

SEE YOU
AT THE
RIVIERA

CALIFORNIA TECH

TAU BATES
BANQUET
TOMORROW

California Institute of Technology

Thursday, December 1, 1949

Volume LI.

No. 9

Tau Bates To Initiate 21

Tau Bates Pi, national honorary engineering and science fraternity, will formally initiate nineteen new undergraduate and two alumni members tomorrow. The traditional banquet following the initiation ceremonies will feature speeches by Mr. Howard B. Lewis and Dr. Dean E. Woolridge, alumni members who are being elected to the honorary fraternity. Also, an original twenty minute play will be given by the undergraduate initiates after the steakfest.

Alumni Initiates

The two Alumni initiates were chosen on the basis of their outstanding records of achievement in engineering. Mr. Lewis was president of the Alumni Association last year. Dr. Woolridge, who is a research associate in electrical engineering on campus, is in charge of the electronics division of Hughes Aircraft Company.

Nineteen undergraduates will become Tau Bates. Five juniors were chosen from the list of eligibles on the basis of their participation in campus activities as well as their exceptional scholastic records. They are Robert Kurland, Peter Mason, Dallas Peck, Richard Taylor, and William Whitney.

Elected on the basis of their outstanding records were the following senior scientists: Duane Cooper, James L. Kohl, Robert Ross Jennings, Scott Lynn, Dave Manning, and Roger Picciotto. Senior engineers to be honored with bents include Cecil Drinkward, William Haefliger, Craig Marks, James McCaldin, Dwight Schroeder, Win Soule, and Richard Wright. In addition, J. Fred Rentz will be initiated for the

(Continued on Page 4)

Debaters Back From Stanford

Caltech debaters won more than fifty percent of the debates they took part in at the recent Western Speech tournament held last week at Stanford University according to Coach McCrery. Debaters who made the trip and participated in upper division debate were Stan Groner, Ralph Stone, Ulrich Merten and Bob Smith.

More than 40 colleges from the various western states were represented at the tournament and an estimated total of more than 400 students participated. With the close of the Western tournament, Caltech debaters shift from the topic, "Resolved that the United States Should Adopt a Marshall Plan for the Orient" to the national topic, "Resolved that the United States Should Nationalize the Basic non-Agricultural Industries."

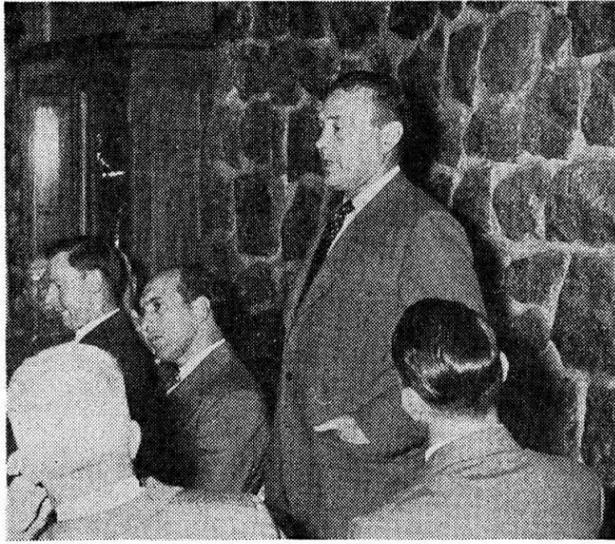
February Tournament

On this question, Caltech is sponsoring an invitational championship tournament to be held on this campus February 24 and 25. A similar tournament was held at Caltech last year, and Coach McCrery reports that among the various debate coaches in this area, the Caltech tournaments are regarded as being excellently managed. Students interested in debating should see Coach McCrery.

Campus Calendar

THURSDAY, DECEMBER 1
12:00 Y Upperclass Lunch Club
12:00 Throp Club Meeting
4:30 Water Polo Varsity vs. El Camino at El Segundo
7:15 ASCIT Board of Directors Meeting in Lower Fleming
7:45 Dancing Class in Culbertson
FRIDAY, DECEMBER 2
7:00 Basketball Caltech vs. PCC Reserves at PCC
9:00 Basketball Caltech Varsity vs. PCC at PCC
SATURDAY, DECEMBER 3
10:00 Varsity Soccer vs. USC at USC
10:00 Conference Cross Country Frosh
10:30 Conference Cross Country Varsity at Tournament Park
7:00 ASCIT Formal Dinner
9:00 ASCIT Formal Dance at Riviera Country Club
SUNDAY, DECEMBER 4
7:30 Film Classics Series in Culbertson
TUESDAY, DECEMBER 6
12:00 Y Frost Lunch Club
7:15 Alumni Placement Series Lecture in Dabney House
WEDNESDAY, DECEMBER 7
7:30 Orchestra Rehearsal in Culbertson
9:00 Glee Club in Culbertson

BERT AT BANQUET



Coach Bert LaBrucherie says a few things to the throng gathered at the annual Fall Athletic Banquet held last Monday at Brookside Park Country Club.

Loyola Coach Featured Speaker At Sports Dinner

Those present at Brookside Park Monday night, witnessed a minor miracle. Due to the skillful planning of Noel Reed, athletic manager, and the forceful MC-ing of Dr. Sharp, "You can take as much time as you please, just so it isn't over nine minutes," this year's Athletic Banquet will probably go down in Tech annals as the first one to finish according to schedule.

Wheaton Trophy

The two major awards for athletics this year were given, strangely enough, to a couple of fellows in the Geology department. Don Baker was presented the Wheaton Plaque while Dave MacKenzie received its soccer sequel.

