

## Montgomery comes to Tech

### Students' Day coming soon, speeches, tours planned

The 1954 edition of Caltech's Students' Day will be presented Saturday, December 4. On that day over 900 high school seniors and teachers from Southern California will descend on Tech. They are coming here at Caltech's invitation in the hope that some of them will become convinced that this is the college for them.

The visitors will be treated to a full day of activities, which will include guided tours, speeches, and demonstration lectures. The program is being jointly planned by a student committee, headed by Jim Lewis and Rod Supple, and a faculty committee headed by Dr. C. W. McCormick.

#### Guided tours

The day will begin at 8 a.m. with registration of the visitors. They will be split up into groups of about 20 or 25. From 9 until 12 they will be taken on guided tours of the campus. These tours will include demonstrations and exhibits in the various departments.

At noon the sightseers will take a break for lunch. The teachers will eat at the Athenaeum and listen to an address by Dr. Hugo Benioff, professor of seismology. The visiting students will be served in the student houses. In order to make this possible, the Caltech students will eat at 11:30.

#### DuBridge speaks

Following lunch the students will gather on the Athenaeum lawn, where they will be officially welcomed by Jim Adams, ASCIT president. Dr. DuBridge will also give a short speech at this time.

During the afternoon the visitors will be able to choose between a number of demonstration lectures being given by the various departments. These lectures, 15 in all, will be given in groups of five at 1:30, 2:30, and 3:30.

The lectures being given include: "X-Ray Diffraction and the Structure of Matter" by Dr. Gunnar Bergman, "What Biologists Do" by Dr. George W. Beadle, "Compacted Soil in Modern Construction" by Prof. F. W. Converse, "Pinwheels or Pistons" (Continued on Page 4)

## Demise of annual Pajamarino brings new version of Oxy rivalry to Tech

#### By John Young

A tradition was born last Friday. Whether or not it was still-born will only be told in years to come.

From this position we can certainly say that the rally and festivities were more appropriate and more in line with reason than the pajama parade—as soaked in tradition as the latter may be. In the first place, the food was good. The much heralded pound of beef turned out to be closer to a half-pound, but that is enough for anyone. Some of the diners were forced into eating with their fingers. Now this was downright fun with the meat and slaw, but when it

### ASCIT-sponsored Santa Sock dance due December 4

The ASCIT fall dance, "Santa Sock Dance," will be held Saturday, December 4, from 8:30 to 12:30 in Dabney Hall. Marshall Cram's orchestra, featuring a girl vocalist, will provide music for the dance.

The dance will be a "sock hop." The dress will be skirts and sweaters for the women, slacks and sweaters for the men. Dancing will be done in stocking feet. There will be prizes awarded for the craziest socks.

This year as last year each couple will present a toy at the door as the price of admission. After the dance the toys will be donated to charity.

Bob Kausen, ASCIT first representative, is in charge of arrangements for the dance. He is being aided by Chuck Bodeen, decoration chairman, and by the Instituters.

### Dabney Hall holds modern art exhibit

"Elements of Design," the third in a series of special art exhibits sponsored by the Caltech Humanities Division, will be shown November 15 through December 4 in the lounge of the Dabney Hall of the Humanities.

Prepared by the Museum of Modern Art in New York, the 23 panels show how such fundamental principles as line and color are used in all fields of design. The show was planned and designed by Robert Jay Wolff in collaboration with Elodie Courter, Victor d'Amico, and Alice Otis.

### British war hero here as guest of Institute; will address student body on November 29

#### Sophs to hold picnic Sunday

Caltech's sophomores will stage their class picnic next Sunday at 2 p.m. at Elysian Park in Los Angeles. Activities will include athletics and a treasure hunt during the day, a dinner at sundown, and a dance after dark.

Social chairmen Frank Kofsky and Bob Chambers are in charge of the event, one of four outings planned by the sophs this year.

Guests at the picnic will be several sophomore instructors, invited to lure out the snakes who might otherwise remain at home.

Blind dates for the fling are still available. Interested sophs should see sophomore president Bob Gelber in 31 Ricketts. Gelber is also handling rides to the picnic. Sophs with extra space in their cars are urged to arrange with him to give a lift to rideless members of the class.

Dress will be denim and levis for the men (sic) and pedal pushers for the girls.

#### "Emile Zola" as Y film Sunday

This Sunday, the Caltech Y Film Series will present "Life of Emile Zola." The film, last in this term's series, will be seen at 7:30 p.m. in Culbertson.

The story of a famous author who crusaded in a one-man campaign for justice in 19th century France stars Paul Muni as Zola. The climax of the film is the Dreyfus Case, in which Zola makes a brilliant defense of Captain Dreyfus, a French army officer unjustly convicted of treason. William Dieterle directed the film.

As an added attraction, the series will present "The Loon's Necklace." This depicts a colorful legend of the Canadian Indians told exclusively with authentic tribal masks.

a portable generator. At three in the afternoon, they decided that they couldn't find the generator. They promised gasoline lanterns. At six o'clock there appeared one gasoline lantern—sans gasoline, which nobody, not even the B&G men could light. Oh, well.

The little bonfire itself was really very nice. It burned brightly for about ¼ hour and was cheery, as bonfires should be.

But nobody knew exactly what to do when he was standing around the bonfire. After eating, people wandered over to stand around its warmth, with

(Continued on Page 3)

Field Marshal Viscount Montgomery, famed British World War II hero, will be the guest of Caltech Sunday and Monday, November 28 and 29. The Viscount will speak to the student body Monday during the 11 o'clock period in Tournament Park.

Field Marshal Montgomery's visit is at the invitation of President Lee A. DuBridge. Dr. DuBridge met and worked with the Field Marshal at a NATO conference in Paris last April. It was at that time that

#### Dr. DuBridge talks in houses next Monday

Dr. DuBridge invited Montgomery to visit Pasadena and Caltech during his visit to the United States this winter. He is scheduled to arrive at the International Airport Saturday, November 27, where he will be met by Dr. DuBridge. It has been arranged that he be alone Saturday evening and throughout Sunday to rest and prepare the two major addresses that he will deliver during his stay.

