

## Instructor Proficiency Slated As Subject of Taubate Poll

**Twenty-six New Initiates Kept Busy With Bent Polishing, Essay Writing, Dramatics**

Caltech snakes will soon have a chance to give vent to their feelings against instructors, the Tau Beta Pi chapter has announced. The Tau Bates will conduct a poll by distributing questionnaires to selected classes for the purpose of getting the students' reaction to the teaching methods and ability of their instructors. Results of the poll, of course, will be kept strictly confidential; they will be handed over to the instructors concerned so that they may utilize any constructive criticism to improve their courses.

## Operatic Selections Program Scheduled For Wilshire Ebell

Of interest to opera-lovers is the forthcoming concert of operatic selections at the Wilshire Ebell Theatre. On Sunday evening, December 7, at 8:15 p.m., the Los Angeles Grand Opera Company will present favorite selections from operas sung by leading artists of the company. Well-known operatic arias, duets, and ensembles will be sung by Eliza La Porta, coloratura soprano; Vera Bryner, lyric soprano; Patricia Nathan, dramatic soprano; Mary Ellen Batten, mezzo soprano; Edward Ravell, tenor; and Silvio Garavelli, baritone.

A varied and interesting program is promised. This should be a performance that will appeal not only to opera fans, but also to the many music lovers who appreciate the melodious highlights of the operas. Tickets can be obtained at the Wilshire-Ebell box office, 4401 W. Eighth St., phone WY-7095; also at the Southern California Music Company, 737 So. Hill St., and all Mutual agencies. Those wishing to order by mail can send their orders to the Los Angeles Grand Opera Company, 6229 Santa Monica Blvd., Hollywood 38. Prices are \$3.60, \$3.00, \$2.40, and \$1.50.

## Blacker Scene Of Fall Formal Dance

Last Friday night Blacker House was the scene of festive doings, as over 50 couples crowded the dining room and lounge on the occasion of the fall formal dinner-dance.

Soft music greeted the couples, resplesned in tuxes and strapless formals, as they sat down to a candle-lit dinner featuring filet mignon as entree.

## A Roman Holiday

Theme of the dance was a Roman Holiday, and the lounge was colorfully decorated with festoons of crepe paper to give the holiday touch.

Music for the affair was furnished by Rod Rodriguez and his new orchestra.

## Interhouse Next

Nothing is officially scheduled for this week-end, although several small parties in the lounge have been planned by those remaining in the house over the vacation.

Preparations are now being made for the inter-house dance Dec. 6th, and while as yet the theme has not been disclosed, those in the know prophesy that Blacker will once again carry off the mythical prize for the best decorations. Last year a surrealistic treatment of a "Lost Weekend" won the laurels for Blacker.

## Campus Calendar

**WEDNESDAY, NOVEMBER 26—**  
Frosh Luncheon Club at the Training Table, 12:00.  
Dancing Class in Culbertson Hall, 7:30 p.m.  
Fencing Club, 15 Dabney, 7:30 p.m.

**THURSDAY, NOVEMBER 27—**  
Thanksgiving Day. Beginning of 4-day holiday.

**SATURDAY, NOVEMBER 29—**  
Throop Club Hayride.

**MONDAY, DECEMBER 1—**  
CES meeting at 11 a.m.

**TUESDAY, DECEMBER 2—**  
Band Rehearsal in Culbertson Hall, 7:30 p.m.

**WEDNESDAY, DECEMBER 3—**  
Frosh Luncheon Club at the Training Table, 12:00.  
Dancing Class in Culbertson Hall, 7:30 p.m.  
Fencing Club, 15 Dabney, 7:30 p.m.

**THURSDAY, DECEMBER 4—**  
Upper Class Luncheon Club at the Training Table, 12:00.  
Throop Club Meeting, 12:00.  
Orchestra Practice in Culbertson Hall, 7:30 p.m.  
Glee Club Rehearsal in Throop Club, 8:30 p.m.

**FRIDAY, DECEMBER 5—**  
Faculty Assembly, 11 a.m.  
Water Polo game. Caltech at Oxy, 4:30 p.m.  
Fleming Smoker.

**SATURDAY, DECEMBER 6—**  
Cross Country meet. Caltech vs. Redlands, here, 10 a.m.  
Fall Interhouse Dance, 8 p.m.

## Dr. Morgan Ward, Ex-Dean Jones Fireside Hosts

The "Y" Fireside Series continued last Sunday at the homes of Dr. Morgan Ward and Dean L. Winchester Jones.

Dr. Ward not only had mathematics students over, but had a good sprinkling of normal Tech students as well.

Dr. Dilworth and wife, also of the Tech faculty, graced the evening. Due to a butch on the part of T. Tracy, eight people too many finally showed up. It is just lucky that the Wards' living room was large, because it was certainly filled up.

Delicious refreshments rounded out a very pleasant evening, and the discussions certainly covered everything but math.

## Jones in Good Form

Ex-Dean Jones and his charming wife and two sons withstood the onslaught of a dozen Techmen on the same evening. Dean Jones was in rare form and gave out with some rare anecdotes during the evening. Several campus personalities old and new were introduced to the group in Jones's inimitable style.

## WSSF Drive Short Of Goal

The World Student Service Fund drive ground to a stop last Friday after a week of intensive campaigning highlighted by assemblies, contests, and individual solicitation. Although the goal was not quite met, the campus made a creditable showing.

The Student Houses ran a close race, with Fleming leading the field to collect the prize money. The standings are as follows:

	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
Faculty .....	178.50
CIT Employees .....	7.00 1.75

The contributions of the Grads have not yet been tabulated, but should swell the total by a considerable amount.

## Dabney Dinner Dance At PAC Enjoyable

The Pasadena Athletic Club was the scene of the Dabney semi-formal dinner dance last Friday night.

Darbs and dates dined on turkey, then danced to the music of Al Gaspar and his orchestra (the same combo featured at last week's Barn Dance), until the wee hours.

Entertainment of questionable value was presented in the form of a skit participated in by Chuck Moody, Natasha, and Major R. P. Barraclough, USA, (ret.).