Olivar Humorous

Guest speaker, Coach Jordan Oliver of Loyola, gave a very interesting and humorous account of his Villanova team's track meet with Army in 1944, when Davis and Blanchard ruined them to the tune of 83-0.

It seems that due to the Navy's accelerated scholastic program at Villanova, all but one

man on his team graduated three days before the game, so he recruited a new team and with 110 minutes of practice proceeded to West Point to face the Kadets or as he said, "Direct traffic as Army marched down the field."

Grid Lettermen

Coach LaBrucherie announced that Odell Carson had been chosen team captain and that Don Baker, Leon Bass, Roland Berner, Jim Blom, Ted Bowen, Odell Carson, Bain Dayman, Dave Hanna, Dick Karasawa, Don Lamar, John Lewis, Craig Marks, Alan Marshall, Leon Michelson, Art Miller, Randy Moore, Dallas Peck, Noel Reed, Don Schmid, Jim Schofield, Dwight Schroeder, Howell Tyson, Jim Wilcox, and Harold Woody received varsity football letters this year. Senior awards went to Merle Kam and Ed Worrell and Howard Mower received a varsity manager's letter.

Frosh Pigskinners

In the Frosh football department, Coach Preisler in 4.499

(Continued on Page 4)

ASCE Sponsors Unusual Talk

Last Monday, the ASCE presented Mr. Billig, of London, England, who spoke on "Corrugated Concrete Construction." Born and educated in Vienna, and having served as a consulting engineer to the Russian government prior to his work in England, Mr. Billig was well qualified to speak on this subject as this type of construction originated in Europe.

Unique Construction

These shells employ parallel beams bent into Catenaries anchored in a concrete foundation. Over this framework is placed netting and a subsequent coating of concrete, giving a quonset hut appearance.

Of particular importance to Mr. Billig and his colleagues is the fact that this type of building can be built with unskilled labor and relatively little equipment. With the supplement of slides and movies, Mr. Billig's talk proved quite interesting to the chapter.

Zero Reader At CES Talk Monday

The Zero Reader, recent and promising development in the field of aircraft position and direction control, will be the subject of a lecture Monday, Dec. 5, in 201 Bridge at 11 a.m. Speaking on the new safety device will be Mr. T. Weibel, representative of the Sperry Gyroscope Co.

One of the regular CES series, this lecture is sponsored by the AIEE and IRE and is open to all those interested in the device.

New Instituter Wheels Chosen

With the term rapidly drawing to a close, Ricketts and Dabney House Instituters had meetings last Monday to elect House Chairmen for the coming term. Mike Callaghan was chosen to lead the Ricketts men, while Tom Stockebrand will be in charge of the Dabney activities.

Instituters signing up off-campus men for their Big T pictures and serving as spotters at the last cross-country meet were Ham, Vogel, Welch, Dickenson, Hirsch, Cuff, and Polk.

McKinney Prize Contest Announced

"What Price Civilization" is the challenging topic offered as the subject for the McKinney Prize Contest in English this year.

This annual contest is open to all members of the Junior and Senior classes and offers first and second prizes of \$75 and \$50. Each winner will also receive a valuable book as an additional trophy.

Assigned reading will consist of four short books:

H. G. Wells: The Time Machine
Aldous Huxley: Brave New World

George Orwell: 1984
George R. Stewart: Earth Abides

A full announcement of the contest will be made by the English department next week. For complete information see Professor MacMinn, 212 Dabney Hall.

Gay Yule Spirit To Flavor ASCIT Formal Dinner-Dance

Saturday's Festivities Will Star Hal Loman's Band At The Riviera

The luxuriant environment of the Riviera Country Club, the availability of a scrumptious pre-dance dinner, and the languid music of Hal Loman's orchestra will be the hallmarks of this year's ASCIT Christmas Formal on Saturday evening.

Dinner, which is to be prepared by the Los Angeles Athletic Club, will be served from 7:30 till 8:00, and dancing will commence at 9 o'clock. Dress will be semi-formal; that is, dark suits or tuxes will be in order for the affair.

Two Bars Open!

Bill Freed, First Representative, has secured the facilities of the entire club for the ASCIT. Candle light and soft music will provide the holiday atmosphere in the dining room on the second floor. Liquid refreshments from the bar will also be available to diners. Other opportunities for diversion will be found in both bars, the coke room, and the lounge.

Parking will be no problem this year as the entire parking lot in front of the Riviera has been placed at the disposal of the ASCIT.

Hal Loman's Band

Hal Loman and his ten piece band will feature the San Francisco style of music with numerous Rhumbas and Samba's. Starred are the Hal Loman singing trio with Mary Moseley, who will be on hand to add a touch of sweetness to the music.

Plant Bio Labs Open For Tour

Monday's eleven o'clock meeting of the Biology Club will feature a tour of the plant biochemistry laboratories conducted by Dr. James F. Bonner, who will discuss the problems at present under investigation and the techniques being applied to their solution.

Visit Labs

Meeting in Professor Bonner's office, 128 Kerckhoff. Biology Club members, and all others interested, will proceed from there to the various labs where work on rubber synthesis, tissue culture, plant viruses, and other projects is being carried on. Since the entire meeting will be informal, Dr. Bonner intends to confine his remarks to those of an introductory nature, then go into as much detail as time and interest permit. In this way it is hoped that the tour will be of interest to others besides biologists.

Bonner Trip

The meeting will also be a fine opportunity to meet Dr. Bonner. Just returned from a trip to Australia, where he addressed a conference of British Commonwealth scientists, he is now resuming his work here at Tech. His research in the past has included work on wound and growth hormones in plants, the extraction of rubber from guayule, photoperiodism, and various respiration and growth relationships.

Big T Ad Sellers Wanted-It Pays!

To earn fifty (50) dollars is quite possible!

Why not spend part of this Christmas vacation and/or next term to not one, but several advantages? For selling advertisement in the 1950 Big T, the services of many of the extroverted salesmen types which abound on the campus are needed.

Advantages!

The advantages: a) the remuneration, b) the acquisition of business and possibly job contacts, c) salesmanship experience, and d) the chance to do service to your school. This service to the ASCIT is recognized by honor key points.

For information see Jim Blom in Dabney House between 12:30 and 1:00 any noon.

Where Are You?

What are you doing? Just ask the ZERO READER, Dec. 5, 201 Bridge, 11:00 a.m. CES presents the Zero Reader to you.



Seniors Take Note Of This!

The final Alumni Placement Discussion lecture for the fall term will be held at Dabney House on Tuesday, December 6, at 7:15 p.m. The guest speaker, Mr. Harold C. Hill, will present another subject of general interest with a discussion on "The Placement Outlook and How to Get a Job."

In the past the discussions have been marked by a poor attendance with "mutterings" from the rear that the topics under discussion were not of general enough interest. The interest for this one should prove to be general enough with the added dividend of presenting material of primary importance to all Seniors graduating in June.

Seniors Face Competition

This discussion should be a preliminary warning to any Seniors still wearing "rose-colored glasses," since the business world is returning to normal in regard to hiring engineers and scientists. Now is the time for the "graduate" to evaluate his possibilities with the thought to selling himself to an employer, since the competition for the positions with the better possibilities is becoming stiffer.

Mr. Hill will discuss the general placement outlook for the 1950 graduate and what procedure the graduate may use that may help to secure the job. The discussion will then continue with the interviews themselves—covering the topics: what they are like, what one should talk about and finally, what are some of the "don'ts" in interviewing and in seeking employment.

Pipe Mead's Organ Hobby

By Duane Marshall

Concrete

Not to be outdone in this technical school, the humanities department claims its share of nuts. One of its most prominent is Dr. Hunter Mead.

Dr. Mead was stricken with a mania for pipe organs in his early high school days. Since then, one of his highest ambitions has been to install one of these monstrosities in his own house.

Big Break

His first big break came when he discovered a pipe organ, of vintage 1907, for sale in a church in Sierra Madre. After removing it piece by piece to fill his garage and back yard, he and his mad cohorts wisely enlisted the aid of a professional pipe organ man. (Such does exist).

Then began the fun. The floor of the front bedroom was brutally removed. The wall between that bedroom and the living room was removed and then 12 tons of dirt beneath the bedroom was removed. This—is work.

Wind Tunnel To Be Built

The noise of pavement breakers and chipping hammers emanating from the Astrophysics Arch is a harbinger of a new 175 MPH wind tunnel which will be ready for operation by the end of January. Mr. William Bowen, superintendent of GALCIT (Guggenheim Aeronautics Lab) said that this new tunnel will replace the old one that had been located at PCC. The tunnel will be used for graduate research and will have some of its time rented to private corporations.

175 mph Speeds

A 75 hp motor runs the single return tunnel which has a working area of 42 by 27 inches. The propeller on the tunnel is variable in pitch. The Air Laboratory Development Company is constructing the new tunnel, which will cost the Institute \$14,500. GALCIT is also buying a new balance for the tunnel since the old balance that was on the wind tunnel at PCC is inadequate for the higher speed of 175 mph.

Concrete Pillings

The cost of moving the old wind tunnel from PCC to Caltech would have been high, so it was decided to buy a new tunnel more suited to the needs of the graduate school. The old tunnel could only reach a wind velocity of 60 mph.

The building which will house the new tunnel is being erected by the Contracting Engineers Co. This building will be set on concrete pillings and beams on the Astrophysics arch between the Astrophysics optics shop and the central machine shop. \$18,000 is being paid directly by the Institute for the tunnel housing.

Mead Revises

Mead and his amateurs, aided and restrained by their professional help, just about completely revised the old organ. They changed the valve controls from pneumatic to magnetic. They revamped the keyboard, rearranged the pipes and enlarged the whole business in general.

Just a short while ago Dr. Mead's eyes widened at the prospect of obtaining the old chapel organ, 1886 style, from the Pasadena Presbyterian church opposite Sears. His attic now sags with 1500 pipes.

(Continued on Page 4)

Who Dealt This Mess

BY CARL FOX

Every so often there come to every bridge player hands that are out of normal bounds. These are often freaks of the types, 7-3-2-1, 7-2-2-2, or 8-3-1-1, for example. Such hands require special handling.

Certain opening bids have been set aside to be used with this sort of freaks. One of these is the opening three bid.

The opening three bid is not primarily intended to make life miserable for the opposition, although it does make it difficult for them to enter the auction. But, with any reasonable sort of a break, you intend to make the contract. Thus opening three bids should not be used carelessly.

This bid is generally reserved for hands containing at least a seven-card suit, although this may be reduced to six cards if the suit is strong enough. The suit should, if a major, be strong enough that not more than one trick will be lost in it. If a minor, no tricks should be lost (barring an abnormal split).

In addition, the hand should be fairly useless as support to partner in the play of a contract in any other suit. Thus it is often fairly balanced in the outside suits.

Then there is the honor count requirement. The hand should contain between 1½ and 3 honor tricks with not more than one outside the bid suit.

On the basis of the above information, these hands are good opening three bids:

- | | |
|------------|-----------|
| S 72 | S Q3 |
| H AQJ10953 | H 8 |
| D K3 | D 985 |
| C 96 | C AKQJ573 |
| S KQJ9743 | S Q9853 |
| H A652 | H 8 |
| D 7 | D — |
| C 6 | C AKQJ573 |

but such hands as these are not, even though they contain essentially the same size cards and the same honor count. In both of the last two hands it would be well to start with a bid of one in the long suit, for the hand is well adapted to play in either of two suits, if partner holds the other, and are within the honor trick requirements of opening one bids. In particular, with the second hand, it is worthwhile to tread cautiously and see if perhaps partner can come up with a Spade bid somewhere along the line. For a Spade contract is much to be preferred. It takes one less trick for game and partner can throw away most all his losers on your Club suit. In fact, if partner has much of anything in his hand in Spades the hand appears decidedly slamish.

NOTICE

The campus, or elimination, round of the National Intercollegiate Bridge Tournament will be held here the evening of Thursday, Feb. 23. All pairs desiring to enter should play as much as possible in the Inter-house tournaments for practice.

Potpourri

By Bob Crichton

Tom Hall, the janitor of Dabney Hall, got married this last Saturday, in Las Vegas, to Mrs. Fanye Maude Maers. The bride comes from a large family in Lubbock, Texas. Tom comes from Melbourne, Arkansas, and he has two brothers, one of whom used to work at Caltech; a sister, and a half-sister. He has been here for almost ten years, except for three years in the Army, two of them in Europe.

The couple will be honeymooning at Lubbock this Christmas, and they plan on making their home in Pasadena.

The Y Firesides are getting underway, with two this Sunday. These are arranged by the Y and made possible through the kind cooperation and hospitality of the faculty. If you'd like to meet some of the interesting people of Tech, have an interesting evening, or just like people, you'll enjoy the firesides.

The Athletic Banquet was a great success; Dr. Sharp (of the Geology Department) was Master of Ceremonies. Some of his best introductions are as follows: Dr. Jahns, "One of the most vigorous and elastic athletic supporters at Caltech"; Dr. Paul, he's a Harvard man, that's where they yell, "Fight fiercely, Harvard, firm, but not brutal"; and, of course, Dr. DuBridge, who, we learned, was the mascot of the football team of Cornell College, Iowa, at the age of four.

Dr. DuBridge gave several reasons why the football season has been a success. We didn't have to play in snow; in fact, it didn't even rain during any of our games. . . There were no irate people who couldn't get tickets to any of our games. . . We played in the Rose Bowl, not once, but three times. . . We realized what we had expected on ticket sales. . . Lastly, Dr. DuBridge hadn't received any letters from irate alumni demanding that the coach be fired.

Dr. DuBridge also said that football, and all sports, will continue to exist at Caltech just as long as the students want to play them, and as long as the students enjoy playing them. The Institute isn't concerned about the win-to-loss ratio.

A new prize was given this year, the Geological Division Award to the student who needs it most. Art Miller won the handsome prize, a beautiful hand specimen of gabbro.

Sometimes I wonder whether or not we have it rather soft here at Caltech, at least as far as P. E. is concerned. At Pomona, there is a P. E. test, and until a person has passed the test, he must go out for regular P. E. in addition to any sport that he is engaged in. At Oxy, all fresh have to have P. E. every afternoon in addition to their sports.

CAMPUS BREWINS

Thanksgiving came and went the way Thanksgiving should come and go, but the spirit of the weekend seems to have gotten lost somewhere after the third or fourth time turkey appeared on the dinner menu. Everybody buys turkey as though they were feeding Art Miller. Consequently, having plowed our way through the second day of cold turkey sandwiches, we took off for Mexico where the most familiar bird is the one the bus drivers give you as they shear off your only remaining decent-looking fender. We found that we were not alone in the great republic. Norm Schroeder was down in Ensenada along with a friend (female) from Escondido.

It was he who first discovered that bars down that way stay open until 6 a.m. Over toward Mexicali we spotted Fleming trio Behnke, LeTourneau and Stranahan, trying with little success to look iniquitous. They muffed by retiring early.

While we were entertaining three or four gay senioritas at Acapulco, things were happening up north. Darbites Wood, Markoff, and Hedrick were withstanding the siege of starvation in the Sue-less and soupless Undergraduate Melting pot, succeeded only by the thought of a dinner invitation tendered earlier in the week for Saturday night by three Schmissies. These misses were spending the holiday at the seashore, and it was there that the hearts of our heroes drifted each time they opened a can of sardines or sadly munched a box lunch sandwich.

Came the happy day, and off went the ravens three, visions of steaks dancing in their heads. They were greeted by the trio of cooks, who claimed that they were late, and blurrily brandished an almost gone bottle of Lydia Pinkham's to prove their point. It developed that in get-

ting said bottle out of the ice-box, the homeless economists had put the dinner in to refrigerate, and the road weary Rover boys found therein a sordid assortment of soup, questionable spaghetti and meat ball, and some asparagus flavored with caulking compound. This they managed to choke down, and, except for some ptomaine-type poisoning acquired by one of the girls from eating a tainted ice-cube, the party hobbled on its uneventful way. The lads returned much, much later, emaciated, and shaken, and opened a can of sardines. Fitting.

Redman Don Arnold, sporting a much maltreated flipper, claims he got it when a bottle of beer he was carrying from the cellar to replenish the supply at his girl's house, exploded. The original three frontier pathfinders, "Edward" Matzner, Morrison, and D. Peck got lost while out on a short after-dinner walk through neighborhood San Marino, wound up in Alhambra. Not trusting themselves to find the way home they stopped in several taverns to ask directions and didn't make the sack until after 3. Peter Pauling and Carl Anderson seem to have become rabidly interested in one and the same Geology professor's daughter. Instead of remaining a gentlemanly contest, the thing has degenerated into a telephonic free-for-all. Anderson is currently sulking since Pauling got his nickel in quicker for the ASCIT Formal next weekend. Pasadena homicide take note.

Things happened in Blacker too. Walt Biggers, currently slated to lose his bachelorhood, was over at his future apartment, decorating, with the help of a friend of his intended, and one Earl Hefner. Earl, while hanging curtains, slowly realized that said friend would look well decorating anybody's apartment, and proceeded to make overtures. Things went well, and the next morning, not to be outdone by any other eager beaver, Earl arose at eight and returned

The California Tech

Published every Thursday during the college year except during examinations and holiday periods.
 California Institute of Technology, 1201 East California Street, Pasadena, Cal.
 Subscription rates: \$1.50 per year.
 Entered as second class matter Nov. 22, 1947, at the Post Office in Pasadena, California, under the Act of March 3, 1879.
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to the apartment. Somewhat later, around ten, he and the lady stepped out for a cup of coffee, and were seen by the landlord, who being a normal soul, had stayed abed until nine. Something about this exodus seemed to strike the latter as a little out of the ordinary, and Biggers had to be called to untangle the mess.

In case you don't have ears or haven't seen McKinnon in the past three months, he's engaged to Maxine—M-A-X-I-N-E. He and she were among a group scrounged from the lounge at the last minute by Len Schultz to round out a North Hollywood brawl at Len's home Saturday. Len commented later that the only ones who were stewed were his North Hollywood friends. Scrounged from the lounge: Hefner, Mason, Gus Soux, Biggers.

Some of the slugabeds who stayed over the vacation got together and organized a dance last Saturday night. Since it got dark much sooner than usual due to negligence on the part of the four human lightmeters, little of note was evolved save a giggle or two, one contented, the other disdainful.

The Evening Concert

KFAC 8-10 p.m.
 Presented by the Southern California and Southern Counties Gas Companies
THURSDAY, DECEMBER 1
 The Abduction from the Seraglio—Overture, by Mozart. London Philharmonic Orchestra conducted by Sir Thomas Beecham (6).
 Symphony No. 4 in G Major, by Dvorak. The Philharmonia Orchestra conducted by Rafael Kubelik (40).
 Double Concerto in A Minor for Violin, Violoncello and Orchestra, by Brahms. Georg Kulenkampf, Violinist. Enrico Mainardi, Violoncellist. L'Orchestre de la Suisse Romande conducted by Karl Schuricht (36).
 Also Sprach Zarathustra, by Richard Strauss. Chicago Symphony Orchestra conducted by Arturo Rodzinski (30).
FRIDAY, DECEMBER 2
 Weekly Feature Concert—A Program of New Recordings
 Le Roi Malgre Lui—Fete Polonoise, by Chabrier. San Francisco Symphony Orchestra conducted by Pierre Monteux (8).
 Symphony No. 6 in E Minor, by Vaughan Williams. B.B.C. Symphony Orchestra conducted by Sir Adrian Boult (32).
 Nathan Milstein, Violinist.
 Concerto in A Minor for Violin and Orchestra, by Glazounov. Symphony Orchestra conducted by William Steinberg (20).
 Divertimento Militaire Sive Sinfonia, by Leopold Mozart. Berlin State Opera Orchestra conducted by Walther Gmeindl (20).
 Serenade No. 10 in B Flat Major (K. 361) (K. 370a), by Wolfgang Amadeus Mozart. Boston Symphony Orchestra conducted by Sergiu Koussevitzky (30).
SATURDAY, DECEMBER 3
 The Bartered Bride, by Smetana. National Opera Company of Prague conducted by Otakar Ostrcil.
MONDAY, DECEMBER 5
 Don Pasquale—Overture, by Donizetti. La Scala Orchestra conducted by Carlo Sabajno (7).
 Symphony No. 3 in E Flat Major (Rhenish), by Schumann. Philharmonic-Symphony Orchestra of New York conducted by Bruno Walter (31).
 Witold Malcuzyński, Pianist.
 Concerto No. 2 in F Minor, by Chopin. The Philharmonia Orchestra conducted by Paul Kletzki (29).
 Romeo and Juliet—Dramatic Symphony, by Berlioz. NBC Symphony Orchestra conducted by Arturo Toscanini (26).
 Cephalet Procris, by Gretry. Chicago Symphony Orchestra conducted by Frederick Stock (9).
TUESDAY, DECEMBER 6
 Impresario—Overture, by Mozart. National Symphony Orchestra of England conducted by Boyd Neel (4).
 Symphony No. 1 in G Minor (Winter Dreams), by Tchaikovsky. Indianapolis Symphony Orchestra conducted by Fabien Sevitzky (41).
 Fritz Kreisler, Violinist.
 Sonata No. 10 in G Major for Violin and Piano, by Beethoven (23).
 Isle of the Dead, by Rachmaninov. The Philadelphia Orchestra conducted by Rachmaninov (19).
 Serenade for String Orchestra, by Suk. Czech Philharmonic Orchestra conducted by Vaclav Talich (27).
WEDNESDAY, DECEMBER 7
 The Water Carrier—Overture, by Cherubini. Symphony Orchestra of Turin conducted by La Rosa Parodi (8).

Musical Masterpieces

KFAC 4-5 p.m. daily
 2-5 p.m. Sunday
 Presented by the Slavick Jewelry Company
THURSDAY, DECEMBER 1
 The Snow Maiden "Dance of the Tumblers"—Rimsky-Korsakov. Albert Coates and National Symphony Orchestra
 *Jeux D'Enfants Ballet Suite—Bizet. Antal Dorati and London Philharmonic Orchestra
 *Hansel and Gretel Act 1—Humperdinck. Hansel—Rise Stevens, Mezzo-soprano. Gretel—Nadine Conner, Soprano. Witch—Thelma Votipka, Soprano. Father—John Brownlee, Baritone. Mother—Clara Mae Turner, Contralto. Max Rudolf and Metropolitan Opera Chorus and Orchestra
FRIDAY, DECEMBER 2
 *Opritschnik" Overture—Tschaikevsky. Anatole Fistoulari and National Symphony Orchestra
 *The Fantastic Toyshop" Ballet—Rossini. Eugene Goossens and London Philharmonic Orchestra
 *Hansel and Gretel," Act 2—Humperdinck Max Rudolf and Metropolitan Opera Chorus and Orchestra
SATURDAY, DECEMBER 3
 *La Cenerentola" (Cinderella) Overture—Rossini. Arturo Toscanini and N.B.C. Symphony Orchestra
 *Hansel and Gretel," Act 3—Humperdinck Max Rudolf and Metropolitan Opera Chorus and Orchestra
 *Schwanda "Polka and Fugue"—Weinberger. Eugene Ormandy and The Philadelphia Orchestra
SUNDAY, DECEMBER 4
 *Patrie" Overture—Bizet. Roger Desormiere and National Symphony Orchestra.
 *Symphony No. 2 in D Major—Brahms. Fritz Busch and Danish State Radio Symphony Orchestra
 *The Holy City—Little Star of Bethlehem—Adams. Richard Crooks, Tenor
MONDAY, DECEMBER 5
 *Tequila" Overture Fantasia—Dunlap. Izler Solomon and Columbus Philharmonic Orchestra
 *Concerto for Orchestra—Bartok. Edouard van Beinum and Concertgebouw Orchestra of Amsterdam
 *Prince Igor "Polovtsian Dances"—Borodin. Leeds Festival Choir, Sir Thomas Beecham and London Philharmonic Orchestra
TUESDAY, DECEMBER 6
 *La Finta Giardiniera" Overture—Mozart. Bruno Walter and Vienna Philharmonic Orchestra
 *Octet in F Major—Schubert. The Vienna Octet
 Minuet from "Temple of Peace"—Lully. Dimitri Mitropoulos and Minneapolis Symphony Orchestra
WEDNESDAY, DECEMBER 7
 Preludium and Berceuse—Jarnepfelt. George Weidon and City of Birmingham Orchestra
 *Mazurkas—Chopin. Maryla Jonas, Pianist
 Symphony No. 2 in D Major, by Beethoven. Boston Symphony Orchestra conducted by Serge Koussevitzky (41).
 Galliano Masini, Tenor (32).
 The Seasons—Ballet Suite, by Glazounov. Dallas Symphony Orchestra conducted by Antal Dorati (29).
 Norwegian Rhapsody, by Lalo. Paris Conservatory Orchestra conducted by Eugene Bigot (9).

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Carson, Woody On SCIC Team

Five Southern California intercollegiate conference coaches met on November 21 in the Athenium to choose the 1949 All-Conference football teams. Senior Odell Carson took top honors at end position to cap his sparkling three-year football career at Tech. Hailing from mighty Tustin (Calif.) Union High School, Carson boasts his second Varsity letter this year and affords us all the opportunity to be proud of his sportsmanship and excellent playing on the football field.

Soph Woody

Harold Woody marked one up for himself and his class by being chosen as second string fullback on the All Conference team. Sophomore Woody is the proud product of Glendale, Calif., and is sure to become an important part of Tech's crack 1950 squad.

Schedules Planned

The Southern California Inter-Collegiate Athletic Conference that met here on the 21st also made up the spring sport schedule for the conference schools. Next year's football schedule was also agreed upon.

(Continued on Page 4)

SPEAKIN' SPORTS with Mike

With football officially out of the way as indicated by Fall festivities, we have little more to do than to give all the deserving hands a clap on the back in recognition of their valiant efforts. We can point with special pride to Carson for making first All-Conference team and Woody for grabbing second team honors. Carson, we see, pulled a deserved double keeno when he also was elected team captain. Nice goin', Odell! A bucket of roses to Don Baker in congratulations for being awarded the Wheaton Trophy—he deserved it.

With double honors seeming to be the word of the day, Dave MacKenzie came through true to form. He was elected captain of the soccer and also was awarded the most valuable player award.

Polomen

Tuesday, a little late for publication, Caltech waterwingers sashayed confidently over to Occidental to meet the Tiger polomen in a second encounter. Oxy tamed us in our first game to hand us our only defeat in seven starts, thus providing sufficient reason for the prediction of an interesting battle. Occidental took advantage of the loose reffing of the last tussle, which was highly instrumental in the victory they attained. Learning a few pointers from the game, lo-

(Continued on Page 4)

Beaver Sports



Steve Chong (left) aids Carel Otte as the Flying Dutchman prepares to score against USC in a recent soccer game at Tournament Park. The booters lost 7-3 to the Trojans.

Bevos Top L.A. State; Tech Hoopmen Shine Against LA; Find Trouble With Chapman Five

The Varsity bucket boys, in their first scheduled contest of the season last Tuesday afternoon, took a rough and tumble win from the L. A. State College quintet.

The first few minutes of the game saw the Beavers in the hole by a margin of 11-1, but, by whipping quickly into shape and maintaining drive, they picked up the difference and gave us a close, fast game all the way as is indicated by the half time score in the

Beavers favor, 25-21, final score, 45-41, and the personal foul tally of 29-22.

Fouls Galore

Four of our first string could not quite control their enthusiasm and each accumulated five personal fouls retiring them from the game. Monty took team high point honors with eleven digits, pushed by Patapoff with ten and Bowen (in his first appearance this season) with eight.

Chapman Wins

The following evening, however, the Techmen had no such cause for jubilation. The rugged chaps from Chapman took off immediately and amassed the disheartening lead of 18-13 mainly by means of their well oiled screen play. The Engineers' defense was finally able to stop this destructive routine but the Chapman dead-eyes reverted to mid-court shots which they could not miss. Offensively, the Caltech crew was just not there. The ball handling was poor, the fast break did not materialize and the shots just refused to drop through the hoop.

Maybe the Pasadena boys were preoccupied with thoughts of next day's turkey feast; or, maybe Coach Shy told them they had better concentrate on minimizing the personal fouls. Whatever the cause, we were finally trounced 58-32.

The boys have been working extra hard this week on ball handling and offense in general, so, the prospects for a good game are excellent. Game time—8:15. It's just three short blocks to the P.C.C. gym so let's all turn out for a good show.

Frosh Sports Roundup by Perry Vartanian

The Frosh cage squad dropped their opener last week to an experienced Chapman College five, 23-48. In actuality it was the Chapman Jayvees, and later in the evening several of these "Jayvees" were seen in varsity uniforms. The game was rather one-sided with the hosts constantly in the lead. Halftime score was 12-28. High scorers for our Frosh were John Gee, Bren Dehn and Dave Stevens, each with five counters, followed by Dave Banks hitting for three.

First Game

Our squad, with but five practices under its belt, was still weak and slow in its ball-handling. More practice should iron this out nicely, but time will tell. From the turnout of 25 men, Coach Preisler is still experimenting with line-ups. There seems to be plenty of good potential material which should develop into a good strong team.

Next game is tomorrow night (Continued on Page 4)

Soccer Squad Meets Trojan

The last soccer game of the season will be played this Saturday when Southern Cal plays host to us in a rematch. We hope to show the home team the same courtesy they showed us in Tournament Park two Saturdays ago when they beat us 7-3.

The lineups for this Saturday's battle are as follows:

| | | | |
|------|------------|----|------------|
| Tech | Asquith | G | Melvin |
| | Noble | LF | Gartierrez |
| | Welch | RF | Sedwick |
| | Fairall | LH | Cafate |
| | MacKenzie | CH | Cohn |
| | Baggerly | RH | Ketterman |
| | Williamson | LW | Lerrazas |
| | Wood | LI | Holquin |
| | Otte | CF | Castro |
| | Schlinger | RI | Kellerman |
| | Inglis | RW | Gartierrez |

Country Team In All-SCIC Meet

The Caltech cross country team tops off its winning season this Saturday, Dec. 3, at Tournament Park in the All-Conference Meet. While the team placed second in conference dual competition this year, considerable improvement by several men gives us an excellent chance for winning.

Top Meet

Meeting the best the conference has to offer, both Varsity and Frosh teams will run start-

(Continued on Page 4)

Beavers Achieve First Down Lead

Despite the fact that Caltech always found itself at the wrong end of the score in its football games, the team was on top in several other departments.

Over the whole season, the Beavers made more first downs than their opposition. In three games, against Oxy, Pomona, and Cal Poly, we had the most first downs and against Oxy and Pomona, the greatest total yardage. On the other hand, Caltech out-fumbled its opponents two to one and outdid everyone in having passes intercepted.

Honors

Several individuals on the team merit a word of praise for their outstanding work. Hal Tyson kicked a total of 981 yards to lead the league with a 36.3 average. Odell Carson was high man among the pass receivers with 20 successful catches, while Babe Karasawa was second in pass completions.

Season's Statistics

| | | |
|---------|------------------------|------|
| Caltech | Yards rushing | 1554 |
| 674 | Yards passing | 903 |
| 93 | First downs | 85 |
| 30 | Fumbles | 17 |
| 16 | Passes had intercepted | 9 |

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PIPE MEAD'S ORGAN
(Continued from Page 1)

Miles of Wire
As of now, statistics on the monster run like this: 40,000 feet of wire have been used in the electrical systems in controlling the beast. The thing weighs about 4 tons now and is to weigh 7 tons in the future. A 2 h.p. motor supplies 1600 cu. feet of air per min. to the pipes. And this is before he adds those pipes in the attic! "I hope to expand as time, space, money, neighbors and zoning ordinances permit," cheerily stated the musical master.

Words of Wisdom
Just in case you may be considering organing as a hobby, listen to words of wisdom from one who knows.

To illustrate his point more vividly, Dr. Mead gives forth with an an-ec-dote. A young man approached the renowned J.P. Morgan with the question, "Mr. Morgan, does it cost much to keep a yacht?"

"Young man," came the answer, "if you even have to ask that question, you can't afford one." So far, thanks to his friends labor and generosity and war surplus materials, the thing has cost about \$3000. A comparable organ on the market would take one for the handsome sum of about 20 to 24 thousand dollars.

Flexible Deadline
Christmas is the present, and fourth deadline for the completion of the small "it."

Dr. Mead has found that he will be unable to give private organ recitals. Apparently neighbors within quite a radius of the house obtain the benefit of the music. Now, a silent prayer for Dr. Donald Hudson, their nearest neighbor.

All this work—and nobody's getting P.E. credit for it?

COUNTRY TEAM
(Continued from Page 3)

ing at 10 a.m. with the Frosh at three miles. At 10:30 the Varsity starts over a distance of four miles.

The Frosh meet promises to be close too, inasmuch as they are tied for the conference dual championship. Big gun and captain Duane Marshall will face the conference in an attempt to win the first place medal. A well balanced team should back him up to win.

Varsitymen
Varsity competition promises to be close with Bill Pilkington and Captain Pete Mason of Caltech gunning for John Barnes of Oxy. Bill Parker, another Occidental star, has been heard to say that he will beat Barnes, proving that the meet should be an exciting one.

CARSON, WOODY
(Continued on Page 4)

The following is the All-SCIC first-string football team:

| Pos. | Name | School |
|------|------------------|--------|
| E | Odell Carson | CT |
| E | Robert Levin | O |
| T | Richard Fairand* | P |
| T | Robert Mockler | R |
| G | William Payne** | W |
| G | Evan McKinney | W |
| C | Don Conde* | W |
| Q | Richard Tucker* | W |
| H | John McColl** | P |
| H | Buckner Harris | W |
| F | George Coebath* | P |

*—Second year on All-Conference.

**—Third year on All-Conference.

FROSH SPORTS ROUNDUP
(Continued from Page 3)

with Woodbury College at Freemont High in L.A. Game time is 7:30 p.m.

Cross Country
This Saturday at 10 a.m. here at Tournament Park, the Frosh harriers will meet their conference opponents in an all-conference meet. Let's get out and give our guys a little push on that long exhausting run.

By the way, two issues ago, and last issue, we executed a blunder—something to the effect that the Frosh will play P.C.C. this Saturday. This was a slight misrepresentation, as the Frosh are recuperating that night from the Woodbury game on Friday. We hope all our noble readers will forgive us for this inadvertent slip. 'Nuff said.

LOYOLA COACH
(Continued from Page 1)

minutes announced Pat Fazio and Neil Stefanides co-captains with Dick Bates, Bill Gardner, Pat Fazio, John Gee, Ron Helein, Tom Janssens, Harvey Johnson, Bob Kubik, Jim LaTourrette, Gene Muehlberger, Walter Pilant, Al Pitton, Don Romine, Neil Stefanides, George Stranahan, Charles Tallman, A. J. Teague, Jack Walker, B. M. Wallace, Pete Wessel, and Ron Willens as this year's frosh numeral winners. The managers were E. Mendenhall and F. L. Thurston.

Team Captains
No letter winners have been announced as yet in the other sports, since their seasons aren't completed, but the team captains were named. In varsity cross country Pete Mason was named captain, while in the frosh it was Duane Marshall. Dave MacKenzie was chosen soccer chief. Ed Reinecke was selected varsity water polo captain, with Alan Haire as frosh head man.

Tennis Pins
Jack Poindexter, Dean Blanchard, Jack Martin, and Sid Stone were given pins for their part in obtaining the tennis co-championship last spring.

Sharp Presents
The climax of the evening came with Dr. Sharp's presentation of the Geology department's coveted award for "The man who needs it most" to Art (Pudge) Miller. The trophy was a perfectly formed specimen of Gabbro. Gad!

High Scores Mark IH Ten Pinning

Sid Stone of Ricketts and Win Royce of Dabney completely stole the spotlight for their spectacular games in this week's Interhouse Bowling League play. Stone started his second game with seven strikes and seemed to be on his way to a perfect 300 game, when his eighth ball broke a little too much and left a 4-7-9 split. Another strike and split in the final frames gave him a huge 231 score, high for this year's league.

In team play this week, Throop led with a clean sweep of eight games, Dabney won seven, Ricketts won four, Fleming took one, and Blacker failed to score.

U.C.L.A.'s bowling team comes to Pasadena this Sunday to do battle with Tech's rapidly improving keggers in the second half of an intercollegiate match. Tech lost by a small margin at Westwood, but is confident of

Pacific Sailboat Race Scheduled

The fifth annual Pacific Coast Championship Regatta will be held Saturday and Sunday, December 17 and 18, 1949.

The Newport Harbor Yacht Club, where the event will be held, will have a dinner and dance for all concerned Saturday night, Dec. 17.

Caltech must file with the Fleet Secretary by Dec. 10, the names of all those men who are going to participate.

If anyone who has sailing experience is interested in sailing for the glory of Caltech, see either Don Royce in Dabney, or Art Cuse in Blacker. We still need old salts.

victory on their home alleys.

Come out and give your support to the team this Sunday at 2 p.m. at the Pasadena Bowling Courts, on Colorado Blvd., across from the Academy theater.

TAU BATES
(Continued from Page 1)

Carnegie Tech chapter.

Pledge Period
The formal initiation is the climax of a three week pledge period. During this period the undergraduate initiates each collected 100 autographs of active and inactive Tau Beta Pi members, polished up brass bents for the active members, and performed other sundry duties.

SPEAKIN' SPORTS

(Continued from Page 3)

cal water polomen hope to even the score.

All hail Edward Reinecke, who was elected the captain of the 1949 water polo team by members recently. Besides boasting a well-chosen captain, however, tankmen may surely acclaim this year as a producer of a very fine team. Strong under pressure, the Beavers came from behind twice and were two times victors in overtime contests. We meet El Camino, who also boasts a very strong team, in their pool Thursday afternoon.

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