In addition to addressing the CIT student body, he will lunch with the Trustees Monday noon and attend a dinner given in his honor by the Trustees and the California Institute Associates that evening. Tuesday and Tuesday evening, he will be the guest of Mr. Samuel Goldwyn. That noon he will speak at a public luncheon in the Biltmore.

Field Marshal Montgomery led the British forces in defeating Rommel at El Alamein. He then chased the "Desert Fox" 2000 miles across North Africa, breaking the German power in that area. Under Supreme Commander Eisenhower, he commanded the Expeditionary force in the Normandy invasion. Following the invasion, he served for a time

(Continued on Page 6)

Dr. DuBridge, who serves as chairman of the national Science Advisory Committee in addition to his duties as head of Caltech, has a national reputation as an able scientific administrator. He was one of the men who testified before the Loyalty Review Board which considered the Oppenheimer case. He has had a chance to view from first hand the basis for the government's security program, and the way that the program has actually functioned.

Dr. DuBridge's speech in the student houses was arranged by the Caltech Y to give interested students a chance to learn about the present relationship between science and government. Y vice-president John Young arranged the talk.

#### Tech debaters merit awards

At the annual Invitational Valley J.C. Tournament for freshman debate last Friday, Tech's team of Gene Cordes and Andy Perga won three and lost one debate and took an award of excellence. The team, undefeated in frosh-soph debate at the Los Angeles City College tournament, took 15 points out of a possible 20 for their award.

Also entered in lower division competition was the team of Mike Gray and Tom Gunkel which won one victory and was given a rating of 13 points, missing an award of excellence by one point.

Both teams, along with the other members of the Caltech debating squad, are preparing for the Western Invitational Speech Tournament to be held November 22-25 at Tucson, Arizona. Caltech will send four teams: Bill Lindley and Myron Black; Rube Moulton and Mike Bleicher; Gene Cordes and Andy Perga; and Herb Rauch and Don Meyer.

#### Social events include plays, barn dance

This Saturday, November 20, Dabney and Fleming will join forces and hold a barn dance at Mountain Oaks in La Canada. According to Social Chairmen Bob Kausen and John Bryant of Dabney and Mike Boughton of Fleming, the dance will begin at 8:30 p.m. with music supplied by Dick Jaffe and his band. The crew races will start at 9:01 p.m.

Also this Saturday, Blacker co-social chairmen Fritz Benning and Paul Lindfors have planned a theater party at the Pasadena Playhouse at 8:30 p.m. Blackermen will see Billie Burke in "Mother Was a Bachelor," a new comedy by Irving Phillips. After the play, a dance will be held in a couple of rooms which will be vacated and specially decorated for the event.

On Friday at 8:30 p.m., Ricketts has also planned a Theater party. The Rowdies and their dates will see "The Hasty Heart," a comedy with a serious vein. It will be presented by a small group of professional actors at the Sartu Theater. Co-social chairmen Larry Griffith and Dick Morse have also planned a dance in the lounge afterwards.

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# Many foreign scholarships offer opportunities to grads

By Jerry Fried

Caltech students are usually "in the know" about scholarships and fellowships, but they seem to have overlooked one special opportunity, the foreign scholarship. As one scholarship holder has pointed out, "personal experience is the best way to learn about another country, and one of the best ways to promote an understanding abroad of American life and ideals."

Probably the best known of the foreign scholarships is the Rhodes Scholarship to Oxford. Valued at 600 pounds per year, the appointment is for two years, with a possible extension to three. Dr. Norman Davidson is the Caltech representative for this award.

Any undergrads interested in spending their junior year studying in Switzerland are invited to compete for the award of round trip transportation to and from that country.

Sponsored by the American Society for Friendship with Switzerland, the contest is in the form of an essay concerning various aspects of Switzerland and her relations with the United States. The deadline date is May 31. Those interested should contact Professor Horace Gilbert in Dabney Hall, room 104.

26 applicants for Fulbright  
Another well-known scholarship is the Fulbright grant, covering full expenses and awarded to graduate students for work in any one of 22 countries. In the past, according to Prof. Gilbert, about half of those who applied from Caltech have been accepted (although until this year, there

had been very few applicants). Of this year's record 26 applicants, most chose Germany, Great Britain, the Netherlands, and France as the countries they would like to work in.

A new scholarship this year is the Marshall Scholarship, sponsored by the British Government. These awards are, in the words of the British Information Service, "an expression of the United Kingdom's gratitude for the generous and far-sighted program for European recovery."

Good for two years, the award is made to graduate students for tenure at any university in the United Kingdom for study of any subject which will lead to a British degree after two years. Marshall scholarships are valued at 550 pounds per year, plus passage to and from Britain. Due to insufficient publicity, only one Caltech student has applied for the Marshall grant. (The application deadline was September 30.)

The records show that Caltech students are generally successful in obtaining these foreign study scholarships, so if you are at all interested, check with Professors Davidson and Gilbert for more information.

## Tech Staff meets for picture tonight

There will be an important meeting of the California Tech staff tonight at 7:15 in the Tech office. Big T pictures will be taken, and all staff members should be there.

# New members initiated into Tau Beta Pi

A steak dinner at Pierre's Monday night climaxed the initiation of sixteen new members into the local chapter of Tau Beta Pi. The four juniors and twelve seniors were initiated at a formal ceremony Monday afternoon.

Honor juniors elected to membership were Howard Berg, Tom Bergeman, Everett Eiselen, and Lyman Fretwell. New senior members are DeLano Brouillette, William Creighton, John Domingo, Gary Gayron, John Honsaker, Carl Johnson, Gerald Lippey, Tom Noonan, Hunter Paalman, Dick Wagenseller, Paul Wang, and John Wolfe.

Dr. Lee DuBridge spoke at the dinner meeting on the possible future of selective service as it will affect engineering and science students, and the effect of security upon the scientific world. Another highlight of the evening was the traditional presentation of a skit by the new members. The skit Monday night consisted of an amalgamation of excerpts from Shakespeare.

# Campus Brewins

"Let us now make a fresh beginning and point out that of moral states to be avoided, there are three kinds—vice, incontinence, brutishness."

### Nicomachean Ethics

The Beak wishes to dedicate this week's column to Jay Glasel—you know, the poor man's pint-sized guide to culture. The Beak has been under the impression all these years that he had the longest and sharpest nose in existence. But he feels that the distance which Glasel looks down his proboscis each week leads us to yield him the title.

The Beak always likes to get a little dirt on his old pal, Mother Southworth. We quit complaining about the food years ago, so it has been hard recently to dig it up. Last week Blackerman Malville made arrangements with the Student House Office to pick up some apple cider for the square dance session Sunday night. All went well, until someone discovered that they had a

tremendous supply of doughnuts and vinegar. Ma Southworth wore a red face the next day.

### Galloping tigers

The Beak always knew, in the back of his heart that there was some use in this old world for Fleming-man Davis. Now Wild William has showed us all, that as a tiger lifter, he is unexcelled. The utter irony of our offer of Pomona's sage-hen adds infinitely to the effect. Davis and the boys laugh as the Oxy Deans—"Boil and Bubble, Toil and Trouble. . ."

### Mob explosion

Word has leaked out from the home of the Darbs telling the whole story of an evening escape. The eight men, out for

(Continued on Page 4)

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# WHO ARE INDUSTRY'S TOP YOUNG SCIENTISTS ?

Ten men between the ages of 26 and 40 were featured in a recent national magazine article which presented a portrait of the young scientist in America today. These particular men are a sample of the most brilliant young scientific minds in industry.

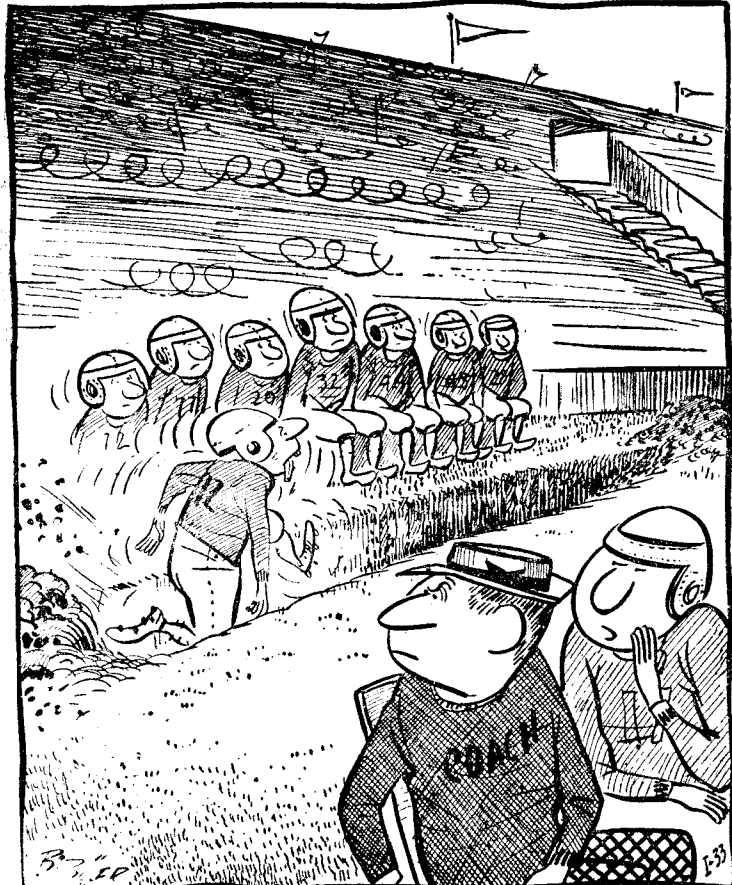
It's interesting to note that three of the ten are with Bell Telephone Laboratories, three with General Electric and one each with four other companies.

The variety of opportunity in research and other phases of telephone work has always attracted an unusually high percentage of the nation's best young men.

Consult your Placement Officer about opportunities with Bell Laboratories . . . also with the Bell Telephone Companies, Western Electric and Sandia Corporation. Your Placement Officer will be glad to give you details.

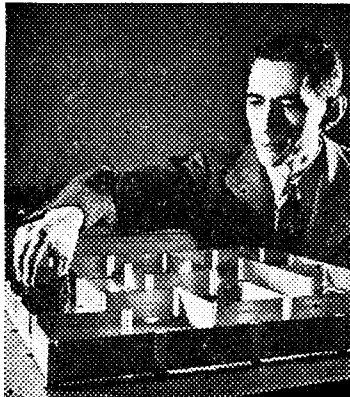
### LITTLE MAN ON CAMPUS

by Dick Bibler



"Say, Coach, some of the boys feel you're making them 'warm up' too long."

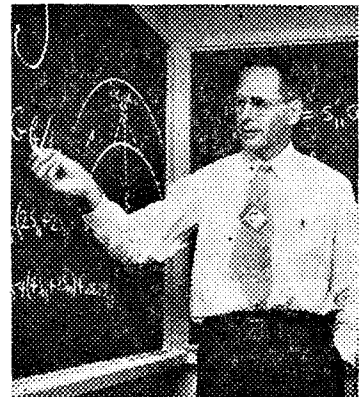
THREE OF THE TEN ARE AT BELL TELEPHONE LABORATORIES—



Mathematician Claude Shannon won fame for his Communication Theory



Physical Chemist William Baker introduced new concepts that have improved synthetic rubber and fibers



Physicist Herring is known for his understanding of the quantum mechanics of the solid state

BELL TELEPHONE SYSTEM



## Once Over Lightly

By Jay Glasel

### Brave New World Dept.

General Wm. Creasy, head of the Army's chemical and bacteriological warfare division: "Actually our weapons are the most humane there are. We can tailor them to the exact needs of the situation. We can kill the enemy or we can make him sick and knock him out for a fixed period of time. And we don't destroy property."