A considerable number of alums showed up at the affair, which was characterized by a more staid atmosphere than is usual in Dabney functions.

## Throop Club Entertained By Theater Party, Dance

Throop Club continued its ambitious social program as members attended a theater party last Friday evening. The Club took over the center balcony of the Pasadena Playhouse as it witnessed the play, "Our Hearts Were Young and Gay," one of the best of the season at the Playhouse. As usual there was dancing and refreshments in the Throop "blackout" lounge.

This coming Saturday the old men hold the annual Punch Party, featuring their dubious concoction, Throop Punch.

## Student Government Activities Revealed At ASCIT Program

The workings of the Student Body machinery were explored at the ASCIT Assembly last Friday when Techmen were given a report on student government activities.

Intended school projects and reports of expenditures were discussed by the members of the Board of Directors. Stan Barnes, Athletic Manager, told how funds were appropriated for athletic teams, and where the money received from football games went to.

Plans for a possible amphitheater behind the Optics Laboratory, to be built mainly by student labor, were discussed by Jack Ottestad, Rally Commissioner. Frank Wolf, ASCIT Vice-President, gave his views on the necessity for revision of some obsolete By-laws. Bruce Worcester, President, then gave a full account of the ASCIT budget for this year; the amount of money spent on the Tech, Big T, athletics, and other major activities of the student body.

Bud Mittenthal, First Rep, told of possible plans for a big four-school dance at the Palladium.

After the talks by the Board of Directors, the meeting was opened to questions from the floor. Among questions raised was that of compulsory Frosh attendance at assemblies, which raised furious discussion.

## Party Talk Features Junior Class Meet

A very small turnout hampered business at the Junior Class meeting last Monday, when only 31 of the 220 members turned out to vote on the social program for the rest of the year.

President Chuck Forrester announced to the assembled few that dues would be assessed in the amount of \$1.00, to be collected soon.

## Garden Party Revived

The main topic of discussion was the revival of the traditional Junior-Senior Garden Party, to be held some time in the third term. After Senior President Bud Mittenthal had outlined the advantages of this function, the few Juniors present enthusiastically voted to have the party with the Seniors.

Prexy Chuck then selected Vice-President Jack Ottestad to head the committee to work on both the garden party and the Junior-Senior Prom. He also appointed Dick Bennett, John Kariotis, Herbie Simons and By Karzas to work with him.

## Interview Schedule

**DEC. 1, 2, 3**  
GENERAL ELECTRIC COMPANY, Schenectady, N.Y.—Open for Ph.D.'s in Physics, Chemical Engineering, Chemistry, Hydrodynamics, Metallurgy, Heat Transfer, Applied Chemistry.

**DEC. 3**  
CARTER OIL COMPANY, Tulsa, Oklahoma—Open—Chemists, Applied Chemists, Chemical Engineers—Seniors and Grad. students.

**DEC. 8**  
NAVAL RESEARCH LABORATORIES (Naval Ordnance Test Station at Pasadena and Inyokern, Naval Electronics Laboratory at San Diego and the U.S. Naval Air Missile Test Center at Point Magu, California.) Discuss examination for P-1 rating for Chemists, Mechanical Engineers, Electrical Engineers, Aerodynamicists, Physicists and Mathematicians.

**DEC. 10**  
Discussion on INTERVIEW TECHNIQUE by H. F. Peterson—206 Dabney Hall, 7:30 p.m.—All men interested in job application should be present.

**DEC. 10, 11, 12**  
STANDARD OIL CO. OF CALIF.—Restricted—Geologists, Paleontologists, Physicists, Chemists, Chemical, Mechanical, Electrical and Civil Engineers. Seniors and Grad. students.

**DEC. 10, 11, 12**  
ARABIAN AMERICAN OIL CO. (Arabia)—Restricted—Geologists, Paleontologists, Physicists, Chemists, Chemical, Mechanical, Electrical and Civil Engineers. Seniors and Grad. students.

**JAN. 19**  
MINNESOTA MINING & MANUFACTURING CO. (St. Paul, Minn.)—Open—Chemists, Chemical Engineers, Physicists—Seniors and Grad. students.

**MARCH 22-26**  
STANDARD OIL OF CALIF.—Restricted—Geologists, Paleontologists, Physicists, Chemists, Chemical, Mechanical, Electrical and Civil Engineers—Seniors and Grad. students.

## Caltech Debaters To Talk In Santa Barbara Contest Colleges Of Four States To Be Represented In Huge Tourney

The Caltech debaters will compete in the first important tournament of the scholastic year at Santa Barbara College on Nov. 28-29. Every major college and junior college of California, New Mexico, Colorado, and Oregon will attend to argue the question: "Resolved, that a Federal World Government Should Be Established."

To defend their enviable reputation, the Caltech debaters will enter five teams composed of Irving Sulmeyer and Robert Smith, Thomas Vrebalovich and Bernard Rudin, Leo Breiman and Vernon Smith, Hugh Carter and Sage Burrows, and Jim Shields and John Heath.

## Electronic Gaging Topic Of CES Talk

The next meeting of the Consolidated Engineering Societies will take place next Monday, December 1, 1947, at 11:00 in Room 201 Bridge. The meeting will be held under combined auspices of the Institute of Radio Engineers and the American Institute of Electrical Engineers. The speaker will be Mr. R. L. Sink, chief electronics engineer of the Consolidated Engineering Corporation of Pasadena. The subject of his talk will be "Electronic Methods of Gaging." He will discuss methods of measuring strain, displacement, velocity and acceleration.

Engineering students in all options are urged to attend; the subject matter is of interest to all engineers, and the speaker represents a corporation which is located in Pasadena and has had many contacts with the Institute.

## Dec. 1 Deadline For Pepsi Scholarships

Any senior interested in obtaining a Pepsi-Cola scholarship must get his application in soon. The deadline for the applicants to be made is December 1st.

These scholarships are open to any senior graduating in the '47-48 year who plans to enter graduate school in an accredited university not later than fall of 1948. The scholarship offers full tuition plus \$750 a year for three years.

