

New ME Berth Most Complete

What goes on on that chewed up piece of campus with all the men, trucks and cement all over it? What's going on in that project called the "Engineering Building" for which \$625,000 is being spent?

The Engineering Department is expanding and consolidating its various departments.

Design Features

The Buildings and Grounds Department has designed the building along the lines of the present M.E. building. The net usable floor space will be about 25,000 square feet—a considerable increase over the 6,000 square feet now available.

Maximum floor loading will be greater than any building on campus—200 pounds per square foot. Even the roof, which will be like a floor to permit further expansion, has the same loading capacity.

Besides sporting an elevator similar to the ones in Arms and Mudd, this building will boast complete fluorescent lighting—the only building on campus primarily equipped with the stuff.

Cooling and Heating

Considering the warmth occurring during summer months, the building will be equipped also with adiabatic air cooling. One room will be radiantly heated from the ceiling and another will have radiant heating in the walls.

Two recent building ordinances have necessitated some more new features on campus for fire prevention. Closed stairs will be separated from the halls by fire doors and the sub-basement will have an automatic sprinkling system.

Division of Space

In the sub-basement and part of the basement will be housed Metallurgical Engineering. The other part of the basement will take care of Soil Mechanics and two instruction rooms. Offices and Testing Materials Lab will be on the first floor. The second and third floors will have more offices and somewhere Concrete Testing will hang its hat. There will also be an expansion of vibration work.

Completion by Fall

The structural work should be finished by June 15 and by the time Fall rolls around, the building should be ready for use.

All Seeing Eye Safer Than Radar

The Magic Box of Aviation—The All Seeing Eye—This is the Zero Reader. Here is your chance to learn about this new system of aircraft direction and control that has all the advantages of GCA Radar, plus a few more, but has none of the disadvantages.

Since this device operates solely from the plane, using existing radio beams, there is no chance for a man on the ground to make a mistake that would cost lives.

Come Ye!

Be enlightened—hear Mr. L. Webel of Sperry Gyroscope Co. explain the Zero Reader on Monday, Dec. 5, at 11:00 a.m., in 201 Bridge.

Everyone is invited.

Concrete Topic At ASCE Meet

"Prestressed Concrete" will be the topic of Mr. Billig of London, Eng., at today's ASCE meeting. Last Monday's ASCE guest speaker was Maurice Sasso, who accompanied his talk on "Continuous Beam Construction," with movies.

Campus Calendar

TUESDAY, NOVEMBER 29
12:00 Y Frosh Lunch Club
7:15 Alumni Placement Talk in Fleming
WEDNESDAY, NOVEMBER 30
7:30 Orchestra Rehearsal in Culbertson
9:00 Glee Club in Throop Club

Vets Of Mudeo Laud Cotillion

The victorious sophs and out-rivalled frosh held their annual dance in Dabney Hall Lounge last Saturday night. The dancing was done to the melodies of Vern Rowe's orchestra. Over 75 couples attended this acme of social events.

Paying and Planning

The frosh had to pay for the affair as a result of their recent defeat by a score of 5 to 2 at the hands of the sophomores in the Mudeo. The frosh provided the work and money that made the dance a success, while the sophs did the planning.

Dance Committee

The dance committee consisted of three sophomores, Class President John Noble, Gil Kitchings, Al Haber, and Frosh President Tom Janssens. They managed to plan the dance in such a way as to leave some currency in the frosh treasury and still make the dance the "success" it was.

Gate Crashers

Chaperones at the dance were Dean Strong, Mr. Tanham and their wives. A valiant effort was made by the underclassmen to exclude all the upperclassmen, but they were not able to keep all the crashers out. Notable among the members of the upperclasses was Dallas Peck, president of the Junior Class. Peck was heard mumbling something to the effect that he dug the pit for the Mudeo and, dammit, he was going to attend the dance.

Feet Fly At Fluid Blacker Fling

Saturday night was the night for Square Dancing and the Blacker men present at the Ride-A-While Stables in Burbank spent the evening in learning some of the many types of square dances and then trying to follow through with the motions.

There was a professional caller present, Mr. Homer Garret, who was obtained by McCourt and Parnes of the Social Committee.

Entertainment other than dancing consisted of a Crew Race between the Junior and Freshman team and the Senior and Sophomore team. The Race was won by the Junior and Freshman team by the narrow margin of approximately half a man.

Nice Hay!

An added attraction was provided by the Stables in the form of a wagon and horses. Reclining in the hay while touring Burbank was the idea, but try and recline with the hay already filled with people.

Honorable mention and a doubtful amount of thanks go to stags Twining, Stefanides, Ogilvie and Conner, who helped the crowd and themselves to the liquid refreshments.

Noteworthy

Present were a large number of lovely girls suitably attired in the clothes necessary for barn dances and hay rides. Also noteworthy was the fact that the four stags above mentioned managed to get themselves home. They were assisted by Larry Knight and his 2½-ton truck. Larry is the recipient of the thanks of the house for using his truck and his time to enable some of the carless couples to get over to Burbank.

Blacker's next social get-together is a Playhouse Party in the Balcony Theater of the Pasadena Playhouse on Dec. 2. The play will be "The Thirteenth Chair" and the cast is invited to the open house in the lounge immediately after the play.

Got Your '49 Big T?

Those students who were ASCIT members last year and who haven't yet received their 1949 Big T, are urged to see Jim Bloom in Room 25 Dabney House. Others may purchase copies for \$5 each.

CHRISTMAS IS HERE!



Ed Reinecke and Bill Freed, social wheel for the ASCIT, and their dates watch Santa come down the chimney with news of the ASCIT dinner Formal next Saturday night. The Riviera Country Club will be the scene of the gala affair.

Fall Banquet Set Tonight

With the sound of gnashing teeth and clanging silverware, the athletic banquet will get under way at 6:30 tonight at the Brookside Park Country Club.

To team members of cross-country, water polo, soccer and football, either Varsity or Frosh, the damages will be \$1.00. All others will be obliged to pay \$2.00 for a delicious steak dinner.

Sharp M.C.!

Dr. Sharp of Geology lecture fame or "they slipped in that slide when my back was turned," will be M.C. Coach Jordan Oliver of Loyola will be the guest speaker. The teams of '29 and '39 have also been invited.

Tickets can be purchased from any team manager. If you'd like to hear some keen jokes, eat some good grub, and have a fine time in general, come on out to Brookside Park at 6:30 tonight.

Pre-Registration

Undergraduates have until this Friday to complete pre-registering. Materials can be obtained in 119A Throop.

Darbs Spree With Skating, Dancing

Braving the elements, the Dabney flock of ice skating enthusiasts attended a small frolic held last Saturday night at the Pasadena Winter Gardens.

Those distinguished roués, Mal Hickey, Hal Martin and Dutch, realizing the opportunities for dazzling the multitudes with their flashing skates, put forth an appearance.

Hot Cocoa

Cain, with a charming South Pasadena miss, was one of the first to receive technical assistance. Worrell was also on hand to insure business for his dry-cleaning concession; Williamson threatened to take the matter to the NLRB, contending that it was an unfair labor practice to deliberately trip men on the slushy ice. Eventually, the ankles being tired, the bruises painful, the party returned to Tech to thaw out on hot cocoa and dancing.

This Saturday there will be a record dance for those men who are staying over for the Thanksgiving recess.

However already there is evidence of plans for the coming ASCIT Formal, involving vast master transportation schemes threatening to rival the mighty P.E. Wild argument and speculation are raging as to whether it would not be cheaper to move the Riviera Country Club, with President Royce announcing the arrival of contracting bids daily. A small minority advise an inversion the Riviera and Scripps.

Graduate Study Seminar Topic

The Alumni Placement Discussion Series will continue tomorrow in Fleming House at 7:15 p.m. with Mr. Nico van Wingen as guest speaker. The subject of the discussion, "Should I Go To Graduate School, and How Should I Choose a Graduate School," will be of special interest to the scientists and engineers who plan to do any graduate work.

Wide Interest

This discussion is not only of interest to the seniors, but also to the underclassmen who are as yet only thinking about graduate work, since one of the topics under consideration is the requirements and factors to be considered in graduate work.

Other main points will be the problem of deciding whether to attend such an institution or not, as exemplified in the advanced degree, how to go about receiving the necessary information, and the data concerning the choice of a graduate school for any field.

Mr. van Wingen has a background of both industrial and collegiate work from which to draw his material. He is at present vice-president of Petroleum Technologists, Inc., of Montebello, Calif., and was formerly Professor of Petroleum Engineering at the University of Oklahoma.

He also served as Chief Evaluation Engineer of the Richfield Oil Corporation at Los Angeles and previously had held various positions with the Continental Oil Co. of Bakersfield, Calif., and the Shell Oil Co. of Los Angeles.

Lemmings Enjoy Evening At Stag

The Fleming horde let loose full blast last Thursday night at their fall stag party. A score of virgin mugs were christened as the traditional refreshments were enjoyed very much.

Movies shown during the evening included an ancient Disney cartoon, some Chaplin slapstick, and a full-length feature, "It Happened Tomorrow."

Pope Big Don Barrie awarded the Golden Goose for the saddest story of the year, not to the justly-deserving Dick Bennett, baby-food expert, or to Jack Scantlin, whose selection of females cost him approximately 3.14159 times the amount of gold in Fort Knox, but to himself for hurting his knee the first time he got in the game.

Highlighting the evening was a contest between alleys two and five for possession of the brass splittoon. Pauling, Cagle, and Keswick choked, but George Cooke came through with a tremendous victory spurt to bring the trophy to alley two. They announced the trophy would be used for target practice.

ASCIT Christmas Formal Saturday

Dinner-Dance Features Hal Lomen At Riviera Country Club

An innovation in ASCIT formals is being tried out this year with the annual Christmas formal, to be held December 3, at the Riviera Country Club. This year's guests will have the opportunity of enjoying a delicious dinner before dancing to the silvery tones of Hal Lomen and his orchestra. Dinner will be served from 7:30-8:00 p.m., and dancing will commence at 9:00. Dress is to be semi-formal; dark suit or tux will be in order for the affair.

Student Shop Tightens Rules

By Student Shop Committee

After weeks of planning, reorganizing, and housecleaning, the student shop will reopen on Monday, Nov. 31. On that day, people who were at the last meeting in Dabney and filled out application forms can then pay their dues and receive their keys from Dave Oakley in Ricketts. Once the shop is going, notices of general interest to members and prospective members will be posted on the doors of the shop.

New Policies

The shop will be run on far stricter lines than in the past. Each member will be responsible in turn for a day's tour of inspection of the shop and anyone not caring to assume this duty need not apply for membership. In addition to having an inspector responsible for the condition of the shop, each member when he leaves or enters the premises will assume responsibility for the shop's condition.

Individual Key

Each member will have his own individual key for which he is personally responsible and it is hoped that this system will prevent unauthorized people from entering the shop. By following a set procedure, members will be allowed to check out tools for use on work away from the shop. If this procedure is not abused it should be of great convenience to the members.

Since this is positively the last chance the students will have to show if they can use and run a shop properly, the shop committee is going to take no chances with losing the privileges. Anyone not taking on his share of the work, or leaving the shop in a mess, or abusing the equipment will be ruthlessly kicked out of the shop.

Fair Share

The Committee wants to point out to prospective members that they must be willing to do their fair share of work.

At certain posted times there will be a member of the Committee in the shop to receive applications for membership. The first of these will be Tuesday evening, Dec. 1, at 7:00 p.m.

Light Years Get Recount

Astronomers are revising their notes today on the distance from the earth to a number of open star clusters following the publication of new computations made by Dr. Roscoe F. Sanford of Mt. Wilson and Palomar Observatories. Instead of being some 5200 light years away, the average distance of these clusters, as concluded by Dr. Sanford, is actually only about 3900 light years.

Calcium Clouds

For deriving the new distances, clusters were awarded for which the path of light to the earth passes through clouds of atomic calcium; then by the use of spectrum lines of the stars and of the calcium, correlated with the intensities of each, Dr. Sanford obtained the new figures.

Choice of Dinners

Those wishing dinner will have a choice of roast beef or roast chicken, tastefully prepared by the Los Angeles Athletic Club. Reservations for dinner are being taken by representatives in each of the Student Houses and Throop Club, and must be in before Friday, November 25. The price is \$2.50 for the roast beef, and \$2.75 for the chicken dinner.

Instituters Decorate

A group of Instituters, under the guidance of George Sawyer, are hard at work planning decorations. In keeping with the Yule spirit, the tables in the dining room are to be decorated with red berries and green leaves. Candle light and soft music will add to the holiday atmosphere, while a large Christmas tree will be placed at one end of the dance floor, with Santa coming down the chimney at the other end. Sprigs of mistletoe will be hung throughout the room at strategic locations.

Bids

Bids, to be handed out at the door, will also contain mistletoe as a subsidy to those who need it.

Biology Group Plots Jaunts

Last Monday's meeting of the Biology Club brought out a sizeable number of biology fans who discussed the activities that might be followed during the coming year.

High on the list of suggested doings were field trips to points of biological interest. Among those places suggested were the Rancho Santa Ana Botanical Gardens, Tech's Marine Lab at Corona del Mar (combined with a cruise in the Institute's motor launch), the Huntington Library Gardens, the Los Angeles County Museum and the La Brea tar pits, Joshua Tree National Monument, the Department of Agriculture Experimental Station at Riverside, and several other points which are further away.

Desert Field Trip

A committee was formed to investigate the feasibility of these trips and the possibilities of obtaining suitable guides from amongst the faculty. The plans for the big desert field trip during the spring vacation were tabled until a discussion has been held with the faculty members who will be in charge of it.

Plans for Meeting

The question of what to do in one-hour meetings of the club was settled by the decision to concentrate on meeting the men who are carrying out the research program of the Biology Department. It was felt that such a program would lead to better student-faculty relations, and a better understanding by students of the techniques and specialized knowledge necessary in biological investigations. Some discussion was also held on the possibility of holding some events of a purely social nature.

New Club Officers

The meeting closed with an election of club officers. Bruce Stowe was appointed chairman, Carl Anderson vice-chairman, and Charles Bates secretary-treasurer. Meetings, which are to be held on alternate Mondays at 11:00 in 234 Kerckhoff, are open to all.

Potpourri
By Bob Crichton

John Lewis has become quite a suave Master of Ceremonies on the Caltech Y Radio Roundtable Program. Two weeks ago, B. H. Golding of Chem. Engineering and Dr. S. J. Singer of Chemistry, in a really outstanding program, discussed Scientific Freedom and National Security. If you haven't heard the program yet, listen in on Wednesday evening to KXLA (1100 on your dial) at 8:15.

Seven per cent of the students at Caltech are foreign students. Four per cent of the undergrads and 13% of the grads, are the ratios.

Last week, my Math class in Crellin was almost asphyxiated by gas seeping up through the floor and out through the lecture desk. The terrific smog that day obscured the odor for a long time, but finally someone noticed it and opened the windows. Professor Dilworth said that he had complained about it to the chemists, and they told him, "You don't know just how lucky you are. We have to breathe that stuff **ALL** the time!"

The linotypist ruined one of my paragraphs last week. Here is what I tried to say:

While the subject of athletics is being discussed, I think that it would be wise to re-think the whole subject of P.E. credit. At the present time, the rules have been formulated on a trial and error basis. Perhaps it would be

worth while to set down a few of the principles behind P.E., show the logical derivation of the rules, and let the students in on the whole story.

There is a great deal of griping and misunderstanding that can be traced to the lack of knowledge about the reasons behind the rules.

Volleyball is not, at present, a recognized minor sport (let-ters), and, when played off campus, does not receive P.E. credit.

Let me recommend "Cheaper by the Dozen," if you haven't read it already. I nearly died laughing over it. It is the story of Gilbreth, the man who originated time and motion studies, and how he raised a family of 12 by practicing his theories on them.

Twenty-two people have signed up for Asilomar already. If you don't know what it is, drop down to the Y office and get the full details. Malcolm Dana, psychologist, will be giving the main addresses on the theme, "Achieving Personal Maturity."

Four hundred fifty boys and girls will be spending the week from Christmas until New Year's having a very gay time up on the Monterey coast. There are seminars on everything from "Dating, Mating or Debating," and "How to Handle Your Parents," to "How to Be Effective Politically."

Gad!

Her: Say, what are those marks on your nose?

Him: They were made by glasses.

Her: You should learn to tilt your head back, it pours easier.

CAMPUS BREWINS

Notable for a number of highly successful brawls, the weekend at Tech preceding Misgiving Vacation was a fine one. The normal tumult of Darbs' Alley 7 was shattered Sunday night by a detonation reminiscent of Guy Fawkes' Gunpowder Plot. When the smoke and fumes had cleared sufficiently to support respiration in the devastated area (Dave Lee's room), volunteer squads were formed to go in and search for survivors. There was no sign of life—just small porcelain fragments on the floor, a blasted window, and a thick haze.

The result of a highly scientific interest in the chemistry of sodium, the experiment was considered a volcanic success; data is soon to be released by J. Carter ("Sugar") Cain of the Manhattan Project. Generally acting very strangely this weekend, Cain took part in other excesses, procuring and escorting a female girl of the opposite sex to both the Dabney Skating Party and Ricketts-Throop brew dance, thus marking Joe's first departure from a solemn "NO WOMEN" pledge of two years' standing.

Similarly astounding was the appearance of the old skating master, Malcolm Van Cleve Hickey, with four skates and a woman attached to two of them! Markoff, D., was observed back on the wagon, keeping company instead with a Schimpsee he pursued at some, if fruitless, length last year.

Challenging the Ricketts' "Rowdy" title, the Phlegms soaked Throop Club with a stag last Thursday and handed over incredulous honors to George

Cook for a masterful record of 30 feet! Haber had promised the family car magnanimously for use of his friends for the Frosh-Soph Dance only to hear that pater had made other plans; he escaped physical violence by locking himself in his room. Al Pitton, who in his great generosity had set up blind dates for Marion and Kubik for the Frosh-Soph Community Sing, was rewarded next day by the sight of his auto without tires and a note on the car reading, "Too bad we couldn't hide last night's flat tires as well as we did these!" Is this gratitude?

We have been requested to gather a violin quartet for the sad story of soph John Wilkening. John got the ring and a place for them to live, then wrote wrote to his woman in Wyoming to come and get matrimonized. This was six weeks ago and no answer yet! Rather than sacrifice arrangements he is thinking in terms of a certain fraulein he left behind to pine in Germany when soldier Johnny came marching home again.

Bluenose House, in a feverish effort to let down their hair, joggled through a very square dance Saturday along with a hay-mayhem, horse-drawn, after which Bill Freed and others were heard to pity the poor sardine. Grad students "Stub" Johnson, Karzas and Palmer returned to renew old ties (with a Blacker keg), and two of them were called in to bolster a sadly-lacking Frosh-Junior Crew Team, which, by a series of such devious moves, edged out a Soph-Senior Team. Carel Otte's continental air rebelled at the folk-

lore of the American peasant and he sat on the sidelines with date—in awe. Prexy Drury has solemnly proclaimed that square dancing is now about to usurp time-honored superiority of the "beer and passion" party so long held at barns by Tech stalwarts. No doubt he finds the latter highly immoral and worthy of immediate prohibition action by the local Anti-Gin and Sin League. Tsk.

The Oxy formal Friday night, a runner-up version of the Interhouse, was well represented by the suave tie and tails crowd, among them Bill Sampson, Bill Cox (!), J. M. Ogilvie, Hal Lazar, and more. Victim of the Digit was Matzner, who has been showering an Oxy deb with attention, only to learn for the first time late Friday night that Oxy had had a formal and Little Edward had apparently been left behind in the dust. (music)

Mountain Hoax once more proved its ironclad strength by refusing to collapse under the influence of four kegs of liquid malt. Bob Cobb dispensed the brew and bar witticisms, matching one for one with customers. Vying with the bartender for greatest loss of equilibrium was Phil Halverson, who, not trust-

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ing himself, kept his date dancing with the stags. A large number of the latter arrived in the notorious Blue Pashmobile, vaguely owned by T. Bowen. Although many of its staunchest supporters had given up hope

(Continued on Page 4)



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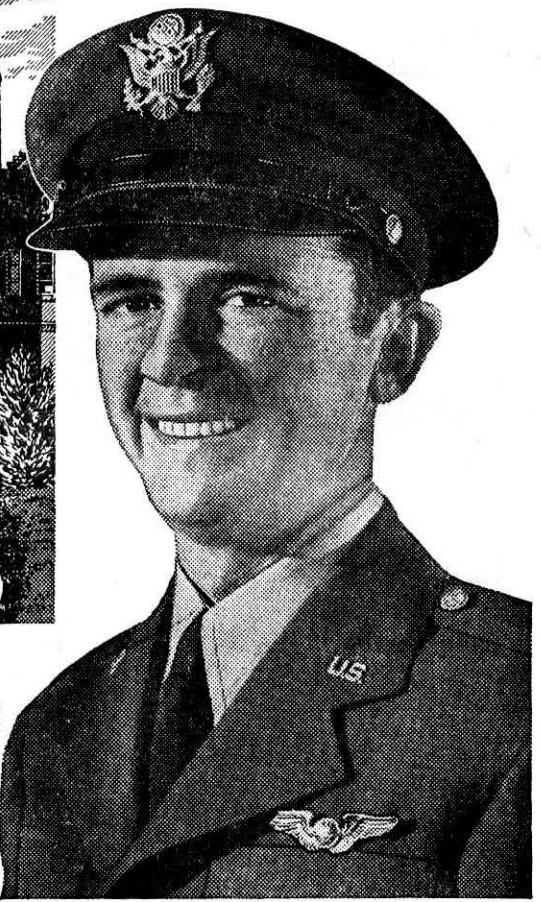
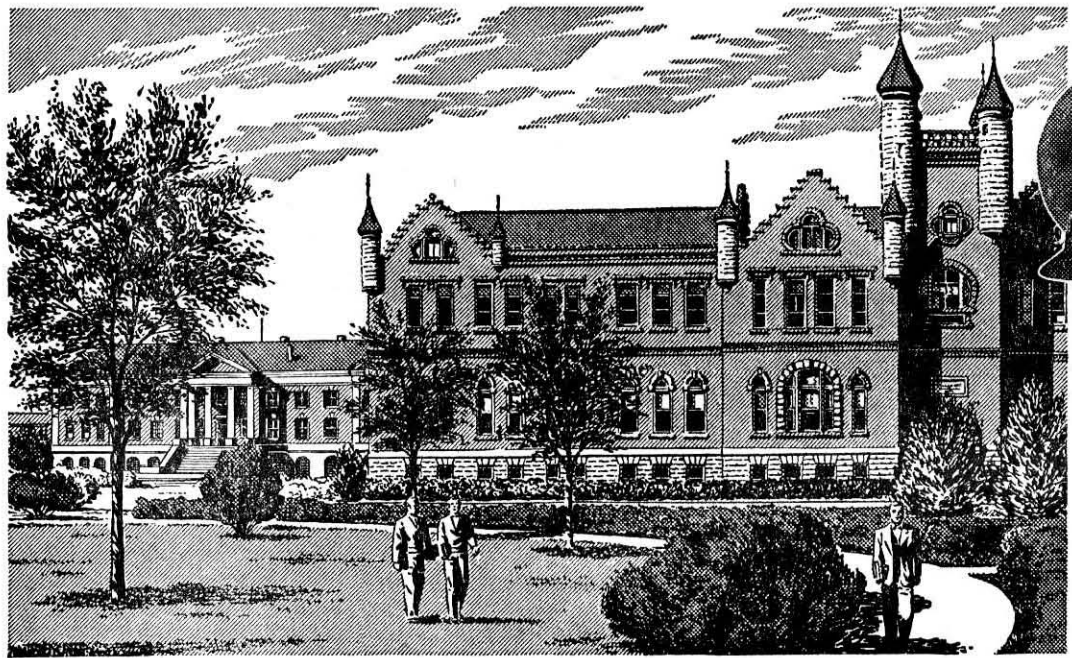
Award will be made by the Beaux Arts Ball Committee in conjunction with the First Hollywood New Year's Eve **BEAUX ARTS BALL.**

All Winners Will Be Announced at the Beaux Arts Ball, New Year's Eve, Sat. Nite, Dec. 31st at Shrine Convention Hall

Your letter must be postmarked not later than midnight, December 15th.

All letters become the property of the Beaux Arts Ball Committee.

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A native of Grove, Oklahoma, Norman Hays graduated from Grove High School in 1935. The following year he entered Oklahoma A&M, where he majored in engineering; also took public speaking.



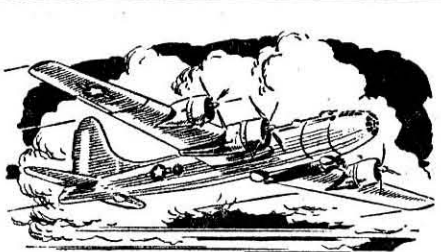
Active in national 4H Club work while in college, he helped organize its statewide activities, won a national 4H championship in Public Speaking. In 1940 he received his BS degree in engineering.



A month later he began navigator training as an Aviation Cadet. In 1941, he received his navigator's wings and a commission as Second Lieutenant... married his college sweetheart.



Sent to an RAF Navigation School in Canada, he graduated with the highest possible rating of Specialist. Norman served overseas for 18 months in the Aleutians, Italy and Saipan.



Accepting a regular commission after the war, he was assigned to development of navigation instruments; navigated the B-29 "Pacusian Dreamboat" on its famed Hawaii-Cairo non-stop flight in 1946.



Typical of college graduates who have found their place in the U. S. Air Force, Major Hays is Chief, Navigation Section, at Headquarters in Washington... with a secure career... a promising future.



If you are single, between the ages of 20 and 26 1/2, with at least two years of college, consider a flying career as an officer in the U. S. Air Force. You may be able to meet the high physical and moral requirements and be selected for training. If you do not complete Aviation Cadet training, you may return to civilian life or have opportunity to train for an important officer assignment in non-flying fields.

Air Force officer procurement teams are visiting many colleges and universities to explain about these career opportunities. Watch for their arrival or get full details at your nearest Air Force Base, local recruiting station, or by writing to the Chief of Staff, U. S. Air Force, Attention: Aviation Cadet Branch, Washington 25, D. C.

U. S. AIR FORCE

ONLY THE BEST CAN BE AVIATION CADETS!

Hoopmen Drop First Tilt

The varsity basketball squad, in their first game of the season, was barely edged by a strong John Muir team, 57-54. The lead was traded back and forth throughout the game and at halftime Muir had a 29-25 advantage. Coach Shy started the second half with a zone defense experiment which resulted in a 46-36 lead for Muir. Upon reverting to man-to-man the Beavers broke loose and scored 12 consecutive points, putting the tally at 48-46. With three minutes left in the game the Techmen had a 54-51 edge but in the last few moments of play the Muir center got hot with his hook shot, giving the game to the Altadena club, 57-54.

Patapoff took scoring honors with 19 points. Although each team scored 22 field goals, our failure to make a good showing in free shots decided the contest. The line-ups:

Table with 3 columns: Name, Position, Points. Includes Patapoff (19), Grey (6), Butler (12), Cox (10), Sereno (1), O'Brian (10), Smale (6), Hemmingway (10), Davidson (10), Hutchman (6), and scoring subs.

FOR THAT SPECIAL HAIRCUT BEFORE THE CHRISTMAS FORMAL SEE Carl's Caltech Barbers On California St. Near Lake

SPEAKIN' SPORTS with Mike

With only ten more shopping days until finals we see all breeds of athletes tending to close shop and paste an "Out to Snake" sign on their doors. Footballers closed their '49 season at Cal Poly last week and muttered something about high hopes for next year before diving into hibernation. The remainder of Tech sportdom evidently is eyeing several more individual skirmishes before folding for the holidays.

Post Season With visions of a grid squad for next year, I hear that Coach Bert is staging a three-week practice for Juniors, Sophs and Frosh. Stressing actual game conditions by scheduling scrimmages every evening is perhaps one reason why such visions may not be so far from actualities. No matter what the results, (Continued on Page 4)

Attention!

Measurements for letterman sweaters and jackets will be made for football and water polo award winners Friday, December 2, at 11 o'clock in Fleming Lounge. Freshmen wishing to purchase Frosh letterman sweaters will be measured at the same time along with men desiring new stripes. Soccer and cross-country men will be measured at a later date.

Beaver Sports

Underdog Poly Downs Gridmen

The Beavers finished a disheartening season by going down in defeat at the hands of the Cal Poly Broncos 37-12 while the inspiration of only a handful of rooters might have been instrumental. Caltech scoring came at the ends of two long drives down the field, one of 69 yards, the other 80. Woody scored both times, running the ball over from a dozen yards out.

Carson, Woody Shine Odell Carson on those end-around sweeps and Woody through the center of the line made two-thirds of the Caltech yardage. The passing attack wasn't up to par and again fumbles and pass interceptions made it easy for the opposing team to score. Twice we fumbled and lost the ball on the kickoff deep in our own territory. Another time, the Engineers might have scored from Cal Poly's 7, but Richards intercepted a pass and ran it back to our 38. All these miscues resulted in Cal Poly (Continued on Page 4)

UCLA Edges Tech Bowlers Sunday

An underdog Caltech bowling team gave a U.C.L.A. squad plenty to worry about for two and one-half games before losing the match by a 2494 to 2399 margin at Westwood Sunday. The Bruins got off to an early lead of 60 pins at the middle of the opening game but Tech fought back to win by 50. The second game was closely fought all the way with the Engineers finally coming out on the short end by a mere 3 pins. The final game found Tech down about 40 at the middle, then giving way with many splits and misses before a barrage of Bruin strikes.

High Scores Techmen took all individual honors, however, as Duane Neverman's 203 game and Woody Bratnuber's 529 series were high marks for the match. (Continued on Page 4)

Tankmen Drop Glendale 4-2

The Caltech tanksters have come up with another pair of victories since the last issue of this sheet—the Beavers edged out Muir, 4-3 on Nov. 18, and sank Glendale J.C. 4-2 last Tuesday. This brings the Engineers' season record to six wins against only one loss.

Barmore, Libbey Star Tuesday the Beavers left little doubt as to who had the stronger team in subduing Glendale. The Caltech men looked their best yet, playing consistently and with few mistakes. Barmore and Libbey again came through with the Engineers' points, each scoring twice.

Oxy Next Next Tuesday the Tech men meet Oxy in a return engagement and are out to skin the Tiger in revenge for the drubbing they took in the first encounter—the Bengels being the only team to defeat Caltech this season.

Tech Harriers Annex Two Meet Victories

Beavers Host to Conference Meet Next Saturday at Tournament Park

Frosh Sports Roundup by Perry Vartanian

Not much doin' this week in Frosh sports as the basketball squad under Coach Preisler is working out at McKinley High to prepare for their coming schedule.

Wednesday night the cagers met Chapman Frosh but this game was too late for publication. On the whole though the squad looks pretty good and has a lot of potentialities. The next scheduled game is this Saturday with PCC at PCC. Everyone is urged to walk the three blocks and cheer the guys on. It should be a good game.

Cross Country In cross country, the Frosh downed Redlands with Duane Marshall coming in first, Don Romine fourth, Hank Pollet fifth, Terry Thomas sixth, Dave Twining seventh, Francis Scott ninth, and Ed Stofel tenth. This completed the loop and the Beavverbabe harriers emerged in first place tied with Oxy with three wins and one tie.

This Saturday at 10 a.m. on the home course the Frosh will compete in the All-Conference meet. The meet will be scored both on a team and individual basis and our guys should snag quite a few honors. (Continued on Page 4)

Big Red Teams Pace IH Race

Interhouse basketball came to a close with a three way tie for first between, Blacker, Dabney, and Fleming, as the Big Red downed the Darbs by a 28-16 count. The past week saw Blacker defeat Throop 42-32. Fleming won over Ricketts 43-24 to bring down the curtain on basketball.

Discobolus Throop retained possession of the Discobolus by beating Fleming two games straight in volleyball. The interhouse trophy race is closer than a couple at a barn dance.

Table with 2 columns: House, Trophy Points. Lists Dabney, Fleming, Blacker, Throop, Ricketts.

Stoutly refusing to build any character, the Caltech cross country team wound up its dual meet season with a twin killing from L.A. State and Cal Poly at San Dimas. The meet, last to be run before the all conference meet next Saturday was, however, only a feather on the tail of Caltech's earlier win over Redlands the preceding Friday.

Conference Meet The conference meet, a four-mile affair, will be held at 10 a.m. on Saturday, Dec. 3, at Tournament Park. Keen competition is expected, as the all-conference runners will meet to decide the championship for this year. John Barnes of Oxy seems to be the outstanding competitor, closely followed by Pilkington and Mason of the Beavers. Also expected to be in there is Don Creacy of Redlands.

Individual medals will be awarded to the first five place winners, and the meet will also be scored by teams. Also to be awarded to Oxy will be the new cup for the dual meet championship. It deserves mention that Caltech retired the old cup with (Continued on Page 4)

Rowdies Build IH Keg Lead

Sid Stone of Ricketts was again the star of IH bowling this week as he fired a terrific 583 series, with games of 160, 210 and 213. This is a new league record, topping his own previous high of 559 which he set last week. Many other good scores were overshadowed by this big effort, including Woody Bratnuber (T), a 211 game and 553 series; Fred Drury (B), 186-507; Sergio Rodriguez (R), 184-485; Clinton Lew (T), 183-471; Ralf Erickson (T), 467; Jim Allison (D), 181-464; and Duane Neverman (T), 457.

Ricketts again led the win column with seven this week, followed by Blacker with six, and Throop with five. Dabney took two games and Fleming bowlers were conspicuous by their absence. Ricketts Team Two shot high total of 1656 as best game went to Blacker Team Two for a big 577 mark.

Table with 5 columns: House, Won, Lost, Pct., Ave. Lists Ricketts, Throop, Dabney, Blacker, Fleming.

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SPEAKIN' SPORTS

(Continued from Page 3)
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Looking Ahead

Even though our first basketball game isn't until January 7, we'll be forced to keep our practices going full steam to cope with some of the conference teams this year. Our contest with Redlands on the 7th will be one of our toughest. Most of us will remember Kreutzberg of last year's fame. It is rumored that the boy is improving and that his sophomore brother scored 19 points in their first non-conference scrimmage. But our answer is sophomore Patapoff—19 points against Muir.

UCLA EDGES TECH

(Continued from Page 3)

Official scores:

U.C.L.A.	
Leo Habel	177-170-167—514
Bill Summers	164-156-201—521
Jack Bratton	180-162-155—497
Merle Swanson	132-177-202—511
Bill Seugling	161-147-143—451
TOTAL	814-812-868—2494
C.I.T.	
Andy Check	144-176-116—436
Duane Neverman	203-176-131—510
John Holmes	144-130-126—400
Sid Stone	186-147-191—524
Woody Bratnaber	187-180-162—529
TOTAL	864-809-726—2399

UNDERDOG POLY

(Continued from Page 3)

touchdowns. Benny Vance was our particular nemesis, knifing through both the line and secondary for long gains. He was used sparingly, but to excellent advantage. It is a mystery how a man only five-foot four can be so fast.

Good-Byes

This was the last time on the field for Blom, Baker, Carson, Dayman, Schofield, Schroeder, Marks, and Tyson. We extend best of luck to them all. With work on our line and the experience gained by our blossoming sophomore backfield, the scoreboard will look different next year.

Statistics		Cal Tech	Cal Poly
275	Yards rushing	398	9
18	Passes attempted	9	2
6	Passes completed	45	1
65	Yards passing	1	1
3	Fumbles	1	1
3	Lost ball	1	1
17	First downs	1	1
322	Total yardage	402	1

FROSH SPORTS ROUNDUP

(Continued from Page 3)

Football

Football practice is still being held for those interested. It is all scrimmage and no fundamentals so ex-squad members enjoying a good game of football are urged to turn out.

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CAMPUS BREWINS

(Continued from Page 2)

of its ever running again, it rose to the emergency, revived two of its ancient cylinders and navigated to and from despite the destructive occupancy of Clark, Holmes, Sereno, Bass, Shakespeare, Rodriguez and Bowen.

Jim Wilcox, despite his ten-ton leg, was also present with date. Those casts must do something for the old sex appeal; Jim was seen absorbed in his work in the Athenaeum parking lot with the same girl Sunday afternoon. Joe Fischer was at the brawl with an old friend whom he hadn't realized was so good-looking until he saw her in a pair of tights at some school play. Stan Eilenburg complained bitterly about the lack of COKES . . . Tsk squared.

Gad!

The guy who coined that phrase "clean as a whistle" never heard the boys down by the corner drug store on a sunny summer afternoon.

TECH HARRIERS ANNEX

(Continued from Page 3)

their third championship last year.

Redlands Triumph

The Redlands meet didn't develop the competition expected, Caltech winning easily with a score of 22-37. Mason won out the 3 1/2 mile distance in 19:44.

Pilkington took second for Caltech, while Creacy took third to place first for the Bulldogs. Cobb in fifth, Houser in sixth, and Sellen in eighth finished out the scoring for Caltech.

Poly, L.A. State

In the meet last Tuesday, Caltech entered two teams against Cal Poly and L.A. State. One of

them being frosh, was not scored, but the varsity won the three way meet easily with the final score Caltech 19, L.A. State 56, and Cal Poly 61.

Places were: 1—Mason, CT; 2—Pilkington, CT; 3—Lucas, CP; 4—Cobb, CT; 5—Houser, CT; 6—Stafford, LAS; 7—Bowerman, CT; 8—Greenlee, CP; 9—Averitt, LAS; 10—Sellen, CT; 11—Dickinson, CT. Winning time—17:07.1.

Found!

A pencil-lighter was found last week in the campus Coffee Shop, and has been turned over to the YMCA Lost and Found.

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