

Kenneth Boulding here next week; will speak to Y clubs

The Caltech Y is sponsoring a series of talks and discussions on campus next week by Mr. Kenneth Boulding, professor of economics at the University of Michigan.

Mr. Boulding will speak next Tuesday for the undergraduate lunch club on the topic "Occupational Diseases of the Spirit with Special Reference to Engineering." Wednesday noon he will talk at the graduate-faculty forum in the Athenaeum on "Tastes and Values; the Ethical Basis of Knowledge." That night he will speak and lead a discussion in Dabney Lounge at 7:30 o'clock on "The Economic Revelation of an Impossible Ethic."

As another feature of his visit, Mr. Boulding will be at the Y's new offices in T-1 for informal coffee hours on Tuesday and Wednesday from 4:00 p.m. until 5:30 p.m.

Dr. Boulding spent his undergraduate days at Oxford and did post-graduate work at the University of Chicago as a Commonwealth Fellow. Before joining the Michigan faculty, he taught at Colgate, Fisk, Iowa State, and McGill Universities.

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Assembly will feature sextet next Thursday

The Lighthouse All Stars, a jazz sextet, will appear at the student assembly to be held in Culbertson auditorium next Thursday, April 28, at 11:00 a.m. The assembly is presented by the ASCIT as a part of its new program for student rallies and assemblies.

The All Stars are composed of Bob Cooper, tenor saxophonist; Bud Shank, voted "Alto Saxophonist of the Year" by **Billboard** magazine; Conte Candoli, trumpet; Stu Williamson, piano; Stan Levy, drums; and Howard Rumsey, bass.

According to ASCIT Rally Commissioner Frank Kofsky, the calibre and frequency of the presentations for the remainder of the year will be dependent, to a large extent, upon the turnout for this assembly, since fifty dollars has been extracted from the contingency fund to pay for this program.

Bradbury discusses science fiction in light of contribution to humanity and technology

by Tom Dodge

Last Wednesday evening the Pendulum brought to the students of Caltech, Ray Bradbury, well known writer of fantasy, science fiction and literature. Mr. Bradbury spoke shortly about the field of science fiction and his own work in particular.

Mr. Bradbury stresses the role of science fiction in the development of many modern technological achievements. He conceives of science fiction as providing the necessary inspiration to the scientist. On a large scale he sees science-fiction as being a natural component in a universal pattern for survival. It is his theory that man possesses an instinctive drive to preserve the race, and it is this drive

Harvey Mudd, Tech trustee for 26 years, dies at 66

Harvey Seeley Mudd, 66, mining engineer, Los Angeles Civic leader and member of the Caltech Board of Trustees since 1929, died at his home at 1240 Benedict Canyon Drive Tuesday, April 12. Funeral services will be conducted tomorrow at 2:00 p.m. at St. John's Episcopal Church, 512 W. Adams Blvd., with Bishop Francis Bloy officiating.

Mr. Mudd leaves his widow, the former Mildred Esterbrook, a son, Henry, a daughter, Mrs. Norman F. Sprague Jr., and a brother, Dr. Seeley Mudd.

In addition to his duties at Tech, Mr. Mudd was also chairman of the board of fellows of Claremont College, a director of the Southern Pacific Co., Texas Gulf Sulfur Co., Founders Fire and Marine Insurance Co., and a voting trustee of the Pacific Mutual Life Insurance Co.

He was president of the American Institute of Mining and Metallurgical Engineers, and was awarded a scroll for his outstanding engineering work by the Engineers and Architects Association.

He was instrumental in the founding of the Southern California Symphony Association in 1934 to help support the Los Angeles Philharmonic Orchestra. He was a director of the Hospital of the Good Samaritan and chairman of the board of directors of the Welfare Federation of the Los Angeles area.

Other posts which he held included trustee of the Southwest Museum and of the American Heritage Foundation and member of the advisory committee of the Huntington Library and Art Gallery.

Mr. Mudd took the degree of Engineer of Mines in 1912 from the Colorado School of Mines, and began his career in Arizona. Later business enterprises took him to Cyprus. In 1941 U.C. and in 1943 Loyola University bestowed on him honorary LL.D. degrees, and in 1947 Columbia University gave him an honorary degree of doctor of science.

which provokes attempts at space travel, etc. Once man can populate solar systems beyond our own, there will become a lessening of anxiety and a better life for mankind. It is mankind's instinctive uncertainty with the future of his tiny planet that makes him seek the stars.

