh, Smith Wins Scott Turney

Last Friday the finals of both the Scott Tennis Tournament and the Novice Tournament were played. The two contenders for the crown in the Scott Tournament were Palmer Smith and Jack Poindexter. Smith led the Frosh team all year while Poindexter captained the Varsity. Both men got to the finals as a result of upsets in the semi-final round of the tourney. Poindexter, in a close three-set match beat second-seeded Blanchard, the varsity's No. 2 man. Smith overpowered first-seeded Jack Martin in the semis by the scores 6-3, 3-6, 6-2. Smith, in the finals, had a relatively easy time with Poindexter, beating him by the decisive score 6-3, 6-2. Congratulations, Palmer.

Preston, Top Tyro

The novice laurels go to Howard Preston, who beat Jim McQuiston in the finals. Both men were contenders for the crown last year and this year's tournament ran true to form. Preston won his title fairly decisively, downing McQuiston 6-2, 6-1.

The number of contenders in this year's Novice Tournament was considerably less than those of last year. In fact, only 26 men competed this year, as opposed to twice that many last year.

These two events and tennis activities are of a formal nature for the rest of the year. Tennis classes will still be held, but school matches and tournaments are over. Next year we hope to see more, and better, tennis dazzling the spectators at Tournament Park.

At A Glance

BASEBALL—

Caltech, 14; Redlands, 13.

Caltech, 4; L. A. State, 0.

L.A. Pacific College, 4; Caltech Frosh, 3.

GOLF—Conference Meet

Pomona, 654.

Caltech, 665.

Occidental, 70.

Whittier, 672.

Redlands didn't show.

FINAL INTERHOUSE STANDINGS—

Fleming, 14½.

Dabney, 11½.

Blacker, 10½.

Throop, 8½.

Ricketts, 8½.

YOUR COLLEGE RECORD SHOP

Headquarters for the best selections in

RECORDS - RADIOS
TELEVISION

L. C. TAYLOR CO.
145 N. Lake Sy. 2-5107

Open Evenings



YOUR COLLEGE SHOP

— DRESS WEAR
— SPORTSWEAR
— CASUAL CLOTHES

Fowler & Schrader

"Men's Distinctive Fashions"

Beaver Sports

41 Lettermen To Graduate

There will be many big gaps to be filled in the ranks of Caltech's athletic teams when the 1950-51 season rolls around. Altogether 41 lettermen are graduating on June 9th.

Among these are 10 four-year lettermen and 10 three-year lettermen. Thus we are not only losing numbers, but a terrific amount of experience as well.

Golf is being hit hardest, with four of the six squad members graduating. This year's crop will probably contain the last of the four-year lettermen. These men were allowed to compete on varsity teams during the war when they were frosh, since there were no frosh teams.

Life Admission

Those men who have lettered three times in one sport will be awarded special plaques at the Awards Assembly today. These plaques entitle the holders to free admission to all Caltech home games for the rest of their life.

Four-year lettermen and the sports in which they did so well in are as follows: Don Baker, F; Ted Bowen, Bb; Bill Cox, Bb; Mike Hall, Sw,Wp; Jay Montgomery, Bb; Dwight Schroeder, Tr; Jack Smith, B; Hal Tyson, Tr; Martin Walt, Tr; Ed Revay, G; Mike Sellen, Cc.

The three-year lettermen and their sports are: Al Eschner, Sw; Craig Marks, F; Jack Poindexter, T; Jay Montgomery, Sw; Ed Reineke, Wp; Gibson Oakes, Sw; John Moffatt, G; Charles Bennett, G; Virgil Sims, G; Jim Blom, Sk.

Graduating Lettermen

The list of all graduating lettermen is as follows: Jared Abell, Cc; Don Asquith, So; Don Baker, F,B; Don Barrie, G; Leon Bass, F; Charles Bennett, So,G; Jim Blom, Sk,F; Stan Boicourt, Sw, Wp; Ted Bowen Bb,F; Bill Bradley, Sk,So; Julian Brody, Tr; Odell Carson, F,Tr; Harry Clark, B; Bill Cox, Bb; Bain Dayman F; Al Eschner, Wp,Sw; Dick Fairall, So; Mike Hall, Sw,Wp; Ken Hammond, Sw; Eric Johannson, Sw; Merle Kam, B; Dave MacKenzie, So; Craig Marks, F; John Moffatt, GF; Jay Montgomery, Bb,Sw; Gibson Oakes, Sw; John Poindexter, T; Ed Reineke, Wp, Sw; Ed Revay, G; Jack Scantlin, So; Jim Schofield, Tr,F; Dwight Schroeder, Tr,F; Barry Schuyler, So; Mike Sellen, Cc; Virgil Sims, G; Jack Smith, B; Bob Stert, Wp; Hal Tyson, Tr,F,Bb; Martin Walt, Tr; Jim Wilcox, F; Ed Worrell, Sw.

(Code: Football-F, basketball-Bb, baseball-B, track-Tr, tennis-T, swimming-Sw, soccer-So, skiing-Sk, golf-G, cross-country-Cc, water polo-Wp.)

Tyson Puts In Compton Meet

Conference Champion Shot-putter Hal Tyson has received an invitation to compete in the Compton Relays on June 2nd. There he will put against some of the top men on the West Coast and perhaps in the nation.

Tyson is entering the meet with the express purpose of breaking the Conference record of 49ft. 4¾in. in the shot. At the Conference meet a month ago he came within a quarter of an inch of doing it. He did set a new school record at that time.

Rowdies Tops In Volleyball

The final sport of the I. H. series was completed in an exciting game between Ricketts and Fleming. In spite of the fact that Ricketts won I. H. volleyball, they wound up in last place in the overall tally for the year. The results of I. H. volleyball were: Ricketts (4W-10L), Fleming (3W-IL), Blacker (2W-2L), Throop (1W-3L), and Throop (0W-4L).

Fleming Wins, Loses

Last Monday the Fleming spikers downed Throop in two straight games to put Throop in last place and leave Fleming in a position to play Ricketts for the title. Tuesday's game proved to be even more thrilling than the fans who lined the court expected. The Rowdies took the first game (15-7), but the Big Red came back into the picture by winning the second game (15-8). The lead shifted back and forth several times in the third game with neither team getting the edge until gradually the Rowdies' lead grew, giving Ricketts the game (15-9). This was probably one of the best games that has been played on these courts, as both teams were playing very good ball.

Outcome Predetermined

The I. H. Trophy positions could not have been changed by the volleyball results, as can be seen by the final standings: Fleming (14½ points), Dabney (11½ points), Blacker (10½ points), Throop (8½ points), and Ricketts (8 points). Blacker piled up most of its I. H. points during the first of the school year, while Ricketts made a better showing at the end. Fleming, Dabney and Throop were fairly consistent throughout.

Here's a note to all you would-be Babe Ruths: only four months 'til I. H. baseball starts.

INTERHOUSE SPORTS FINAL RESULTS

SPORTS	B	D	F	R	T
Baseball	12½	22½	12½	5	22½
Cross Country	12	6	15	9	3
Basketball	20	20	20	10	5
Tennis	15	6	12	3	9
Softball	10	18	18	4	10
Track	15	10	25	20	5
Swimming	3	9	15	12	6
Touch Football	5	20	15	10	25
Volleyball	9	6	12	15	3
TOTALS	101½	117½	144½	88	88½

PASADENA BOWLING COURTS

970 East Colorado

Headquarters of Caltech Bowlers Open 11 a.m. to 1 p.m. Sy. 3-1341 Special Student Rate before 6 P.M. except Saturday, Sunday, and Holidays 20c Per Lane

We Highly Recommend

Carl's Caltech Barbers

On California St.
Near Lake

Beaver Slug Spree Downs Bulldogs 14-13

Redlands, Caltech Errors Lead to High Score; Karasawa, Smith Homer

Caltech's Varsity baseball team ended the season last Saturday with a hectic 14-13 win over Redlands. The Tech team collected those runs off of fourteen hits, two of which were home runs. Redlands got their runs on nine hits.

Fast Start

The Beavers started out right in the first inning. Karasawa lead off with a home run. Wise hit a hard line drive to short and

was put out by a beautiful play by the shortstop. Snider singled, Stallkamp singled, and both

runners advanced on the throw in from the field; Koons then hit a hard grounder to the pitcher and Snider was cut off at the plate. Pfeiffer singled to score Stallkamp and Jack Smith got a home run, driving in before him

Koons and Pfeiffer. In the meantime the Redlands pitcher took a shower.

Nothing eventful happened until

the fourth inning when men

were on second and third with one out, Gray got a hit which

drove in one run. The pitcher then walked Karasawa, filling

the bases, and Wise squeezed in another run. Then in the eighth

inning after they had lost the lead, the Tech team came

through to score six more runs, all six being scored after two

were out.

With two out and no one on

base Baker lead off with a single, Munro batting for Gray

got a single, Karasawa walked

to load the bases, and Wise

singled driving in two runs.

The pitcher then walked Snider and Stallkamp forcing in another run.

At this point the second

Redlands pitcher took a shower.

The first pitch by the new

pitcher was wild and the fourth

run of the inning came across

the plate. Koons then got a

single to drive in the remaining

two runs of the inning. This

gave the Tech team a two run

lead in the first of the ninth

inning.

Come From Behind

This was not enough to win the ballgame however, for Redlands scored two runs in the first of the ninth. Kam lead off with a single and was forced at second

HOUSE SOCIAL NEWS

Blackerites Go Down to The Sea for Weekend

This weekend the men of Blacker turn to the sea for their final social events of the term. Saturday will see an exodus to Emerald Bay, where Blackerites and dates will enjoy sun, sand, and refreshments liquid and solid.

Closed upon this festive occasion will follow one of the highlights of the term—an all-day excursion to Catalina on Memorial Day. Gathering at Wilmington at the crack of dawn, Blacker men and dates will embark via Sea Scout ship to the island, for a voyage around the island as well as the usual beach activities. Staggering back to Tech in the wee hours, Blackerites will bring to a close another term of varied and interesting social life.

Bowl to Offer Student Rates

Arrangements have been made with the Hollywood Bowl Association whereby Caltech students can purchase their Hollywood Bowl tickets at reduced rates.

A limited number of season tickets, either box or reserved seats can be had while the supply lasts at an approximate discount of 50% from the single sale price. Order blanks for these are now available at 106T.

We also will have later in the season the regular 90c General Admission tickets for 65c, and discount certificates which will entitle you to a 20% reduction on all reserved seats purchased during the season.

Tech Students To Form Warren Club

Anyone interested in forming a Caltech committee for the support of Governor Warren in the coming gubernatorial elections should see Doug Alverson in Dabney-20.

Last Friday night Doug and other Caltech delegates attended a meeting in Los Angeles with representatives of six other Southern California colleges to form a students' committee for Warren's re-election.

WHO DEALT THIS MESS

(Continued from Page 2)

his ace and lead back a club. Since declarer has an inescapable heart loser, he will then lose three tricks and go down one. But if south, before leading diamonds, will lead his three spades from his hand and sluff the losing club from dummy before east can ever get in the lead to lead a club, south will lose only two tricks and make the contract.

58% OF TECH MEN

(Continued from Page 3)

live off campus that our participation record breaks down, the percentages running 10 to 20 points higher in the houses.

Next year we should have an even better record, since many of the veterans will be graduating. This year's frosh class indicated the trend for the future when 69% of their numbers came out for organized competition.

ASSOCIATES VISIT

(Continued from Page 2)

liquid air show given by Dr. Watson.

After the foregoing attractions, about 50 of the Associates visited Fleming House.

Some students were demonstrating a Van de Graaf generator in Fleming Lounge. One of the Associates was heard to remark, "You can't leave it in the lab, you have to bring it home with you."

The program was closed with tea at the Athenaeum.

ENGINEER GOLFERS

(Continued from Page 3)

very pleasing in any camp. The low man of the day turned out to be Gene Smith of Oxy. His two round total was 156 following close behind was Cable of Redlands with a total of 157. Ortlieb of Pomona and Revay of Tech were far behind the leaders with 159 and 161 respectively. The low scores were not up to last year's low total of 148 shot by Ed Spur.

San Clemente Beaches Site of Last Dab Party

San Clemente is the site of Dabney's final party of the term. Winston is inheriting the Roycean custom of providing beaches for the Dabney troops. The party will be held on Saturday rather than Sunday, so as to give all seniors (well, CE's anyway) an excuse to come. The affair will get off to an early start if everyone leaves as soon as he wakes up.

There is a fine beach for loafing, a barbecue for cooking dinner, and a dance floor for evening entertainment. Surrounding the house is a large grassy, grassy, grassy lawn to make the escapist atmosphere overwhelming.

Schutz Elected To Phi Beta Post

Dr. John A. Schutz, Assistant Professor of History at Caltech, has been elected to serve a three-year term as councillor for the Southern California Chapter of Phi Beta Kappa Alumni at a recent meeting at Pomona College.

Dr. Schutz, well known to Caltech students both as a history (American and H 10) prof and as former debate coach, has been associated with the Institute since 1945.

He has recently been active in research on the history of the British West Indies and American-Britain relations.

Fellowship Elects Officers For '50-'51

Last Wednesday Frank Goodman was elected president of the Caltech Christian Fellowship for the first half of the 1950-1951 school year. Taylor Joyner, elected vice president, and Bob Adler, secretary, will serve with Frank in leading the activities of the group.

ROBERT A. MILLIKAN INTERVIEW

(Continued from Page 2)

should again be restored to the campus program, he first elaborated on the nature of this assembly. "This type of assembly was not altogether religious, although it contained some religious elements. It was more in the nature of a weekly inspirational gathering," he explained. "I was sorry it was discontinued during the war and I wish it could be restored now. It acts as a counter-irritant for over-specialization," which he mentioned, is a fault scientists are prone to.

The Two Supreme Elements

While we were on the topic of religious or inspirational assemblies, we asked Dr. Millikan whether he believed the proportion of atheists or agnostics was large at Caltech. He referred us to the chapter he thought his best work in his autobiography, "The Two Supreme Elements in Human Progress" (science and religion), and also to a 1948 survey in Fortune magazine, of 4000 creative scientists in physics, chemistry, and biology. More than 70 per cent of the scientists questioned believed in some sort of supreme being; Dr. Millikan firmly believed that the proportion was not less for the Caltech student body or faculty. "The combinations of science and religion provides today the sole basis for rational intelligent living," he stated in his autobiography, is the heart of his religious belief.

Returning to the subject of Caltech's educational policies, Dr. Millikan said, "We also try to offset this tendency of the scientist to over-specialize and lose sight of fundamentals, by giving the Caltech student a far more intensive humanities course than found in other technical schools."

Caltech's Aims

Referring us to his autobiography, Dr. Millikan amplified his statement about over-specialization and the type of scientist and engineer-Tech is trying to give to the world. Quoting from his autobiography, we feel that such a statement is a valuable indication of the educational goal of Caltech:

"Let me first state what the Institute is not.

"It is not an orthodox university, since it does not seek, nor permit, great numbers of students, and since it does not embrace, nor wish to embrace, within its activities all the fields of human knowledge...

"It is not an orthodox college, since it does not concern itself primarily with the field of collegiate education...

"It is not simply a technical school, since it is striving to do what no technical school has ever yet attempted, namely to build up on one foundation a great center of creative activity in both pure and applied science, and to turn out engineers with such a cultural background as engineering schools have in general never been able to impart.

"The Institute represents a unique combination of all three of these educational ideas.

"The Institute is a university in the sense that it is developing a graduate school in which profound scholarship and the highest order of creative work are found.

"It is a college in the sense that it confers the bachelor's degree and aims to cultivate intensively the humanities through devoting special attention to English, including Literature, history, and economics. It is the only institution of any sort in the world, so far as I know, from which no man can graduate without having had four consecutive years in the humanities, which at CIT include English, history, economics, philosophy, and ethics.

"It is a technical school in the sense that it is attempting to give the men who go out from its walls a cultural background and

such a thorough training in the fundamentals upon which all engineering rests as will enable its graduates to take a more outstanding place in the progress of industry and science than would normally be open to them."

This is a tall order to fill, and we asked Dr. Millikan whether he still thought that these aims, taken from an early speech at CIT, were being accomplished in training students, he firmly responded, "Of course; just see the men we have turned out here!"

Dr. Millikan still has not relaxed his active role in Caltech affairs; he is vice-president of the Board of Trustees, still has a maximum of only seven hours sleep a night, and still, although not taking an active part in research, keeps up with all Tech activities, and still is one of the great forces behind Caltech.

HONORS, TROPHIES

(Continued from Page 1)

excellent record.

This year's winner, James LaTourrette, has been active in sports and campus activities, while maintaining a grade point average of 3.67. He has been president of the Freshman class, and has been elected Sophomore class president for next year.

He has served on the Rally Commission, the Frosh Luncheon Club, and has been a reporter on the staff of the California Tech.

LaTourrette has in addition won numerals in Frosh football and Frosh track, and has been out for spring football practice. He has participated actively in House social functions, and has done part-time work.

Debate Awards

The achievements of the members of the debate team were recognized by Lester McCrery, debate coach, who presented the forensic awards. A jewel for third year participation went to Ulrich Merton. Second year jewels went to Alan Beek, Ray Brow, Ollie Gardner, Stan Groner, John Rogers, Ralph Stone. Gavels for first year participation were received by Swaroop Bhanji Deo, Larry Dyer, Doug Calley, William Dibble, Dick Fairall, Michael Lourie, George Merkel. Certificates: Jesse Weil, Dick White.

Athletic Trophies

Trophies were presented to three outstanding athletes. Coach Preisler presented the alumni baseball trophy to stellar baseball players Richard Y. Karasawa and Norman E. Gray. Winners of

the recent tennis tournaments, Palmer Smith and Howard Preston received the Scott tennis trophy and the novice award, respectively, from Coach Lamb.

Interhouse Contests

The winners of the Interhouse contests received their awards at the assembly. Mr. Tanham presented the Goldsworthy interhouse scholarship trophy to Dabney House. The interhouse sportsmanship trophy and the varsity rating trophy were once again presented to Fleming House by Mr. Musselman. Pete Price, president of the Caltech Ski Club, presented the CSC skiing trophy to Dabney House.

The assistant yell leaders of this year, Chuck Miller and Leo Baggerly, were given their emblems by Ulrich Merton, in his capacity of head yell leader.

Other Awards

The names of other award winners follow.

Honor certificates: Donald R. Baker, Robert E. Cobb, Fernando J. Corbato, Robert S. Davis, Frederick W. Drury, Fred H. Eisen, John R. Fee, Alan H. Haber, Earl C. Hefner, Robert J. Kurland, Robert A. Laff, Dan B. LeMay, Jay A. Montgomery, Dallas A. Peck, Dwight C. Schroeder, Robert E. Stanaway, Lawrence D. Starr, Donald K. Tautz, Edwin C. Welch, Peter V. Mason, William V. Wright.

Ego!

He—Do you know the secret of popularity?

She—Yeah but my mother said I shouldn't.

At the University of Texas and Colleges

and Universities throughout the

country CHESTERFIELD is the

largest-selling cigarette.*

ZACHARY SCOTT

Famous University of Texas Alumnus, says:

"I have always smoked Chesterfields and I know that you'll like them, too."

Zachary Scott

STARRING IN

"GUILTY BYSTANDER"

A LAUREL FILMS, INC.

EDMUND L. DORFMAN PROD.

RELEASED BY FILM CLASSICS, INC.



ADMINISTRATION LIBRARY BUILDING

UNIVERSITY OF TEXAS

A Always Buy CHESTERFIELD

They're MILD! They're TOPS! — *IN AMERICA'S COLLEGES WITH THE TOP MEN IN SPORTS WITH THE HOLLYWOOD STARS*

Copyright 1950, LIGGETT & MYERS TOBACCO CO.

*By Recent National Survey