Applications from any one school must be limited to five percent of the senior class, so if more than this number apply, their applications will be accepted on the basis of their overall grade point average.

Any senior interested may obtain an application blank from the secretary in Dean Jones' office. But remember that your applications must be in before December 1!

## New Fellowships

Twenty-six new graduate fellowships are being offered this year for the first time by the Pepsi-Cola Scholarship Board. Like the four-year-old Pepsi-Cola four-year college scholarship program, winners of which are now attending 152 colleges, this new fellowship program has as its purpose the discovering of students of unusual ability and helping them to secure further education.

Both programs are administered by an independent group of educators known as the Pepsi-Cola Scholarship Board and are offered as a service to American youth by the Pepsi-Cola Company.

Any college student who will receive a bachelor's degree during the school year 1947-48 from a college or university in the United States may apply for one of the new scholarships. The fellowships will be limited to those students who have financial need.

The fellowships may be used at any accredited graduate or professional school in the United States or Canada and in any field of study which will lead to an M.A., Ph.D., M.D., or other advanced professional degree.

## Individual Contests

In the oratory meets Sulmeyer and Heath will compete, with their own prepared subjects. Heath will again employ his subject, "Song of the South," with which he had considerable success last year.

The debaters will have the opportunity to test their abilities in extemporaneous and impromptu speeches, which require rapid thinking and organization.

## Teams Warm Up

In the recent past the teams have been polishing up their techniques and filling in the gaps in their logic at several practice tournaments. Last week they competed in a courtesy meet with L.A.C.C. and previously had contested with Pepperdine and P.C.C.

## Caltech Invited To National Bridge Meet

Plans for the 1948 National Intercollegiate Bridge Tournaments were announced last week by the Chairman of the Tournament Committee. Invitations to compete have been sent to 318 colleges and universities, including Caltech.

Only undergraduates are eligible to play in the duplicate Contract Bridge event for the title and trophy. A preliminary round will be played by mail in February, and the 16 highest-ranking pairs will meet for the face-to-face finals at the Drake Hotel in Chicago on April 23 and 24.

Plans are being made for formation of a Caltech team. Details will be revealed in the near future.

## Ricketts Men Study Evils Of Alcoholism

A contingent of Ricketts men and their dates were seen hissing the villain and cheering the hero last Friday night at a performance of the now-traditional "The Drunkard," an old-time melodrama depicting the evils of drink.

After a futile attempt to get the cast to sing the Wiffenpoof Song during the olio acts, a crew of men, headed by the poor man's Bing Crosby, Harvey Wright, stayed after the show to demonstrate the proper rendering of the Ricketts theme song.

## Midwest Glaciation Topic Of Geology Club Talk

Dr. M. M. Leighton, expert on glaciers, glacial deposits and member of the Illinois Geologic Survey, addressed a special meeting of the Geology Club on Tuesday, November 18, on the origin of the soil and glacial till in the Midwest.

Dr. Leighton, known worldwide for his work on glacial deposits, explained for the benefit of local geologists the origin and history of glacial deposits in the Midwest, and the means by which glacial till is converted into silt, gumbo, and other types of soil.

# The California Tech

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## PIES HAVE WINGS

By the Walrus and the Carpenter

Chatting over after-dinner coffee the other evening we got into a discussion with a somewhat radical, though fairly enlightened individual, who happened to single out the California Tech for a tirade of criticism. "Sure," he said, "the stuff's half-decently written, and sometimes it's even interesting, but the whole trouble is that everybody agrees with everything. Do the powers that be hold an axe over the heads of the whole staff? What we need is more controversy!"

After due consideration we dismissed the possibility that this person was just another pinko trying to stir up the class struggle, and decided that his

remarks were worthy of serious consideration. Now we know that as far as axes are concerned, most of us enjoy relative immunity, with the possible exception of that ubiquitous character who grinds out the "Campus Brewin's."

Why then this widespread acquiescence to the "status quo"? Certainly it could not be due to complacent conservatism, or to narrowness of outlook. After due analysis we came to the realization that this happy optimism is simply the result of the unparalleled excellence of our local way of life. As a friend of ours, a person high in official circles, once confided in us, "Youse guys never had it so good!"

Consider for example the many advantages which accrue as a result of our unfettered pursuit of the rich, full, academic life. Where else could one spend fifty, sixty, or more hours a week in ecstatic groping after true scientific knowledge, unencumbered by social amenities, unrelated interests, or other trivial mundanities. Only in an intellectual environment such as this can we view the sundry frivolous activities of mankind, such as music, art, literature, in their true light, and realize that they are childish pastimes unworthy of the highest minds. Only here can we cultivate to its highest perfection that attitude of intellectual smugness

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the neck of the instructor. Now even that distinction is gone.

But I warn you. If these poor misguided souls are permitted to persist and make converts, soon the entire campus will be besuited and be-tied. And then you may even reach the low estate forced upon the patrons of the beanery at the East end of the campus—you may be required to dress formally to get breakfast.

Don't say I didn't warn you.  
Your faithful friend,  
ETAOIN SHRDLU

## CAMPUS BREWINS

Dabney ran wild Friday night holding their formal dinner dance at the athletic club. This was quite appropriate considering the type of activities that went on. A lot of old grads showed up. The married ones being the only ones in the well-illuminated regions, were the only ones recognized.

One unexplained fact is that Bob Barraclough was there stag in a State Guard uniform. It may have been patriotism. He and Natascha put on a skit.

### Sight Unseen

The Moody Date Bureau replaced Alex's services for Hal Tyson, whose confidence (sight unseen, he got an orchid) was justified. Moody is being swamped with requests.

There is some sort of a triangle between Alexander, Smyth, and Barbara, but the details are too confused to go into here. While on the subject of Alexander, it seems Dick has been appointed Floral Officer of Dabney house, in addition to his other duties.

Even John (just call me "Scoop") Whittlesey crawled out of the Aluminizing Vat long enough to drop in on the dance.

### Stripped

Herzog is now suffering from a naked lip after being pounced on by some of his housemates, Monday. They separated him from his mustache, apparently motivated by jealousy of the sex appeal it gave him.

