

California Tech

Associated Students of the California Institute of Technology

Volume LXIII.

Pasadena, California, Thursday, October 19, 1961

Number 5



Sam Hinton, who sings tonight.

"Coffee, Tea or Milk?"

ASCIT Promotes Cut-Rate Summer Air Trip To Europe

Round-trip air fare between Los Angeles and a European terminal city for \$380 will be the result of a student charter flight tentatively offered by ASCIT along with student governments of ten other neighboring schools.

Last Thursday at the monthly Inter-Collegiate Council meeting in Pomona, agreements were made to gauge interest on campuses of the member schools for such a charter flight. Members of the Associated Students of Pomona College are acting as agents in airline negotiations. A DC-6 furnished by either

package deal connected with the proposed flight. Passengers will disembark at either London or Paris (the final terminal to be determined by vote of passengers some months before flight), go their own ways and be responsible for arriving in time for the return flight.

Interested students or employees should drop a note in the K box of Page House on campus addressed to Bob Koh by next Wednesday. This response will serve as a guide for plannings. A definite commitment of approximately \$100 down payment on the ticket will be requested about February 1 if response is satisfactory.

There are more than 10,000 students in the combined undergraduate enrollments of the ICC schools, plus employees and graduate students eligible for the flight. As there are only 88 seats on a DC-6, if there is overscription, attempts will be made to arrange another plane.

First Come First Served

Application at this time in no ways assures reservations on the flight, since only groups of 88 people can be accommodated. In the event that there are too many people for the available spaces, the number of people from each school will be based on the enrollment of that school. In that case, Caltech will have the fewest numbers of spaces allotted. Reservations will be made on the basis of earliest received applications.

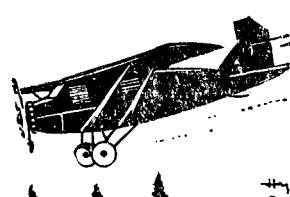
As a rough comparison, commercial non-jet flights for the same route would cost over \$700 (taking into account the special "youthrates") and cheapest student ship rates between New York and Europe is \$350.

British Overseas Airways Corp. or Lufthansa, which are the two airlines currently favored, would leave Los Angeles International Airport June 16 and return sometime in the first two weeks of September. The return date has not been determined yet.

Eligibility for the flight is extended to undergraduate and graduate students, all employees (which include faculty as well as non-academic employees) and their families. Schools in the ICC are Cal Poly at Pomona, Caltech, Chapman College, Claremont Men's College, Harvey Mudd, Occidental, Pasadena College, Pomona, Redlands, Scripps and Whittier, with Immaculate Heart College presently applying for admission.

No Package Deal

There is no tour or any other



Folk Artist Sam Hinton Sings With Peggy Tonight

New Aud Stirs Dispute On, Off Campus

BY JAY LIPPMAN

At present the proposed design and location of Beckman Auditorium are the objects of spirited controversy. In order to determine the problems and issues, this reporter interviewed several interested parties. The resulting picture is a complicated interaction of interests and objectives.

It seems there is dissatisfaction with the proposed plan in some circles because it does not provide adequate facilities for good drama productions and that the acoustical qualities of a circular building are poor. (Editor's Note: See letter from Ricardo Gomez, page 2.) When I spoke to Mr. Robert Poolman, the Assistant Director of Physical Plant for Planning and Engineering, he told me that a committee of faculty members decided that the main purpose of the auditorium should be for lectures and demonstrations with other uses secondary. Another consideration (to be discussed later) is that in the master plan of the campus the auditorium is the center of two perpendicular axes that run through the campus and would then be equally attractive when viewed from all directions. With this set of criteria the architect, Edward D. Stone, naturally designed a circular building. Mr. Poolman agreed that a circular building creates special acoustical problems, but that they were being solved with the use of special arrangements of absorbing and reflecting materials around the walls. As for drama, it was not a main consideration in the criteria for designing the auditorium. He also mentioned that the auditorium would have a band rehearsal room.

Citizens Complain

Mr. Poolman went on to explain the proposed location of the building. On the Caltech master plan the campus will eventually extend to Del Mar Street between Wilson and Hill Streets. When this event occurs the streets that run through this area will all be removed. So, one criterion of the location is that the auditorium be centered on the intersection of a north-south axis running between Dabney and Gates and an east-west axis running about where Constance Street is now. At the present state of development of the campus this would involve realignment of Michigan Street since the auditorium would extend into the street by nine feet. But this plan was abandoned because of the objection of residents and the building will be located thirty feet east of the Dabney-Gates axis on the east-west axis.

In order to obtain the reasons for the objections I spoke to (Continued on Page 7)

N.S.F. Offers Cash Awards

The National Science Foundation will again conduct a program of graduate and post-doctoral fellowships for the year 1962. Applicants must take the Graduate Record Examination and apply before January 5, 1962. NSF will make final selection and announce the winners on March 15.

Fellowships will be awarded for study in the mathematical, physical, medical, biological and engineering sciences; psychology, anthropology, geography, economics, sociology, and the history and philosophy of science.

Application is open to college seniors, grad students, post docs and anyone else with equivalent training. The annual stipends range from \$1800 to \$5000. Further information is available from the National Academy of Sciences, Washington 25, D. C.

Notices

Y SHOWING AFRICA FILM

The next presentation in the YMCA film series will be the showing of *Cry, The Beloved Country* on October 22. This film deals with the race problem in Africa and concerns the trials of a colored minister who searches for his son only to discover that he has been sentenced to death for murder. The film stars Canada Lee and Sidney Poitier (*Raisin in the Sun*), and is based on the book by Alan Paton. Admission is 75c and the show will be at 7:30 p.m. in Culbertson Hall.

GORDON TO DISCUSS RUSSIAN TRIP

On Wednesday, October 25, the Caltech YMCA will present Barry Gordon, president of the Y, as the guest speaker in the Athenaeum Lunch Forum. Gordon will talk about his recently concluded trip through the Soviet Union as part of a Student YM-YWCA study tour. His presentation of a student viewpoint should be of great interest to many faculty members, and undergraduates are welcome to come over after the luncheon to hear the talk.

PLANNERS NEEDED FOR PIKE VISIT

All students interested in working on the planning committee for Bishop Pike's visit as a YMCA Leader of America should contact any YMCA executive committee member or Y president Barry Gordon.

TOTEM NEEDS WORKERS

Anyone interested in working on *Totem*, the campus literary magazine, should come to the organizational meeting tonight at 7:15, in the Big T office in lower Fleming.

FRIDAY EVE LECTURES BEGIN

This year's series of Friday Evening Demonstration Lectures will begin on October 20 in 201 Bridge. The speaker will be Mr. William Miller, photographer from the Mount Wilson and Palomar Observatories, who will talk on the subject "On the Trail of Ancient Man." The lecture will commence at 7:30 p.m. but earlier arrival is suggested.

After numerous delays and horse-trading sessions with the promoter, the YMCA Folk Concert, featuring Peggy Seeger and Sam Hinton, will be presented tonight at 8 p.m. in the Chandler Dining Hall. The originally billed co-feature with Miss Seeger, folk singer Ewan McColl, was unable to attend any part of his planned West Coast tour due to an injury to his back.

Sam Hinton, who will prob-



Peggy

ably be Miss Seeger's partner for this show only, has been singing professionally since 1957 when he joined a vaudeville group billed as a "folk singer and novelty instrumentalist." Tickets for tonight's show, priced at \$.85 for students and \$1.25 general admission, are available at the Y office, the Bookstore, the News Bureau, as well as at the door.

Gear To Go Says BOD

The BOD, responsive (as always) to student opinion, is sponsoring a contest to collect ideas for a new student body emblem to replace the gear, which is felt by campus scientists to be pro-engineering. ASCIT will award twenty-five dollars or a two week's vote on the BOD to the designer of the emblem which is eventually adopted. Money or power is thus your reward.

Pauling in Anti-War Rally Saturday

On Saturday, October 21, Dr. Linus Pauling will participate in a rally protesting thermonuclear testing. He and the Reverend Stephen Fritchman of the First Unitarian Church of Los Angeles will address an estimated crowd of 875 on the subjects of peace, nuclear weapons, and disarmament. The rally will climax a march from Hollywood Boulevard and La Brea to Fernande Park, lasting from 11 a.m. to 3:30 p.m., at which time Pauling will speak.

The march has been called by a group of individuals who wish to bring about the end of the threat of thermonuclear war by means of disarmament. They claim no affiliation with any other organization and welcome all those willing to join the march and demonstration. Further information can be had by calling NO 3-5588.

Editorial

NSF Oath

We have asked Kip Thorne to write a guest editorial this week. The subject is quite timely and, we believe, of importance to the Caltech community.—Editors.

"Only in the darkest periods of human history has any Western government concerned itself with mere belief, however eccentric or mischievous, when it has not matured into overt action; and if that practice survives anywhere, it is in the communist countries whose philosophies we loathe." With these scathing words in the case of **American Communications Association v. Douds** (1950), Justice Jackson of the United States Supreme Court lashed out at Congress for including in the Taft Hartley Act of 1947 a provision requiring all officers of labor unions making use of the provisions of the Labor-Management Relations Act to execute the following oath:

"I _____, do solemnly swear (or affirm) that I do not believe in, and am not a member of and do not support any organization that believes in or teaches, the overthrow of the United States Government by force or violence or by any illegal or unconstitutional methods."

The battle against the oath was lost, however. The court split three to three on its constitutionality, and a lower court decision upholding it was thus left unaffected.

The era of oaths of belief is not over. Every applicant for a loan or fellowship under the National Defense Education Act or through the National Science Foundation must execute an oath identical to that of the Taft Hartley Act of 1947; and since nearly every Techman is a potential applicant for a loan or fellowship under one of these programs, the members of the Caltech community should be acutely aware of the implications of this oath.

Every man who executes this oath and every school, including Caltech, that plays an active role in the allocation of loans or fellowships to students under either of these programs, is tacitly admitting that the federal government has a right to discriminate against students on the basis of their beliefs, a discrimination which borders on attempts at thought control.

Every man who executes this oath must therefore be careful about taking an active interest in controversial issues, for he has sworn that he does not "believe in . . . any organization which believes in . . . the overthrow of the United States Government by unconstitutional methods" and how is he to know what constitutes belief in an organization? How is he to know all the beliefs of all the organizations he believes in? The only way to be safe is to avoid unorthodox views and controversial associations, to stay far away from such events as the bull session with Dorothy Healy in the Blacker Lounge last week. There is no telling what may be dragged out of a man's past and thrown at him if a new McCarthy era should dawn; and conviction for perjury could mean a fairly stiff prison term as well as a blow to the prestige of a prominent scientist or engineer.

Despite these factors a large number of Techmen will be executing this affidavit in the coming weeks in connection with their application for NSF fellowships. This is understandable; principles must occasionally be sacrificed on the altar of necessity, especially when one's future education and career are at stake.

If you are one of the men who will be executing the oath despite your opposition to it, I urge you to consider the following action: Attach a letter of protest against the oath to the form on which you execute it, and send it along with your application to the National Science Foundation (or the Caltech Graduate School office in the case of a Cooperative Fellowship).

Such an action is not likely to hurt your chances of obtaining a fellowship since the selection committees are composed of outstanding scientists from educational institutions throughout the country and the vast majority of such men feel the same way about the oath as you do. (The American Association of University Presidents and many other influential educational associations have taken official stands against the oath.)

Such an action, coupled with similar actions on the part of other applicants throughout the nation, might be very influential in bringing about the removal of the oath from the fellowship program: Nobody has even suggested its removal in Congress during the last few years. (All of the recent uproar has been over the NDEA.) Since the fellowships were first instituted, student protests against the oath have gradually died from an initial flood to a small trickle, which finally petered out last year: In 1960-61, according to D. W. Thorne, a member of the selection committee, there were no student protests made with the applications from anywhere in the nation.

Now that we have a President who is strongly opposed to the oath (and before Birchism gains too strong a foothold)

is the time to act to get the oath struck out of the NSF fellowships. I plan to write immediately to newspapers and student organizations at all of the schools with strong science programs throughout the nation and urge the students there to enclose letters of protest with their applications. Will you do your part?

—kip thorne

Beveled Gears

With a push from ASCIT and a little student support, it looks like the venerable gear may soon be in the same class as the old TPI cheer. Good enough. If a suitable replacement for the gear can be found, I may even be inclined to buy a sweatshirt. I fear though that the present stock of clothing in the bookstore is such that it'll take another whole generation of Techmen to deplete current stores. I would suggest a great project, the goal of which would be to stock backyard bombshelters with these warm and traditional garments.

I'll be anxious to see the designs or suggestions submitted for the new emblem. Now that Tech is more than just an engineering school, perhaps there is a need for a more symbolic (if not Freudian) emblem. I would hope that the Caltech psychologists might, after careful consideration of sex and other subconscious motivations, be able to submit a comprehensive, modernistic montage which suitably represents the 1961 Tech spirit. Or perhaps the Techman with insight, hopefully the product of the new, improved, well-rounded student body, will be able to ferret out some second and third level significance in a common, everyday object like a slide rule. For instance: a pair of eyeglasses in the form of an infinity symbol; a shower head; Fig Newton on his new cart; the new Physical Plant Building; Bob Koh or any number of other things.

Enter the contest as often as you wish. Maybe if it's a big success, we can have another one next year.

—abell

LETTERS

Drama Facilities In Beckman Lacking

Editors:

It has recently come to the attention of the undersigned that the proposed Beckman Auditorium, soon to be built on campus, is planned for very limited functions. We deem it appropriate that both students and faculty realize just how limited this new \$1 million building will be.

The auditorium, as stated by the Auditorium Committee, should serve, in order of priority, the following functions: 1) speeches, 2) demonstration lectures, 3) performances by Caltech's musical groups, 4) and 5) drama and other musical activities.

It is clear that the design of a theater which would satisfactorily combine all these activities is a hard if not impossible task. Our contention is that no real compromise was sought and that attention was only directed to criteria 1) and 2), that is, to speeches and demonstration lectures. We feel that the priority order is the source of the difficulty; a theater that is suitable for dramatic activities can easily accommodate a speaker, while the reverse is obviously not true. **No Stage**

From the point of view of dramatic performance the auditorium is completely unsuitable. It has no stage but a platform that projects into the auditorium by 12 feet. In the rear of this platform there is a curtain that can be drawn but discloses only a 9-foot-deep stage. The ceiling over the stage is shaped in such a way that precludes the placing of any backdrop and makes the installation of lights impossible. (There is a set of lights but these have no flexibility as far as positioning or separate dimming.)

Acoustically the situation is confusing, we have heard opinions ranging from its complete unsuitability for musical performances due to its very short

reverberation time to fairly vague statements about the fact that, considering the shape of the auditorium, the acoustic properties will be fairly good. It seems clear, though, that this hall is acoustically designed for the speaking voice rather than to obtain a compromise between the properties required for the voice and those for music.

We believe that considering the limited resources of the Institute and the need for dramatic and musical activities in a technological school a real effort should have been directed toward obtaining an auditorium suitable for a much larger range of activities.

We are afraid that the building of the Beckman Auditorium will preclude for a long time the construction of a theater that will satisfy the dramatic and musical needs of Caltech.

Ricardo Gomez
Joel Yellin

Editors:

In light of the considerable and probably-continuing improvement of the dramatic productions of the Caltech Drama Club, it strikes me as a gross oversight that the projected Beckman auditorium has not been fitted out with wings and flexible lighting on its stage, and has not been designed with concern for the acoustical requirements of drama.

The relative incremental cost of such provisions would probably be insignificant in comparison with the incremental usability for the building. Not only campus theatics, but our ever-popular folk and jazz concerts would be rendered immensely more enjoyable and valuable, both for performers and spectators, by addition of the acoustical and optical gadgetry found in all modern auditoriums.

Pete Lippman, '61
Acting President,
CIT Drama Club

LETTERS

Grad Grips

Editors:

The editorial on the **Big T** failed to mention that in addition to "Emty-Space Fillers" the 1960 **Big T** also contains twelve pages for autographs. Both things occurred not because of a lack of originality but because of the mechanics of yearbook publishing. A definite layout must be planned in the fall with a set number of pages for advertising. If the amount of advertising should fall short of estimates this will not be known until late in the year. In our case, a cutback in airplane orders can have just this effect. Since the number of pages cannot change, the result is shown in the 1960 **Big T**.

I agree with the conclusion that the **Big T** is too big—especially in view of the size of the staff during the past four years. In each of those years the editor flunked out and the book was late during the past three. In 1957 and earlier a sufficient staff was available and the yearbook came out on time. Hopefully a similar thing will occur with the 1962 **Big T**.

Joel Tenenbaum

Editors:

Mr. Charles Flynn (Letters to the Editor, October 12) need have no worry about the truly American character of the **California Tech**. It need take second place to no newspaper in our country in the irresponsibility of its reporting. An article, which announced a talk I was scheduled to give, reported that I had "related" several ideas which I cannot believe I have ever said and know I have never thought.

As I have not, to my knowledge, even set eyes on a reporter of the **California Tech** in the last several months, I assume that the story is an inspired bit of creative writing.

Matthew Sands

Apologies—Editors.**Editors:**

I would like to make a few comments about Mr. Charles Flynn's letter.

In my high school days I was invited to join one of the forerunners of the Christian Anti-Communist Crusade. The president of this organization talked to me about the lack of knowledge about communist ideology, the need for education in this area so that people would not take communism as a scapegoat for all that is bad in this country without knowing the truth about it. I was almost "duped" into joining until I heard the name of this group. It was "Truth Against Communism."

This same approach is manifest in the organizations now springing up across this country. Their methods are just as insidious as those that Mr. Flynn criticizes; they are an attempt at "infiltration and subversion" of our minds; they are an attempt to make us interpret the truth the way the leaders of these groups want us to interpret it. I cannot imagine the stand of an organization as both "objective" and "militant". I object to the use of the search for truth for or against something. The search for truth should be a goal in itself.

The anti-communist groups, as well as Mr. Flynn, make it a point to contrast communism with the Western ideology. I would like to remind Mr. Flynn

(Continued on page 3)

a hand of BRIDGE

BY DAVID SELLIN

NORTH

S-K J 9 8 7 5
H-6 4 2
D-K 8 6
C-J

WEST

S-Q 6 3
H-10
D-10 7
C-K Q 10 9 6 5 3

EAST

S-4 2
H-9 3
D-Q 5 4 3 2
C-A 8 4 2

SOUTH

S-A 10
H-A K Q J 8 7 5
D-A J 9
C-7

Neither side vulnerable; North dealer.

NORTH

2 S
3 D
Pass
Pass

EAST

Pass
Pass
7 C
Pass

SOUTH

2 NT
6 H
Double

WEST

3 C
Pass
Pass

Opening lead: 2 of hearts

North's two spade opening bid is a weak two opener designed to shut out the opponents. Over weak two bids, the bid of two no trump is often reserved as a strong response, forcing the opener to keep the bidding open for at least one round. This is the case above. West's three club bid lays the groundwork for possible future sacrifice. North, having already described his spade suit, bids diamonds to indicate strength there to his partner who promptly goes to six hearts. But East has enough information to make a very profitable sacrifice at seven clubs.

The play is straightforward; West loses two spades, a heart and two diamonds for down five or 900 points for North-South. Tournament scoring would give North-South 980 points for making their heart slam.

South can shut out the opponent's sacrifice by going directly to six hearts. This bid is really quite reasonable for he can count either on a solid spade suit for sluffs or on some help from North in the outside suit, diamonds. South should count only one loser and bid six hearts directly, for this shuts off communication between East-West and they are unable to realize their successful sacrifice.

Letters

(Continued from page 2) that communism is a brainchild of Western philosophy. Marx and Engels were Germans brought up in a way of thinking that came from a long tradition of Judeo-Christian background. Communism is a product of the West and we cannot escape the fact that it is a part of our heritage. Mr. George Kennan describes in his latest book how much the Russians were aware of the fact that communism was a Western philosophy imported into Russia. What the Russians did with communism is another matter. **New Republic** had these words about John McCone, words which apply to Mr. Flynn as well: "He is the kind of man who hates communism not because it has betrayed the revolution, but because he assumes it is the revolution."

Ideological Conflict

The fact is that Russia is our enemy. But we must consider the struggle in the context of history as primarily a struggle for power between the two greatest empires of our world. All through history struggle has arisen from economic conflict and search for power and has always been disguised as a conflict of ideologies. The Russians have been rising since the 18th Century. Communism provided them with a powerful tool and weapon in their struggle. But we are fighting the power of Russia. To say that we are fighting communism is making the same mistake as the Christians of the Middle-Ages made; they said they were fighting Islam but in truth they were fighting the influence and the power of the Turks. This way of thinking can lead, and has already led, to the same abuses and persecutions as the wars of the Middle-Ages brought.

I would also like to emphasize the point Mr. Flynn made that "emotional demonstrations are not a truly effective means

of combat." However these anti-communist movements appeal mainly to the emotions by playing up the chauvinism of their audience (the enthusiasm and love for their American Heritage). They hardly try to appeal to the intelligence of the public.

In conclusion I would like to state that I consider this type of organization presents as great a danger to our freedom from the inside as Russia does from the outside.

Joseph Heller

Editors:

If you had to live the drab life of the Soviet Communist and be told how to act, feel, and think and not even have the good old luxury of being able to gripe, you would not be so free with your petty criticism of dedicated Americans like Hero Philbrick, Sen. Dodd, Major de Seversky, Cleon Skousen, and Sen. Judd.

Perhaps you have been "brainwashed" by some of the so-called "liberals" who like to draw attention by being dramatic.

In the same issue of the **California Tech** there is an interesting account by Barry Gordon about his trip to Russia this summer. May I suggest that you take time to read his articles. I note that he refers to Soviet life as a "very potent and dangerous challenger to our way of life."

Bette Saulino
Health Center

Editors:

If Caltech men are leery of extracurricular facts — especially those which are unpleasant to face — it is understandable. Nonetheless, I would like to presume on your time and good will by presenting what are perhaps some little-known — or at any rate, little considered — facts.

In the 1961 Civil Defense Hearings of the House Committee on Government Operations, Secretary of Defense Robert

(Continued on page 4)

Dr. Matt Sands Reviews International Science, World Affairs Conference

BY JAY LIPPMAN

Matthew Sands spoke to the Y Diners' Club Monday night on his participation in the conference on Science and World Affairs at Stowe, Vermont. The conference was held the second week of September and considered disarmament and world security. Professor Sands commented on the purpose and results of this conference attended by 48 scientists from 11 countries.

The conference discussed 5 problems of disarmament: How is nuclear disarmament to be accomplished, how are delivery systems to be controlled, where is disarmament to begin, what would be the state of the world if it were disarmed, and what are the necessary pre-conditions to beginning disarmament? Sands discussed the last question in his small discussion group.

Agree Fallout Harmful

This conference has kept open channels of communication and there was an agreement in principle and detail that there should be a permanent study group

composed of five Russians and five Americans to study the problems mentioned. Financing is the barrier to this idea. Although the Russians were very formal at the study groups and recited the party line, the informal evening session provided opportunity for real communication. According to Professor Sands there has been a definite change in the Russian attitude since these conferences. First they had to agree that fallout was harmful; then disarmament was a magic word; now the Russians are willing to discuss ways of effective inspection and disarmament.

The Russians have a "paranoid fear" of Germany. They asked the question, "Why don't we negotiate on Germany?" because they want a disarmed Germany. Professor Sands posed the question, "Why don't we negotiate?"

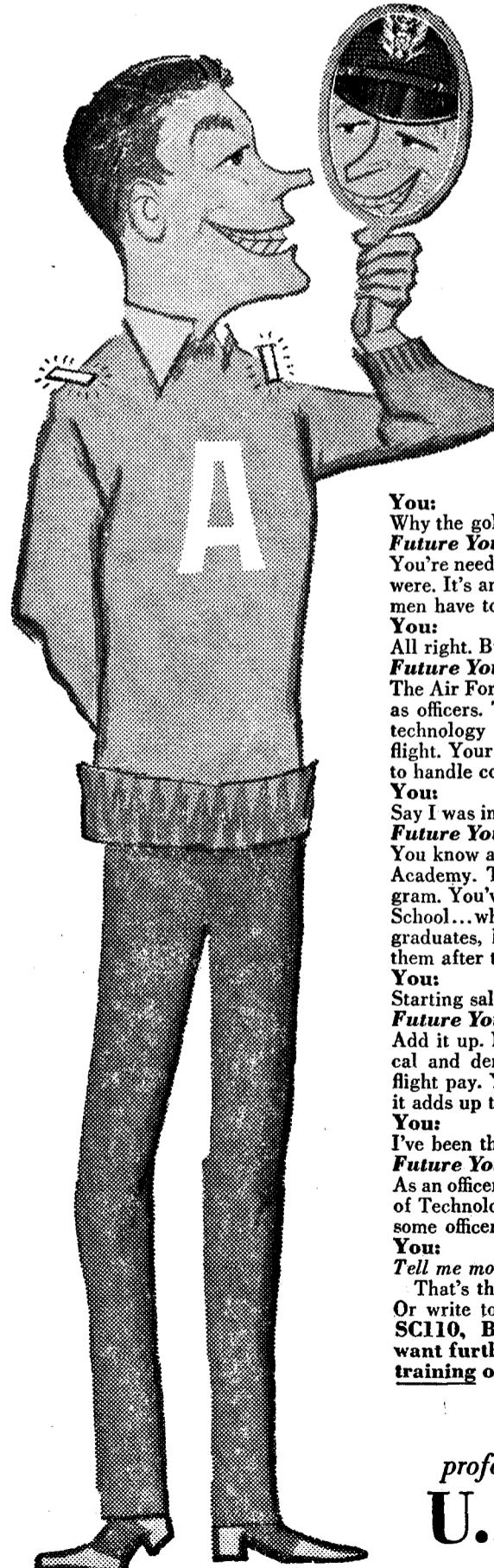
There still are some barriers to communication. The Russians can't understand why we oppose a troika, and oppose wordings because of semantic conota-

tions. We can't accept their reasons for resuming nuclear testing on grounds that the French were testing and the U. S. was building military strength.

The results of the conference may be seen in national policy since a few of the scientists from U.S. are members of the President's Advisory Committee on Science. Certainly it is true that since technology has amplified all considerations of security and put us on the perpetual edge of war, something must be done to get us out of this state.

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had a
one-man
conference
about your
future
lately?

You:
Why the gold bars?

Future You:
You're needed...just as your father and grandfather were. It's an obligation that a lot of qualified college men have to meet. If we don't...

You:
All right. But what can I do for the Air Force?

Future You:
The Air Force needs college trained men and women as officers. This is caused by the rapidly advancing technology that goes with hypersonic air and space flight. Your four years of college have equipped you to handle complex jobs.

You:
Say I was interested...how can I get to be an officer?

Future You:
You know about Air Force ROTC and the Air Force Academy. Then there's the navigator training program. You've probably heard about Officer Training School...where the Air Force takes certain college graduates, both men and women, and commissions them after three months of training.

You:
Starting salary is important. What about that?

Future You:
Add it up. Base pay, tax-free allowances, free medical and dental care, retirement provision, perhaps flight pay. You don't have to be an eco major to see it adds up to an attractive package.

You:
I've been thinking about getting my Master's.

Future You:
As an officer you can apply for the Air Force Institute of Technology. At no cost, and while on active duty some officers may even win their Ph.D. degrees.

You:
Tell me more.

That's the job of your local Air Force Recruiter.

Or write to Officer Career Information, Dept.

SC110, Box 7608, Washington 4, D.C., if you

want further information about the navigator

or Officer Training School programs.

There's a place for
professional achievement in the
U.S. Air Force

frets and frails**Guitarists Demand Equal Time**

In response to my column of last week I received two interesting letters that I would like to pass on to my readers.

The first is from Art Chodos in Mudd.

Mr. Crossman:

In reading your column in the California Tech I noticed your comments on a banjo seminar. Unfortunately I don't play banjo but how about a guitar seminar? There must be a lot of frustrated guitarists on campus. Couldn't we get together. Phil Banks (one of the Geology grad students) and I have been doing so for some time. Not that either of us is good but because we would like to be better.

What do you think the possibility is for organizing an advanced guitar class? I've become unhappy about the fact that there are no known guitar teachers in this area and have recently written to other LA Folk Music Society members attempting to arouse some interest in importing someone good from LA for a group class. Do you think any of the students would be interested? I notice that you have to go out to Hollywood, as I do, to get any instruction.

Among other things I have some 300 hours of tape—including most of Ed Cray's programs on KPFK. I'm certain that others must have their pet records and techniques and it would be interesting to be exposed to them.

Art Chodos

If you are interested please get in touch with Art or myself. Also, while I am talking about instruction, Billy Ray would be willing to give banjo lessons on campus if enough people were interested.

The other letter was from Joe Bossom (388 Alles) who berated me for neglecting the "native talent" for the more professional folksingers. This is a charge which I cannot deny but it is very difficult to find out about the native talent of an area unless you live there or are in an organization that promotes local talent. Fortunately, there is now an organization in this area that hopes to expose more of the local folksingers to the public. This group, headed by John Cohen, is planning concerts in the near future. I will have the particulars in my next column.

And More Letters . . .

(Continued from page 3)

McNamara stated (p. 30): "I think that in order to avoid confusing the planning on the local level it would be wise to pick an attack that is both most likely, and also the largest — and I believe that the largest is the most likely — and base the local planning on that assumption..." (emphasis added).

An attack of 3,000 megatons is a large one — not the largest, to be sure, but nonetheless, sufficiently great to give an accurate indication of what such an attack might mean. On page 216 of the hearings to which I have referred above there is a graph which shows the number of casualties for an attack of this size, making various assumptions as to the types of bombs used, the extent of civil defense preparations, etc. What emerges is that, under optimum conditions, a minimum of 70 per cent of the population, 130 million people, will be killed if 3,000 megatons are dropped on American cities.

130 million equals . . .

130 million people — that's a nice round figure. It can be written, for example, as 1.3×10^8 in the usual scientific notation. But what does it mean? As it stands, probably nothing: a quick glance, a flicker of interest. "So what!"

Very well, then. So what? Forget 3,000 megatons. Take 1,000 megatons — that's an easier figure to remember. Let's see now: 1,000 megatons, at 10 megatons per bomb, is 100 bombs

on American cities. That's New York, Chicago, Los Angeles, Buffalo, Little Rock, Detroit, Philly, and so on right down to Bakersfield. The point is this: with 100 10-megaton bombs 100 of our largest cities can be destroyed — or even so; it makes no difference. All those people in the cities will of course go immediately. For those in the country their fallout shelters will be of no avail. Even supposing that they survive the blast in a shelter, that they are neither suffocated or roasted alive by the firestorm, and that, after two weeks, them emerge.

What then? How, in a word, do they eat? There will be no more supermarkets — or rather, there will be no more food in our supermarkets. With our railroads, airports and highways destroyed in every major city, there will be no way to distribute the necessities of life to rural areas, and no one to man the trucks, airplanes and trains which are necessary for this distribution. Those who will survive will be those who can grow their own food in an ecology of radioactive soil, radioactive rain, and radioactive air. There is no need to exaggerate — the reality is grim enough. The alternatives in a nuclear war are either immediate death in the blast — and, with Lord Russell, this is my choice — or an ugly lingering death by starvation. Take your choice.

Accept Challenge

But there is another way (I assert this with confidence, al-

though I must confess to feeling precious little at this moment). I need hardly point out to such a rational audience that negotiations are possible — indeed, mandatory. Premier Khrushchev has repeatedly offered unlimited inspection of the Soviet Union as a pre-condition to negotiations on total disarmament. What needs to be done is to force our government to take up Khrushchev's challenge.

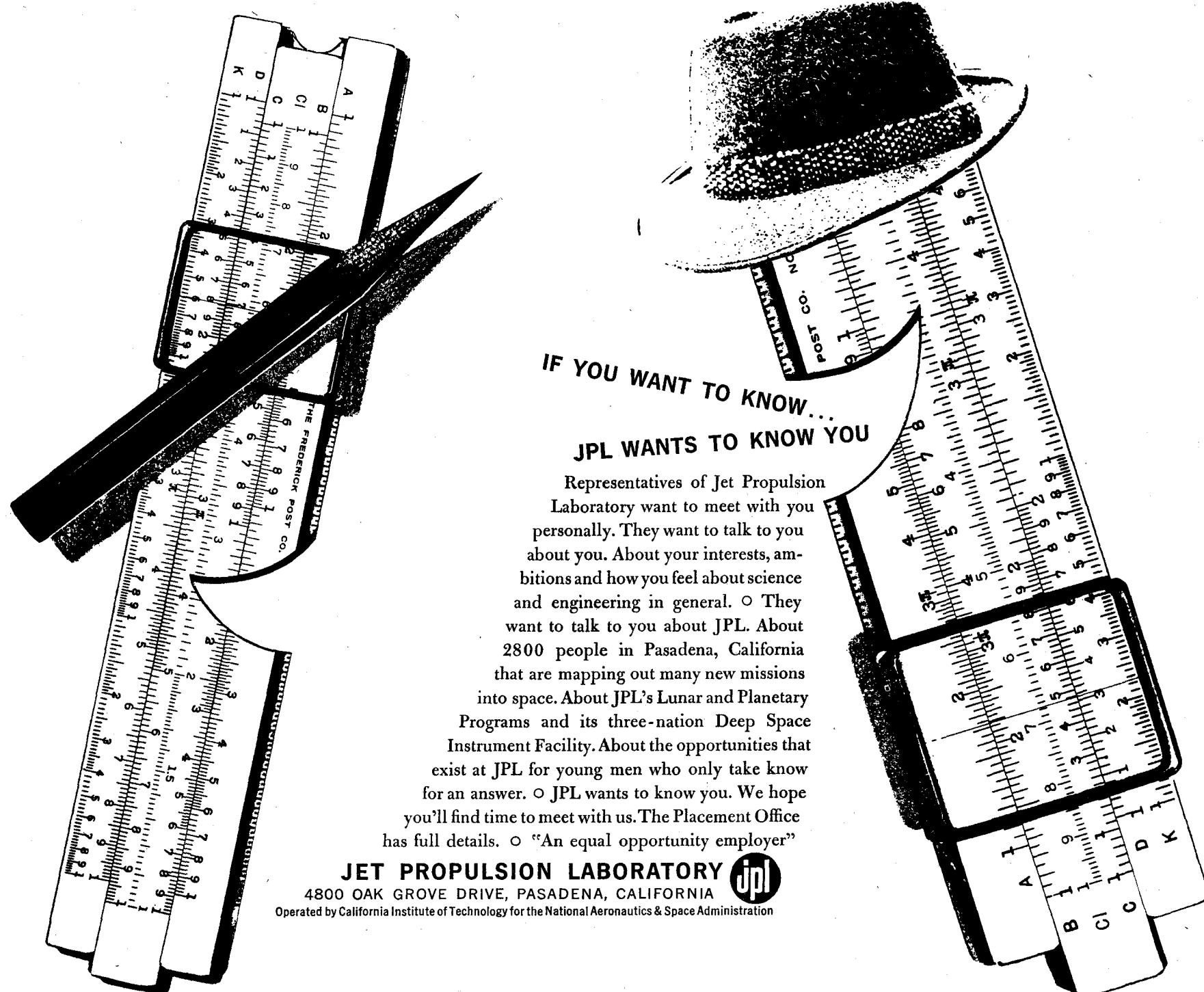
As a first step in this direction, a peace march will be held on Sunday, October 21, starting at Hollywood Blvd. and LaBrea, at 11 a.m. The march will conclude at Ferndale Park (near Los Feliz and Western) at about 3:30 p.m. and the marchers will then be addressed by Prof. Linus Pauling and the Rev. Stephen H. Fritchman of the First Unitarian Church, Los Angeles.

I realize that for Techmen, such a march must compete with the InterHouse, possibilities of ungranted security clearances, sophisticated apathy, bridge in the lounge and God (or the Tech substitute therefor) knows what else. To these considerations I can only say that unless those who are in possession of the facts — those who know what the truth is — take action, and take action soon, there will in all probability be few more InterHouses, bridge games in the lounge, and all the rest.

Frank Kofsky

Mr. Kofsky ('57) is a former editor of the California Tech.

—Editors



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Ad-Free KPFK Needs Money

BY DAVID BENSON

KPFK is one of the few oases in the Los Angeles desert. The programming of this FM station is frankly aimed toward intelligent and concerned listeners, who appreciate something other than a steady diet of jazz or romantic music. Even better, KPFK (90.7) is non-commercial **listener-supported** radio. They therefore feel free to do interviews with strippers and theologians, broadcast commentary by avowed socialists and communists as well as extreme rightists, and put in a few plugs for money.

KPFK is presently running a subscription campaign. They now have about 8,000 subscribers, needing 12,000 in order to continue broadcasting. In return for your twelve dollars, you'll receive the Folio for a year. Not to mention keeping KPFK scheduling works by Bartok and Josquin Du Prez, interviews with the Black Muslims and the ambassador from Nigeria.

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Disorganized Thespians To Choose Prex, Director

Caltech's Drama Club starts out the school year in an especially disorganized state of affairs, due to the resignation of its president, Joe Heller, and the indefinitely extended absence of its "mad genius" director, Mike Talcott.

Other mainstays of the group who have departed for better climates and times include Rich Harris, Stu Goff, Bill Kern and last year's president Bob Poe.

Alumnus Pete Lippman, appointed acting president of the Club by previous acting president Jon Kelly (who rose to the position from that of vice president), has informed the **Tech** of tentative plans for a "re-organizational" meeting for the purpose of electing a new president and considering the possible problem of finding a new director.

A Ringer?

Lippman's plans are somewhat complicated by the technical question of his eligibility, as an

alumnus, to hold office in a campus organization. Though his right to call even an organizational meeting has been challenged, Lippman declares that he would like to be a candidate for president of the organization.

"Regardless of enthusiasm and interest," he states, "no undergraduate can really afford the time to do justice to the position of Drama Club president."

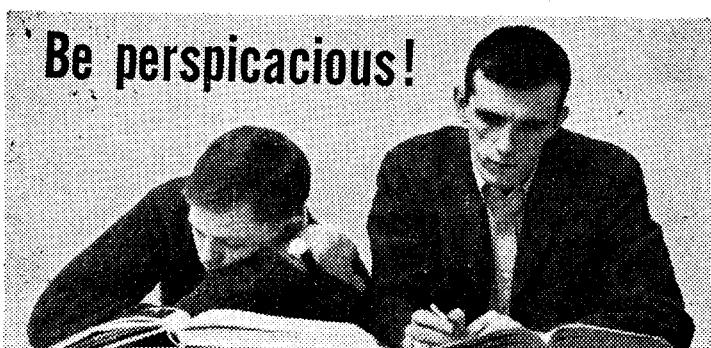
"This was proved by initially ambitious Bob Poe: He started off in October with plans for a rejuvenation of the group's program, including theatre parties, play readings and discussion groups all year long, rather than only production of the Spring Play."

"Many of these activities actually came through, but when spring came around the Club no longer headed his list of 'pressing duties.'

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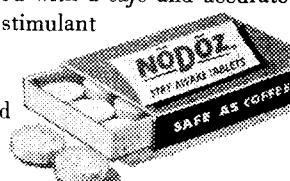


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Actual underwater photo of telephone cable off coast of Florida.

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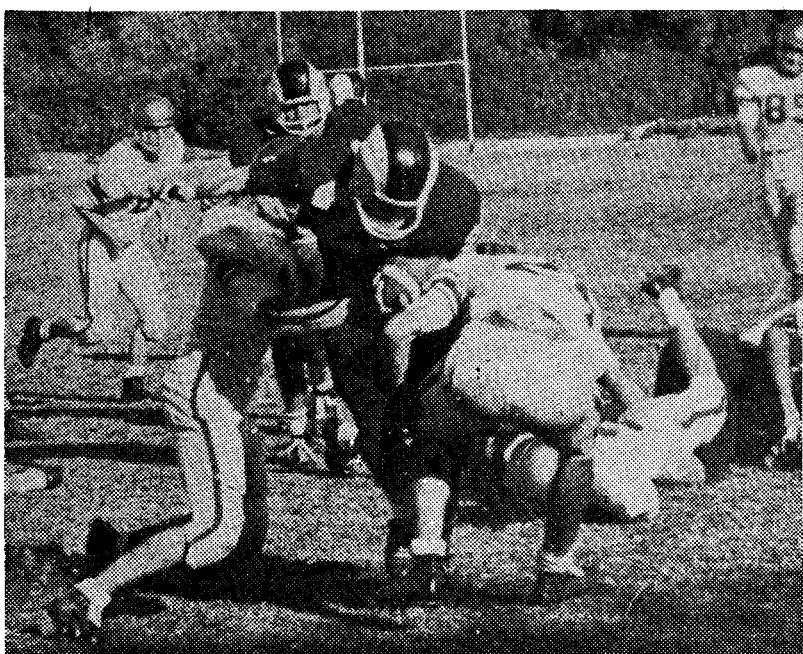
And so it goes—Long Distance service, Direct Distance Dialing, the Transistor, the Solar Battery—a succession of firsts which goes back to the invention of the telephone itself.

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SPORTS



—photo by Sirovich and Urich
Hascall and Barker stop Pomona ball carrier in Caltech secondary.

Beaver Gridders Meet Defeat At Pomona 53-7

BY GARY CHAMNESS

Caltech's Beavers bowed before the Pomona Sagehens in a hot, rugged football game Saturday afternoon. The final score at Pomona's Alumni Field was 53-7.

The Tech team played a far better game than last week's, but was outmanned 2 to 1. Pomona's coaches seemed to produce a new and different team for every situation — every one of their five quarterbacks saw action. Aside from the Beavers' tackling, which remains a serious weakness, they were more overpowered than outplayed.

The first half belonged to Pomona, and they played it all on the ground. Pomona quarterbacks Dave Berardo and Ken Smith repeatedly sent their men plunging into the Tech line, trying an end run only occasionally for variety. The half was a grueling series of six marches down the field against a Tech defense weakening under the 103° heat. Defensive standouts for the Beavers were linebacker Mike Cosgrave and guard Evan Hughes. When the half ended, the scoreboard showed 45-0.

Second Half

Second half was another story. Pomona tried a few unsuccessful passes and then returned to their ground game. Ten minutes into the half they managed to score on a series of short drives through the center of the line, and carried the ball to convert for two more points.

As the fourth quarter began, Bill Hassenzahl recovered a Pomona fumble. Dave Barker completed two passes in succession, one to Lee Peterson and one to Leon Thomsen. Stopped there, he kicked the ball out of bounds on the Pomona 3-yard line. The Sagehens were starting back up the field when they fumbled again, and Beaver guard Larry Ruff grabbed the ball. Steve Gorman, playing with a broken finger still splinted, took the ball from quarterback Bob Liebermann and charged through the Pomona line, first to the 33 and then to the 10. Vince Hascall punched through to the 5 and then over for the touchdown. Barker kicked the extra point. Second half: 8-7. Total: 53-7.

Next Game

Next Saturday at 2:15 p.m. the Beavers meet LaVerne in Tournament Park. LaVerne is strong this year, with a win over Pomona to their credit. But Coach LaBrucherle thinks the Tech team is improving considerably, and he hopes to give LaVerne a good fight. At Pomona injuries showed up strongly against Tech's lack of depth — Gorman could only make a few plays, Ed Cline was sidelined by an injury from the Azusa game, and Geary Younce, who has been playing first class football this year, was carried off the field second quarter with a badly pulled muscle. All three should be back in action for next week's game.

Frosh Team Lacks Depth

BY STEVE HALL

Do you believe there is strength in numbers? Any member of the frosh football team will tell you so. The frosh squad met defeat last Saturday 38-0, not at the hands of the Oxy Tigers, but at the hands of the blistering sun and the freshman class of the California Institute of Technology, who refuse to support their own team. It's a known fact that over twenty-five freshmen played high school football, but only about ten of these turned out for the team.

The frosh took the field Saturday with seventeen men able to play. After losing three men to injuries and heat prostration in the hundred plus degree heat, only fourteen men were able to complete the game. That's only three substitutes! And yet the score at half time was 6-0 in favor of Oxy.

In the second half when the boys needed relief, there was none, and Oxy scored five more times. The closest the frosh came to scoring was in the second quarter when Jim Stadler rounded end for thirty yards. Unfortunately, he fumbled on the next play. The team lost its offensive punch when Ken Evans left the game with injured knee. Nevertheless, the first half was a rock 'em-sock 'em game with only six points scored.

(Continued on Page 7)

Varsity Soccermen Defeat Riverside

BY BILL HOWARD

Under torrid 100° heat the Caltech soccer team swirled to a spectacular victory over UC at Riverside Saturday with a final score of 5 to 4. The first minutes of the game proved that the Caltech team is capable of superb play. A full formation of the best men employed an excellent passing game to outplay the opposing team.

Four straight goals were made by the Caltech bombers in the first five minutes of play. Jerry Davis made the first two, George Argyropoulos made another, and Davis came through with a fourth. But the team, tired by hard play in the languishing heat, let up for much of the remaining part of the first half; during this time Riverside scored twice.

Spurred on by the narrowness of the lead over Riverside, who again made a goal in the opening minute of the second half, the Beavers jumped into action to score with great fin-

esse, George Argyropoulos doing the honors.

The remainder of the game was mainly an endurance test on the scorching field. The fact that Caltech had only two substitutes made the game extremely fatiguing for the starters. Riverside scored twenty minutes before the game's end, bringing the score to 5-4. The Beavers sturdily held ground for the long remainder of the game.

The surpassing play of the first minutes demonstrates what this soccer team is capable of when it is in shape. With some more enthusiasm and wider participation in practice, Caltech may easily field a memorable soccer squad, this season.

UCLA Defeats JV 5-0

The JV soccer squad was skunked by a strong UCLA junior varsity team last Friday. Hampered by inadequate passing and unsure teamwork, the Beaver JV's often lost con-

(Continued on page 8)

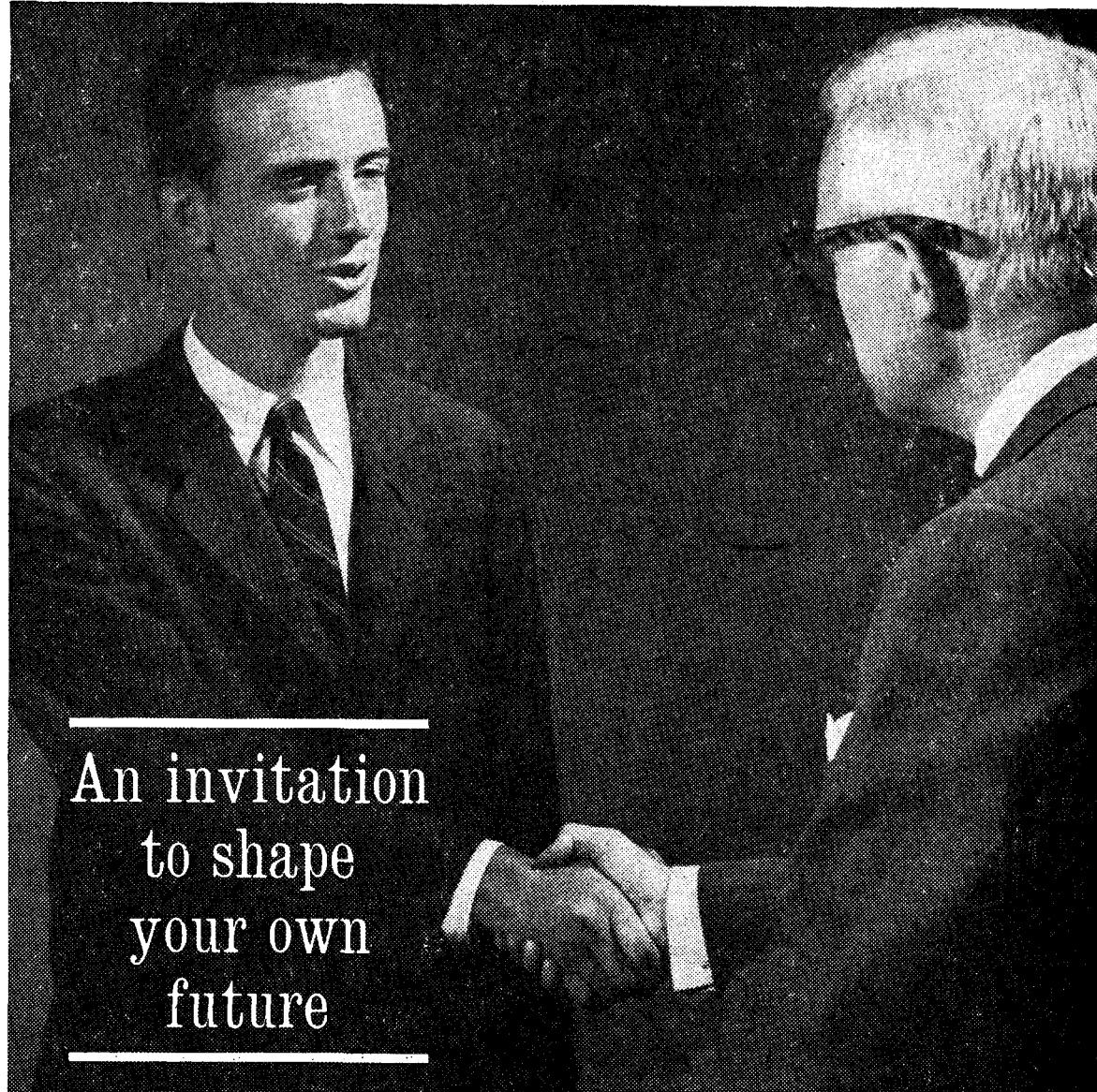
UCLA, LA State Down Webmen

In the last of the pre-season games the Beaver water polo squad went down to two sharp defeats. On Tuesday the Los Angeles Diablos triumphed over a disorganized Beaver team 17-4. On Friday at UCLA the excellent Bruin team repeated the feat 17-3.

The pattern of the LA State game emerged in the first minute of play when the Diablos scored on a two-on-one situation. A fast, tough squad, they were outclassing the Techmen during much of the game. Their aggressive play and tight guarding were very effective in preventing the Beavers from feeding their ace forward, Bruce Chesebro.

Hampered by the absence of starting forward Dave Smith and goalie Alan Huber, the Techmen could not seem to organize an attack. At the same time, the Diablos were making good use of their opportunities and led 7-1 at the end of the first period. After this the Beavers

(Continued on Page 7)



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Lloyd, Page, and Ricketts Tie For First Place In IH Softball

BY JULIAN PRINCE

Lloyd, Page, and Ricketts overtook Fleming in the last week of the InterHouse softball season to tie for first place with identical 4-2 records. The Flemms finished fourth while Blacker, Dabney, and Ruddock tied for fifth with 2-4 in the competition which turned out to be even closer and more wide open than expected.

Page finished strongest by winning their last three games. Their victims in these games included both of the other first place teams, Lloyd and Ricketts, as well as Ruddock. This surge was sparked by the fine pitching of Roger Noll and Lance Taylor and the hitting of Francis Wilson and Frank Schultz. Page would have been undisputed champs except for early season losses to Fleming and Blacker.

Lloyd and Ricketts each won two of their last three games, both losing to Page. Lloyd's wins over Dabney and Fleming were led by Joe Christensen's pitching and excellent team fielding while Ricketts' wins over Blacker and Fleming were led by John Kessler's pitching and Ken Larson's and "Lou" Tompley's all-around play.

Fleming Fades

Fleming, which looked like much the best team during the first week's play, showed a complete turnaround in form as they lost their last three games badly and "beat themselves" continually in the process.

Blacker lost their last four games after winning their first two. Dabney and Ruddock displayed flashes of good softball as they each won one of their last games, Dabney over Blacker and Ruddock over Fleming, but this was not enough to lift them higher than a fifth place tie.

Water Polo

(Continued from page 6)

recovered somewhat and made a better game of it. Chesebro accounted for all four of the Tech goals.

On Friday it was a different story. Against the strong Bruin squad it could have been much worse except that once again the Beavers were looking like a team and playing much better. The superior speed and endurance of the Bruins were decisive factors but the Beavers gave away nothing in fight. Special mention should be made of Alan Huber who made several fine stops in the goal.

Tomorrow the Webmen go to Pomona for their second league game and next Tuesday host Mt. San Antonio College.

Frosh Football

(Continued from Page 5)

ed. Several of the coaches present said the team was the best frosh team from Caltech in years.

Don't let this sound like the team has given up. Far from it. They plan on traveling to Pomona and giving them the battle of their life. They know they could beat them if they had a few more men. The team still welcomes anyone who wants to play. There are only two more games, so it won't take too much time from studies. If you want to see a valiant frosh squad, come see the game at Pomona next Saturday at ten a.m.

Well-Matched Team

The season was a very interesting and exciting one as the Houses took turns beating one another. The teams were very well matched and thus most of the games were decided by who was "hot" and who was "cold". In fact, there is a very good chance that, if a second round of games were possible, many of the results would be reversed and the standing jumbled considerably. However, this is not possible and so the standings remain as follows with InterHouse Trophy points included:

	W	L	Pts.
Lloyd	4	2	18
Page	4	2	18
Ricketts	4	2	18
Fleming	3	3	12
Blacker	2	4	6
Dabney	2	4	6
Ruddock	2	4	6

Results of This Week's Games:

Lloyd 9, Dabney 3
Page 8, Ricketts 2
Ricketts 8, Blacker 1

Ruddock 11, Fleming 0
Dabney 7, Blacker 4
Page 10, Lloyd 7
Ricketts 9, Fleming 1
Page 10, Ruddock 2
Lloyd 6, Fleming 1

The next InterHouse sport, tennis, is scheduled for the week of November 13 to 17. Incidentally, anyone interested in becoming the prognosticator for the InterHouse section of the California Tech should apply to the writer.

Beckman

(Continued from page 1)

three of the residents. I first spoke to Miss Elma Holloway who owns three houses on the west side of Michigan Street, two south of Constance and one north. She is ninety years old and has been living at 403 S. Michigan for the past thirty-seven years. She lives with her sister who is an invalid and under constant care of a nurse. Her reasons: "This isn't just a house; this is our home." These houses are her only income and her sister would be unable to live anywhere else. The realignment would depreciate the prop-

erty and ruin the appearance. She also said that she has written Caltech that she will be willing to sell her property to them in the future, but she does not want to sell at the present time.

Mrs. C. M. Wolfe, 375 S. Michigan, gave me a few of the general objections of the residents. She said the objections centered around the fact that the suddenness of the request to buy the property and the price Caltech was offering would make it difficult for the residents to find another house of equal value to their present home. She has personally remodeled her house over the past six years and related that many other residents have modernized their homes.

Caltech made two offers: either to buy the property or to buy a portion of the property to re-align the street.

Street Sub-Substandard

Miss Dorothy Bennett, 1129 Constance succinctly gave her objections to realigning the street. She asserted that Caltech had no right to encroach upon the streets; this would make substandard an already substandard street; it would depreciate property, and take away the property of residence.

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BOD Swears In Officers

Tom Bopp and Ken Larsen were sworn in as ASCIT Athletic manager and Senior Class Secretary, respectively, at last Monday's meeting of the BOD. A runoff between Al Bernstein and Bill Rowe will take place for the office of Senior Class Athletic Manager.

On Monday, October 23, the BOD will consider requests for appropriations from the surplus fund. Any campus organization interested in receiving additional funds should submit an itemized written request to John Golden in Dabney beforehand.

The study on the use of the hour at 11 on Thursdays continues and any organization which uses this period semi-regularly (or at all) should quickly drop a note to the BOD or sign up in the BOD room, lower Fleming. The faculty have cast longing glances on this hour in considering possible curriculum changes.

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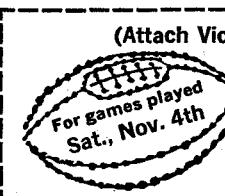
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2. Entries must be in contestant's own name. On the coupon in this ad or on an Official Entry Blank or piece of paper of the same size and format, write your predictions of the scores of the games and check the winners. Enclose an empty Viceroy package or a reasonable rendition of the Viceroy name as it appears on the package front. Mail entry to Viceroy at the Box Number on the entry blank, or drop in Viceroy Football Contest Ballot Box on campus.
3. Entries will be judged by The Reuben H. Donnelley Corp., on the basis of number of winners correctly predicted. Ties will be broken on the basis of scores predicted. Duplicate prizes awarded in case of final ties.
4. Winners are eligible for any prize in subsequent contests.



Viceroy College Football CONTEST NO. 3

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<input type="checkbox"/> L. A. St.	_____	<input type="checkbox"/> Calif. Poly.	_____
<input type="checkbox"/> Long Beach St.	_____	<input type="checkbox"/> Fresno St. (Nov. 3)	_____
<input type="checkbox"/> Minnesota	_____	<input type="checkbox"/> Michigan St.	_____
<input type="checkbox"/> Notre Dame	_____	<input type="checkbox"/> Navy	_____
<input type="checkbox"/> Calif. Tech.	_____	<input type="checkbox"/> U. C., Riverside (Nov. 3)	_____
<input type="checkbox"/> S. M. U.	_____	<input type="checkbox"/> Texas	_____
<input type="checkbox"/> Michigan	_____	<input type="checkbox"/> Duke	_____
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Totem Sponsors Writing Contest

Because of the small number of contributions, **Totem** was only able to publish one issue during the last school year. This year the editors would like to publish two or even three issues, an accomplishment which requires much more material than has been submitted in the past. In order to encourage contributions, **Totem** will pay twenty-five dollars each for the best poem, short story, and essay.

The judges for the contest will be Dr. Oscar Mandel, Visiting Associate professor of English; Dr. Marshall Hall, Jr., professor of Mathematics; and Dr. Hosley, who is presently doing research at the Huntington Library.

All entries must be submitted to Dr. Piper, 306 Dabney, by January 3, 1962. Anyone having questions regarding this contest should contact a member of the staff or see the editor, Ray Barglow, at 9 Fleming.

Chamber Music Starts Sunday in Dabney Hall

On October 22, the Humanities Department will present the first of this year's series of Chamber Music Concerts. The presentation will be given in memory of Dr. Hunter Mead and will be performed by the Baker Chamber Ensemble. The performance will be held in Dabney Hall lounge and will start at 8:15.

The first evening's works will include Concerto Grosso in F Major for String Orchestra by Antonio Vivaldi; Concerto in E Major for Violin and String Orchestra by Bach; Serenade for String Orchestra, Opus 11, by Dag Viren; and Sextet in G Major by Brahms.

Hayden, Barber, Beethoven

The second concert will be on November 12 and will include the Quartet in C Major, Opus 5, by Hayden; Serenade for String Quartet by Samuel Barber; and Quartet in F Major, Opus 95, by Beethoven. The performance will be by the Pacific String Quartet.

The public is invited and admission is free.

Soccer

(Continued from page 6)

trol of the ball when on the offensive, so spent far too much of the game struggling on the defensive against able opponents. The playing of Jim Sagawa and captain Jim Yoh, however, was praiseworthy. In general, a great deal of improvement can be expected from the JV squad as teamwork and endurance rapidly build up.

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YMCA Plans Weekend Conference

A "do-nothing" recreational conference to be held later this term is now being planned by the Caltech Y and the San Diego State YWCA.

San Diego feels that too many Y conferences are based on meaningless sermons and discussions. They want a confer-

ence where you can have fun. The conference will be held in the mountains near San Diego with hiking, swimming, singing and folk dancing.

Caltech is limited to 5-15 participants. A sign-up list is posted in the Y, and the first few to sign up will be the ones to go.

California Tech

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Today we painted some music

It may seem unusual that these youngsters are painting "by ear" . . . turning music from the classroom radio into colorful pictures. But this is the kind of creativity the Standard School Broadcast inspires.

Currently, the program's theme is "Music—Passport to the World." Using our listening guide, teachers relate music to geography, history, art, folklore, literature.

This helps children gain insight into the life and culture of the peoples of the world. It leads to better and quicker understanding of both the music and the other studies.

By playing and dramatizing all types of music—from symphony to jazz, Thailand dances to Broadway hits, the program adds a new, delightful dimension to learning.

We started this program 33 years ago, never dreaming our listening family would grow to include 2½ million children in classrooms. Now countless adults, too, have discovered how entertaining and informative the broadcasts are at home.

If you'd like to know why the program has such wide appeal, try tuning in on Thursdays. We think you will enjoy it, too.

planning ahead to serve you better

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