Val Peterson, head of civil defense for the United States: "Just as a matter of practical consideration, what in the hell will we do with all the bodies?"

### On another tact (sic)

One interesting phenomena associated with the current Hi-Fi craze is the wealth of books and articles being published about music and musicians. Remember a few years back when it was art that was the rage? Accompanying this movement were books such as "Moulin Rouge" about, of course, Toulouse-Lautrec. Following this was the movie of the same name. People who had never looked at anything more than a snapshot were buying books of reprints. In short, he became a popular cocktail-hour conversation subject.

The musical fad has elected Niccolo Paganini to its hall of

### DEMISE OF PAJAMARINO

(Continued from Page 1)

their hands in their pockets. President Adams greeted the troops and implored them to be gentlemen in the likely-to-be-forthcoming riots. It must have worked; there were no riots. Then Cheerleader Kofsky led the mighty voices in a couple of yells. Liberal estimates are that half of the guys were yelling.

The height of the frenzy was supposed to be the burning of a mock Oxy tiger. There wasn't much frenzy, but the orange animal that had stripes (it must have been a tiger) which had been built by the Instituters was led to the cremation pit. After drowning the poor beast in kerosene, someone tried to light it. It just wouldn't burn. After a couple of minutes of watching the tail burn, but nothing else, about ten stouthearted gentlemen lifted the thing onto the fire. It burned fine then—with magnesium ribbon popping out of it. Davis and friends proudly displayed their captured Oxy victory banner, and the troops started a parade.

Enthusiasm at the game was really quite surprising. The cheerleaders, working without their chief, Schulze, did a good job of keeping the fans from going to sleep. The spirit was definitely there; the rally had evidently stirred up something.

A pep rally at this school is not an easy job. Rally Commissioner Harford did a fabulous, almost single-handed, job in making the arrangements—which included rescuing the paper tiger from some of our own frosh who stole him about 5:30 with the idea of burning him at Oxy. Despite the petty inconveniences which we remember afterward, we congratulate Jon Harford on a pretty tremendous job.

fame. Witness the popularity (suddenly) of Rachmaninoff's "Variations on a Theme by Paganini." The 18th variation was made into a popular song and a picture theme, "The Story of Three Loves." Now a new book has appeared called "Paganini," written by Renee De Saussine. I expect to receive my campaign button from desperate Republicans any day now.

In the current issue of the "Atlantic" an article of interest to followers of symphonic music appears. It consists of a correspondence between Leonard Bernstein and an unnamed Broadway producer. The subject is, "Is symphonic music dead in America?" The producer claims that musical comedy is the only living and creative form of music today, while Bernstein takes the position that symphonic music is still growing.

One of the most interesting things to observe around campus is the opposition of a large majority of both grads and undergrads to the selection of Ernest Hemingway for this year's Nobel prize. It is interesting since Hemingway's innovations have permeated modern fiction to such a great extent. Perhaps it is the subject matter that has lost its appeal. I wonder just how lost the "lost generation" is?

Faulkner's prize met with general approval. Possibly he speaks better for our generation. Will he be lost 10 years from now? Come to think of it . . . where are our writers?

I am looking forward to reading "The Literary Situation" written by Malcolm Cowley. It poses questions such as these in an effort to survey the modern literary world.

Cannibal Chief (to victim): "What did you do for a living?"

Victim: "I was an associate editor."

Chief: "Cheer up. After tonight you'll be editor-in-chief."

## Caltech grads of last year now earn \$375

The typical working member of the Caltech class of 1954 now lives in California, works for an industry and earns \$375 a month. He got his job through the Caltech placement service, selecting it from the two jobs offered to him.

These facts are from the 1953-54 report of the Caltech placement service. According to the report, industry representatives interviewed 88 Tech seniors for jobs during the last school year. Of the men who were interviewed, 69 received job offers; nineteen did not. Of the men who got offers, 32 accepted. The rest went to grad school or entered military service.

Of the seniors who received BS degrees here last June, 53.4% are taking graduate work. Most of these are studying at universities in California.

Median salary offered to '54 Tech graduates was \$375 per month, based on a 40-hour week. Holders of the MS were offered \$435 per month median. Men with PhD's were offered \$535.

Option-wise, three applied chemistry BS's were offered \$375 per month each, and ten physicists \$375 per month median. Maximum salary offered to a physicist was \$395. Most men in other science options went on to grad school.

Engineer offers were a little higher. Median salary for 35 EE's was \$395. ME's, 80 of them, were offered \$375 median, and 3 CE's had a median offer of \$385. Maximum offer was \$555 for EE's, \$415 for CE's, and \$505 for ME's.

Industry accounted for 91.4% of the seniors who went to work. Research institutions employed 2.9%, and the government got 5.7%. More than half the employed '54 graduates are working in California.

## What hath demon science brought to this campus?

An open letter from Miss Wilhelmina K. Perchance, Pasadena  
Installment two

Synopsis—At the end of the first installment, Miss Perchance was standing outside the door of 326 Kerckhoff with tinglings running up and down her calves. Waiting a week for the next issue of the Tech proved too much for her calves, so she retired to the infirmary with bad cramps. Thus the second part was postponed to this week. 30. Take it away, Miss Perchance!

There I was staring into room 326 K where she was standing—STARK. OOP shoop—got the Mickey Spillane article by mistake.

What was this sight that sent tinglings running up and down my calves? It was the sight of seven ghoulish vivisectionists poring over the outraged innards of a disemboweled tabby cat! Thoroughly alarmed, Louisa and I scurried down to the office of Dr. Bagle, head of the Division of Biology. This callous man shrugged his shoulders and said, "Why, that's Dr. Kegly's cat anatomy course, required of all junior Biologists."

How absurd, I thought. What do some Junior G-Men or junior scientists or whatever they are want to know about the personals of an innocent little pussy? Why, that cat might even have been my own black Figaro, who comes running for dinner when I call "Figaro Figaro Figaro Figaro Feegaro!"

The evil professor teaches from a disgusting text called "An Atlas of Cat Anatomy." I ask you, what sort of reading is this for impressionable young pupils?

Indeed, this year's students are probably beyond hope; at least, so it would seem to see them striding about with dripping hands clenching severed

legs, kidneys, and even hearts, all the while mumbling such sayings as "pectoantibrachialis," "xiphihumeralis," and "gastrohepaticosplenic." Undoubtedly these are mottos of some secret, dreaded blood-letting society.

Through all this horror, the mad doctor sits with a benign smile on his face and even goes so far as to make crude jokes about the excessive amount of fat one student may have to rip through in order to lay bare an organ. The heads of the department congratulate those who have done the most permanent damage to their victims.

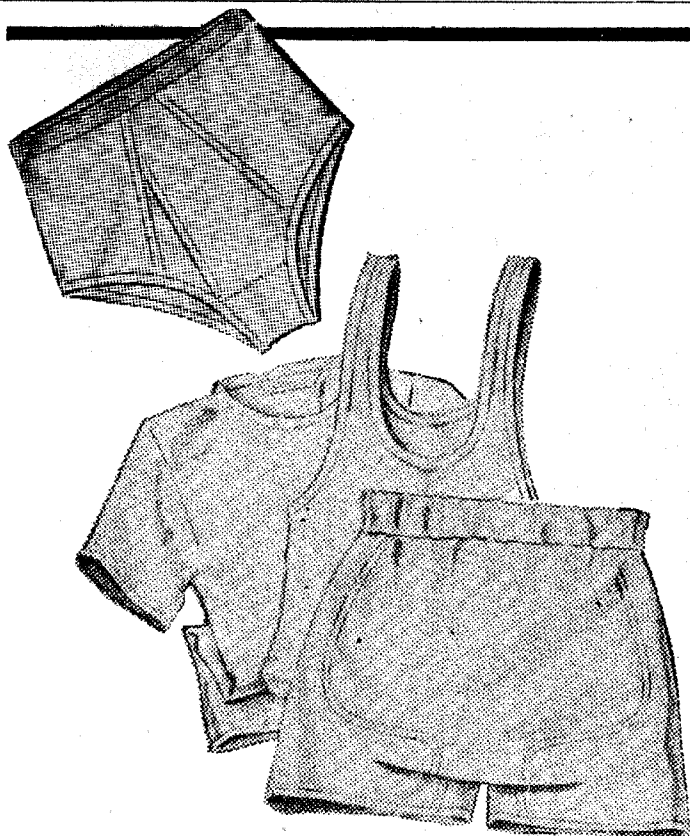
Steeling myself, I questioned two lads (who are, incidentally, employees of your fine newspaper) as to their "progress." With slavering lips and shocking alacrity they hastened to announce that their feline had lost two legs, the rib cage, and all the organs except for one-half of a partly-severed kidney. The poor beast was open from chin to tail. My studied and shocked opinion is that, in all likelihood, this cat will never live to meow and bear kittens again.

On this hideous note, I state my final plea: bring this evilness to a halt! End vivisection at your campus! Expel the biology students! Dismiss the biology faculty! The life you save may be that of your own pussy!

### Big T pictures due

All off-campus students should turn in their Big T picture proofs to the Big T box in lower Throop by tomorrow. Proofs will be collected for the last time Friday afternoon.

Any Techmen in the student houses who still have their proofs should take them immediately to Rube Moulton in Ricketts.



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**CAMPUS BREWINS**

(Continued from Page 2)  
an evening of excitement, behind the White Wall if possible, or if not possible by crashing the Pomona Formal—ended up getting themselves soused (thoroughly) in the company of one lonely Scripps woman. The irony—

full and utter—is appreciated only when it is known that the female didn't drink. My gosh, fellows, is a blast in the famous Scripps tunnel the place to carry on intelligent conversation with a young lass???

**The Old Dope Peddler**

The Beak was listening to his

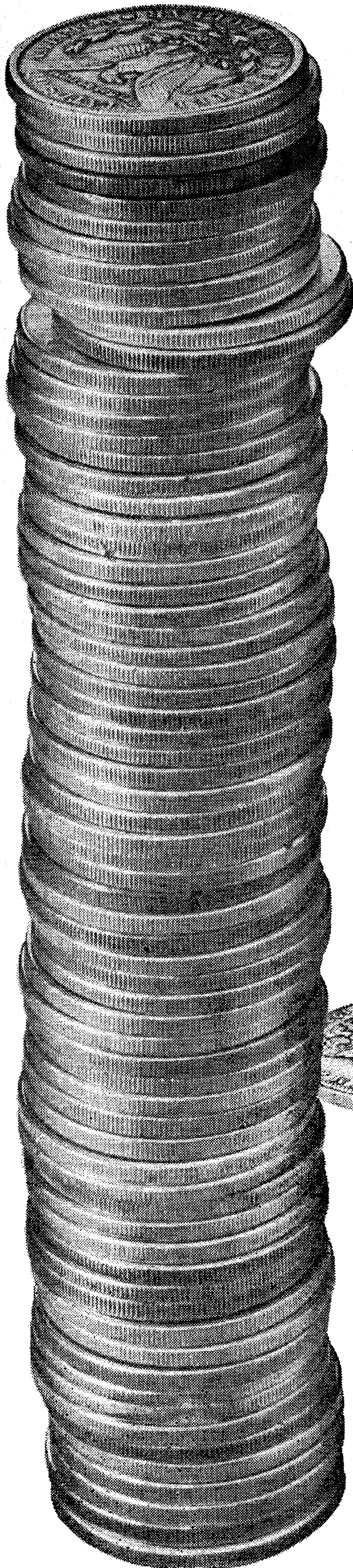
Tom Lehrer record the other night when he heard the sad tale of Blacker Frosh Jerry Fried. Virgin Fried, naive as frosh go, was touched by a pusher. Fried explains that he isn't an addict yet, but, he just had to have those No-Doz to stay awake through a test.

**STUDENTS' DAY**

(Continued from Page 1)

—Will the Turbine Replace the Reciprocating Engine?" by Dr. Peter Kyropoulos, "Construction of Surfaces" by Dr. H. F. Bohnenblust, "Atoms in Motion" by Dr. Richard P. Feynman, "The Martian Year" by Dr. R. S. Rich-

ardson, "Research in Aeronautics" by Dr. Anatol Roshko, "Modern High Energy Particle Accelerators for Nuclear Physics" by Dr. R. V. Langmuir, and the two Caltech classics: "High Voltage" by Mr. R. W. Thompson, and "Liquid Air" by Mr. Earl Jacobs.



# WHAT DID IT COST TO CREATE YOUR JOB?

If you're an average U.S. factory worker—\$12,000.

If you're a rough carpenter, it took approximately \$350 worth of tools to set you up in your trade.

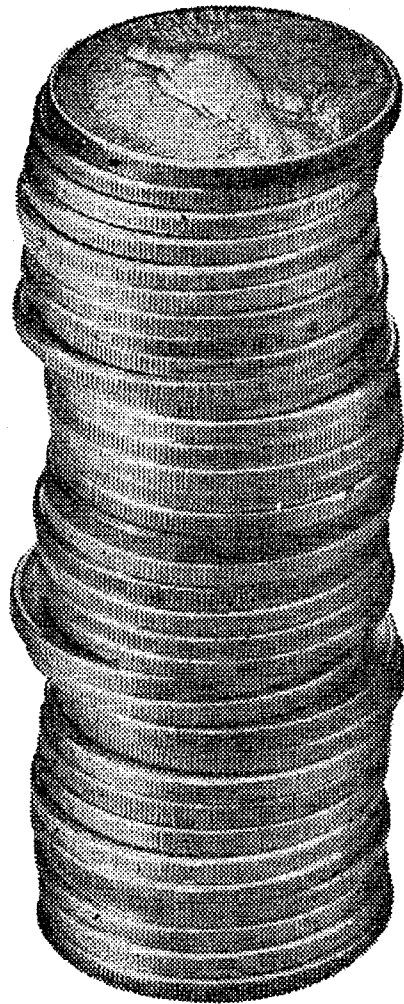
Tools for a garage mechanic cost about \$3,000; for a Washington wheat farmer \$12,500; for a secretary \$300.

But if you work for Union Oil, it took \$77,000 worth of tools in the form of trucks, service stations, refineries, oil wells, etc., to create your job.\* Obviously, some of our jobs require considerably less investment than \$77,000 and some considerably more. But this is the average for Union's more than 9,000 employees.

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# Beavers lose to Oxy, meet LaVerne Saturday

## Tech runners make long gains, Conley, McDonald hit paydirt

By Arne Kalm

The Caltech football team took it on the chin from Oxy for two quarters last Friday night and then came back strong with some flashy running in the second half to salvage two touchdowns and make the score a fairly respectable 39-13. The game was hard-fought all the way, but Oxy had too many horses as they opened up an insurmountable 27-0 halftime lead.

The Beavers started out strong as George McDonald raced eleven yards for a first down on the initial scrimmage play. Ted Lang followed with a nine yard thrust, but the Tech drive sputtered out near the midfield stripe and Conley kicked to the Oxy 23. After an exchange of punts Oxy found itself on Tech's thirty yard line and after six plays fullback Don Lyon bucked over from the one yard line for the Tigers' first touchdown.

Lang returned the ensuing kickoff 31 yards to the Tech 41 yard line, but Tech got nowhere on three plays. On fourth down end Jim Mora blasted through to block Conley's punt and he recovered for Oxy on Tech's 26. On third down Jack Chamberlain went over tackle for the second Bengal TD.

### Tech drives

Early in the second period Vince McCullough passed 44 yards to Doug Cornford to make the score 20-0. The Beavers got a drive going after the kickoff, but Conley's pass was intercepted deep in Oxy territory and on the fifth play Lyon went over tackle to complete the first half scoring. Tech drove into Bengal territory again and Dick Schmid danced down the sideline with a Conley pass for a first down on the Oxy ten. However, the Tigers took over on another pass interception to end the threat.

On the fourth play of the second half Kemp passed to Mora for 57 yards and a touchdown. Tech took the kickoff and marched back to its own 45, but Lyon intercepted Conley's pass and ran it back 51 yards for Oxy's final touchdown.

### Fine running attack

For the remaining quarter and a half the Tigers never got inside of Tech's thirty yard line and Tech brought out a fine running attack which netted two touchdowns.

Near the end of the third period Phil Conley took an Oxy punt on the thirty and ran it back 59 yards down the sidelines before he was brought down on the Bengal eleven. Jim Okada was held for no gain and Walt Menetrey picked up eight as the quarter ended. Okada got a first down on the one and then Conley dove over the top of the line for the TD. His conversion was good and Tech had seven points.

### McDonald gains

After several punts the Beavers took over on their twenty. Menetrey gained two and Marty Tangora went for six, Okada then broke loose for 39 yards and a first down on the 33. McDonald took the ball on fourth down on the 37 and wasn't downed till he reached the one yard line. McDonald was held for no gain. McDonald scored on a slant off tackle.

Tech recovered an Oxy fumble a few plays after the kickoff on the Bengal 35. Lukesh gained one and Lang picked up 17 yards and a first down. But Okada's second down pass was intercepted and after two Oxy plays the final gun sounded with the score Oxy 39, Caltech 13.

## X-country men stomp Poets

Caltech's varsity harriers romped to their third win of the season last Friday as they beat Whittier 19-37. Tech swept the first three places when Dave Crowther came in first, Don Lewis second, and Fred Witteborn third. The race was never in doubt as the Tech runners led all the way, and won eased up.

The race was run over Whittier's course, which is just a few feet longer than three miles. Conference finals will be held on the same course next month, but the distance then is over four miles. Last Friday, the course was muddy as a result of the previous day's deluge, but Crowther turned in a creditable 18:40 time.

### Win by forfeit

Whittier forfeited the frosh meet due to lack of young Poets. The Beaverbabes, however, ran a time trial over the varsity distance. Mike Rusch and Reed Saunders led the way as they tied in 19:57.

### Pomona tomorrow

The Beavers travel to Pomona tomorrow for their toughest and closest meet of the season. A victory would put Tech in second place in final conference standings. From comparative scores, Tech is one or two points better than Pomona, but unfortunately this means very little.

In spots Tech played better than it has all season, but the passing attack wasn't working and the defense couldn't match Oxy's speed nor stop their off tackle thrusts.

### LaVerne next

Next Saturday the Beavers finish off the season with a game against LaVerne. This game will be in the afternoon at 2 o'clock on the LaVerne campus. When you give away your ticket stub don't throw away your student body card because you will need it to get into the basketball games first term.

### Seven seniors

The game Saturday will be the last in a Caltech uniform for seven seniors, all starters. They are fullback Walt Menetrey, halfbacks Bob Christian and George McDonald, ends Ray Grieser and Dick Schmid, tackle Marty Vogel, and center Dick Manley. These men are all out to win this game and there is no reason why they cannot do it since LaVerne has lost to both Redlands and Pomona by huge scores.

### Statistics:

Rushing	TCB	YG	YL	NET
McDonald	8	73	0	73
Lang	8	60	7	53
Okada	6	51	5	46
Menetrey	5	24	0	24
Lukesh	10	21	3	18
Conley	7	16	9	7
Tangora	4	11	6	5
Passing	Att	Comp	Int	YG
Conley	14	3	3	29
Okada	2	0	1	0
Lang	1	0	1	0
Receiving	No.	Yds		
Schmid	1	18		
Grieser	1	9		
Lukesh	1	2		

### Final score:

CALTECH	0	0	0	13-13
Oxy	13	14	12	0-39

### SCIC Standings

	Conf.			Overall		
	W	L	T	W	L	T
Pomona	3½	0	0	7	0	0
Redlands	2	1	0	4	4	0
Oxy	2	1½	0	4	3	1
Whittier	1	2	0	3	5	0
CALTECH	0	4	0	0	6	0

### Scores last week:

Oxy 39, CALTECH 13  
Pomona 31, Whittier 6  
Redlands 20, Santa Barbara 0

### Games this week:

CALTECH at LaVerne  
Pomona at Oxy  
Whittier at Redlands

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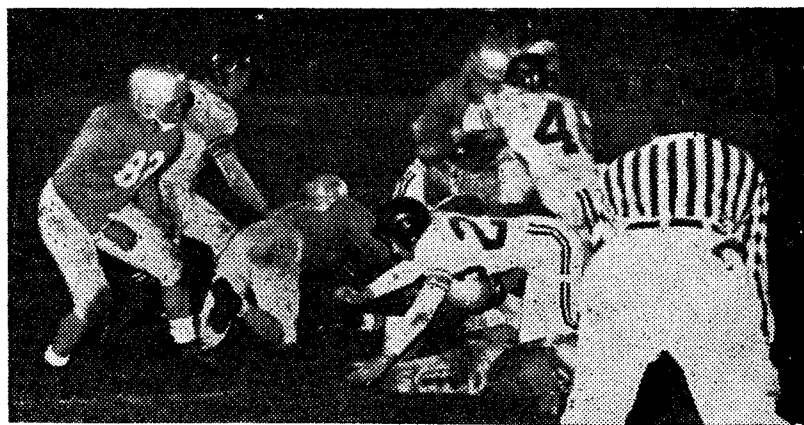
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CONLEY SCORES—Tech quarterback Phil Conley sneaks across for the first Beaver touchdown as Oxy guard Manuel Murietta (46) comes up too late to stop him. Tech player on the left is end Luke Bogdanovic (82). (Photo by Stu Bowen.)

## Soccermen defeat Poly; Pomona next

By Al Helgesson

The soccer team trounced Cal Poly 3-1 last Saturday for their second win of the season. The victory ended a series of disappointing games since Tech beat Pomona in the first game of the season.

Rafn Stefansson was again the powerhouse in the front line as he scored all three of Tech's goals. The Beavers held a slim 1-0 lead at half time, having cracked the Cal Poly defense only once in the first 45 minutes. However, the constant pounding at the Cal Poly defense tired the Mustangs and goals came easier in the second half. Cal Poly broke through to score in the last five minutes of the game.

(Continued on Page 6)

### Hoop schedule

- Nov. 30—\*\*Cal Poly (SD)
  - Dec. 2, 3, 4—\*Redlands Tournament
  - Dec. 7—\*\*L.A. State
  - Dec. 10—Redlands
  - Jan. 8—\*Chapman
  - Jan. 11—\*\*Long Beach State
  - Jan. 14—\*Oxy
  - Jan. 15—\*Cal Poly (SD)
  - Jan. 18—Pomona
  - Jan. 21—Whittier
  - Jan. 25—\*\*Pasadena Nazarene
  - Jan. 28—\*L.A. State
  - Feb. 5—\*Redlands
  - Feb. 8—\*\*Chapman
  - Feb. 11—\*Whittier
  - Feb. 15—\*\*LaVerne
  - Feb. 18—\*Pasadena Nazarene
  - Feb. 19—\*Long Beach State
  - Feb. 22—Oxy
  - Feb. 25—\*Pomona
- \*—Away game  
\*\*—Afternoon game at home

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## Frosh Sports Roundup

By Bob Walsh

Tech's long football drought suddenly terminated Saturday as the frosh exploded to an easy 38-13 triumph over California Baptist, their first win in two years.

A fast-growing crowd was treated to a fine display of running and passing by quarterback Don Stocking as he rolled up 176 yards and scored one touchdown in the first half.

The Beavers took advantage of a fumbled punt early in the first quarter to score on five plays from the Knights' 31 yard line. Stocking aided the cause with a twenty-yard run and Hilton scored from the eight.

Another fumble, on the Tech Stocking passed for 13 yards and ran for 34, scoring from the 16 yard stripe.

The Knights retaliated with a 55-yard touchdown run to close the gap to 12-7 but a forty-yard Stocking-to-Hilton pass play carried the pigskin to the Baptist 35 and three plays later Blackie took a seven-yard pass on the 19 and weaved across for the touchdown. Hilton missed his third straight conversion and when the Knights reeled off a forty-yard run for their second touchdown and an 18-13 half-time score, the extra point looked important.

Early in the third quarter end Hugh Hopkins recovered a Knight fumble on their 31 and Blackie scored from the 16. Stocking decided to run the extra point and Hilton swept left end for the marker.

A 49-yard score by fullback Ed Krehbiel several minutes later iced the game.

Tackle Bob Mitchell blocked a punt on the Knight 35 yard

line and Hilton took the ball across on the next play for the 49, initiated a drive in which final Tech six-pointer.

The Beaver line deserves full credit for the fine game. Starters included Lance Hays, center; Gene Boisman and Lane Spencer, guards; Larry Berry, tackle; and Lang Stanley, end.

\* \* \*

All prospective basketball heroes may get their names in this illustrious column simply by reporting to the Presbyterian Church gym Tuesday afternoon. Transportation or directions will be supplied at the field house.

## Beaver mermen sink L.A. State

Caltech's water polo team completely outclassed L.A. State, 14-0 last Friday at the State pool. John Bush scored six goals and Jim Ball threw in five to lead the Tech scorers as reserves played a good part of the game.

The victory gives Tech a 3-1 record in conference play and leaves them in a first place tie with Oxy.

## I. H. Sports

By Paul King

Dabney's powerhouse basketball team swept through an unbeaten season to easily win the interhouse basketball championship. The Darbs, however, still trail Blacker in the interhouse trophy race as first term sports weer concluded last week. Blacker landed in second spot in the hoop sport, while Fleming, Throop, and Ricketts followed in that order.

Blacker downed Throop 49-35 in a game featured by the shooting of George Epstein. Epstein hit for twenty points while Throop's Stan Manatt had 17, including seven free throws.

In the season's final contest Dabney easily outclassed Fleming, 59-22. Ron Marson scored 19 points to lead the Darbs.

Dabney forward Marson was the league's high scorer with 71 points for four games. Throop's Manatt was second with 65.

Standings after first term:

	SB	CC	BB	Total
Blacker	25	15	20	60
Dabney	10	12	25	47
Fleming	20	6	15	41
Ricketts	15	9	5	29
Throop	5	3	10	18

## Haagen-Smit talks on smog

"Can We Get Rid of Smog" will be the subject of this Friday's demonstration lecture to be held at 7:30 p.m. in 201 Bridge.

Dr. A. J. Haagen-Smit, professor of bio-organic chemistry and consultant to the Los Angeles County Air Pollution Control District, will discuss past, present, and future research concerning the smog problems.

Professor Haagen-Smit, by analysis of air samples and laboratory production of "artificial smog," has been able to determine the nature of smog components and thereby help to clarify the Los Angeles County smog problem. A member of the Caltech faculty since 1937, he has also engaged in research on plant hormones, essential oils, and protein synthesis.

## MONTGOMERY TO SPEAK

(Continued from Page 1)

during 1944 as Commander in Chief of the British and allied forces in North France. His commands also included that of the Eighth Army in Italy and Sicily and that of the British occupation forces in Germany.

## Beaver Week

Chamber music

Tonight at 8 p.m. in Blacker House lounge, the Schoenfeld string trio will present a concert of works by Vivaldi, Beethoven and Schubert. The next Dabney Hall chamber concert will be December 5, and will feature the Korisheli quartet.

Y grad-faculty forum

"The decline of American-French Friendship" will be the subject of a talk by Tech prof Dan Piper at the Y grad-faculty forum next Wednesday at 12 noon in the Athenaeum. Dr. Piper taught in France last year on a Fulbright Fellowship.

Y undergraduate forum

History prof Heinz Ellersieck will talk on "Europe's Real Problem" at the Y undergrad forum next Tuesday noon at the training table.

Placement meeting

An informal discussion of placement problems and interviews, led by director of placements D. S. Clark, will be held Thursday, December 2 at 7:15 p.m. in 206 Dabney. The meeting is open to all students interested in the coming interviews by companies desiring to hire Techmen.

## SOCCERMEN

(Continued from Page 5)

Caltech actually scored three goals in the second half, but one of them was called back on a foul. The recalled goal was scored by Dick Okada. Dick has been pretty anxious to see his name in headlines, and he got a little carried away. Better luck this week, Dick.

The win gave Caltech an undisputed second in league standings. UCLA is out in front by 2½ games.

Caltech has a good chance to win the three remaining games if the team can play together as they did in the Cal Poly game. The teamwork was excellent as the results testified.

This Saturday the varsity meets Pomona on our own field. The Beavers should win this one.

The JV team met with disaster again as they were defeated by Midlands 7-0. In spite of the loss coach Charlie Miller was enthusiastic about the game, claiming that the team played well but had a few bad breaks.

The JV's will meet UCLA JV this Saturday at Tech.



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