### Throop Troops

At the dance last Friday night held in Throop Lounge, several hardy souls were seen devoting part of their time to the be-

bushed and frigid outside life. In this connection, Chan Rypinski made notable progress. It's easily seen that his blond lovely is causing him to work overtime.

### 'Mumbles' Cobb

Most noble act of the night was Bob Cobb's attendance in spite of a tough race the next day. Not many know Bob for the super-shrewd character that he is: Unable to avoid introducing his gorgeous date to the rest of the hounds, thereby opening the field to competition, he successfully mumbled her name four times.

Your equally shrewd reporter is pleased to announce the young lady's name is Donna Lee West. Very lovely.

Mr. and Mrs. Bob (Junior) were seen cutting some very elegant capers on the dance floor. When not dancing they were found (a) stacking up more cokes, (b) brewing coffee, (c) none of your business.

### Blacker Goes Formal

Blacker held a formal dinner dance Friday in the house. It was the first time anyone had tablecloths there in years. It was also a pleasure not to have a waiter struggling with you over your plate about half way through the meal.

Doug MacLean and Warren Marshall left shortly after dinner giving some pretext such as having to get to bed early on account of the game the following day. We know better. The music was furnished by Roddy Rodriguez who showed his enthusiasm by giving occasional spontaneous howls of glee. A

few hardnoses thought this undignified but the majority felt he was right in the spirit of things.

### Alloof on the Roof

Bear was there, but he spent most of the evening out on the balcony. Sleet, flood, snow, or mud; Bear is different. Chambers showed up with a queen: Mittenthal introduced him.

### Granicher Saved

Bob Granicher, Blackie Stone and Jeff Williamson were sitting in the lounge listening to a Sunday revival program when Blackie got the brilliant idea of converting to Granicher. He borrowed a dime and called the studio and gave them a long sad story about his prostate trouble.

Asked if he had ever been saved, Blackie said yes, but he'd slipped a bit. Told them his name was Granicher at Caltech; so a few minutes later the good preacher asked all his audience to pray and save poor Bob's prostate.

### Foot-in-Mouth Disease

The following is the closing conversation after Dean Jones' fireside:

Dean & Mrs.: "Certainly glad to have had you men over this evening."

Tracy: "It was a pleasure to be had."

### Dem Golden (?) Slippers

Deanno Johnson, Warren Slinger and wife, and Rex Ragon spent the week-end at the ski lodge rebuilding the rear end of the structure. Sunday night saw only the floor and two mysterious round holes done. The addition was carefully covered with building paper to keep it dry. Rex found it necessary to go out back after dark to pick up some tools. Obviously he fell through or this item wouldn't be here. Rex's concern for the first minute was his barked shin, when suddenly he realized where he was. He broke the standing high jump record getting out and rode home in Dean's trunk.

### Stix and Scripps

Tom Stix is still suffering from female troubles. He is said to have stated that a certain Scripps gal, Mary Pat, is 'way too fast for him mentally. She fells him at every move. They must be taking up chess at that fair school.

Found out that my good friend Doc Haines is a reveler of sorts. Last Saturday night after the game he passed up many swanky

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## THE SQUARES' CIRCLE

To the Editor:

I've been noticing things around this campus lately and, as usual, I don't approve. The subject this time is the apparel of the undergraduates.

For those who are new around here, the standard costume of Tech undergrads before the war consisted of:

1. Old Levis.
2. T-shirt.
3. Jacket or sweatshirt (in cold weather only.)
4. Shoes (Optional.)

There were slight variations from year to year—in 1942 Fleming House went without shoes for a long period. At times some have worn nothing but bathing trunks. But in general the apparel was well standardized on a comfortable level. Coats and ties were worn only at dinner-time, under duress.

Now I have noticed a new fad. I have seen undergraduates, of their own apparent volition, wearing coats, ties, shirts and sometimes even suits during class hours. It used to be that the only way you could tell an instructor from a student around here was by he necktie around

ly functional instruments of self-preservation and defense, fingernails have deteriorated into a tool useful only in removing scotch tape and opening boxtops; such activity is probably not critical for the survival of the species.

Toenails, furthermore, have fallen into complete disuse. For eons the prodigal uselessness of toenails has been recognized by western civilization, and in our shame, we have covered them with shoes.

A new tribe appears, with Sex Appeal as its First Commandment. In an effort to render every feature of the human form an object of masculine desire, the new She even stooped to the humble toenail, dashing expensive pigments—brilliant red, purple, crimson, and fuchsia—on the ancient claw.

This discussed, we became aware of the resurgence of the long-neglected feature. "Progress!" we shouted, doffed our shoes, and returned to the bedside.

## THE BOUDOIR BEAVER

She was sitting on the bed scratching her ankle. It was a localized itch, appearing for no reason at all. She stopped, and her hand slid comfortably down over her foot, bending it back. An unconscious gesture, her conversation continued as satisfaction spread over her features. Her shoe dropped to the floor, and she peeled off a yellow plaid ankle.

"Fuchsia!" cried our six voices together. Her eyes lowered; she blushed—fuchsia. "Really now," smiled Pat, "how could you!" "Oh, all the girls do it," she drawled.

We gazed sadly at the five bright toes, shrugged, and filed out of the room.

The primitive beast has claws; our nearer relatives boast a full twenty. They are vital in climbing, fighting, procuring food, removing fleas. It represents a tremendous advance on the evolutionary scale when the animal consciously sharpens his claws. The vestigial remnants we term finger and toenails. From high-

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# Beaver Sports

## Engineers Finish Season With Fifth Gridiron Defeat

Caltech's luckless Engineers wound up on the short end of another Football score last Saturday night at Inglewood as the bowl-bound Pepperdine Waves pounded the Bevos into the turf, 46-0.

It was the sixteenth consecutive win, in two years, for the Pep boys, who were given their biggest scare of the run by this same Tech team last year when it held the Waves in check for the whole first half.

Pepperdine scored in the first two minutes this time and iced the game seconds later when a Bevo flat pass was intercepted and run for a TD.