Romantic concept

With his theory as a springboard, Mr. Bradbury turned to a discussion with those assembled of some of the problems facing our civilization. It came to light during the discussion that author Bradbury was not overly concerned with the technical aspects of science fiction, but more interested in the human elements of his works. He said he

Frosh-Soph Dance April 29; Junior-Senior Ball planned

Both dances scheduled for same night; to be at Dabney, Pasadena Athletic Club

Dabney Lounge will be the scene of the Frosh-Soph Dance to be held next Friday, April 29. A reward from the freshmen to the sophomores for winning the Mudeo, the dance will last from 9:00 p.m. until 12:30; theme for the dance is "Springtime Fantasy." Decorations will include a lowered ceiling, a wall

Tech students attend meeting at Camp Seeley

Eleven Techmen joined the YM-YWCA Seeley Conference last weekend for a time of fun and serious discussion of modern art, literature, and drama. The highlights of the conference were the bull sessions where students exchanged their ideas with other students from SC, UCLA, Pomona, Whittier, Occidental, Redlands, and Chapman.

Literature bull sessions were led by Beach Langston, while artists such as Dali and Picasso were discussed with Dr. Shepard from SC. Drama discussions were led by Bob Davis, a Negro actor from the Ebony Theater in Los Angeles. "Death of a Salesman" and "Come Back Little Sheba" were typical of the plays discussed.

Techmen were in charge of a party Friday night to get everyone acquainted. Saturday night brought a banjo-strumming folk song singer followed by square dancing.

Camp Seeley is in the San Bernardino Mountains near Crestline. Those who attended were: Al Helgesson, Fritz Benning, Perk Eiselen, Pete Lauritzen, Baird Brandow, Jim Pinkerton, George Oetzel, Bob Tucker, Ted Matthes, Chuck Bodeen, and Jim Short.

Entries due soon for Conger Prize

The Caltech annual Conger Peace Prize speech contest has been set for Thursday, May 19 at a student assembly in Culbertson Auditorium. Any regularly enrolled undergraduate student who has not won a first place in the contest in previous years is eligible to enter. First prize will be \$50 and second prize \$25.

The speeches may concern international or industrial peace and must present a problem and a solution. Each contestant must do original work, but may have limited assistance and advice from one faculty member.

Judging will be on the basis of the students ability to express himself clearly and effectively on an original thought provoking theme. Speaking time will be limited to seven minutes per speaker.

Each contestant must present a written manuscript of his talk not later than May 13 to Dr. McCrery in Dabney 309. The speeches must be memorized and may not be given from notes.



Harvey Seeley Mudd

Feynman to speak at Friday lecture

Dr. Richard P. Feynman, Caltech professor of theoretical physics, will give the Friday evening demonstration lecture this week in 201 Bridge at 7:30 o'clock.

He will speak on "The Conservation of Energy," discussing the fundamental law of physics that energy cannot be created or destroyed. He will also explain some of the consequences of this law.

Last year, Professor Feynman, who has been at Caltech since 1950, received the Einstein Award for his outstanding contribution to knowledge in the mathematical and physical sciences.

Those planning to attend should arrive well before the scheduled time.

sought to introduce a romantic concept of the physical world; that his stories were essentially human ones. He attempted to take some small philosophical idea, and through fantasy or science fiction as a vehicle, to say something new about the world.

Skepticism, not cynicism

In the course of his talk Mr. Bradbury pointedly condoned a "healthy skepticism" as contrasted with a cynical attitude towards one's fellow man. "One can no more call himself a cynic than he can an atheist," he professed. This theme aroused considerable discussion from those disciples of Holbach in the audience, and the remainder of the lecture was spent trying to re-

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mural, and a fountain of balloons in the center of the floor; the portable floor will be set up for outside dancing. Hal Loman and his band will provide music.

Dress for the event is semi-formal, and printed bids will be distributed to all freshmen and sophomores tomorrow.

The same evening will see the juniors and seniors at their annual ball in the ballroom on the fourth floor of the Pasadena Athletic Club. The upperclassmen will dance to the music of Carroll Wax and his band. A survey has been taken in upper-class sections to determine the favorite songs of the juniors and seniors, and the results of this poll have been given to Carroll Wax; thus the upperclassmen are assured of dancing to music they like.

A formal dance, the Prom will also last from 9:00 p.m. till 12:30, and the juniors and seniors will receive their bids next week.

Houses slate social events

The Ricketts Carnival, starting at 7:30 Saturday night, will highlight the weekend's social activity. Booths will be set up in the area between Fleming and Ricketts and there will be a dance in the Ricketts lounge with Don East's band, composed of Caltech men. This will be the only social event on Saturday night, as all of the houses are invited.

Swimming party

Friday night from 8:00 to midnight Blacker will take over the Alumni Pool for the first swimming party to be held there. Dabney will have a mountain party at Fish Creek, which has been arranged by Hunter Paalman for Saturday afternoon. Throop has a theater party planned for Friday night.

Exchanges planned

Three exchanges are also on the social agenda for Friday night. Dabney has invited the nurses of Huntington Hospital and Fleming and Ricketts will each entertain sororities from USC.

Classes to choose officers next week

Class elections to select officers for the coming year will be held next Thursday. Junior, sophomore, and freshman classes will go to the polls to name officers to lead them next year.

Nominations for the various offices were held by the classes this morning. Officers selected next week will take office when school starts next fall.

California Tech

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The World and Tangora

by H. G. Tangora

Lately I have been getting letters from girls, yes girls, and there is something about the letters from girls which I have been getting which irritates me.



Girls seem to reach a unique frame of mind when they start to write a letter. They use passionately tinted ink and paper, and they adopt oh so strange terminology and choice of subject matter; but, most irritating of all, they adopt very unlikely complimentary closes. They do not say "Sincerely yours" or "Your friend" or anything less nauseating and more original. They almost always (in my experience) sign, "Love,—" (Names withheld.)

I do not object to the sweet sentiment which prompts the employment of the word "love." However, sweeping all my usual modesty aside, I must admit that for every girl who signs her letters to me "Love,—" there is one girl who does not really love me a whole lot. (This may be hard for you to believe but just take my word for it.)

Why must girls use this closing, when they don't really have their hearts in it? Maybe they want to build up my ego (lost cause), or maybe they're too lazy to dream up a more appropriate close, or maybe they're trying to get me to sign my letters that way. But it just don't seem right to me.

Campus Brewins

I dreamed I went to the Ricketts Carnival in my Maidenform bra. Support your campus Chest.

— The Rensselaer Polytechnic (slightly revised)

Beaks Wanted!

The California Tech urgently needs writers for Campus Brewin's. Here's your chance to get even. Qualifications unnecessary, all information kept confidential. Apply Richard Hundley, H box in Ricketts.

Gracias

The Beak and buddy had a wonderful time at Laguna last weekend, in spite of psychoanalysis. Thanks to the people responsible.

IQ equals In B

Dabney troops got a shock to end shocks last week. Heralded by a chain announcement of marathon proportions, the startling news appeared last week at dinner. William Kirkwood Bertram Purves, originator of the celebrated equation expressing a girl's IQ as a function of a certain physical measurement, is PINNED.

Heavenly Father

In a monumental bit of type-casting, The Heaven and Hell Party-party was presided over by Blake Wallace, who was St. Peter! He reviewed each couple to see if they were qualified to join the frolic. Recordings of these interviews were made secretly, but at the behest of Ralph Kehle the good Saint refrained from playing them back. Ralph was a little worried about some of his date's comments.

Nobel Prize Ahead

Congratulations to Richard Stark, successor to John Carney as the Beak's Mighty Man of Science. Stark spent most of last weekend building a cloud chamber for his PCC girl friend. Ru-

mor has it that it works only in the dark.

Hu La La

While traveling to Dabney Library Saturday night, the Beak was wafted by strains of Hawaiian music emancipating from Throop Club. Further inspection revealed Hula girls and palm branches. The endurance test was met by J. Ball who gulped nine cups of pineapple Koolade in rapid succession. Much presence of mind and fecundity was displayed by J. Bush who when asked where he went with his date answered, "But we were looking for you!" Meanwhile one unnamed soul preferred to discuss "comparative philosophies" with the damsel accompanying him.

Purely as a publicity move to promote friendly relations between cast members of the ASCIT play, L. Whitlow forsook his books for one night to escort one comely actress. All this was the evil result of B. Davis, boy social light. Said Bill was rendered speechless for once by a female companion rumored to have been a finalist in the Miss Universe Contest. (and President of a 3-D sorority, too.) Major fiasco was done in assigning "Pea Guys", alias Steve Mager to guard the punch. Only one quart was missing.

Lies wanted

Anyone who knows some nasty things we can say in this column about Hundley will suddenly become a valuable addition to our Brewins staff. Contact M. Tangora, Ricketts.

Midnight swimming

We have been hearing complaints from B&G and from the athletic department about some mischief-making in the student body.

Apparently some of the students here have been sneaking over the wall and into the new swimming pool at odd hours, i.e. when the pool is officially closed and no guard is on duty.

We don't want to sound beakish about this business, because we sympathize (and fraternize) with the guilty men. However, we do feel that the weight of argument and reason rests with B&G, and that this midnight dip stuff should cease.

First, the practice is dangerous. All of us should realize the dangers of swimming in deep water (even in a pool) after dark and when no guard is present. No precautions are made for the unpredictable emergency situations that always arise when you least expect them. Secondly, we understand that there is a state law, based on recognition of this risk, which forbids swimming in the absence of qualified lifeguards.

The athletic department suggests that if more students use the pool during regular recreational hours, they will be encouraged to open the pool for a greater part of the week. This is only reasonable, and we feel that demonstration of greater interest on weekends and early afternoons may very well result in longer hours for the pool. We'd like to see it.

Secretary's Report

In addition to brilliant campus leadership and visionary student government, the ASCIT Board of Directors is frequently forced to dwell on the unspectacular. Such was the case this week in the Board of Directors' meeting.

When forty or fifty undergraduates got together last term to form a brand new club devoted to the study of physics, the event was important enough to be called front page news (California Tech front page, anyway). However, there is nothing spectacular about the fact that this week the ASCIT Board officially recognized the Physics Club.

Also this week the Big T staff petitioned the Board to provide funds for a good camera, since the school has none. The Board unspectacularly authorized the purchase.

To climax the unexplosive proceedings, the Board pondered an invitation to Caltech from Harwood Court at Pomona College for an exchange dance May 11. And to no one's surprise, the Board could do nothing more than acquiesce, unspectacularly, to the bidding.

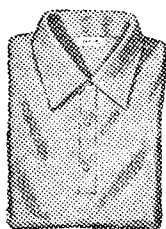
— Tom Bergeman



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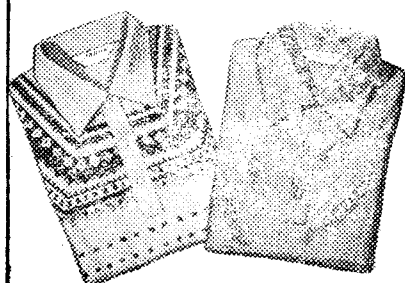
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The COOL Corner

by Frank Kofsky

Music lovers who might agree on nothing else will be certain to be in harmony when discussing the advantages of listening to the performance of "live" music as compared to that heard over the radio or from records. Even yours truly, in his humble little way, would go along with this viewpoint and advise you to hear your musical preferences in person, whenever possible. Of course it is obvious that if one is to enjoy and understand what he hears, it is advisable to see the best group possible.

What I am leading up to is the fact that one of the best groups possible (in the field of modern sounds at least), the Lighthouse All-Stars will be on campus one week from today (i.e., Thursday, April 28). Needless to say, this is a rare opportunity for friends of cool jazz (and would-be friends who are just beginning to understand it as an art form) who will have to walk no further than Culbertson Auditorium to hear some of the finest and most euphonic jazz on the West Coast today.

In case it has slipped your mind, the personnel with the All-Stars consists of Bob Cooper and Bud Shank, the latter voted "Alto Saxophonist of the Year" by *Billboard* magazine, on tenor and alto, respectively; Conte Candoli on trumpet; Stu Williamson on piano; Stan Levy on drums and of course, Howie Rumsey on bass. Cooper and Shank will also play some of their monumental oboe and flute duets.

Now the person who knows virtually nothing about progressive jazz may wonder what there is for him in this coming assembly, and I would like to answer his unspoken question. First of all, one need not know all about an art form in order to enjoy it when presented to it. If you are thoroughly un-

acquainted with modern sounds, this assembly should be the place where your education begins. Secondly, speaking for a moment as your Rally Commissioner, I can tell you that the attendance at this assembly will be a powerful factor in influencing the Board of Directors to continue presenting high calibre assemblies. A poor showing next Thursday might well mean a drastic curtailment of the Rally Commission budget which in effect spells the death warrant for good presentations. On the other hand, a large turnout would convince the Board to spend more money on your assembly program. Hence if you are desirous of having interesting and valuable programs in the year to come, I would strongly urge you to turn out to see the Lighthouse All-Stars next Thursday, at eleven a.m. in Culbertson.

Jazz Notes From All Over: Los Angeles Division — Tomorrow night Gene Norman is presenting another concert at the Shrine Auditorium. The performers will be Stan Kenton and his orchestra, lovely June Christy, and of all things, Earl Bostic. In my opinion, Bostic does not even belong in the same city as the former two, let alone on the same stage. I don't know what Mr. Norman is up to, but as long as he mixes excellent performers such as Kenton, etc., with fugitives from (ugh!) rhythm and blues like Bostic, he is losing the business of myself and others who don't like hash in the caviar. Norman did the same thing a few weeks ago when he lumped the sterling Four Freshmen with a conglomerate of "R and B" trash. To me it looks as though Norman the esthete has taken a back seat to Norman the financier. Oh, well, we didn't really like good music anyhow.

Caltech IRE members to attend regional conference next month

The campus IRE student branch will take a holiday on Tuesday, May 3, for the Southern California Student IRE Conclave featuring: 1) professional group programs, 2) field trips, 3) a free dinner, and 4) a section meeting in the evening with coffee and doughnuts.

The program will start at 1:00 p.m. at the IAS building in Los Angeles, and will end at 10:00 p.m. Participating will be all technical schools in this area including USC, UCLA, Cal Poly, Caltech. Some of the speakers to be heard are: Dr. Joe Pettit, of Stanford; Dr. Ernest Krause, Director of the Lockheed Missile Division; John Byrne, Director of Motorola at Riverside; Dr. Field, of Tech; and John Hilliard, Chief Engineer of Altec-Lansing.

The topics will range from Computer Engineering and Audio to scientific research in the development of missile systems. The cost for the day will be twenty-five cents for registration; the dinner is free.

Anyone interested in attending this conclave should contact Tom Taussig or Pete Stair in Dabney today or tomorrow.

Editors announce Pendulum deadline

Those who wish to contribute to this term's issue of *Pendulum* are advised by the editors that the deadline for material is next Monday, April 25. All copy should be submitted typed, double-spaced on standard typing paper. Editors are Mike Boughton, Fleming; Russ Hunter, Ricketts; Jim Short and Chuck Bodeen, Blacker.

CAMPUS BARBER SHOP
In Old Dorm
Where Everyone Is Welcome
Paul A. Harmon

Y to present open house this Sunday

The Caltech Y is holding an open house at their new lounge in building T-1 this Sunday, April 24, from three to five o'clock. Refreshments will be served.

The old athletic offices have been completely renovated to house the Y offices and have been furnished by contributions from the Caltech Service League.

Chemical engineers elect new officers

At a meeting held two weeks ago, the Caltech Chemical Engineers Club elected officers for the coming year. Heading the organization for next year are Bob Deffeyes, president, and Al Farley, secretary. Class representatives are: Senior, John Carney; Junior, Al Goldberg; Sophomore, Jim Espenson.

Tech dancing class has been cancelled

Due to the conflict with the "Understanding Music" lectures and to the fact that it could not be scheduled on any other night, third term dancing class has been cancelled.

Civil liberties confab slated

Students from throughout the state will discuss inroads on civil liberties this Saturday at the Mt. Hollywood Congregational Church. Delegates will also discuss methods to reestablish these liberties. Additional topics which are to be considered are: loyalty oaths for faculties of state universities and ROTC students, difficulties encountered by religious and political organizations on state campuses, and activities of FBI agents in state schools.

It is hoped that a continuing student organization will be set up for the maintenance of academic freedoms that have been threatened.

The conference is being sponsored by the American Civil Liberties Union and many civic and academic leaders including Dr. Linus Pauling of Caltech. For further information students should contact, Baird Brandow, Bob Tucker, or Don Pinkerton.

MECHANICAL DESIGN ENGINEERS NEEDED FOR BERKELEY AND LIVERMORE LABORATORIES UNIVERSITY OF CALIFORNIA RADIATION LABORATORY

Positions available for qualified mechanical engineers: The Radiation Laboratory at Berkeley and Livermore employs over 100 mechanical engineers engaged in the design of a wide range of equipment for use in fundamental and applied scientific investigation.

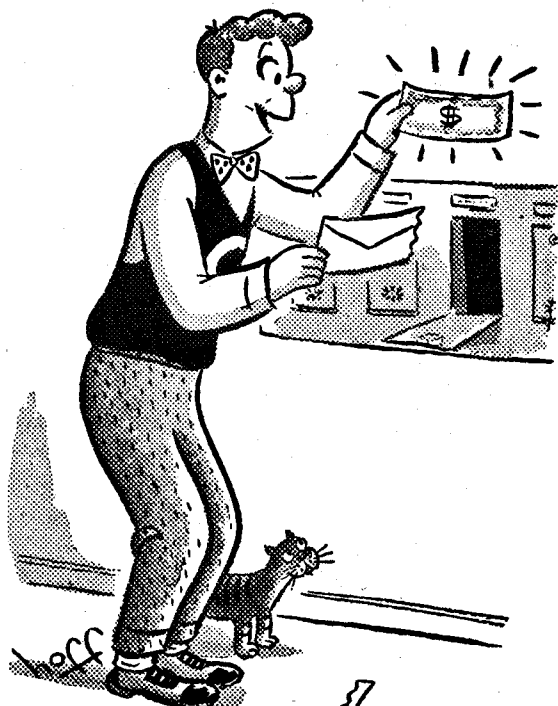
This work includes nuclear and thermonuclear test devices and instrumentation, high energy particle accelerators, ultra high speed cameras, large scale high vacuum equipment, devices for remote control in high radiation fields, equipment for remote handling and processing of radioactive materials, and accessory equipment for nuclear reactors.

Organization is on a project basis with close contact between engineers and scientists and the extensive laboratory shops. Emphasis is not on designing for production manufacture. The work calls for an understanding of principles and ingenuity rather than the application of standard practices. The projects of the laboratory include practically all aspects of nuclear engineering.

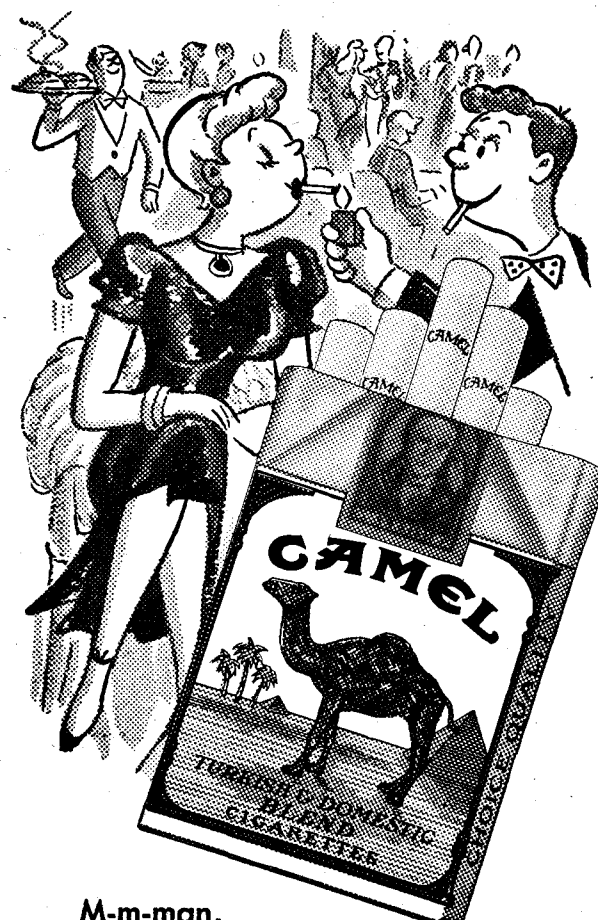
Inquiries should be addressed to: Professional personnel office, University of California Radiation Laboratory, Berkeley 4, California.



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Horsehidiers lose again

Sparked by a four hit attack and only seven fielding mistakes, Caltech's varsity baseballers were somehow able to lose their third straight league game to Redlands. Coming through in fine style, the hits were beautifully spaced so as to only produce one third inning run, while Redlands was scoring seven.

Pitching from his own mound, Dave Farmer was nearly un-touchable as far as Tech batters were concerned as he struck out nine while walking only four. Ray Weymann went the distance for the Beavers giving the opposition six hits, including a home run and a double, striking out ten men and passing five.

Redlands jumped into the lead in the first inning when two hits and an error brought two men across home plate. Tech's one run in the third inning was quickly matched when Doyle Edson circled the bases for Redlands. The Bulldogs iced the game in the fourth inning on a four run splurge.

Besides the lack of hitting, fielding and spirit, the Beavers have been hampered by injur-

ies. The latest man to bite the dust was Hal Morris, first string third baseman, who suffered a broken nose when hit by a ground ball that took a bad bounce. Also missing the Redlands game was Al Goldberg with a sore arm. Jim Mebust, filling in at first came through with Tech's first hit of the game, a liner to right field. Other hits were collected by Dick Waggen-seller, George Madsen and Gene Nelson.

Earlier in the week, the Preisler men were wiped out by lowly La Verne 7-1. A combination of poor pitching by Jim Snyder and three errors in the field gave La Verne their third win of the year. Snyder walked four men and gave up five hits in the five innings he pitched. Flores, La Verne pitcher, held the Beavers to just four hits in seven innings.

As usual, weakness at the plate and in the field made it strictly no contest as far as La Verne was concerned. The Beavers reversed their form completely as they had already beaten La Verne earlier in the year.

Linksmen even league record; defeat Oxy

Last Friday the Tech golfers managed to break into the win column by taking the big one—with Oxy. The score was 20-16 and competition was close in all matches. George MacDonald won his match 6-0 to continue as the teams leading scorer. Jack Schmitt and Jon Robinson also won their matches 6-0 to account for most of the remaining Tech score.

The top half of the golf ladder seemed to be wiped out. Paul Farley lost 5-1, Pete Abbey lost 6-0, and Paul Lindfors was dumped 5-1.

Tech now has a .500 record in conference play. Tomorrow the Beavers will play in the SCIC 36 hole medal play tournament at Hacienda Country Club.

Last year in this tournament Tech placed fourth overall, the only teams beating us being Southern California, UCLA, and Loyola. This year's team appears to be considerably weaker than last year's powerhouse club that won the conference title.

Swimmers dump Redlands for first conference win

Last Friday at Redlands the Tech swimmers began their conference competition by winning their first meet of the year. The meet was very close all the way, being decided by the relay to the tune of 48-36. Tech's victory in both relays was the major deciding factor.

Leading the Beaver scorers were Jim Ball with a first in the 50 yard freestyle and a second in the 100; and Bill Davis with a first in the breaststroke and a second in the individual medley. Both of them also swam a leg on a winning relay.

John Bush contributed a second in the 220, third in the 100, and swam on the freestyle relay. Dick Johnson grabbed a second in the backstroke and turned a leg on both relays.

Distance ace Blaine Navroth came through with a second in the 440 and a third in the 220 while George Madsen turned a neat trick to bag second in diving. Ross Brown accounted for Tech's other second place in taking a close second in the breaststroke.

The frosh had an easier time of it downing the Bullpups 48-24. Clark Rees was the individual star in winning the individual medley, backstroke, and anchoring the freestyle relay. He made these races a ridiculous runaway.

The Beaverbabe's sweep of both relays gathered in many points. Their only other first was taken by Don Wiberg who was closely followed in by Keith Martin in the breaststroke.

Yesterday the team met Whittier and tomorrow the varsity swims Mt. Sac while the frosh meet Riverside.

Netmen lose to Redlands

Tech's tennis squad went down in defeat to a fine Redlands squad on the Bulldog's courts last Saturday. The score was 7-2, and it kept Redlands' undefeated record untarnished. Caltech now has an even 2-2 record in conference play.

The Beavers gave the league leaders some real competition in the doubles. Tech garnered their two wins of the match in the second and third doubles as the teams of Gil Beebower with Gene Barnes and Jim Ball with Tom Hays prevented a Bulldog sweep. Al Yano and Bernie Mueller dropped a close first doubles match 8-6, 8-6.

Redlands swept through the six singles matches. Barnes, playing third singles for Tech, dropped a three set match in the closest singles of the day.

Today in T.P. Lamb's men will lay their overall eight win three loss season's record on the block as they tackle Loyola.

Interhouse sports

The Interhouse trophy might well be sewed up by Blacker this week as the houses participate in the gridiron sport.

Another loss by Dabney which is now lodged in second position in the overall standings would for all practical purposes send the Interhouse cup to Blacker for the first time.

Ricketts leads in the football race at the present. The Rowdies have pronounced Hidy Didy over both Dabney and Blacker in their first two games. Ronny Wann has sparked his team in both of their victories. In beating Dabney 8-2 Wann spearheaded the game's only T.D. with a series of passes to Walt Haenggi and a goal crossing aerial to Dick Morse. Wann to Chuck Wheatley was the passing combination in the Blacker tilt as Chuck pulled down two six point passes for the northeastern house's 18-6 win.

In another game last week Throop scared the pants off Dabney before succumbing 26-20. Dabney led 26-0 at the end of three quarters before the off-campus house suddenly came to life. Dabney was saved only by the final horn as the Throop men pushed over their final score on the last play of the game.

What young people are doing at General Electric

Young manager handles finances for building of \$5,000,000 plant

In the next ten years, the demand for General Electric industrial heating equipment will double. To meet this demand, a giant new plant (model at right) is being built at Shelbyville, Indiana.

The plant will cost \$5,000,000, and the man responsible for handling finances for the entire job is 32-year-old R. E. Fetter.

Fetter's job is important, responsible

Dick Fetter's work as Financial Manager of the Department began long before General Electric started building the plant. He and his group first had to estimate probable operating costs and predict whether the plant would be profitable.

Now, during construction, Fetter's chief concern is keeping track of all the expenses on this multimillion-dollar project. When the plant is completed, he will set up a complete financial section and manage everything from tax, cost, and general accounting to payrolls, budgets and measurements, and internal auditing.

25,000 college graduates at General Electric

This is a big job. Fetter was readied for it in a careful step-by-step program of development. Like Fetter, each of the 25,000 college-graduate employees is given his chance to grow, to find the work he does best, and to realize his full potential. For General Electric has long believed this: When young, fresh minds are given freedom to make progress, everybody benefits—the individual, the company, and the country.

DICK FETTER joined G.E. in 1947 after receiving a B.S. from Bucknell University, and serving 32 months in the Air Corps. At G.E. he completed the Business Training Course, class of '49.

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Trackmen top Bulldogs; grab third straight win

Caltech's varsity track team clobbered Redlands, 97-34, last Saturday at Paddock Field, in a tune up for this Saturday's all-important meet with Pomona-Claremont. Beavers took 12 out of 15 first places against the Bulldogs as they ran up the largest Tech score of the season.

Jim Tyler was once again high point man, getting 15 points by winning the broad jump with a leap of 20ft. 11 3/4 in., tying for first in the high jump at 5ft. 11 3/8 in., and taking seconds in the 100 yard dash and the shot-put.

Phil Conley, bothered by a sore elbow, threw the javelin only once, winning with a toss of 173 ft. 2 in. He then went on to place in four other events, tying with Tyler for first in the high jump, and taking thirds in the shot-put, broad jump, and the low hurdles.

Wileman and Taylor Double

Roger Wileman turned in a good double, winning the 220 in 22.1 a few minutes after taking the 440 in 51.6. Don Taylor matched Wileman with a twin win in the hurdles, copping the lows in 25.5 and the highs in 16.6.

Byron Kough of Redlands won the mile in 4:40.1. Beaver Fred Witteborn was right behind him with a 4:41 clocking, and came back later to win the two mile in 10:41.9.

Rod Supple outsprinted Don Lewis to take the 880 with



a time of 2:00.4; Lewis was caught in 2:01.3. Ted Lang flipped the discus 133ft. 8 3/4 in. to easily cop his event, and Jim Lloyd rounded out Tech's string of firsts by winning the pole

Tom Trilling placed in each hurdle race, second in the lows and third in the highs, and John Lukesh was third in both sprints.

Other Tech places

Arne Kalm finally broke his season long jinx, and broad jumped 20ft. 7 3/4 in. for second place. Marty Tangora picked up second in the 440, right behind Wileman, and Lewis loped in for third. Sam Sims came through with a second in the discus, and Chuck Luke picked up third in the javelin. Bob Norton was third in the pole vault and Dave Crowther chugged around for a strong third in the two mile.

When Redlands did not enter a relay team, Luke, Sims, Kalm, and Tangora teamed up to run a somewhat relaxed mile relay, ending a rather successful day for Tech.

Track dope Sheet

Supple scores in 880

100—1. Tyler (T) 2. Lukesh (T) 3. Stevens (P) 220—1. Wileman (T) 2. Lukesh (T) 3. Tyler (T) 440—1. Schultz (P) 2. Wileman (T) 3. Tangora (T) 880—1. Schultz (P) 2. Supple (T) 3. Hamson (T) Mile—1. Lewis (T) 2. Witteborn (T) 3. Williams (P) Two Mile—1. Witteborn (T) 2. Lewis (T) 3. Stevens (P) 120 HH—1. Strombotne (P) 2. Bear (P) 3. Taylor (T) 220 LH—1. Taylor (T) 2. Strombotne (P) 3. Stevens (P) Relay—1. Caltech.

Shot-put—1. Smith (P) 2. Marshall (P) 3. Brown (P) High Jump—1. Fendler (P) 2. Tie Bear (P) and Tyler (T) Broad Jump—1. Tyler (T) 2. Bear (P) 3. Conley (T) