

## Annual awards assembly slated

### Pike Concert here May 30

The Dave Pike Concert will present two hours of "cool" jazz at 7:15 p.m. on Memorial Day in Culbertson Hall. The concert will be given in the evening so that students may bring dates and those who will be gone during the day may attend the performance. The program will consist of two one-hour sessions and will be recorded.

The album will appear on the "Gene Norman Presents" label and will be entitled "Jazz Goes to Tech." Dake Pike, noted for his cool and different arrangements, has currently been playing at Zucca's Cottage in Pasadena. The Quartet is a local group which works with Gene Norman and will include a bass, drums, Dave Pike at the vibes, and Paul Blake on piano.

## World News

### DISARMAMENT

Since its formation the UN committee on disarmament has done about as much talking as it is possible to do without accomplishing anything. The Russians have used it as a fine place for "spouting off" about war-mongering capitalists.

The principal stumbling block has been the Russian insistence on an immediate ban on all atomic weapons while we have asked for guarantees, such as UN inspectors, to keep the Russians good.

### Inspection plans

Last fall Eisenhower suggested a new inspection plan. The general idea of the open skies inspection plan is for the US and the USSR to fly over each other's territory periodically, and take pictures of suspicious looking buildings and airports. Also there have been mentions of ground observation posts at major cities. The Russians have now come up with a new angle on the "open skies" plan. They say they will accept the plan but to be fair equal areas must be used—a square mile of Russia under surveillance per square mile of the US. This is just dandy. Russia is a bit bigger than the US. As a matter of fact the Russians could let us watch Siberia while they watched all of western US. While there is nothing much in Siberia the western half of the US has an awful lot of gadgets like aircraft factories. Again we are being invited to cut our throats.

Richard Neville

## Nelson to head Tech Drama Club

The Caltech Drama club closed off another season with the elections of the new officers Thursday evening. Elected were Wayne Nelson, president; Arnold Goldford, treasurer; Bob Thompson, secretary. Herb Rauch, the outgoing president, thanked the whole student body for their participation and support throughout the year.

Caltech athletes, debaters, and those participating in extra-curricular activities will be honored Sunday, May 26, at the annual Spring Awards Assembly which will be held in Tournament Park at 4:00 p.m.

Honor keys and certificates will be awarded along with the Interhouse, Varsity Rating, and "snake" trophies. The Tau Beta Pi outstanding freshman award will also be presented at this time.

Among the athletic awards to be presented are varsity letters for spring sports including swimming, track, tennis, baseball and golf, along with the all-conference plaques.

There will be a steak barbecue immediately following the presentation of awards. Tickets are available at \$1.50 apiece from Russ Pitzer, Glenn Converse, Tony Leonard, and Tim Harrington.

## Lack of material kills '57 Hot Rivet

Plans for the production of a Hot Rivet this term have been canceled due to lack of material.

The California Tech had intended to produce a humor issue, the Hot Rivet, next week. However, Brad Efron and Marty Tangora, prospective editors, had received so little material than the effort was called off this week. The Tech hopes, however, to produce a Rivet next year.

This issue is the last that will appear this term. The Tech will be rolling again when school starts next term.

## Lewis, Pauling, Beadle add to nuclear bomb controversy

by Howard Weisberg

"I would not say that the members of the Atomic Energy Commission are trying deliberately to delude the American public. However, their job is the design and testing of atomic weapons, and it is only natural that they strive to keep public opinion favorable to continuance of their program."

This opinion was among those expressed by Dr. Linus Pauling, noted Caltech chemist, during a recent television interview on the subject of the hazards of nuclear bomb testing.



Dr. Linus Pauling

New interest in this perennial topic was aroused recently by a statement by Dr. Albert Schweitzer asking for an immediate end to bomb tests.

Besides Pauling's interview on the television program "Eye to

## DuBridge to speak, confer 200 degrees at graduation

### AFROTC

### Honors given; drill team 2nd in coastal meet

Last Friday the Caltech AFROTC drill team took second place in the first annual Western States Competition at San Francisco. First place was won by the University of Hawaii.

Prior to competing in San Francisco, the 24-man group won the Southern California competition for the fourth time in the past six years.

This year the drill team was commanded by Cadet 1st Lt. Clarke Bell. Cadet Major Craig Elliott, ersatz Cadet Commander and ASCIT president, was in charge of training the unit.

Awards and decorations were presented to 47 cadets on Wednesday, May 15, at a ceremony and review held in Tournament Park. At that time the drill team presented a series of maneuvers from the Queen Anne's Manual of Arms.

The biggest honor of the day, the President's Medal for outstanding academic achievement, was awarded to Wilfred Iwan by Dr. Lee A. DuBridge, President of Caltech. Paul C. Eaton, Dean of Students, presented the Dean's Medal for meritorious military and academic achievement.

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## Senior-faculty softball game, reception and luncheon to be held on June 6th

Graduation exercises of the Class of 1957 will be held on the Athanaeum lawn at 4:30 p.m., Friday, June 7.

The commencement exercises will be given by the President of the Institute, Dr. Lee A. DuBridge, who will also confer the degrees. Major General Jack W. Wood, U.S.A.F., will commission as Second Lieutenants in the Air Force Reserve graduating R.O.T.C. students. The Rev. John H. Burt of All Saints Episcopal Church will give the invocation and benediction.

### Class Day

Parents, as well as members of the graduating class, have been invited to the series of functions which will occupy Thursday, June 6, the day preceding Commencement. At 10:00 a.m. the faculty softball team will get in some practice on the seniors in preparation for the annual frosh-faculty game at frosh camp next fall. After a luncheon at 1:00 in Fleming will be the Class Day exercises in Dabney Lounge. At 8:00 p.m. President DuBridge and the Trustees will give a reception in honor of the Class of '57 at the President's home at 415 South Hill Avenue, from 4:00 to 6:00.

Approximately 140 Bachelor of Science degrees and 60 Ph.D. degrees as well as smaller numbers of M.S. and Engineer degrees will be awarded at Friday's exercises.

### Prizes and Awards

Prizes and awards presented at the exercises will include the Don Baxter, Inc. Prizes in Chemistry; the Conger Peace Prize which will be awarded to Kenneth Scholtz; the Mary A. Earle McKinney Prize in English, which will be awarded Marty Tangora; the Don Shepard Award, given annually to outstanding residents of the Student Houses to enable them to pursue cultural opportunities, which will be received by Robert S. Johnstone, Blacker, and Andrew Perga, Dabney; the Thomas Hunt Morgan Memorial Award, in biology; the Sigma Xi Award, to be awarded this year to Mark F. Meler, a graduate geology student, for outstanding research; and the Fredrich W. Hinrichs Memorial Award, awarded annually to "the senior who, in the opinion of the undergraduate Deans, has throughout his years at the Institute made the greatest contribution to the welfare of the student body and whose qualities of leadership, character, and responsibility have been outstanding." The winner of the last-named award will not be revealed until announced at commencement.

## SCOREBOARD

**BASEBALL**  
Occidental 2, Caltech 1  
Caltech 10, Cal Poly (SD) 9  
Whittier 1, Caltech 0 (no hitter)  
Whittier 10, Caltech 3

**GOLF**  
Pomona, Occidental, Caltech, Whittier (Conference Tournament)



Dr. Lee A. DuBridge

## Scholarship applications now available

All sophomores, juniors, and seniors are eligible to apply for scholarship grants for the 1957-58 academic year provided they (1) have financial need, (2) have satisfactorily completed throughout the preceding year at least the normal number of units required in their respective options, (3) have completed the preceding year with an over-all grade point average of at least 1.90. Awards will be made on the basis of relative need and in order of rank in class to the extent of the funds available. Until the demand is known no estimate can be given of how far down the rank list in each class it will be possible to go in making awards.

### Increased tuition

The Committee on Undergraduate Scholarships and Honors points out that commencing next September the tuition will be increased to \$900 a year and this fact will be included in estimating need and making awards. In recognition of this increase the Institute has set aside from its general funds a larger amount for undergraduate scholarships. The Committee does not want any applicant for scholarship assistance to be forced to attend under conditions which will impose a genuine financial hardship on him or his parents, but this goal can be approached only if everyone will consider his need carefully and with due consideration for others. The Committee will again use the figure of \$700 as the amount which it will expect each applicant to earn and to apply on his college bills in a twelve month period from June 1957 to June 1958.

### Parents' confidential form

In order to make application for scholarship grants, eligible students must obtain a Parents' Confidential Statement form in the Admission Office, 113 Throop Hall before leaving for summer.

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### Unresolved question

Despite the lengthy past of the bomb test controversy, it is still not resolved. Furthermore, the American public has gained the impression that there is no agreement on the subject among scientists.

For example, Dr. Libby, the only scientist on the AEC, said recently, "The risk from test fallout is extremely small... fallout radiation exposures at the present rate of testing are far too small to result in observable effects among the population."

### Genetic defects

Yet a statement made simultaneously by Pauling said, "One superbomb... will cause the deaths from cancer and other diseases of 100,000 people now in the world and will increase by 20,000 the number of seriously defective children born in the next generation."

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Editorial

Grading system under review

It has been brought to our attention that the Faculty Committee on Educational Policies has presented certain recommendations to the Faculty regarding the present grading system. This seems a fitting time to examine the deficiencies of the system as seen from the students' position.

The worst fault of the present system is the prime position grades hold in campus life. Grades derive this importance through a multitude of difference pressures, both at school and away from school:

1. The new student at Tech makes every effort to maintain the honor grades to which he is accustomed. Upon discovering that it will be much harder than he first imagined, almost every student increases his efforts, eventually to the exclusion of all other activities (some claim to the exclusion of creative thought). Eventually (in two or three years) he discovers that he has absolutely no hope of getting an A average, and he finally swallows his pride and returns to a normal existence.

2. Many instructors feel that grades are of prime importance, and they pass this feeling on to the students. Such techniques as "surprise tests" and grading down for tardiness give a student the feeling that the goal of the course is the grade rather than the acquisition of knowledge.

3. Students who are on the borderline for either reinstatement or scholarships know that every slight change in a grade may make the big difference. Therefore they feel obliged to bargain for points on tests, and they keep good attendance at class in order to get the benefit of the doubt.

4. No student is sure of his grades until finals. Finals can make the difference between an A and a C average for any individual student. The competition is stiff enough that if a top student has a "bad week" during finals he may find himself with a 2.5 or less. As a result every student has that vague feeling of insecurity all terms.

5. Graduate schools and employers (whether it is true or not) are reputed to weigh grades heavily as they sort through their applications.

6. Families and friends, accustomed to good work by the student, become critical and disappointed when the grades fall off.

The difference in grading between Tech and other schools is not generally recognized as being so great.

Not an adequate measure

But not only is the system overemphasized, it is not even an adequate measure of knowledge gained. In such courses as freshman and sophomore math and physics, grades reflect native ability as much as mastery of the material. A student with high problem-solving capacity can gain an excellent score on a three-hour problem final with only a cursory understanding of the material and a slight familiarity with the text. But a student who has a complete mastery of the course but is fairly slow at solving problems can never hope to score above average.

Also, certain upperclass courses emphasize daily homework in the grade. In some cases these homework assignments are rather trivial, so the better grade goes to the student who studies at a slow consistent pace, while the student who feels that sprints of studying are more efficient finds that he is getting poor grades.

The greatest inequalities in grading, however, are between courses and between instructors. The engineering options at Tech are generally much easier, grade-wise, than physics and chemistry. And some instructors feel that C should be the average grade while others give A's and B's almost exclusively.

EPC minority proposal

The present proposal, raising the average such that 25% of the students will get A's and 50% B's, does not get to the root of most of the problems. Students will still be conscious of distinctions, and many will still try to attain the top 5% or so. Instructors will still hold grades as a weapon to achieve cooperation. Borderline students will still have to scrape and fawn to survive.

Naturally the proposed system does not even attempt to deal with the problem of inconsistency. It is probably impossible to devise an entirely fair grading system. For this reason we suggest that the Faculty seriously consider dropping all attempts to achieve an exact measure of this type.

The present situation seems almost ridiculous if viewed from the proper light. With one breath it is being argued that an accurate rating of the students is needed for honors, scholarships, reinstatements and the general public. With the next breath the Educational Policies Committee is pointing out that no accurate rating is possible.

In view of the inaccuracies of the system, it might be more realistic for the scholarship and reinstatement committees to investigate all borderline cases, evaluate the benefit the student is getting from the school as a whole instead of drawing an arbitrary line between two grades.

But, if this is done, the need for an accurate system is removed, and there is an opportunity to replace it with a less exact system.

The problems center around the lack of meaning of A's, B's and C's, and especially their subdivisions. D's, E's and F's are pretty clear to most people.

Our proposal

A practical solution might be to substitute only two designations for the present ten above D. These would indicate "satisfactory" and "honor." No averages would be compiled, and the sense of fierce competition would be reduced to the desire for "honor" in each course. Grades would have little interest in any particular course if some 75% of the students received the same "satisfactory" grade.

The present system would probably be retained in class work, to provide incentive and to indicate to the student the caliber of his work, but it would not be made a matter of permanent record.

California Tech

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Secretary's Report

STUDENT CAMP

Considerable dissatisfaction with the method of picking student delegates to Frosh Camp was expressed. Efron and Godfrey will present a list of concrete suggestions next week. We hope to alleviate the situation that each year people feel that they have not even had the chance to be considered.

MOBILGAS ECONOMY RUN

The Board, in view of the interest shown by the Student Body, feels that Caltech should make every effort to retain its position as the source of official observers. This question has been raised due to the fact that Dr. Kyfopoulos will not be with the Institute next year.

FROSH SWIMMING

The following were awarded numerals in Frosh Swimming: D. Tucker, W. Stolz, P. Rony, R. Thompson, D. Mitchell, M. McLennen, and Manager G. Zimmerman.

VARSITY TENNIS

The following were awarded letters in Varsity Tennis: F. Cormia, D. Yount, T. Hays, B. Mueller, R. Tokheim, T. Warriner.

BIG T ASSESSMENT

It was finally decided by a split vote that we were not justified in spending \$600 from the ASCIT general fund for student pictures in the Big T. However, complying with a request made by Reed Saunders (Editor of next year's Big T), the Board will submit to a vote of the students a proposal to increase the present Big T assessment by one dollar for the specific purpose of giving to each student the chance to have his picture taken free of charge.

Since legally this cannot be voted upon until the fall term, more will be said about this issue at that time.

COMMENT

It is unfortunate that ideas of how and for what purposes ASCIT money should be spent were not more clearly established by the Board. However, questions such as how should large, and unusual surpluses from publications be handled have added to the difficulty in dealing with this year's budget. Overall, despite long and inefficient discussions, the budget will, I feel, work out to be fair in almost all respects.

Michael Godfrey ASCIT Secretary

Letters

to the Editor

We have been getting some very fascinating mail recently: HI Doll!

Here is all the jazz on my number one choice Limey sportscar. Impress your readers that I am no "old lady from Pasadena." . . . (I believe in RPMs).

MG TF-1500 (1955); black; bright red leather interior. This car is immaculate. Goodies include: Al Davis custom radio; Impact safety belts; white naughahyde full tonneau cover; a boot; Solex tinted windshield! steering wheel is wrapped and spoked; Radyot convex fender mirrors; cigarette lighter; sun visor; 4 new tyres with Dunlop striping; New glas-pac muffler with custom installation; Bermuda bell; and everything but hot and cold running women.

Naturally the car is clear. I, (a UCLA coed), am the very original owner. This MG is considered to be one of the sharpest, healthiest, most "choice" of all in town. I am a sportscar enthusiast with excellent taste. The VO of fuels, accessories and mechanics have been used. Price: \$1750, but I might come down a few shillings if I thing the car would be given a good home.

Reason for selling: I am going to St. Louis and drive back a new Corvette.

If you appreciate quality, and respect the TLC this automobile has been given, call or write (please, no scrounges):

miss polly seed 629 santa anita av. san marino 9, calif. days: AN. 37879; eves: RY. 1863

TLC—Tender Loving Care Thanks—love & stuff—

polly seed

(Ed note: Lessee, 1750 times 50 over 7 is, er, \$12500; less a few is, er, still pretty much 12500—shillings, that is.)

It is hoped that the Faculty, in its meeting Monday, will give very careful consideration to this problem, because it is of very great concern to the students. Whether the conclusions drawn here are accepted or not, it must nevertheless be agreed that the present system has bad effects and should be corrected at the earliest possible opportunity.



Shakespeare still enjoyable

"Two households, both alike in dignity, In fair Verona, where we lay our scene, From ancient grudge break to new mutiny, Where civil blood makes civil hands unclean. From forth the fatal loins of these two foes A pair of star-crossed lovers take their life, Whose misadventured piteous overthrows Do with their death bury their parents' strife. The fearful passage of their death-marked love, And the continuance of their parents' rage, Which, but their children's end, naught could remove, Is now the two hours' traffic of our stage; The which if you with patient ears attend, What here shall miss, our toil shall strive to mend." . . . and their toil did mend it well.

Shakespeare dramatized "Juliet" was excellent. more enjoyable than Shakespeare read, because the actors put life and reality into their parts that the printed page cannot. The Pasadena Playhouse production of "Romeo and Juliet" was excellent. The supporting cast, which had been billed quite highly, matched all that was expected of them. Gene Raymond as Mercutio, Romeo's fast-living friend, drew (Continued on Page 4)

Advertisement for Chesterfield King cigarettes. It features the text "IT'S FOR REAL! by Chester Field" and "OUR LAWLESS LANGUAGE" with a list of plural words and their correct forms. At the bottom, it says "Chesterfield King gives you more of what you're smoking for!" and includes a small illustration of a cigarette pack.

# Keisler Gambler-of-year; parlay pulls party prize

by Les Hirst

A Caltech sophomore mathematician, reduced to \$60 as closing time approached for the Casino Party at the Friday evening Lost Weekend festivities, emerged 10 minutes later in possession of \$6,600 and first prize as the evening's high winner.

Jerry Keisler of Blacker House denied a rumor that he will spend the summer in Las Vegas.

Jerry played the roulette wheel exclusively. His method was to play the "00" slot exclusively. However, this system had been so monotonously unsuccessful that Jerry had abandoned it until the fateful moment, 10 minutes before closing time, when his date, Lois Hoffman of Pasadena High, grabbed the last blue chip and put it on "00" for one more try—which won \$700. Jerry then began putting \$500 on each spin of the wheel but this system was so monotonously successful that he abandoned it to go all or nothing on one last gamble which won \$6,600.

Jerry was remarded for his feat with a fifth of Haig & Haig. Lois received a record album by Conrad Gozzo's band, which played that night.

Asked to comment on his amazing rags-to-riches success story, Keisley stated, "It was fake money."



by K. Sugahara

This week's column is dedicated to H. Weisberg. From the context of his letter we see some of the boys are having a bit of trouble concerning their diet. We have come up with a solution to part of their problem. Digging through our vast files we came up with the Koshier Kooler.

### Koshier Kooler

- 1 Jigger Rum
  - 1 Jigger Apple Juice
  - 1 dash Lemon Juice
  - 1 dash Lime Juice
  - 1 dash Genadine
- Shake with cracked ice and strain. Add large lump of ice and fill with chilled soda. Garnish with fruits in season.

Like all coolers this drink does not include any sugar. Sugar just makes you fat and doesn't add any cooling effect.

# Human Review

by Bob Blandford

A few people are bothered by the trend toward early marriage, but when they argue the problem with someone in favor of the trend, they seem unable to present a good case. Possibly this inability exists because the institution of a few "steadies" leading to marriage is close to the ideal pairing arrangement in our society which postulates the family as the basic unit and yet demands freedom of choice. The critical objection of these dissenters is the time scale—everything is begun and over so young.

Let me consider a few comments about college youth in Sweden where young people begin going steady in their early twenties. When a couple becomes serious they frequently do not wish to be married and so they continue to live at home while they attend school and begin work. They go on vacations together and register for the same room as—for example—Mr. Janson and Miss Windbladh. And mind—all this is regarded as the sane and intelligent thing to do. And indeed, why shouldn't it be so regarded? If the arrangement turns out unsatisfactorily, the situation will not result in a broken home.

I am not certain precisely how common an arrangement like this is. Anyway, such a relation is not frowned upon. The point is that in this way Sweden avoids many pressures for early, perhaps hasty, marriages and so extends the foot-loose period of youth.

We have a similar pattern in the U. S., except that Americans go steady and marry about five years ahead of the Swedes. This results in some differences. First off, the American teenager is hardly so affluent or sophisticated as the Swedish twenty-year old. That fact results in a technical inability to do such things as traveling together on vacation. In the past we have been watched more carefully simply because younger people are more likely to be just plain foolish. As a result of these legitimate restrictions, and a slight lack of maturity, younger people surely miss some rewarding experiences and are less sure of each other before marriage.

Although I have no statistics, it seems probable that early marriages may lead to later sexual experimentation which is unsatisfactory if we base society on a stable family. Now let us summarize.

People who marry early can-

not fully appreciate an intimate and sophisticated courtship. Secondly, the argument that early marriage will settle "young people" into a safe groove and thus make for a more stable society, (in part a questionable goal), may be wrong because these same people may later break up homes in search of sexual variety.

I suspect we are all aware of the advantages of early marriage since it is now the dominant philosophy. That is, "We share our growing pains and discover our personalities together. We have security and love. Our children are born while we are young so they are more healthy, and we can have several more—and we love children."

What is necessary before our time scale can shift to where marriage in the middle twenties becomes the ideal? First, as I have been led to believe, in Sweden there must be tacit social approval of non-married relations or else the situation will be unhealthy, for while restraint is possible and necessary for emotional growth, it is undeniable that youth's sex desire—though possibly over-rated—is hot-blooded.

Even now some college students find sufficient social approval for intimate relations before marriage; in some sense, and for many reasons, they are strong individuals and weaker people are unwilling to risk even tacit public disapproval.

The second condition for change is some weakening of the goal of settling down as young as possible to a comfortable home life.

Any change will come slowly, and since present day students are so quiet about what is happening in their social life, it may be that we will awake one morning in a "Swedish" society and not even know it has arrived. There are strong factions in the

# DOUBLED AND REDOUBLED

by Gary Breitbard

The above hand was encountered in the recent Interhouse Bridge Tournament. The bidding is necessarily my own invention since none of the four houses playing the hand managed to reach the proper contract of six spades. The only point which may be argued is North's jump to six spades on the assumption his partner has the ace of spades and one top club honor (the jack of spades and two club honors would also suffice). At any rate, the hurt cannot be much; so my fictitious North player arrives at the correct bid.

My reason in choosing this hand which, upon examination, becomes trivial, is to demonstrate an important principle which I discussed two weeks ago—the safety play.

North takes the opening lead in his hand with the king of diamonds. His immediate object is to pull trump. The question: how should he play the spade suit to minimize the possibility of losing a trick?

If the suit breaks 3-2 it will not matter. However, to blindly attack the suit under this assumption is to leave the door open to unnecessary defeat. If one of the opponents has all five spades it's just too bad. But if spades are divided 4-1 and the singleton is the jack or ten, there is a sure way of detecting this before it's too late. (Ed. note: At this point the writer realized that his plan would not work. But he went roaring head, regardless.)

The first spade lead should be an honor from North's hand. In this case the jack of spades falls from West's hand. The deuce of spades is then led toward the board. After East follows suit it is imperative that the declarer reach over and touch the ace of spades as though he were going to play it. However, he merely straightens it out. The important point is to carefully observe East's expression while this is occurring. If he breathes a sigh of relief or even indicates that he is about to, the nine of spades is finessed with surety. On the other hand, if East's expression remains stony, the ace should be played and West's ten of spades will invariably fall.

The only difficulty with this type of play occurs when East happens to be a cloddish, insensitive character who doesn't realize he's being finessed out of his ten.

North		East	
S-K Q 8 5 2		S-10 7 6 3	
H-Void		H-A Q 4 3	
D-A K		D-Q J 5	
C-Q J 7 6 4 3		C-8 2	
West		South	
S-J		S-A 9 4	
H-10 9 7 2		H-K J 8 6 5	
D-10 9 8 6 4 3 2		D-7	
C-A		C-K 10 9 5	

### Possible sequence of bidding:

West	North	East	South
Pass	1 C	Pass	1 H
Pass	2 S	Pass	3 C
Pass	3 S	Pass	4 S
Pass	6 S		

Opening lead: Queen of diamonds.

# The Bull Pen

by Ford Holtzman

Last spring a lot of words were spoken and written about an innocent little organization known as the Open Forum. These many words finally reached their culmination in the form of a pronouncement by the ASCIT Board of Directors to the effect that the Open Forum should not die, but rather that it should fade away. And ever since, they have been encouraging it to fade.

The criterion used by the Board to determine approval or disapproval of a speaker is most unique. They consider two factors: the value to be derived by the students in meeting the man, and the amount of controversy his visit will stir up. These two factors are not particularly unique.

What is so unique is the manner in which they balance these factors. If a speaker is controversial, the Board feels the need to consider the value to be derived by the students in listening to the man. But if he is not controversial, the Board does not consider the man's worth to the students and simply approves him without any further thought. So it seems the Open Forum may bring in non-controversial morons and idiots, but such personages as Jesus Christ would require thought on the part of the Board.

### Fifield, Bridges

This criterion might seem rather bad in theory, but in practice it's even worse. A few weeks ago the Open Forum asked the Board to approve four names, two of which belonged to a Rev. Fifield and a Harry Bridges. I can't say very much about Rev. Fifield because I had never heard of him before. But it seems he is a Los Angeles preacher who writes articles for a local newspaper. Fortunately for him he writes right-wing articles, so he was accepted with virtually no discussion. Harry Bridges is the head of one of the largest independent labor unions in the country which also has the distinction of being one of the cleanest and best-run unions in the business. But unfortunately for Mr. Bridges, somebody called him a communist once, so the Board felt obliged to consider him at greater length. Here comes the punch line. Without officially considering whether he is controversial, but apparently considering only whether he has enough to say to warrant inviting him, the Board expressed its disapproval, (i.e. it's veto) of inviting Harry Bridges when it had expressed its approval of Rev. Fifield only one week before.

Don't get the idea that the boys are crazy; they're just kow-towing to the powers that be.

Faculty opinions

When the name of Harry Bridges was first brought up, the Board felt itself to be unable to make an enlightened decision, and so it determined to seek out the opinions of four members of the faculty, on two questions: is the appearance of the man liable to stir up unfavorable publicity, and does this man have enough to say. I, for one, don't think the Board really needed the opinions of the faculty. I doubt that they really wanted the opinions as opinions, but rather as evidence to prove that inviting Harry Bridges will strain our good relations with the faculty, which, in their eyes, is a mortal sin. (And what is the point in having good relations with the faculty if we must inhibit ourselves every time they might be strained?)

To say that four members of the faculty are significantly more able to formulate an accurate understanding of the situation than the ASCIT is ridiculous. The four opinions differed substantially; they were more indicative of personal political convictions than they were of some great political truth. Political science is not enough of a science to warrant placing much faith in an expert's opinion just because it is his opinion.

Different viewpoint

The problem can be boiled down to a difference in viewpoint. It is altogether fitting and proper for the students to have different aims from the faculty. The faculty thinks of Caltech as

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towing to the powers that be.

### Faculty opinions

When the name of Harry Bridges was first brought up, the Board felt itself to be unable to make an enlightened decision, and so it determined to seek out the opinions of four members of the faculty, on two questions: is the appearance of the man liable to stir up unfavorable publicity, and does this man have enough to say. I, for one, don't think the Board really needed the opinions of the faculty. I doubt that they really wanted the opinions as opinions, but rather as evidence to prove that inviting Harry Bridges will strain our good relations with the faculty, which, in their eyes, is a mortal sin. (And what is the point in having good relations with the faculty if we must inhibit ourselves every time they might be strained?)

To say that four members of the faculty are significantly more able to formulate an accurate understanding of the situation than the ASCIT is ridiculous. The four opinions differed substantially; they were more indicative of personal political convictions than they were of some great political truth. Political science is not enough of a science to warrant placing much faith in an expert's opinion just because it is his opinion.

Different viewpoint

The problem can be boiled down to a difference in viewpoint. It is altogether fitting and proper for the students to have different aims from the faculty. The faculty thinks of Caltech as

(Continued on page 4)

board the banana boat in those

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**NUCLEAR CONTROVERSY**  
(Continued from page 1)

Actually, the presently known facts about nuclear bomb testing are accepted by all scientists familiar with the subject, including both Pauling and Libby.

The AEC estimates that the average person has received from all atom bomb tests radiation amounting to .7% to 3% of the natural background radiation. This amount is small compared to radiation dosages received by some people due to radium watch dials, x-ray exposure, or even due to differences in geographical location.

**Radiation effects**

The effects of radiation include: diseases such as leukemia; mutations resulting in defective children; and a general aging process.

There are 20 million "defective" children born each generation due to natural mutations; the atomic tests will increase this number by 100,000 to 600,000 children.

According to Professor Lewis, the aging effect of radiation is approximately two weeks per roentgen. Thus, roughly .01 year will be subtracted from the life expectancy of the human race. Of course, what this means is that out of a typical group of 1,000 people, one person will have his life reduced by 10 years or so due to radiation disease.

On these facts all scientists agree.

But there remains a question that science cannot answer. Just how much fallout constitutes a "negligible" risk?

Clearly, radiation effects like the ones mentioned can never be detected among the population at large. Just as obviously, any testing, no matter how minor will necessarily cause harm.

Any decision to continue nuclear tests has to be made on the basis of morals and military strategy. An added element is government secrecy, which often makes it difficult for civilians to argue with government officials.

Dr. Libby's approach to such a decision is shown by these words: "Tests are necessary if we are not to fall behind in . . . out nuclear defense effort . . . I do not mean that there is no risk at all . . . The danger is comparable with the danger of drowning in the ocean."

Pauling has said that this statement, although factually true, is "immoral." He points out that people are free to choose whether or not to go to the beach and risk drowning, whereas by ordering nuclear tests a few politicians in Washington, London and Moscow are making the decisions of life and death for thousands of others.

"The effect of bomb tests is a crime against the human race. It is immoral, a violation of the principles of humanity."

Pauling has long been a member of "peace organizations" and a staunch advocate of disarmament. Before winning the Nobel Prize he encountered difficulty in getting a passport to attend foreign scientific meetings.

His recent statements are only the latest in his efforts to help achieve nuclear disarmament, efforts dating back to 1947.

**Campus Brewins**

Well-qualified (44-26½-38) PCC coed: "I wish they would teach you guys at Caltech a sense of humor along with the calculus."

**Co-Crable calls cops**

Thatch-topped Van Crock strode through the night into T.P. Hearing's muffled sound, he stopped. His steely eyes took in the situation at a glance. Thieves, were siphoning gas! Caution overwhelmed bravado, and he scurried to the guard station and blurted out his tale to the Law.

"Well, don't just stand there, Sonny," said the guard, fondling his pistol. "Go get a policeman!"

**Gleet gets guy**

The story of Swiney Nelson's telephonic adventures last week was too hot (and too long) even for brewins. A sequel is now known. The lad has fallen ill with trench mouth.

"But I only talked to her on the 'phone," he painfully told reporters. Public health authorities have been alerted.

**Infant infected**

Also in the Saint James was Spasmussen, who celebrated his

sixth-week engagement anniversary having his blood tested. ("Mononucleosis has an incubation period of from two to six weeks."—Medical Journal.

**Filler**

The Beak enjoyed taking the P17 Dating Survey. Contrary to rumor, neither P. Adler Associates nor One Magazine sponsored the thing.

**lad had, dad sad**

"She told me she wasn't goin' out wif me no mo'," said Tuckah. "But her pappy put his a'm roun' me an' said he'd see ah wasn't stahved fo' affection. He sho is a nahce man!"

**Bow-berates bed bully**

Suddenly, in darkest night, Rowdy Baugh Waugh was awakened by a furious pounding on his door.

"Come in," he mumbled. The door opened, and a body staggered in and fell on Baugh and bed, exuding odor of cheap gin. Baugh leapt from bed with virtue barely saved, and shrieked, "What is the meaning of this?"

"I unnerstan' you position, buddy," said the visitor. "But jus don' Push me!"

**BULL PEN**

(Continued from page 1) an Institute which has been here for many years and will probably be around for many more. And they'll be around with it. They think in terms of whether what we do today will hurt the Institute ten years from now. There is no reason for the students to care. We should be concerned with what we can get out of four or five years of undergraduate life. If what we do now hurts the Institute in the long run, let the 140 IQ's go elsewhere ten years from now. These two viewpoints are different, and they conflict. Sacrificing our position for the sake of good relations is inane.

The ASCIT Board of Directors was elected to represent the students, not the faculty. They are not go-betweens. They are undergraduates, and they cannot escape that fact. If the faculty doesn't like Harry Bridges, let them put an end to our proceedings on their own initiative. Then we'll know where everybody stands.

I cannot abide the ASCIT Board's excusing their own conceptions and prejudices under the pretext of maining good student-faculty relations.

**AUDIENCE**

(Continued from page 2) applause in every scene with his portrayal of a gay rake. Lamsden Hare and Florence Reed (Friar Laurence and Nurse), who between them have 115 years of acting experience, lived, rather than acted their parts.

John Barrymore, Jr., as Romeo performed in the proverbial Barrymore fashion—superbly. A critic once said that it is unfortunate that by the time an actress has had enough experience to play Juliet she is too old for the part; Margaret O'Brien proved that true with her overdramatic rendering of Juliet's lines in an uncomfortably Bostonian accent.

The many different scenes in a Shakespearian play, which present much difficulty on the modern stage, were handled simply and effectively by draping the full stage in black and, at each change of scene, introducing brilliantly colored hangings carried on by men dressed in the costume of Verona.

"Romeo and Juliet" provided an entertaining evening, showing why Shakespeare has been played for over three hundred years.



**"Business and pleasure do mix..."**

ROBERT H. WENTORF, JR., Ph.D., University of Wisconsin, 1951

"Until I joined General Electric's Research Laboratory in 1951, I never realized science could be such a challenge — or so much fun. My job involves research in physical chemistry — the investigation of new ideas which can lead to new and better products people can use. In a company of this size, I have the unique advantage of having the tools and facilities I need and the experience of others close at hand. And in return, of course, I'm expected to apply myself to the best of my ability in each new job. As I see it, if a big company like General Electric invests time, money and faith in my creative ability, and if I respond by creating, then we both benefit. To me, at General Electric business and pleasure do mix."

created borazon — a completely new, diamond-hard substance which promises far-reaching effect on industrial processes and everyday living.

There are more than 27,000 college graduates at General Electric. Each is provided the opportunity for self-development in the hope that his creative ability will bring forth new ideas. As General Electric sees it, these new ideas, stemming from man's native curiosity, will lead to the development of countless products as yet undreamed of for our nation's defense, industries, and homes.

A physical chemist at General Electric conducts studies of the atomic structure of matter, and of the way atoms and molecules interact under a wide variety of conditions.

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7 Days a Week

The achievements of 31-year-old Robert Wentorf speak well of his ability to make the most of the opportunities offered at General Electric. He recently

# Dabney wins Interhouse with victory in basketball

by Martin Carnoy

As usual, the Interhouse Trophy race went right down to the wire, and for the third year in a row, Dabney House came out on top. The winning number of points, 114, was the lowest total for a trophy winner in years. This can be attributed to stronger Throop Club teams and well spread-out athletic talent among the four houses.

First term was marked by cross-country, softball, and swimming. Blacker started the year off by taking firsts in cross-country and softball. Dabney took third in both sports, tying Ricketts in softball. Fleming captured second in c-c, but didn't win a softball game. Throop surprised everyone with ace pitcher Bob Emmerling and tied Blacker for first in softball; however, their c-c men came in fourth. Fleming showed real power in the swimming meet, edging out Dabney for first, with Ricketts third, Blacker fourth, and Throop fifth.

### TENNIS IN WINTER

Winter term started off with tennis. Because of poor weather, it took over a week to play all the matches, and in a tight finish Blacker beat the Dabney Racquetmen by two points. Throop was right behind Dabney, followed by Ricketts and Fleming. A week later, Fleming astounded no one and won the track meet by a large margin, leaving behind Dabney, Blacker, Ricketts, and Throop in the next four places. Volleyball next entered the spotlight, and although there was no sure winner at the beginning of the round robin, Blacker defeated strong Fleming and Dabney teams to emerge the victor. Fleming beat Dabney to come in second. The Darbs salvaged third while Ricketts came in fourth and Throop fifth.

As soon as football season rolled around in April, it was evident that three teams were neck and neck in point score. Of the trio, Blacker, Dabney, and Fleming, only the Big Red could field a football power. Using good strategy, Fleming came in first and put Dabney third and Blacker fourth. Ricketts produced a strong team and placed

second. Fleming, at this point, was leading Dabney by 2½ points and Blacker by 6½.

### DABNEY WINS

Basketball, the final sport, was the decider. Dabney captured its only first for the year and thereby won the Interhouse crown. Blacker and Throop tied for second, and Fleming and Ricketts, fourth. Dabney, during the whole Interhouse sports year, had never placed lower than third, and therein lies the tale of the tape. Consistency won out over stand out teams in two or three sports.

### The final standings:

Dabney	114½
Blacker	103
Fleming	99½
Ricketts	86
Throop	58

# Trackmen go to invitational

Caltech sent eight stalwarts of the track team to Redlands against eleven teams in this second annual Invitational Meet. They took one third, two fourths and two fifths. Church Luke threw 156 ft. 10 in. in the javelin to take the only third. Dick Van Kirk jumped 22 ft. 5 in., just four inches short of his season's best, but could tie down only a fourth place. The winning distance was 23 ft. 7¼ in. Larry Kraus also managed to tie for fourth with a 5 ft. 8 in. in the high jump. In the mile run Mike Rusch finished with a 4:33 flat to receive a fifth. Also taking a fifth was Tony Leonard with a slow time in the 880.

The other Tech representatives to the meet were Bob Norton, Ron Forbess and Lannes Purnell.

# Friday ends spring season

by Steve Emanuel

Tomorrow afternoon will culminate the four-week spring training period for the varsity football team, as Bert LeBrucherie and line coach Shelby Cathoun hold an all-out intrasquad scrimmage to give a final workout to the team.

Next year's backfield ought to be one of the best in years with returning lettermen Dick Van Kirk, Hal Forsen, Fred Newman, Don Stocking, Art Takido, and Ed Krehbiel. The only dark spot is at quarterback, where second and third strings are practically non-existent.

The line, while having a few standouts, will not be as strong as the backfield. The weak spots will be at end and tackle, as far as depth and experience go. Lance Hays is looking good at center along with Gene Stanley at end and Larry Berry at tackle. Standouts from the frosh team are Carl Gottschell and Tom Bjorklund.

How the Beavers do next year will depend mainly on how much reserve strength they have.

# Linksters take third in tourney

The Beaver golf squad finished their schedule last Friday in the Conference Medal Play Tournament at Los Serrenos C. C. The Linksters finished in third place behind Pomona and Oxy, as they did in the Conference match play. As was expected, the well-balanced Pomona squad won and almost swept the three individual trophies, however Beaver Ed Shuster won a four-hole sudden-death playoff to bring home one gold medal.

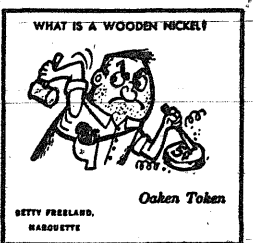
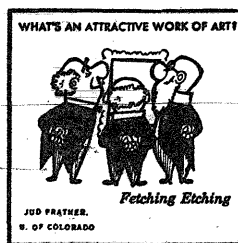
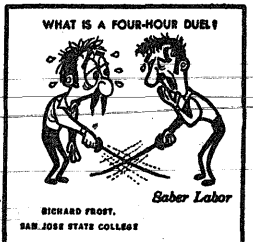
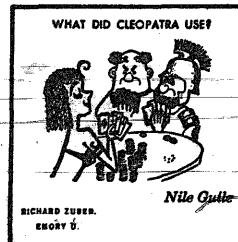
John Poer and Bob McCrary, both of Claremont, tied for top honors with totals of 155, with Poer repeating as Conference Champ by winning the second hole of their playoff. Tom Hibbard of Pomona and Shuster tied for third with 158's and Ed Johnson of Oxy was fifth with a 159.

Results, Team: 1. Pomona-Claremont; 2. Oxy; 3. Caltech; 4. Whittier.

Individual: 1. Poer (P); 2. McCrary (P); 3. Shuster (C); 4. Hibbard (P); 5. Johnson (C).

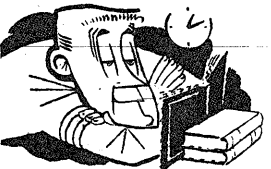
The team will be using mainly a double wing and split T to get the most out of their backfield strength.

# Sticklers!



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## Cramming for Exams?

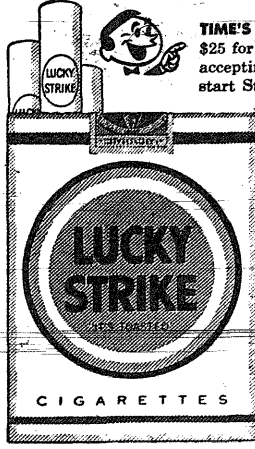


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**WHEN THE FISHING'S FINE**, the gent in our Stickler spends all day in a dory. He'll take along tons of tackle and buckets of bait—but if he forgets his Luckies, watch out! By the time he gets to port, he'll be a mighty *Cranky Yankee!* You see, you just can't beat a Lucky for taste. A Lucky is all cigarette... nothing but fine tobacco—mild, good-tasting tobacco that's **TOASTED** to taste even better. So why fish around? Try Luckies right now. You'll say they're the best-tasting cigarette you ever smoked!



**TIME'S RUNNING OUT!** We're still shelling out \$25 for every Stickler we accept—and we're still accepting plenty! But time is getting short—so start Stickling now! Sticklers are simple riddles with two-word rhyming answers. Both words must have the same number of syllables. Send your Sticklers, with your name, address, college, and class, to Happy-Joe-Lucky, Box 87A, Mount Vernon, N. Y. And send 'em soon!

# Luckies Taste Better

"IT'S TOASTED" TO TASTE BETTER... CLEANER, FRESHER, SMOOTHER!

# Alumni group admit seniors

The Caltech Alumni Association is now admitting to membership those applicants who are receiving degrees this June or who are otherwise leaving the Institute in good standing.

Graduating seniors and other qualified persons who are interested in the Alumni Association membership should contact George Hall in Blacker, Don Nierlich in Dabney, Jim Welsh in Fleming, or Doug Ritchie in Ricketts. Applications from off-campus men are being handled by Mike Duke, Craig Elliot and Bob Gelber.

# Debate-men lose on TV

Ken Scholtz and Mike Talcott, representing Caltech's debate squad, faced two Los Angeles State College debaters last Sunday at 8:00 p.m. on KCOP-TV in Caltech's last appearance for the year on the intercollegiate debate series sponsored by that station.

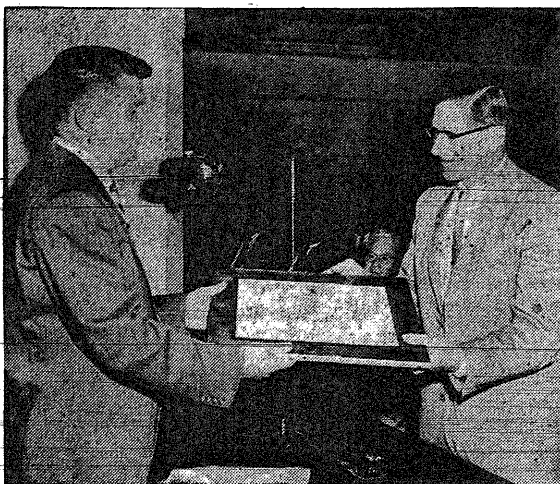
The Tech debaters, taking the negative on the question, Resolved, that the minimum age for obtaining a driver's license ought to be 21, were defeated.

## SCHOLARSHIP

(Continued from page 1)

vacation. The form is to be filled in by parents or guardians and returned to the Admission Office no later than September 14, 1957. An application for which the Parents' Confidential Statement has not been filled out and signed by parents or guardians will not be considered unless there are unusual circumstances to explain the fact that parents or guardians can no longer be held responsible for helping the applicant in any amount. Such unusual circumstances where they exist should be set forth in detail on a separate sheet attached to the application.

Holders of four year scholarships must obtain and file the Parents' Confidential Statement form unless they hold General Motors, Merit or Sloan Honorary Awards for the minimum amount (\$200 for General Motors and Sloan, \$100 for Merit) awarded without regard to need. Donors of four year scholarships expect the Institute to review financial need each year and to adjust stipends if adjustment is indicated. All donors of four year scholarships will permit an increase in stipends (with the exception of the honorary awards mentioned above and of the California State awards) to care for the increase in tuition in cases where such an increase is warranted.



Supervisor Warren Dorn presents a Clean Air Award to Caltech's Dr. A. J. Haagen-Smit for "outstanding" smog research.

# Haagen-Smit given Clean Air Award for smog research

Doctor A. J. Haagen-Smit of the Caltech Biology Department has just been named one of the winners of the 1956 Clean Air Awards for outstanding achievement in air pollution control.

The award was presented by a group of representatives from major civic organizations in Los

Angeles County, which was formed to recognize individuals and groups making outstanding contributions to the anti-air pollution effort.

The special award was voted to Dr. Haagen-Smit for his research contributions in determining the roles of oxides of nitrogen in smog formation.

## AFROTC

(Continued from page 1).

ment to James Giles. The Professor of Air Science Medal for display of exceptional leadership was awarded to Elliott by Lt. Col. Lyle F. Johnston, Caltech AFROTC commandant.

Other awards went to Thomas Hays, Jim Welsh, Bill Graham, Kirk Irwin, Giles, Hugo Fischer, John Mihalov, Bob Gelber Roy Jensen, Art Rosenthal, Jim Petty, John Conover and Irwin.

Selected as Distinguished AFROTC Graduates were Charles G. Fullerton, Giles, Irwin and Iwan. All members of the Drill Team were awarded the Drill Team Ribbon.

In this week's rush, the TECH neglected two important announcements.

Class elections are being held today.

Brad Efron has been selected as Freshman-of-the-Year by the local chapter of Tau Beta Pi.

Welcome!

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Two Barbers on Monday & Friday

# ISLAND FOR SALE

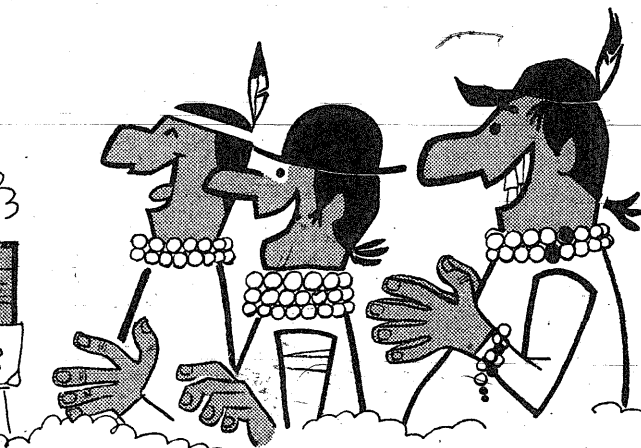
(or) Peter Minuit Presents His Case



"This real estate business, Dad, is *nowhere*," remarked Peter Minuit. "I mean... like I can't hack it, Man!"

Pete had a right to feel low down—his deal for Manhattan Island was dragging. It was the summer of 1626. The Dutchman had called together chiefs of all the Manhattan Indian tribes (Yankees, Giants, etc.) to make his pitch. He was overstocked on baubles, bangles, and beads... and the coppertones weren't buying!

"Gee Wilikers, guys," pleaded Pete, "I gotta buy this hunk of property. Think of all the 20th century historians—and TV comics—who are going to need this bit!"



"So far, your offer... Ugh!... appealing as waltz in Rock 'n Roll Session, Daddy-O," replied the Indians. "You need better case!"

Well, when Pete heard that word "Case" the bill of sale was as good as signed. He unveiled a case of Budweiser—the King of Beers—and started dreaming about the best place for Grand Central.

"You real crazy trader, Hotshot," said the Indians. "But then, so are we!"

MORAL: You don't have to sell an island to enjoy Budweiser. And a case of Bud is a case for enjoyment!

# Budweiser

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