### Beavers Roll

The Waves kicked off to start the contest and the Beavers started rolling, making eight yards in two plays, when, on third down, the ball squirted away from Baker and the Pepperdine line pounced on it. This break seemed to dull the Tech spirit a little and the Waves marched 30 yards to the score.

After a missed conversion the Waves kicked off and again the Beavers started moving, but excellent scouting and line play by the Waves resulted in a second score as end Norm Stillwell picked off a flat pass on a dead run and went all the way.

The Beavers weren't out yet, however. They stiffened and held the Waves scoreless for the next twenty minutes of play, until a pass interception set the Waves up with a first and goal on the Bevo six. The Waves handed the ball to their so-called "Little All-American," Darwin Horn, four times in a row and he finally just made pay dirt. One more TD made the half-time score 27-0.

### Score on First Play

The Waves scored another seven points on the first play of the second half, when Terry Bell, who is certainly the poor man's Buddy Young, scampered 70 yards off tackle. Again the Beavers held for twenty minutes and were actually inside the Wave 20 three times during this time, but the Waves came up with two more markers in the closing minutes to make it 46-0.

### Comments

**Dar Horn** ("two-yard" Horn, yelled Tech rooters) added three TD's to his personal total. He now has 109 points in eight games and the Waves still play Loyola and some bowl game. But

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## WAVES TOO HIGH



**NORMAN GAINS**—Chuck Norman is shown here about to be tackled after getting away for a short gain in the game against Pepperdine last Saturday night. Despite good spirit, Beavers lost.

### Frosh Sport Roundup

—By Earl Hefner

The sports scene for the Frosh has been fairly quiet lately, ever since Whittier decided to present the Freshmen with an 80-point lacing two weeks ago. That contest closed the grid season for the Frosh and looking over their short slate of four games, one is hardly impressed with their record. In those four games opponents scored 171 points to their 12 and only in the first battle with the Pasadena C. C. Reserves did they not only score a pair of touchdowns but also actually looked like they were capable of carrying through a successful season.

Then the injuries began. First Jim Luscombe, capable wing-back for the young Bevos, went out with a sore leg, then Moss and Pfeiffer and a host of other men, many of whom composed the original starting line-up. By the season's finale, with the Poets, the team was riddled in the line and backfield with broken and sprained limbs of every sort.

Besides the recurrence of injuries, Coach Preisler had to practice nightly with too few men due to the heavy study load on the Frosh. Many an afternoon not enough men would be out to even make up two teams. In my opinion Ed Preisler and Neville Long, assistant Frosh coach, did

(Continued on Page 4)

## Basketball Season Opens For Hopeful Frosh Casabamen

With all thoughts of the recent football season gone, the Frosh began practice Nov. 17 with every intention of bettering their class' reputation with a successful hoop team. Over 20 casaba hopefuls responded to Coach Ed Preisler's call for Frosh basketball players, but the navy veteran still expresses the hope that more men will turn out for practice.

Among the brighter prospects which will eventually form a five man unit, are Dick Brewer, Al Sereno, and Thorne Butler. Brewer is backed by three years of high school experience and has the showings of a fast, reliable guard. Al Sereno shows promise of being an aggressive forward, and his one-hand shots have thus far labeled him a "dead-eye." At center, 6 foot 4 inch Thorne Butler looms as an outstanding backboard man and is proving a key man in screen plays.

### Brighter Prospects Ahead

Unlike the grid squad, the majority of the hoop men have had some playing experience in high school, and Preisler believes there is a possibility of molding a team that will be on a par with its opponents.

The young Bevos are entered in the Southern California Freshman Conference, which is made up of Whittier, Redlands, Pomona, Occidental, and Caltech. Their games will be played as preliminary contests to the varsity games with those teams. The first scheduled non-conference tilt is with Chapman College, Dec. 12, in Los Angeles.

(Continued on Page 4)

### Talkin' It Over

with The Goon

Looks like Andy has put the tape measure and the scale away for another year. Barz is checking in the suits as is his annual practice. And Doc Hanes has taped Chafe together for the last time. The rest of the games that are going to be played in the Rose Bowl will feature Red and Gold instead of Orange and White.

You know, men, looking over the season's record isn't the most inspiring way of spending time. In fact, at any other university a committee of "indignant" students would probably be approaching Pres. DuBridge with a petition to send Andy to the showers. But here at Tech there is not one man on the squad who would raise a squawk, much less any man in the student body, about the way Coach handled the team.

### Praise Coaches

Andy and Pete deserve all the praise in the world for the way in which they shaped the varsity into an aggregation that stood up and slugged it out with every team they played. There was not a school in the Conference that decisively beat us, or that didn't have to put out until the last minute to keep in the win column. We hit harder, ran harder, worked harder than any other team in the league. Only one factor kept us out of the top spot—the lack of depth.

### Praise Team

The Pepperdine battle marks the last time that many of the boys will huddle up to hear the signals called. It's the last year that many will ever crawl into the pads, put on the cleats, and go out on the field to win a ball game.

Next year's team will miss the fight and drive of Marshall, strength of Ger at the center, Chafe's fine passing and kicking, Milt's signal calling, attack, and line backing, the brute power of Mully, the fire and spirit of Mac, the brilliant running attack of Woz, and the deft pass snagging of JJ.

These men will not be able to look back on their records and boast of the number of championships their team picked up. Nor will they be driving a big red Buick convertible around,

## Harriers Beat Pomona For Second Conference Victory

Marshall Wins As Tech Takes Five of First Six Places; Cobb Paces Frosh Win

The Beaver cross-country team maintained its unbeaten conference record by besting the Pomona harriers by a score of 19 to 36 in a meet at Tournament Park last Saturday morning. In the preliminary frosh event the Beaverbabes also emerged victorious by the tune of 25-30.

### Marshall Wins Again

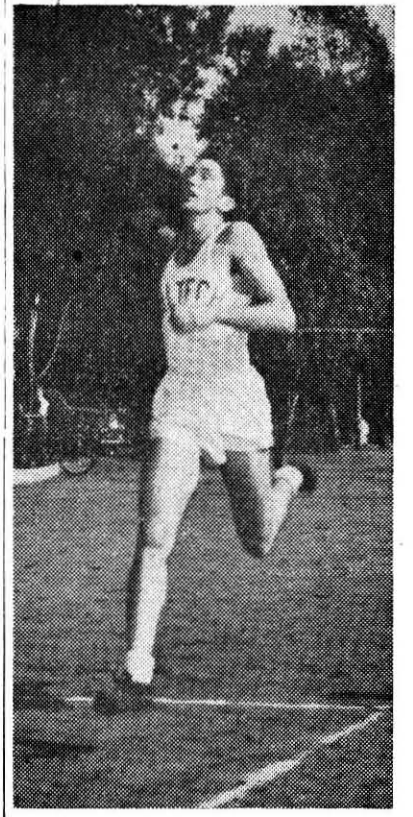
Jack Marshall led the Techmen to victory by traversing the three-mile run in the time of 17:45.7. Jack edged Sagehen Bill Moreman for top spot on the last lap in a thrilling drive for the tape.

The Beavers monopolized the next four places to sew up the meet with Don Peterson placing third, Doug Brown fourth, Mike Sellen fifth, and Larry Nobles sixth. Dick Spellman, Carl Anderson, Bob Abell and Don Asquith also finished for the Tech team.

### Cobb Wins Two-Mile

The freshman two-mile affair was won by easy-striding Bob Cobb with a time of 11:27.1. Walt Edwards came up to take third spot, with Rich Smyth, Ray Bowerman and Bob Kurland also placing for the Beavers.

Coach Bud Carroll is now preparing his charges for the Conference meet to be held Saturday, December 6, on the Tournament Park course. A long-winded Redlandse team is favored to take the event but Bud is hoping for some of the Beavers to be in the top positions and is planning a strategy by which to repeat the wins over Oxy and Pomona.



**IT'S MARSHALL AGAIN**—Jack Marshall hits the tape in front again as he leads his mates to a 19-36 Cross Country victory over Pomona.

### Results of varsity meet:

1—Marshall (T.) 2—Moreman (P.) 3—Peterson (T.) 4—Brown (T.) 5—Sellen (T.) 6—Nobles (T.) 7—Persoff (P.) 8—Batchelder (P.) 9—Spellman (T.) 10—Anderson (T.) 11—Spencer (P.) 12—Pitts (P.) 13—Abell (T.) 14—Callier (P.) 15—Asquith (T.)

Results of frosh meet:  
1—Cobb (T.) 2—Ord (P.) 3—Edwards (T.) 4—Olshausen (P.) 5—Tracy (P.) 6—Smyth (T.) 7—Bowerman (T.) 8—Kurland (T.) 9—Davis (P.) 10—Ward (P.) 11—Steele (T.)

## Blacker Edges Fleming Sextet To Take Interhouse Volleyball Race

Defeating Fleming 2-1 in the final round of play last Monday, Blacker took first place in Inter-House volleyball competition. Blacker took the first game 15-9, dropped the second 15-17, and swept the final 15-3.

Dabney and Throop were meanwhile battling it out on the adjacent court for the cellar position; Dabney won 2-0. Ricketts had clinched third place the previous Wednesday with a 2-0 victory over Throop.

INTERHOUSE STANDINGS	BB	CC	VB	Total
Dabney .....	20	15	6	41
Fleming .....	10	12	12	34
Ricketts .....	15	9	9	33
Throop .....	25	0	3	28
Blacker .....	5	0	15	20

The volleyball results narrowed Dabney's lead in the Inter-House Trophy competition to 9 points. Fleming moved to second with Ricketts a close third. Throop, having added only three points to its 25 for first place in baseball, has dropped to fourth. Blacker, despite its 15 point gain in volleyball, was unable to pull out of the cellar.

Softball, the next inter-house competition, begins in February.

### In Volleyball

	Won	Lost	Pct.
Blacker .....	4	0	1.000
Fleming .....	3	1	.750
Ricketts .....	2	2	.500
Dabney .....	1	3	.250
Throop .....	0	4	.000

"I told him I worshipped my figure, and he tried to embrace my religion."

the gift of some admiring alumnus. But they will have been members of a team to which winning at any cost was not the most important consideration. A team which played every game with the idea to win, but to do so by hard driving, good sportsmanship, and teamwork.

The Goon's Award of the Week goes to this year's Varsity for a well-played season.

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# Royal Society Honors Pauling With "Davy Medal" in Chemistry

Dr. A. A. Noyes Only Other Caltech Scientist To Have Received Similar Honor

Pasadena, Nov. 21.—Dr. Linus Pauling, head of the division of chemistry at the California Institute of Technology, has been awarded the "Davy Medal" by the Royal Society, London, it was announced today. He becomes the second Caltech professor to receive this honor, the first being the late Dr. A. A. Noyes, first chairman of Caltech's chemistry division under whom Dr. Pauling studied as a youth.

## Kyropoulos To Give More Job Talks

Mr. Kyropoulos of the ME Department will give two more of his informal discussions on the current job situation for the benefit of off-campus Seniors.

In these talks he has stressed the importance of the job interviews held here at Tech. He has also created interest in finding out more about the companies who are sending employment representatives here. These talks are of a general nature and are therefore valuable to Seniors in any option.

Off-campus Seniors may attend one of these discussions in Throop Club either at 4:00 on Monday, Dec. 1st or at 7:30 on Wednesday, Dec. 3rd.

### FROSH BASKETBALL

(Continued from Page 3)

The Freshmen out for basketball practice are: Harry Begg, Ray Bowerman, Dick Brewer, Thorne Butler, Linn Crowwhite, Art Cuse, Dean Daiy, Lawrence Dyer, John Fee, Bud Freise, Ray Geutert, Jon Goerke, Don Hanson, Jim Hill, Jim Ibers, Hiroshi Kamei, Jack Martin, Paul Marx, John Morrison, Steve Pardee, Noel Reed, John Rogers, Don Schmid, Al Sereno, George Starbuck, and Edward Stern.

He tried to kiss her by the mill, One starry summer night, She looked at him and sweetly said, "No, not by a dam site."

Dr. Pauling's contributions to understanding of the nature of chemical bonds—the means by which atoms are bound together to form molecules; his work in the fields of immuno-chemistry and the chemical structure of proteins and other chemical compounds in relation to the biological fields has been outstanding, and it is for much work that this award is made. The award citation reads "for his distinguished contributions to the theory of valency and their application to systems of biological importance."

### Will Not Attend

Although Dr. Pauling will be unable to be present at the Anniversary Meeting of the Royal Society December 1 to receive the medal in person, he will leave immediately after Christmas for England where he is to be Eastman Professor at Oxford for the second and third terms.

Last summer he was in England where he received honorary doctor of science degrees from Cambridge University and the University of London. He is also an honorary member of the Chemical Society of London and of the Royal Institution of Great Britain.

### CAMPUS BREWINS

(Continued from Page 2)

drive-ins despite the player's groans about hunger and finally stopped in front of a neon lit est. Upon entering, whom did they find in this den of iniquity but McLean, who had beaten them to it. The food wasn't too good but the liquids were of the highest denature.

# Red Cross Seeks Blood; Advantages For Donors Listed

Donations of whole blood for use in service and veterans hospitals and for men, women and children in this community who might need it is being sought by the Red Cross. A Mobile Unit for this purpose will be at Carmelita Gardens, Colorado and Orange Grove, December 3 from 3 to 7 p.m. Donors must have attained their 21st year.

Whole blood is now being used not only for life saving purposes but also as a Life Restoring Fluid. For every pint of blood given the Red Cross Blood Bank, you or your family, will be eligible for transfusion free in any hospital approved by the Los Angeles County Medical Association. There may be a charge by the doctor of hospital for administering the transfusion but there will be no charge for the blood.

If necessary, transportation will be furnished by the Red Cross for a group of five or more. Call Sycamore 6-9141 for appointments.

Requirements for donors are given below:

1. **Age:** 21 to 60 years. A prospective donor is disqualified on his 60th birthday.
2. **Race:** No discrimination is made because of race.
3. **Pregnancy:** The prescribed interval between donations is twelve weeks. No appointments contrary to these rules will be made.
4. **Weight:** Donors must weigh 110 pounds minimum.
5. **Nourishment:** Before donation—All donors should eat their regular meals irrespective of the time of their appointment. If

# From Other Campi...

**From the Nare Dame Scholastic:** "California Tech ran a picture recently which should have gotten national publicity. It was a picture of a juicy Hoganburger, which is like a hamburger in appearance, but has a diameter greater than even Sydney Greenstreet. It was the prize in a contest, but before he lucky winner could bite into it, it disappeared. Perhaps it was better that way." Somebody reads this rag!

**Pennsylvania, Here We Come**  
In an editorial entitled "Not Enough Boys," **The Crown**, printed by King's College, decries the "sad occurrence" of a recent after-game dance at which there was a dearth of males, of all things! It seems that girls were invited from several nursing schools and a college, only to be faced with girls, girls, and more girls. For more information concerning admission to King's College, write King's College, Wilkes-Barre, Pa.

more than four (4) hours elapse between the last meal and the time for donation, some form of nourishment should be taken.

The following conditions automatically disqualify a prospective donor—

- A. **Pregnancy** at present or terminating at any stage within the past 9 months.
- B. **Malaria** within past 15 years.
- C. **Tuberculosis**—past or present.
- D. **Diabetes.**
- E. **Jaundice.**
- F. **Acute colds** and other infectious diseases.
- G. **Filariasis**
- H. **Sulpha Drugs**—only after weeks have elapsed.
- I. **Organic Heart Disease.**
- J. **Undulant Fever.**
- K. **Smallpox** vaccination in last 21 days.
- L. **Other immunizations** in last 24 hours.

# ENGINEERS FINISH

(Continued from Page 3)

he doesn't look very impressive in his specialty, which is goal-line plunges. He showed considerable power on the few occasions he had the ball in the field, but if it hadn't been for his line he would have gone nowhere on his feet-first, jumping goal tries.

We personally believe that booming **Bill Muehlberger**, given the same team backing and rest on the bench that Horn gets would completely overshadow him. Bill has more drive and is (although slow) faster than Horn, as he proved in the third stanza when he caught him from the rear and tossed him out of bounds (where Darwin stayed to recuperate for a whole quarter.) "Der Muehl" was playing heads up ball all the way, with two interceptions to his credit and lots of stellar line backing.

**Chuck Norman**, given his first big offensive chance, showed plenty of promise, as did speedy **Bill Rumer**, who almost scored on a long pass from **Chuck Johnny Kariotis** looked surprisingly well at end, with **Hibbard** sitting the game out. Having **Wozniak** in the stands was a big, but necessary, loss. **Boutelle** made a couple of unexpected tackles. **Burke** and **Carson** each had a spectacular catch to his credit. **The center of the line**, with Muehlberger backing, held so well it forced the Waves to go around when they got near pay dirt. **The whole team** deserves the highest praise for a scrappy season, well played.

First downs favored the Waves, 23 to 4, as did net yards, 530 to 140.

**Caltech**  
Marshall  
Long  
Dahm  
Gerpeide  
Schuster  
Walquist  
Hibbard  
Strauss  
Chaffee  
Baker  
MacLean

**Pepperdine**  
Stilwell  
Cook  
Bedore  
Williams  
Kiaos  
Quine  
Hamilton  
Noonan  
Regalado  
Bell  
McCormick

	SCORE BY QUARTERS			
	1	2	3	4
Caltech	0	0	0	0
Pepperdine	13	14	7	12—46

# FROSH SPORTS

(Continued from Page 3)

everything they could to form a team that would own against all competitive player or coach will be however, that under the circumstances, coupled with fact that less than a quarter the squad had had previous experience, it would be almost impossible to field at least an eleven.

Incidentally, the team for a capain last week and counting the ballots the office found that practical the votes were for two men Reed and Walt Preiffer named co-captains for the team. I think that anyone witnessed all the Frosh would agree that there are many players who worked or played more consistent good football than these two. Congratulations, Walt and Noel.

# WHETHER PIGS HAVE WINGS

(Continued from Page 2)

which constitutes the essential distinction between "the peasant" and the "educated man."

In the realm of social activities our benefits are even more pronounced. Think of the peace of mind that comes from being spared the distracting sight of frilly femininity in classes, the joy of never being trapped into a casual, unplanned friendship with someone of the opposite sex. In our cloistered scholasticism we can plainly perceive that women are truly an inferior race, suitable only for purposes of breeding.

Think also of the fine moral fibre which our athletes gain when, lacking sufficient time for practice, they can play "just for the fun." Also the lack of adequate facilities for sports develops stern Spartan virtues. Surely "this is the best of all possible worlds!" Who on earth would want to start a controversy?



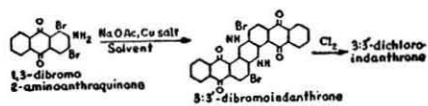
## Development of dyes requires both physical and organic chemistry

The synthesis of a new dye in the laboratory or even the development of a manufacturing process from that synthesis may still be a long way from the realization of the full potentialities of the new compound as a coloring material. This is illustrated by the commercial history of the exceedingly fast bright blue dye indanthrone and its halogen derivatives.

Indanthrone was the first known anthraquinone vat dye and has led to sales of vat dyes in the U.S. since its introduction, despite the commercial use of well over 200 types. In 1901, Bohn first synthesized indanthrone by KOH fusion of 2-aminoanthraquinone, but the yields obtained were in the range of only 25-30 per cent. Because of the industrial importance of indanthrone, and the low commercial yields obtained by the original fusion procedure, a great deal of research time has been spent in its study.

Several U.S. patents record the fact that Du Pont organic chemists have made outstanding contributions in this

field, particularly by developing the intercondensation of 2 moles of 1,3-dibromo-2-aminoanthraquinone and replacing the bromine by chlorination to give 3:3'-dichloroindanthrone ("Ponsol" Blue).

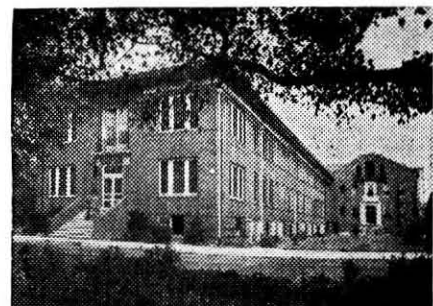


This fixes the chlorine in the desired positions to give a product with greater bleach-fastness than indanthrone and minimizes extraneous substitution that always accompanies direct chlorination of indanthrone. The commercial yields of 3:3'-dichloroindanthrone now being obtained by Du Pont are markedly greater than those obtained by Bohn and his workers.

It is just as important, however, that a water-soluble dye be made in a physical form that gives optimum shade and working qualities, such as perfect dispersion, freedom from specks, rapid re-

ducibility and storage stability. A significant Du Pont contribution to the production of vat dyes in optimum physical form is called "turbulent flow drowning." In this procedure, the color is dissolved in strong H<sub>2</sub>SO<sub>4</sub> and then diluted by a large volume of water in a constricted tube. High turbulence is maintained during dilution and produces uniform dye particles.

In this development the work of physical chemists and physicists, aided by electron microscopy, ultra-centrifuging, infrared and ultra-violet spectrometry and other modern techniques, was of major importance.



One of the three wings of the Jackson Laboratory, where a large portion of the basic research on dyes is carried on. The new \$1,000,000 addition on the right is nearing completion.

The conversion of laboratory findings to a plant operation often presents unique and difficult problems that require unusual ingenuity on the part of chemists, chemical, mechanical and electrical engineers. The work on the indanthrones was no exception. The outstanding commercial success of "Ponsol" vat colors, typified by "Ponsol" Blue is one example of the results achieved through cooperation of Du Pont scientists.

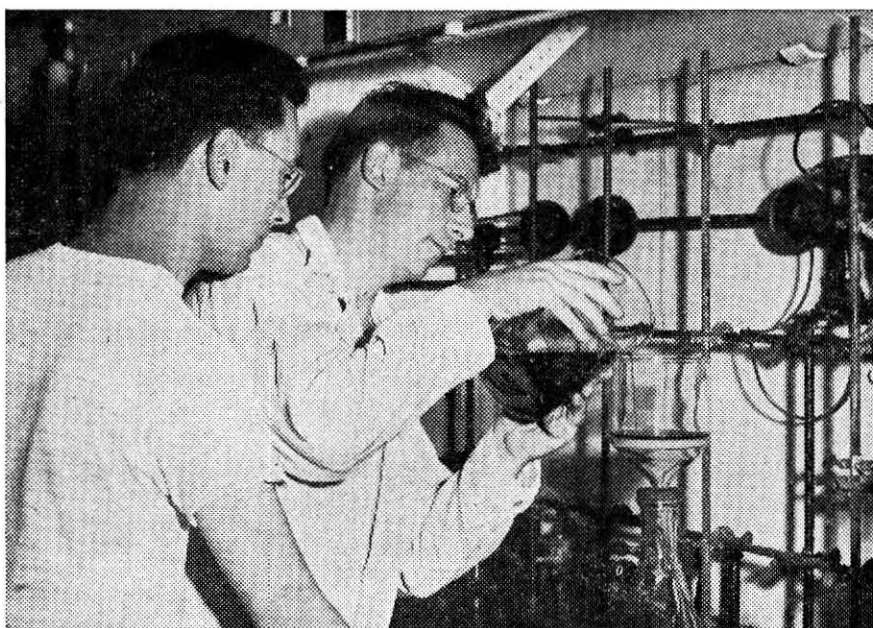
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W. R. Remington, Ph.D., University of Chicago, 1944, and S. N. Boyd, Ph.D., University of Illinois, 1945, working on a dye research problem.

## Questions College Men ask about working with Du Pont

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BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY