

HAVE YOU  
PRE-REGISTERED  
YET?

# CALIFORNIA TECH

NO?  
WELL THEN  
DO IT!

California Institute of Technology  
Thursday, November 25, 1948

Volume L.

No. 8

## Beaver Sponsored Talks To Begin At High School Soon

**Trial Lecture Given at Long Beach Poly High Shows High Interest, Beliefs of Monasticism**

Next week the Beaver orientation lectures, which are being offered to Southern California High Schools, leave the nebulous state, and emerge as realities, marking the first time Caltech students have engaged in active publicity for the enlightenment of future students.

The workings of the plan are simple. Two men, preferably a scientist and an engineer who have volunteered for this work, will go to a designated high school which has asked for this service. There they will meet with students who are interested in science and engineering in general, for the purpose of giving information and answering questions the high school students might have concerning science and engineering in general, and about Caltech in particular.

### Object

The object of the plan is to help high school students plan their future educations in advance, encouraging those who are qualified for the technical work, and discouraging those who are not. And to give any information about Tech which students might want. At a preliminary experimental nature, Bill Wood and Chuck Forester journeyed to Long Beach Poly High School to try out the system to be employed. They found out that interest for the lectures is high, and also that Tech's reputation outside is not as terrific as some people believe. The idea that there is nothing but snaking to be done here is prevalent throughout the country.

### Start Next Week

So far about one-third of the 74 high schools contacted have replied and requested this service. Techmen will start their visits next week, with 6 schools on the list for that week. Since the final registration deadline is on February 25, a great deal of activity must occur between now and then. The Beavers are doing the organizing and directing work involved in this project, and Techmen who live close by, or have an interest in this project, have been asked to participate.

Results of this project cannot be determined immediately, nor in the near future. However, the plan is being received very favorably by the faculties and students of the high schools in general, and success of the plan, determined by increased interest in the scientific and technical education, is almost a certainty.

## Flemingites View Screen Hamlet

Last Friday night saw the intellectual men of Fleming and their dates traveling en masse to the Four Star Theater and Shakespeare's "Hamlet" a la Olivier. Inasmuch as this venture necessitated an expenditure of some four dollars a couple on admission alone, the large turnout is evidence of the real thirst for literary and dramatic knowledge amongst those who have been so wrongly classed as none but boors and athletes. All, dates included, spent an emotionally satisfying evening.

In keeping with an active social program, Fleming is planning an informal Christmas get-together for the night of Saturday, December 4th. This dance is expected to provide the spirit and entertainment appropriate to the season.

## Campus Calendar

**MONDAY, NOVEMBER 29—**  
11:00 Assembly, "So You Think You Know How to Study," Upperclass Panel Discussion.  
4:20 Interhouse Bowling Pasadena Bowling Courts  
**TUESDAY, NOVEMBER 30—**  
12:00 Y. Frosh Luncheon Club, Training Table  
7:30 Band Practice, Culbertson  
**WEDNESDAY, DECEMBER 1—**  
4:30 Alumni Placement Series, Dabney Lounge  
7:30 Fencing Class, Dabney House Dining Hall  
7:30 Orchestra Practice, Culbertson  
9:00 Glee Club, Culbertson

## Forester To Speak On Engineering

Are you sure that your chosen career will be the most beneficial to you? Or are you, like many other college students, uncertain about the future because your education has not given you sufficient insight into the non-academic aspects of the professional world? If you are nearing the end of your education, it is quite possible that you are wondering what benefits, material or otherwise, you may derive in both the immediate and distant future from the acquisition of an advanced degree.

### Contacts Engineers

Several months ago, Walter Jessup, Western District Representative of the ASCE, realizing the need for answering such questions as these in the minds of the students, contacted several thousands of men in all branches of engineering, questioning them about the nature of their positions, salaries, opportunities for advancement, and other points of interest pertinent to their professions. Using the vast amount of data returned to him, he was able to learn the answers to many of the questions often asked by students.

### Forester to Talk

In a previous issue of this paper it was announced that Mr. Jessup would summarize the results of his survey in an illustrated lecture sponsored by the CES. However, Mr. Jessup was called to New York on short notice and was therefore unable to come. Since then, Charles Francis Forester, who, in addition to his other administrative duties, serves as president of the ASCE student chapter, has kindly consented to study the data and report and present it as an illustrated lecture at the next CES meeting.

If you are a student with an earnest desire to be a success, you owe it to yourself to come and hear Forester speak on "The Engineering Profession in Transition." Knowledge of these statistics is certain to be of value to you in your gaining an unbiased picture of your career which will help you to shape your education. The date is November 29, 11 a.m. at 201 Bridge.

## Airline Discounts Offered To Techmen

Here is the answer to quick, safe and economical travel home for the Christmas vacation. Airline Tickets, a reservation agency for all of the non-scheduled airlines operating out of Los Angeles, is offering its facilities to students at Tech who wish to go home for the holidays at greatly reduced airline rates.

### Increase Expected

Expected increase in traffic will enable 6 non-scheduled lines to give DC-4 and DC-6 service to every major United States city for about 50% of standard airline rates. Many of these flights, to New York, Boston, Chicago, Washington or Philadelphia are nonstop 14 hour trips.

### All Conveniences

All of these flights carry stewards, serve meals, and offer \$20,000 liability insurance per passenger.

### See Stratton

Anyone interested in learning the details, rates, etc., can contact Kent Stratton, Room 34, Ricketts, any evening after 7.

## J. E. Wallace Sterling Named To Succeed D. B. Tresidder As President Of Stanford



J. E. Wallace Sterling

## Appointment Announced During Special Trustee Board Meeting

**Former Professor at Tech, Researcher at Stanford, Recently Chosen Director of Huntington Library**

Dr. J. E. Wallace Sterling, former Professor of History and member of the executive committee at Caltech, has been named as Stanford University's fifth president.

The university's Board of Trustees, at a special meeting in San Francisco November 19, officially elected him to the presidency to succeed the late Donald Bertrand Tresidder, who died suddenly last January 28 in New York.

Sterling is a distinguished authority on Russian and European History, author, radio commentator, and teacher.

### Covered UN

He helped cover the United Nations conference in San Francisco for CBS, and is also one of several civilian educators who have been chosen to take a course at the Army War College in Washington.

The new Stanford president has been director of the Henry E. Huntington Library, since July 1948. He spent five years on the Stanford campus as research assistant in the Hoover Library on War, Revolution, and Peace, and as instructor in history, between the years 1932-37.

### Caltech Administrator

In 1937 he joined the faculty of the California Institute of Technology as instructor in History, became a full professor in 1942 and was occupying the Edward S. Harkness chair of history there, when appointed director of the Huntington Library.

As chairman of the faculty and member of the executive committee at Caltech, he discharged important administrative responsibilities.

### Assumes Post, 1949

Born in Linwood, Ontario, August 6, 1906, Sterling was educated in Canada. He received his Bachelor of Arts degree from University of Toronto in 1927, his Master's from University of Alberta three years later, and a Doctor's degree from Stanford in 1938.

At present he is engaged in writing an extensive historical treatise on British foreign policy since 1783 and, in addition, a book on Canada and the refugee problem. He will not assume the presidential post until September. (Continued on Page 6)

## Institute Names 60 To Honor Standing

Sophomore, junior and senior class honor student standings were announced today by the California Institute of Technology. Honor standing is accorded only to the 20 students in each class having the highest scholastic record during the preceding year. Students attaining this honor are:

Seniors: R. L. Wahlquist, C. J. Savant, W. J. Karzas, H. C. Martel, F. H. Brady, Nathaniel Gould, J. L. White, W. J. Herschberg, R. R. Waters, R. L. Kahn, J. R. Cantwell, R. E. Kofahl, D. A. Liberman, J. M. Andres, E. D. West, K. M. Terwilliger, W. M. Myers, W. E. Danielson, B. B. Rutkin and G. W. Woodward.

Juniors: M. V. Mathews, R. B. Wright, F. J. Corbato, R. S. Pierce, M. Walt, J. L. Kohl, V. A. J. Van Lint, E. A. Worrell, W. B. Riesenfeld, B. Gage, W. John, Jr., R. S. Welte, J. B. Gerhart, L. K. Goodwin, R. J. Dickson, D. H. Cooper, G. B. Booth, L. W. Ross, J. R. Alder, H. J. Amster. Sophomores: P. V. Mason, G. Trilling, T. W. Layton, A. E. Wennstrom, R. J. Kurland, J. B. Johnston, G. Merkel, W. M. Whitney, H. Forrester, F. H. Eisen, U. Merten, K. Sato, J. A. Ibers, E. F. Davis, R. B. Taylor, J. J. W. Rogers, P. F. Helfrey, J. H. McQuiggin, Kwok-Ying Chong, H. A. Begg.

## Ricketts Wins In WSSF Drive

First prize of ten dollars in merchandise goes to Ricketts House, incomplete returns on the W.S.S.F. drive which culminated last Friday, show.

### Latest Returns

The following are the latest returns:

		Per Capita
Ricketts	190.00	1.90
Fleming	157.09	1.54
Dabney	130.14	1.36
Blacker	64.06	.65
Throop	40.90	

Faculty - Grad - Employees returns have not come in yet.

### Indeterminate

Since the number of men that are members of Throop Club is an indeterminate variable we give no per-capita listing for Throop Club.

### Comparison

For comparison we give below the returns of last year's drive.

		Per Capita
Fleming	209.50	2.23
Ricketts	199.85	1.98
Dabney	126.76	1.56
Blacker	128.70	1.34
Throop	16.50	1.32

### Returns Low

Again this year as last, the returns are below expectations. The returns of the remaining organizations will swell the fund considerably but the students showing has left a large hole in the Caltech quota.

### Thanks

Olly Gardner and Ralph Stone wish to extend their sincere thanks to those who helped them during the drive.

## Y To Discuss Study Methods For Frosh

"So you think you know how to Study" is the topic of an upperclassmen discussion session for the Frosh, sponsored by the Caltech YMCA. It will be held this coming Monday in 155 Arms at 11:00 a.m. and all who want to come are invited.

### True Scoop

There will be lots of really practical suggestions of tried and true methods of how to crack tough problems, pass an exam, read a textbook and some general ideas that will be valuable to those who don't like to spend all their time in the snake pits. Here is a chance to find out how the upperclassmen have so much time on their hands.

### Humorous Note

There will be an element of humor in the seminar, as some of the points will be very well illustrated with some striking examples that you won't forget for a long time.

## Four Tech Students Receive Awards In AIMME Contest

Four Caltech students, William L. Basham, Arcadia, Donald W. Peterson, Monrovia, Robert L. Fisher, San Gabriel, and Beach Leighton, Urbana, Illinois, have received awards in an American Institute of Mining and Metallurgical Engineers' contest, Dr. Chester Stock, Chairman of the Caltech Division of Geology, announced last week.

Basham and Peterson received cash awards for their prize-winning entry in the Student Paper Contest, and Fisher and Leighton took second place in the same contest. Both papers dealt with the geology of the Sunland Area in Los Angeles County. Papers were submitted in the contest from students in several California schools.

## Placement Talk To Discuss Jobs In Management

### By Dick King

Come, you executive minded students, to the next to last Alumni-Beaver lecture of the term. For, after a one week lay-off for the turkey holiday, the seminars continue, this time on the subject of Business Management. The featured speaker is Mr. Charles D. Thornton, who is now vice-president of the Hughes Aircraft Company. The subject is one which all Techmen, especially engineers, should be interested in, for the combination of engineering and business is one hard to beat.

### Experience

Mr. Thornton, as is true of all of the speakers, is well qualified to talk. Before he reached his present position, he was Director of Planning at the Ford Motor Company at Dearborn, Michigan. His experience, politically speaking, is not exactly slight, he having been consultant to the Secretary of Air during 1946, and consultant to the Undersecretary of State during 1947. He is a veteran, having served as Colonel during the last war, and was in line for promotion to Brigadier General during the last days of that fracas. Incidentally, he was at one time the nation's youngest colonel.

### Same Time, Same Place

Of course, the time and place remain the same as usual, 4:30 in Dabney Lounge Attendance has been very good lately, approximately 100 attending the last lecture, on Industrial Research. However, plenty of seats will be available.

## Revised House Rules Released By Goldsworthy

Revised and shortened, the new house rules have just been released by E. C. Goldsworthy, Master of the Student Houses, and will become effective immediately.

### Much-Debated

The much-debated old rules were termed almost impossible to enforce. At the beginning of the fall term Colonel Goldsworthy suggested to the Inter-house Committee that new rules be written and enforced by the students themselves.

### Honor

It thus becomes a point of honor for the students to observe these rules, since they were written by the dully elected officers of the houses, together with many of the members themselves.

The following are the new house rules. Below is an explanation of some of the points that might be slightly obscure.

### THE RULES

The spirit of conduct in the Houses shall be that of personal honor combined with thoughtfulness for others.

1. The U.C.C.'s shall be responsible for maintaining reasonable order and quiet in the Houses. There shall be no willful destruction or defacing of property in the Houses.
2. The signs "DO NOT DISTURB," provided in each room, must be honored when hung on the door.
3. There shall be no firearms or ammunition in the Houses.
4. No student shall put up a radio aerial or any other such wire without first obtaining permission from the Master of Student Houses.
5. Students shall keep off the roof.
6. Initiations shall not be conducted off campus without special permission from the Master of Student Houses.
7. The presence of women in men's rooms shall be at the discretion and knowledge of the Resident Associate. Ordinarily, women are not permitted in students' rooms after 10:30 p.m. except on nights of regularly scheduled House or Student Body Social Functions.
8. Bicycles shall not be stored (Continued on Page 3)

## Last Chance

All men, especially seniors, who wish to have their pictures in the Big T should make appointments for portraits before December 3. This is necessary in order that the Big T may meet its engraving deadline.

For full information, consult the notice in Lower Throop. Appointments may be made in the Big T office in Lower Fleming any weekday from 12 till 1. Pictures will be taken at Lloyd's Studio from 1 till 5 daily.

# The California Tech

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## THE SQUARES' CIRCLE

### Poor Sportsmanship

Dear Editor:

Last Saturday's game with Pepperdine College was the last of the season. We think everyone was proud of the game that night; but there were a couple of times during the game and during other games of the season that we think we can speak for the whole team in saying we weren't too proud of the Caltech cheering section. Everyone did a fine job of cheering for the team—we couldn't ask for any better—but that's not what we're complaining about.

What we thought showed poor sportsmanship on the part of the Caltech stands was when one of Pepperdine's players was so badly hurt that he couldn't get up and our rooting section burst forth with, "Hit him again, harder, harder—" Yet when Bill Sylvies was hurt, Pepperdine's "Caltech Man, 15" closely followed our yell for him. The same thing happened in the Redlands game when one of their players was badly injured. After all, football is a sport in which the cheering section, as well as the team, should show good sportsmanship.

Don Hibbard  
Bob Walquist

### Snakes

Editor, The California Tech  
Dear Sir,

In reply to your editorial in the November 18 issue, I would like to make a few remarks which I feel are pertinent to the subject of "snakes."

I believe that the student who goes through Tech with a straight "A" average, or something close to it, without having taken part in any extra-curricular activities has failed to prepare himself to utilize the education he has received.

One of the big advantages of Caltech is that it offers all students equal opportunities to engage in extra-curricular activities. We have no professional football players; no journalism majors to edit a school paper;

and no liberal arts majors who can loaf through four years of college. The students here are either engineering or science majors and have very little spare time.

It is the student who takes advantage of these opportunities by going out for the school athletic teams with the spirit that he is going to do his best. He may not be on the winning team but neither is he on the losing team. It is this student who will be prepared to go into the cold, cruel business world and become a success. If he isn't good enough for the school team he has the opportunity of playing for his house team. If he still isn't good enough he may help his classmates by cheering them onwards.

Athletics is only one example of many in which a student may learn to enjoy living with his fellowman. He may become a member of any number of campus professional societies. The band, orchestra or glee club are always willing to accept new members.

Unless the straight "A" students intend to continue living in social exile, in which case his straight "A" will be of little value, he should be more than willing to receive a lesser scholastic standing (not below a certain very definite minimum) but be better prepared to benefit society with the education and book learning he has received.

In conclusion, I think it is a waste of time, energy and much needed ability to obtain the education offered by Caltech and then not be able to use it in the most worthwhile manner.

Sincerely,

Dave Baron

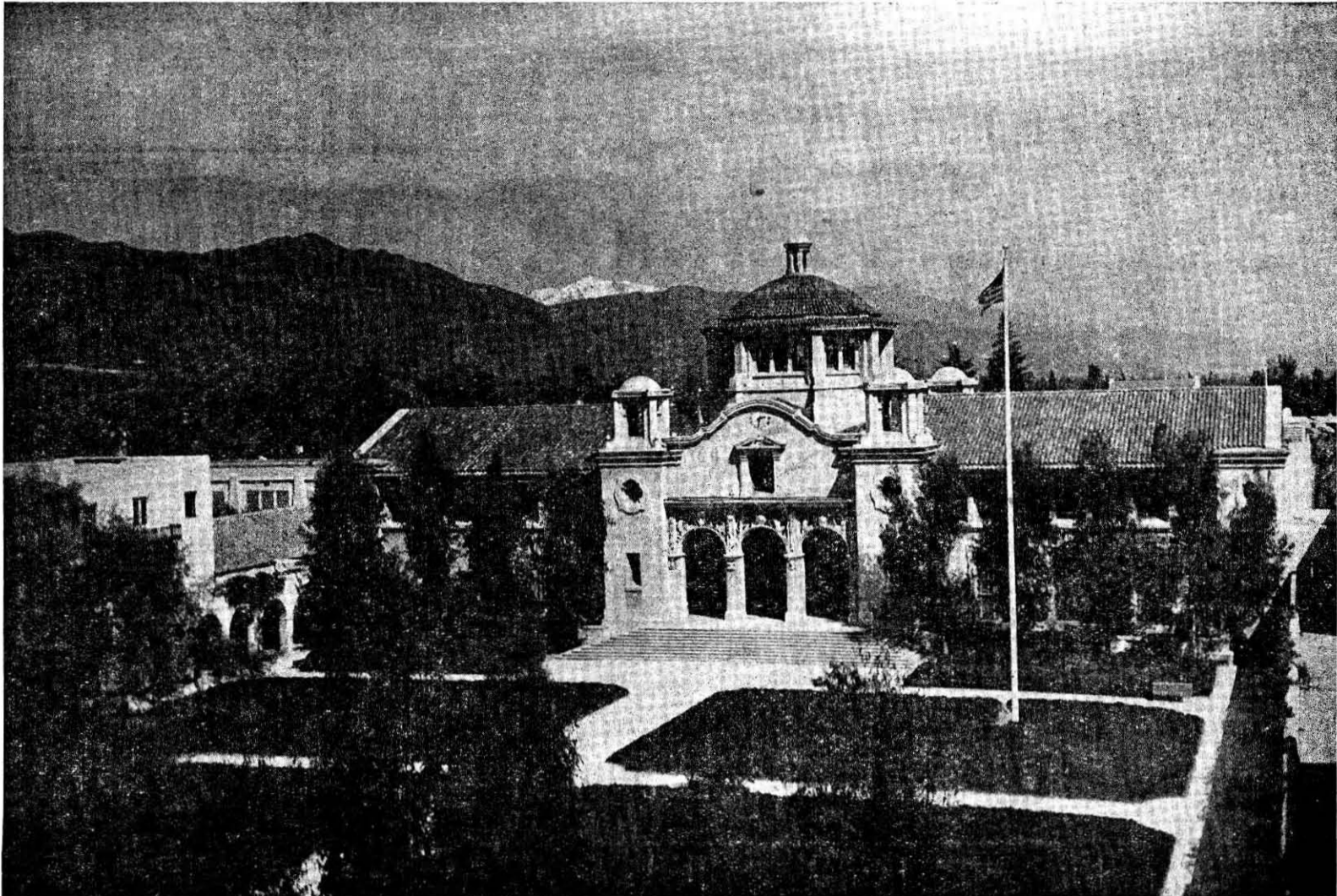
### More Programs

To the Editor:

The overwhelming majority of the student body has acquired the conditioned reflex of leaving their radios tuned in to KFAC. The publication of the Gas Company program is an excellent idea, and it should be extended to cover the other af-

(Continued on Page 3)

## THROOP HALL, CENTER OF THE INSTITUTE



Throop Hall, the center of our campus. This building, more than any other represents academic life on campus. This building means many things to the students.

## CAMPUS BREWINS

In a recent issue of the Scripture, a sweet young thing implied that we are prejudiced against their fair subscribers. What a complete distortion of fact! What cutting injustice! We retch.

Let us say, then, explicitly: The Ladies of Scripps are charming, intelligent, good sports, considerate, well-balanced and . . . sweet.

An entire hall-full of these jewels descended on Ricketts Friday night. Oh, rapture. Stan Barnes and Bill Woods, eager to defend their respective claims, hastened over to elbow out the less-athletic Rowdies. Stan, wishing to appear as masculine as possible, even neglected to wear a coat and tie. What a fine figure of a man!

Of course, Ricketts was there, too. Bowen, Willis, and Gillett found only one girl to their liking; Jack Dyer said there were only eight girls that he liked. Last week's prediction proved itself, as Dan King was being cut out so rapidly by his Crudite friends that he asked Bradley and Drapes to reserve a spot on top of the Washington Monument. Norm Schroeder's only comment was unhappiness over a statement from one maid, comparing him with a certain Pomona football player. All considered, Ted Bowen termed the evening "a very successful exchange for Toll Hall."

Could enlist no gripes about Dabney's Campus Exchange. All types, sizes, shoppes, ages, and contours were present. Jarvin Heimann found it difficult to extract himself from the

amorous clutches of a vivacious brunette. (We don't think he tried very hard, the boor.)

Blacker thought it was a keen night for an exchange, too. Pyatt was taking the lead in a ring-around-the-rosey, with Brodie, Cuse, and Hendrickson emerging with less conspicuous honors. Art Bruington was piously demanding more light, a medieval concept.

Our pigskin pounders' moral victory over Pepperdine was celebrated by about a dozen Dabney men at Turner's Beer Joint in L.A. It has our seal of approval. The inspired songs and yells of Techmen quite drowned out the bawdy and obscene trivia of the SC men present. Something about a 7-point win over UCLA. We may not win all of our games, but we sure are clean-cut fellows!

Ricketts was in true orgiastic form Saturday night. Following the game, there occurred one of the greatest stags in Ricketts history. Dave Durham downed four Class A's to start the party. His personal celebration involved a Third Anniversary of Freedom.

We can't tell for sure whether there were a large number of unwell Rowdies Sunday morn-

(Continued on Page 3)

## Throop, Caltech, and Snakes...

Why did you come to the Institute? What made you choose this school from among the many colleges you could have entered?

You may have come here because of the high academic standards which Caltech is reputed to have; or you may have come because of parental pressure. Your parents may have had a wish to see you get a degree from an Institution with the standing of Caltech.

This editorial is dedicated in particular to all you "Snakes," to those of you who are not greatly interested in anything except your academic life. Remember that you are a member of the Associated Students of the California Institute of Technology, and as such you have a considerable responsibility.

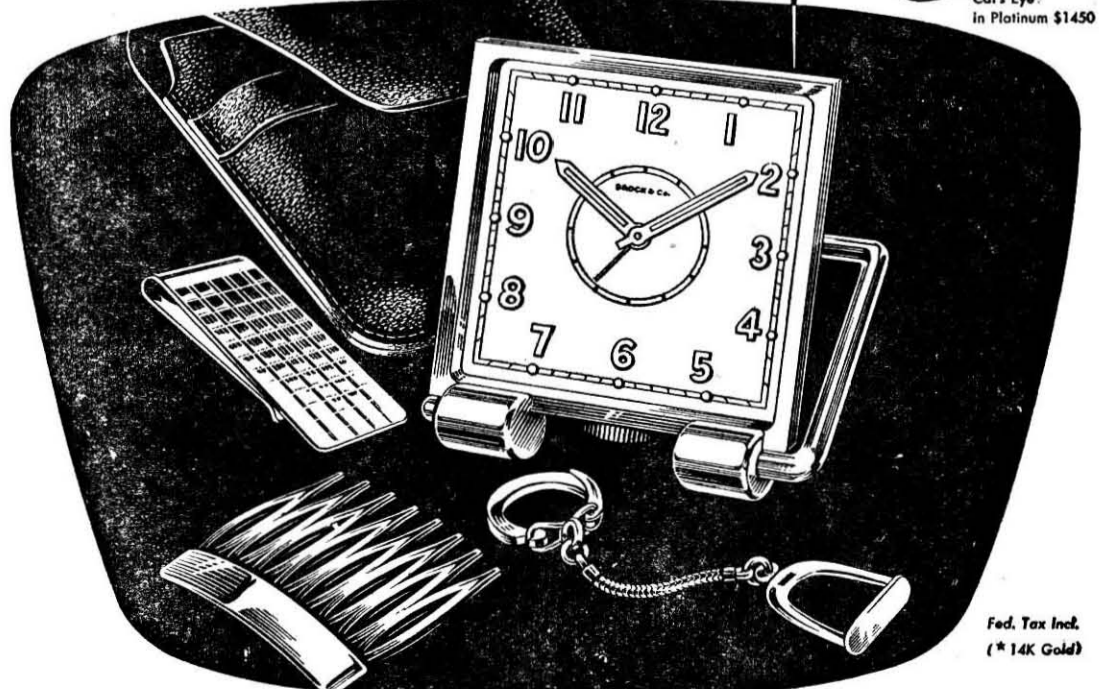
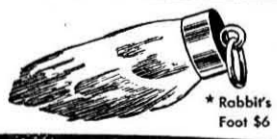
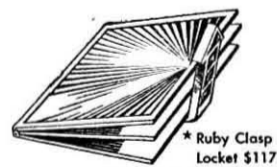
In last week's issue of the paper, we printed a letter from a student at M.I.T. who tried to bolster his position of non-approval of extra-curricular activities. This week we have a letter from one of our own students who attempts to refute the views expressed in last week's letter.

There are many arguments to be made on each side, but the following facts should be remembered:

1. When you leave Caltech, you will have to know how to get along with people. You will have to work with others, you will have to apply for jobs, and even if, in the most extreme case, if you are going into research, you will still have to apply for positions and present your discoveries to other research workers.
2. To get a job, you must balance academic and extra-curricular activities. The importance of being well balanced is sufficiently stressed at the institute, but it must be remembered that this does not mean that academic work should suffer. Interviewers like to see a man who has been active in extra-curricular activities, but even a very large amount of outside activity will not make up for a low grade point average.
3. Outside activities are important to many men, in particular those with just average grades. Hence the right to indulge in these activities should not be hampered in any way. But unless the rest of the student body also supports these activities, by attending football games, by voting in school elections, and by taking an interest in student life, the few who desire to participate will be hampered by the ennui of the others.

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BASKETBALL --- SPORT OF STRAIN!



The inimitable Goon—brittle-beak sports writer, local campus wheel, Fleming dignitary, et al—pictured in a tense moment from the Redlands game of last winter, which the Beavers won, incidentally, 50-36. Mr. Saltman and the others who make up the Shy-coached machine opened their season with a 62-47 loss to Muir in a practice game last week. The dribblers are preparing nightly for the Redlands Tournament December 2, 3, and 4.

Oxy, Loyola Best Water Polo Team

Last week was indeed gloomy for the Caltech water polo team. The Loyola and Occidental squads drowned the Tech tanksters in two engagements which broke with fury on a hapless Beaver aggregation.

The Loyola Lions, who have beaten just about all the prominent teams in Southern California, continued their winning ways with a victory over CIT, 12 to 5. Bill Palmer and Dick Libbey accounted for all of Tech's goals, while Jerrie McNulty of the Lions equaled the total Beaver effort with five tallies.

At Eagle Rock last Friday, the Tech tile tappers were defeated in the final minutes of play by a hard fighting Occidental team. The Orange and White overtook the Oxy squad in the 3rd quarter and went into the lead by one point. But the Tigers with a valiant rally sank three goals in the closing minutes to pull ahead of the Techmen and win, 9-7. Libbey, Palmer and Hall each accounted for 2 points, and guard Bob Stert tallied once.

	Total
CIT	1 2 3 7
Oxy	3 1 2 3 9

Ricketts Survives Rough Week In Interhouse Bowling

In the hottest week of Interhouse bowling yet, Ricketts came out on top by winning seven out of eight points. Throop and Dabney each managed 4-4 splits while Blacker and Fleming had to be satisfied with three and two wins, respectively. All houses except Fleming raised their averages as Tech bowlers boasted an overall mean of 146 this week, far above the usual 138.

Present standings:

House	Won	Lost	Pct.	Ave.
Ricketts	34	14	.708	154
Throop	28	20	.583	149
Dabney	23	25	.479	130
Blacker	21	27	.438	135
Fleming	14	34	.292	128

Nine out of ten teams broke the 2060 mark for total pins this week, six teams set new season highs, with Ricketts No.

**TYPING**  
THESES  
MANUSCRIPTS PAPERS  
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Two's 2160 series leading the bunch. Throop No. One fired a high game of 740, best of fifteen above the 700 mark, the most in any single week in two years of IH bowling.

Top game and series went to Woody Bratnober again this week for scores of 210 and 593. Andy Check was second with 200-557, Bob Benton third with 184-529, Carl Fox had 202-509, Dave Baron had 173-500, and Ralph Erickson rolled 202-498.

Top averages at the one-third point in the league:

Name	House	Ave.
1. Woody Bratnober	R	188
2. Ray Heggland	T	173
3. Bob Benton	T	167
4. Carl Fox	R	166
5. Andy Check	R	162
6. Gene Mooring	T	155
7. Sid Stone	R	153
8. Ralf Erickson	T	151
9. Dick King	D	151
10. Bill Culbertson	D	151

Basketball Men Interhouse Drop Opener Baseball

Last Thursday afternoon our Beaver varsity basketball squad opened the '48-'49 season against John Muir C. C. The lads were still a bit rusty from the long lay-off since last season (it seems as though they were unsuccessful in their attempt to have the Acme Brewing Co. sponsor them in the summer AAU circuit), and they dropped their first practice tilt by a score of 47-62.

**Word From Hall**  
The word from the Hall in need of Flame, the National Guard Armory, has it that Coach Shy is running the legs off our boys this year right from the start. Thursday they apparently spent a bit too much time running and not quite enough putting them through the hoop, with the short score as the result. Kidding aside, the team didn't look bad at all after only eight days of practice.

**Battle Police**  
The next night they scrimmaged with the L.A. Police and looked a hundred percent better. No score was kept up at the cop gym, but our Beavers held those pros about even. That is good word, for some of the law lads are indeed pro quality, and they don't hesitate using some of their delinquent-taming tactics on the basketball court.

**Lack Practice**  
This lack of practice is indeed the only point against our boys. In the Muir game there were a considerable number of fouls and cases of ball-fumbling, and poor and slow ball-passing. The team had trouble working the ball into the center. Muir jumped into an early lead and seemed to be able to sink anything in the vicinity of the basket.

Montgomery showed up particularly well with his speed, as did Sereno. Cox, from whom we expect big things this year, left early with a bloody schnozzola.

(Continued on Page 6)

**Dan LeMay**  
Last week's Interhouse games showed a little more baseball than the previous week's juggling, but the teams are still not showing the talent displayed by most high school groups. The boys looked better in the second lap of the I.H. race as the fight to stay out of last place grew more spirited.

Blacker eked out a 7-6 upset over Fleming on Tuesday. The Big Red team was handicapped without the pitching prowess of Norm Gray. Norm switched to basketball and Deane Smith, pitching his first game anywhere, just didn't have the experience to come through.

**Ricketts Edges Dabney**  
A scared Ricketts nine came from behind to down Dabney in Wednesday's match. Both teams scored in nearly every inning. The Rowdies trailed during most of the see-saw tussle, but came through in the last division. The 6-5 final score was a heartbreaker for the Dabneyites, who are chocolate-sundaeless through 1950.

Blacker, after Tuesday's display against Fleming, relaxed in front of the Throop steamroller. The nine determined off-campus men started fast and finished first, not having been threatened at any time. Blacker went down in a 12-4 defeat, coughing a little from the dust.

**Basketball Deletes Teams**  
On the whole, the teams are to be commended for the way they have survived the beginning of basketball practice. The Fleming aggregate suffered most, having lost all of its pitchers. Bert Snyder and Don Stewart decided that there was greater glory in Frosh Basketball than in the Dabney outfield. Ricketts wasn't hurt, as they can still coast on the pitching of the Grand Old Man of Baseball, Rube Katchedoorian.

**Fleming Overpowers Rowdies**  
Ricketts went down 7-2 on Monday under a Fleming nine

Christying with Carus

We are planning another Caltech Ski Club meeting soon, the date depending on when we can get Johnny Litchfield to come and lecture and show movies. This renowned character is chief instructor at Sun Valley, and so ought to be qualified.

The Southern California Intercollegiate Ski Union (SCISU) is having a meeting on December 2 here at Caltech, and we are going to draw up a schedule of races for this coming season. This Union consists of most of the prominent schools of Southern California, and promises to be quite active. There are going to be six or seven races similar to last year's, and although jumping and cross-country will be encouraged, they will not count for winning these meets.

Here is a fact that is misunderstood about our ski club. By joining our club, you are entitled to get THE SKIER, a magazine that has the largest ski circulation in the west. There are many members, who have not yet given me their address, and so cannot receive this beautiful publication. Therefore, if you are in this category, why not drop down to Ricketts 49 and let me know where you live?

The ski hut will no longer be considered a hut: it is now a ski chalet. The lights (electric, that is) are so bright, that when you go out into the sparkling snow, your eyes will be already adjusted.

that played smart baseball. No fewer than 5 Rowdies were out trying to steal, including one attempt at home.

This game put the standings in a circle, as Fleming beat Ricketts, Ricketts beat Dabney, Dabney smashed Blacker, and Blacker beat Fleming. The totals are more enlightening:

Fleming	3	1
Ricketts	3	1
Dabney	1	2
Throop	1	2
Blacker	1	3

Notice!

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Formerly at Lake and San Pasqual  
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According to a Nationwide survey:

MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

Doctors smoke for pleasure, too! And when three leading independent research organizations asked 113,597 doctors what cigarette they smoked, the brand named most was Camel!



HOUSE RULES

(Continued from Page 1) in the Student Houses except in the Bicycle Room or such other place authorized by the Resident Associate. 9. No intoxicating liquors shall be brought into the Houses, or consumed there. 10. Possession of unauthorized Student House master keys shall be subject to punishment. 11. The Manager of the Student Houses or a subordinate thereof, one of the Resident Associates, the President of the House concerned, or a student authorized by the Resident Associate may use a master key to open a room in an emergency. The room should be locked upon completion of the visit. 12. Violations of these rules shall be reviewed and penalties determined by the U. C. C.'s of the House in question, subject to approval of the Resident Associate. 13. During vacations none of the above rules is suspended. The reasons for the first three rules are certainly clear enough. There should be no objection or discussion on them. Rules 4 and 5 belong together. Rule 5 is to keep the tiles on the roof from damage, while rule 4 is to maintain a neat appearance of the roofs and to protect students from being charged for broken tiles. If Building and Grounds finds an aerial leading into someone's room and a number of broken tiles on the roof, they can only assume that the person who put up the aerial did the damage. All of the other rules are clear and simple enough except rule 8. The reason for this rule seems lost back in the old days of the houses since there has been no trouble from bicycles left around the houses since the war. Perhaps when the younger students become more predominant in the student houses, the number of bicycles will again increase.

SQUARE'S CIRCLE

(Continued from Page 2) ternoon programs as well. Yours truly, Steven Weisbrod This is an interesting idea. Considering the large number of letters we have received expressing appreciation for the printing of these programs, it might be possible that more programs would be well received. How about it? Would you like to see the schedule of other programs? If we receive a reasonable number of requests, we will try to extend our schedule to cover afternoon programs as well. —Ed. Yell Louder Editor; The California Tech: Several of the "Rooty-toot-toot, we're from the Institute" non-entities are complaining about the spirited cheering that was, er-ah-un—supplied at the Pepperdine game. Perhaps it would do these individuals a lot of good to go see a Big Game—Cal-Stanford, Army-Navy, Schmitts-Amalgamated Morticians, or what have you. I'm sure that the fight and drive that spurs upsets, such as that we almost enjoyed comes in measureable amounts from the efforts of loud-mouthed grandstand quarterbacks. Our present cheer leaders are the finest I've seen in four years at Tech, but no one can deny that not even the bestest of the best megaphone manipulators can inspire victory with a bunch of deadheads, who are more interested in Emily Post 1a, or even a night back at school with the thrills of MRW than pushing, shoving, or pulling OUR team to victory. I was a member of the tonsil tearing group that went to the game to have a good time. I yelled my loudest, even at the expense of 97 sets of eardrums and a few shocked young—or old—innocents. By the time the game was over, several of our group had given

Dabneyites Hold Campus-Girl Frolic

Last Friday night marked the occurrence of a dance unique in the annals of student house history: a Dabney-Campus Girls Frolic. The results, as predicted in last week's paper, were highly gratifying to all concerned. The numbers of boys and girls were just about equal, the girls were even more attractive than had been anticipated, and the effective mixing of the dancers kept everyone on his toes most of the evening. Social Chairman Don Royce did his bit to entertain the throng by putting on a quiz program, pitting a picked group of girls against a highly intelligent group of Dabneyites. To eliminate possible charges of favoritism, the girls were asked technical questions while the boys received highly non-technical questions. CAMPUS BREWINS (Continued from Page 2) ing, but immense volumes of coffee were consumed at the Episcopal Breakfast. Another celebration Saturday night, Jack Kester Willis's birthday; he was carried home. In the midst of such gaiety, our Hero of the Week, Teddy Einwohner, was studying. Not er—much too dark. Where? In in his room, for his roommate wanted to sleep. Not in Black-the geometrical center of Ricketts lounge! more than enough—or perhaps had more than enough, but we had a fine time. We enjoyed the game, and sincerely feel that we contributed to the team, and if anything, gave our school a shot of red, warm blood that might help avoid the eternal railroading to the back of the darkest mausoleum we now suffer at the hands of the public. Horace (Hoarse) Cruddite

Who Dealt This Mess

By Carl Fox

Counting the original suit distributions in the opponents' hands is one of Declarer's more important jobs. This is not ordinarily a difficult procedure. The count must be based on two types of indications, those which are proven in the play and those which are gathered from bidding and play and which there is no reason to believe false; for example, S Q 9 3 2 H J 7 6 D A 10 5 C K 6 3 N S 5 H 8 D Q 8 7 4 3 2 C J 10 9 4 2 S 10 8 4 H A K 10 9 3 2 D 9 W C Q 8 5 S 5 H 8 D Q 8 7 4 3 2 C J 10 9 4 2 S A K J 7 6 H A 10 5 4 C A 7 North-South vulnerable South dealer Bidding S 15 W 2H N 2S E P 4S P

THE EVENING CONCERT

Presented by the Southern California and Southern Counties Gas Companies Radio Station KFAC

8-10 p.m.

Program for the Coming Week

FRIDAY, NOVEMBER 26, 1948

Weekly Feature Concert—A Night at the Opera

L'ELISIR D'AMORE (THE ELIXIR OF LOVE)—Abridged, by Donizetti. Soloists, Chorus and Orchestra of La Scala, Milan, conducted by Lorenzo Molajoli (48). ERNANI—ABRIDGED, by Verdi. Soloists, Chorus and Orchestra of La Scala, Milan, conducted by Lorenzo Molajoli (40). MADAME BUTTERFLY—(HIGHLIGHTS), by Puccini. Licia Albanese, Soprano. Lucielle Browning, Contralto. James Melton, Tenor. \* Victor Symphony Orchestra conducted by Frieder Weissmann (25).

SATURDAY, NOVEMBER 27, 1948

EUGEN ONEGIN, by Tschaikevsky. Soloists, Chorus and Orchestra conducted by Mehlik-Pashayev.

MONDAY, NOVEMBER 29, 1948

ALCESTE—OVERTURE, by Gluck. B.B.C. Symphony Orchestra conducted by Sir Adrian Boult (8). SYMPHONIA DOMESTICA, by Richard Strauss. Philadelphia Orchestra conducted by Eugene Ormandy (40). BENNO MOISEVITCH, PIANIST. CONCERTO No. 2 IN C MINOR FOR PIANO AND ORCHESTRA, by Rachmaninov. London Philharmonic Orchestra conducted by Walter Goehr (32). HUNGARIAN FANTASIA, by Liszt. London Philharmonic Orchestra conducted by Constant Lambert (16). THE FAIR MAID OF PERTH, SUITE FOR ORCHESTRA by Bizet. London Philharmonic Orchestra conducted by Sir Thomas Beecham (15).

TUESDAY, NOVEMBER 30, 1948

THE MERRY WIVES OF WINDSOR—OVERTURE, by Nicolai. B.B.C. Symphony Orchestra conducted by Sir Adrian Boult (8). SYMPHONY No. 1 IN B FLAT MAJOR (SPRING), by Schumann. Boston Symphony Orchestra conducted by Serge Koussevitzky (33). FRITZ KREISLER, VIOLINIST. CONCERTO No. 4 IN D MAJOR FOR VIOLIN AND ORCHESTRA, by Mozart (K. 218). London Philharmonic Orchestra conducted by Sir Malcolm Sargent (26). SCENES ALSACIENNES, by Massenet. Minneapolis Symphony Orchestra conducted by Dimitri Mitropoulos (20). THE GREAT ELOPEMENT, by Handel-Beecham. London Philharmonic Orchestra conducted by Sir Thomas Beecham (24).

Sunday Musicale Program

SUNDAY, NOVEMBER 28, 7:30 P. M.

The Pines of Rome.....Respighi Matthias the Painter.....Hindemith Intermission Symphonie Fantastique, Opus 14.....Berlioz



Science paints the future

41 of every 1,000 U. S. chemists are engaged in production of paints, lacquers, varnishes and colors

Modern paint making is an outstanding example of chemistry at work—of the way the scientific approach has replaced rule-of-thumb methods. Today, paints are formulated by chemists to meet specific needs. In their search for better finishes, these highly trained technical men are aided by the electron microscope and infra-red spectroscopy. A variety of goni-

blow won't break. Tests with mechanical scrubbers prove it outwears old-style enamels by more than five times. "Dulux" enamels now guard boats, large and small, as well as petroleum tank farms, machinery and other industrial installations.

At Du Pont's paint laboratories, a widerange of materials is under study. Where the colloid chemist, the physicist and organic chemist, the analyst, physicist and other technically trained men leave off, the chemical engineer, mechanical engineer and metallurgist stand ready to design equipment to make better commercial production possible.

Modern equipment speeds research

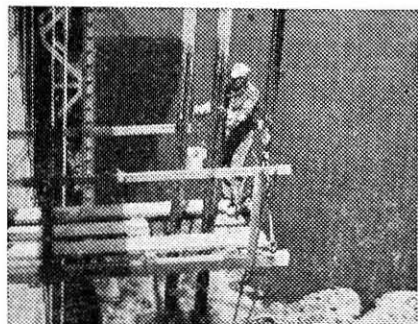
Many of today's research tools are complex and expensive. The modern research worker may use a \$30,000



Mark P. Morse, B. S., Physics, Washington College '40, measures specular and diffused reflection of a sample paint surface with a goniophotometer, a Du Pont development for obtaining data on gloss and brightness.

mass spectrometer installation which can make an analysis in three hours that formerly took three months. High pressure equipment, ultra-centrifuges, molecular stills, and complete reference libraries are other tools which speed research and enlarge its scope.

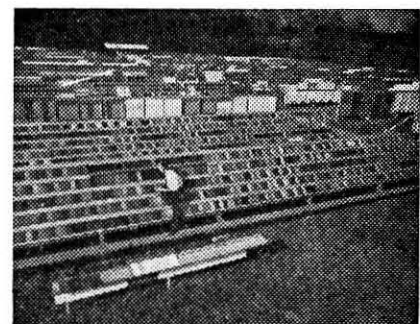
Young scientists joining the Du Pont organization have at their disposal the finest equipment available. Moreover they enjoy the stimulation of working with some of the most able scientists in their fields, in groups



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Paints are tested by exposure to weather at paint "farms." Research men interpret results as guide for development of improved paints.

photometric and spectrophotometric devices are used by the physicist and physical chemist in the study of gloss and color.

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Finish failures—chipping and scratching—were costing manufacturers of home refrigerators a million dollars a year before Du Pont chemists developed "Dulux" synthetic resin enamels, based on alkyd resins. A "Dulux" coating on metal or wood dries into a film that even a hammer

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**Talkin' It Over**  
With The Goon

Can't remember a more exciting weekend of football than last weekend's menu. It was one moral victory after another; one exciting hard fought encounter following another.

**Outside**

Let's talk about a few outside first. The Uclan-Trojan tilt was amazing to see. The Bruins, who according to the local scribes should have stayed at their basketweaving classes at Westwood, sent their friendly rivals from Figueroa to the shower room liberally applying Sloan's liniment to numerous cuts and bruises. While in the north, Stanford, possibly because they wanted Dr. Wallace "Bear" Sterling, one of the biggest boosters of athletics to be found anywhere, to set foot upon the Farm with a bearskin rug underfoot and Jackie Jensen's mangled body covered with All American write ups lying by the wayside, all but won the Big Game and took over the Axe.

**Oxy-Pomona**

Scouts from the Sagehen feast of the Tiger tell me that as usual after running into Oxy a few of the Hens suffered broken and brittle beaks. Oxy seemed to have the upper hand all the way. McColl was tightly bottled up, and the burden of the attack fell upon Herbner, whom many of our players feel is the better of the two ball players. Oxy's powerful line backers kept the middle tightly closed, and when the Hens took to the air their wings were quickly clipped by numerous interceptions. Final score 14-0, ending an undefeated season for the Eagle Rockers.

**Praise**

Just don't know how to lavish the praise upon the pigskinners for last weekend's game. In short, they were GREAT. From the opening whistle to the final gun the Waves were always in trouble. Our line was as tight

(Continued on Page 6)

**Leatherlungers Upset Redlands To Head League**

Caltech's championship bound cross-country squad upset Redlands previously undefeated "iron men" by a score of 25-30 over the Bulldog's grueling three mile course last Friday.

Placing first and second for Redlands were Livengood, finishing in a fast time of 16:51, and Creary.

Marshall, Mason, Cornelius, Peterson, and Cobb crossed the finish line in a solid bunch to place third, fourth, fifth, sixth, and seventh for Caltech.

The Beaver Harriers, fired up by a pre-race pep talk, have won the first victory from Redlands in several years.

So far the Beavers' outlook is good for winning the conference championship cup at the 4-mile run Dec. 11 at Tournament Park.

Redlands, which has been defeated only by Tech in conference meets, has beaten Pomona and Whittier. The Beavers meet Whittier's team this Tuesday, and Oxy and Santa Barbara next Saturday.

**Soccer Squad Ties Pomona In Finale**

Friday afternoon the Tech soccer squad, playing at Tournament Park in their last game this season, tied Pomona, each team scoring once. From the start the game was played in front of the goals, but both defenses held and no score was made in the first half.

On the third quarter Pomona drew first blood by scoring during a melee in front of the Tech goal. In spite of having almost constant possession of the ball in the last quarter, the team couldn't score until the last minute. Right wing Dave MacKenzie skidded through the tying goal. Because of darkness the tie could not be played off.

**Beaver Sports**



The winner in the Tech's Pigskin Prognostication Contest turns out to be none other than the genial Institute Athletic Director, Hal Z. Musselman.

**Hustlin' Hal Takes Honors In Grid Prognostications**

With most of the 1948 football games recorded in the heads of alumni of the future for re-gungitation at class reunions, the results from Pigskin Prognostication have been completed.

**Hal Wins**

After three weeks of close competition, Hal Musselman was out in front by a healthy lead. But Sports Editor Thorne Butler suddenly started to pick upsets all over the place; Stanford over Washington, Ohio over Illinois, and Harvard over Yale. The race was tied all the way until that horrible mess took place at Eagle Rock last Saturday when Oxy downed Pomona 14-0.

Mr. Butler fell at this point and had to concede victory to Hustling Hal. In the dust of the "experts," Coach Anderson and Goon Saltman brought up the rear, in that order.

Next when considering the results of score differential, Thorne Butler squeaked by The Hustler by 0.040 percentage points.

This part of the contest was probably the more difficult, since scoring on the gridiron this season took all kinds of bounces.

**Upsets**

The prognosticators had a fine season considering the frequent upsets. Heavy favorites would

suddenly go cold to be licked by a supposedly mediocre club. We only need to mention the Ohio over Illinois upset, or Stanford-UCLA debacle to show how crazy the season was.

All in all it was an interesting season, showing some new and surprisingly good talent in Stan Heath of Nevada and Rote of SMU. There were so many players of All-American caliber that any national pickings is going to be lacking a top notcher or two in every position.

In team rankings, steady powerhouses like Michigan, Notre Dame and Army still dominated the field. In small college ball, Santa Clara and even Occidental had surprisingly good teams. Finally, the only major argument will be over the Rose Bowl choice of Cal over Oregon.

**Final prognosticators Standings:**

Games:	W	L	Pct.
Musselman	26	4	0.867
Butler	25	5	0.835
Anderson	23	6	0.793
Saltman	23	7	0.767
Athletic Dept.	49	10	0.832
Sports Staff	48	12	0.800

Score Diff. % between predicted and actual on winning choice.

	Prod.	Act.	Pct.
Butler	291	409	0.687
Musselman	278	430	0.647
Saltman	244	411	0.594
Anderson	191	340	0.562
Sports Staff	525	820	0.642
Athletic Dept.	469	770	0.610

**Grid Season Ends In Moral Victory**

**Pepperdine Given Scare As Beaver Eleven Edged By Wave Machines**

For 14 Caltech Seniors on the Tech teamcmfwyetaoincmfwm

An inspired Beaver Eleven took to the field last Saturday night and showed Pepperdine College what a clean, hard-hitting, well rounded team looks like. The Peps, who have been scourge of small college competition on the Pacific Coast for three years, were lucky to emerge victorious, 14-12.

The Beavers were psychologically right to play their best game of the season. For 14 Caltech Seniors this was to be their last game. Added to this was the team's general dissatisfaction with their showing two weeks ago against Redlands. Everyone who saw the game or watched it on television, will agree that they really played fine ball.

**Peps Score Early**

The game had hardly started when Bell took Bob Funk's 43-yard quick-kick and ran it back 79 yards for the first Wave score. Leon converted, and the score was 7-0 before either side had made a first down.

**Frosh Sports Roundup**  
By Leon Michaelson

With the football season already forgotten, we hear the patter of tiny feet as the Frosh hoopmen take to the hardwood. Better than four full teams are out this year, presenting to Coach Ed Preisler a promise of a good season.

The Freshmen five journeyed to Pasadena College after less than a week of practice, playing a very close game to the end only to drop it 48 to 43. More impressive, perhaps, than the display of buckets, was the alert defense and ball recovery. The Little Beavers, with little chance to work together beforehand, showed in themselves a squad with great aptness in ball handling and a surprising lack of confusion. Pasadena knew they had played a basketball game!

**Cross Country**

We extend a hearty cheer to our cross country team for taking the meet at Redlands. It was classed as a win by default but we want to make it clear that the Frosh men were far in front no matter what the decision. Coach Bud Carrol's team has a good chance to hold the championship won by last year's class. We go to the Whittier meet too late for printing, so we'll have the particulars next week.

Late in the first period, Tech started rolling with the accurate passing of Don Baker to ends Odell Carson and Don Hibbard. Baker to Hibbard was good for the TD, but Bob Funk couldn't hit Carson with a pass for the extra point attempt.

Pepperdine began rolling on the ground in the second quarter, but a pass from Hyduke to Embree scored their second touchdown; again Leon converted.

**Beavers Threaten**

Tech rebounded to threaten immediately when Baker again passed to Carson for 37 yards to place the ball on the Peps 25 yard line. Don's next pass was intercepted, however, and the Waves began to roll.

Turning the tables, Merle Kam hauled in a Pep pass on the Tech 31 and ran it back to the Waves 47; but the Techmen gave up the ball on downs on the 31 shortly before the half ended.

**Tech Scores Again**

Late in the third quarter, Bob Funk kicked out on the Wave 15 yard line. On the first play Pepperdine fumbled, and John Kariotas recovered for Tech. This, incidentally, was the third Wave fumble of the evening that Caltech recovered, a consequence of heads-up ball and the hard

(Continued on Page 6)

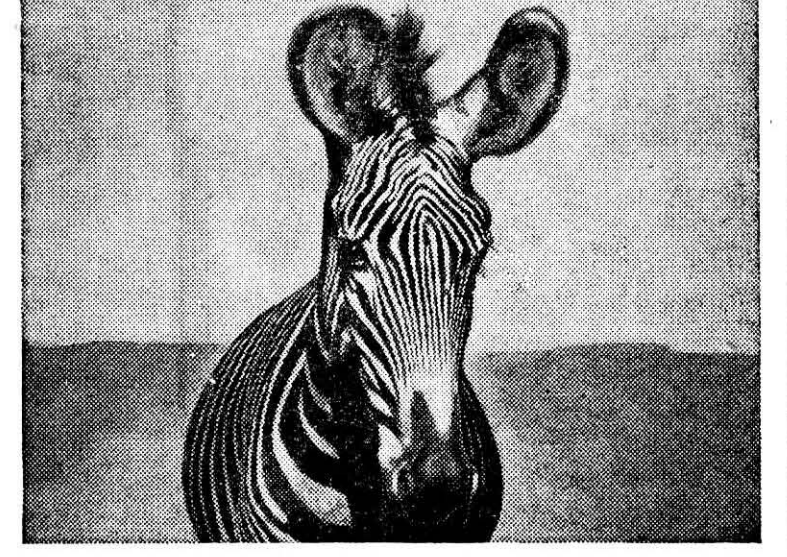
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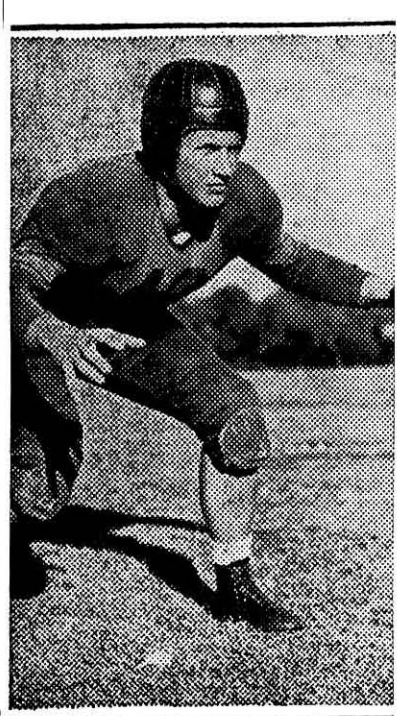
**J. Paul Sheedy\* Switched to Wildroot Cream-Oil Because He Flunked The Finger-Nail Test**



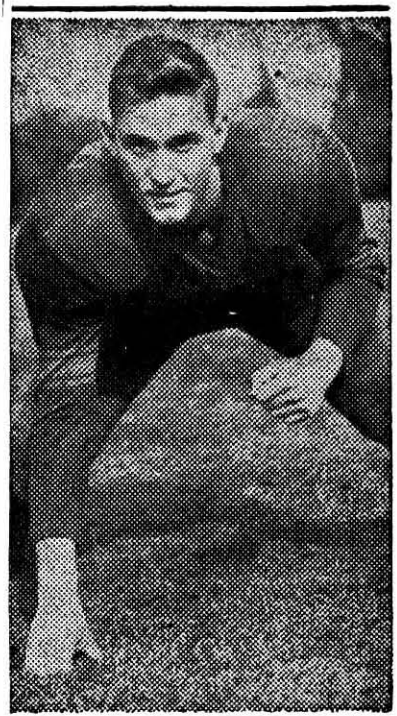
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**TALKIN' IT OVER**

(Continued from Page 5)

as it ever has been, the backs were charging like locomotives, and our defense sensational. With a little more luck on our conversions we could have come up with a tie. I hate to single out any individual in a game like last Saturday's, but Mighty Merle Kam turned in a fine performance. It was almost pathetic to watch about three monsters from the Peps come charging at Merle, who stands about 5'8", with only mayhem in mind, and then see these same monsters pick themselves off the ground and see that Kam had nabbed the runner. The kid was snatching passes out of the hands of defenders that towered above him. In fact I think he was representative of all the men who played in there that night.

**Narrow Miss**

It was a great Tech team that narrowly missed conquering the highly touted Waves. It was a great Tech team that played a season of 60 minute ball games. It was a great Tech team this year and every man on it deserves a big hand.

**Leatherlungers**

Congrats to the Cross Country squad and Bud Carrol who upset the dope bucket by handily taking Redlands and Whittier in a three way meet at the Dog House. From the showing they made out there and barring any mishaps they should carry the Orange and White to a Conference Cross-Country Championship.

It is surprising how many men have graduated from Tech and are now coaching. Look at Bud Carrol coaching Cross-country, Bill Dixon on the water polo team. It looks like the Hustler might become the Dean of Physical Education after all.

Remember to get your tickets to the Fall Athletic Banquet early this year. There are only a few left. It should be better than ever. See you there.

**Bowlers Drop Close Match To USC As Tech Rally Fails**

Caltech's bowling team lost another close match to U.S.C. this Sunday evening at the Trojan Bowl in Los Angeles. Tech got off to an early lead by taking the first game by 48 pins, then cooled off to lose the second string by 62 pins for a 14 pin deficit going into the final game.

**Trojan Lead Dwindles**

Troy boasted a 90 pin lead in the seventh frame of this game when Tech started to pile up strikes in an attempt to pull an Horatio Alger finish. Troy held on, however, to win the game by a mere five pins, and the match by only 19 pins. The victory could have been reversed by one well-placed Tech strike.

Highest series of the match was fired by Woody Bratnober of Tech as he put together a pair of 199 games with a 178 score for a 576 total. Best scores for the Trojans were made by Bud Brooks with a 193 game and a 515 series.

Individual scores:

CALTECH	
Ray Heggland	162-156-167—485
Carl Fox	156-161-164—481
Bob Benton	158-115-155—428
Andy Check	148-143-152—449
Woody Bratnober	199-178-199—576
Total	823-753-843—2419
U.S.C.	
Bud Brooks	176-146-193—515
Bill Randle	146-158-180—484
Dick Palmer	158-157-154—469
Ricky Glasman	144-173-153—470
Al Money	151-181-168—500
Total	775-815-848—2438

**STERLING SUCCEEDS**

(Continued from Page 1)

tember, 1949. In commenting upon the appointment, Mr. Paul C. Edwards, president of the Stanford Board of Trustees, said today:

"We are indeed gratified to secure a man of Dr. Sterling's marked ability and scholarly interests to be the new president of Stanford University. He will come to the campus not as a stranger but as a former student who spent five years there pursuing research and postgraduate work in preparation for his Ph.D. degree.

"Since leaving Stanford his rise in the educational world has been exceptionally rapid and has combined research, teaching and administrative duties, the kind of experience that fits him well for the exacting responsibilities he will assume as head of the Stanford faculty.

"As director of the famous Huntington Library at Pasadena he occupies a place of distinguished intellectual leadership. We consider it most fortunate that he recognizes the Stanford presidency as an opportunity for still greater achievement in that direction and as a challenge to his talents as a scholar and teacher. We are confident the university, under his guidance, will be wisely administered and advanced in accordance with the high standards established by its founders and carried forward so ably by his predecessors in the office of president."

**GRID SEASON ENDS**

(Continued from Page 5)

hitting of the Beavers. Funk worked the ball down to the Wave 15, and then romped into the end zone standing up on the next play. The PAT attempt by Jim Schofield was no good. The Tech team was handicapped in this department, as in others, by absence of Chuck Norman, out with a knee injury since the Oxy game.

The rest of the game was nip and tuck, with Pepperdine trying to score through the air, and Tech rolling along on both land and air. When it was all over, Tech had made 10 first downs to Pepperdine's 14.

Bob Funk played two backfield positions and called the plays, running up a full 60 minutes of playing time. Manuel Bass also went the full circuit at tackle. Craig Marks, Don Baker, and Don Hibbard played 58 minutes each.

**In the Cellar**

Thus the 1948 campaign of Mason Anderson's gridiron warriors came to a close. They wound up in the League cellar, winning zero. The team's lone victory was over LaVerne, 22-21. But their fine showing against Oxy, losing 25-13, and their near victory last week showed that the Beavers were capable of putting together a combination of spirit, ability, and determination on a par with any team in the conference.

Playing their final game for

**Frosh Harriers Win Redlands Meet; Bullpups Default**

The Tech Frosh cross country squad have again proved that they have an unbeatable combination when they whipped the Redlands squad in the two mile cross country run last Friday at Redlands.

The circumstances concerning the meet are rather curious. Officially the Tech Frosh won by default since five men from a squad must finish to qualify the squad and Redlands only finished four men.

If Redlands had entered a fifth man however, and he had finished tenth, Tech would have won by a score of 23 (C.I.T.)-32 (Redlands).

Bill Pinkington once again proved his ability by coming in first with a time of 12:34. Parker of Redlands finished second with a time of 12:53. Bob Parnes and Ron Connor took third and fourth respectively for C.I.T.

the Institute were the following seniors: Bob Funk, Manuel Bass, Don Hibbard, Dennis Long, Bob Walquist, Fred Darms, Dick Schuster, Bill Sylvies, John Kariotis, Dave Powell, Forrest Allinder, and Byron Karzas. Seniors who were injured, and hence didn't play were Bill Muehlberger, Ray Johrde, and Bill Rumer.

Score:

Pepperdine	7	7	0	0-14
CALTECH	6	0	6	0-12

**BASKETBALL MEN**

(Continued from Page 5)

Art Bruington, who has finally managed to compromise his doctor, showed very well with a lot of well-needed fight and hard playing.

Reserves troubled us to a certain degree last year, but it appears that we will have a fine set this season in addition to a mighty good first team. There are about fifteen men on the squad now, and most of them have a high potential. We can easily field a team with every man over 6' 3". Even with Sereno or Highly-short Monty in there we can average 6-3.

This week's practice game with UCLA was cancelled — they chintzed out of it, something about rules—and our next practice till is with Los Angeles City College next Tuesday afternoon on the LACC campus, followed by the Redlands Invitational Tournament on Dec. 24. Let's follow the squad this year. We can look forward to a very successful season.

**Caltech Musicales Meets For Review Of Policies**

There will be a business meeting of the Caltech Musicales on Tuesday, November 30, at 12:30 in Dabney Lounge. All members and officers are urged to attend. Policies of the organization are to be discussed.

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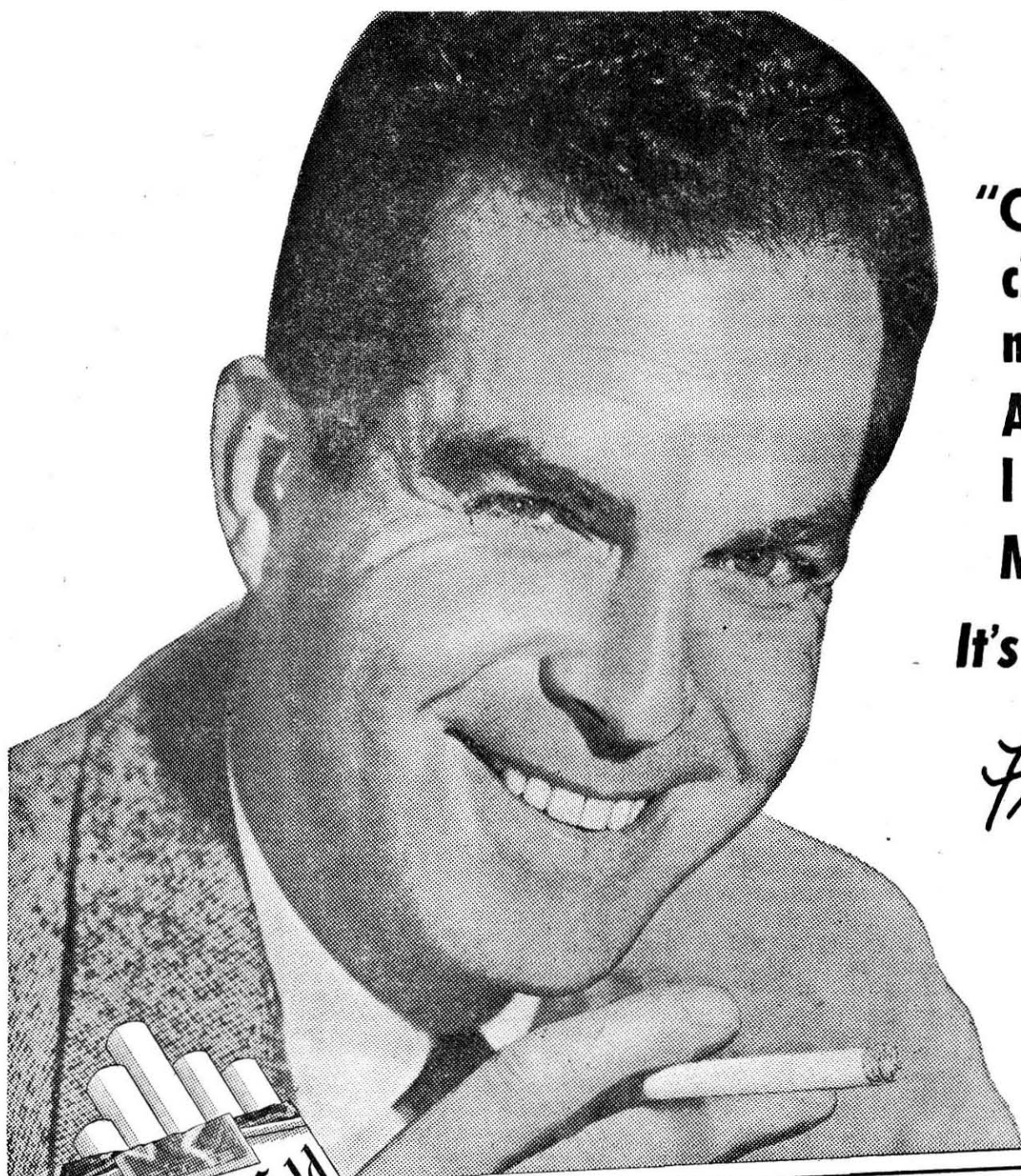
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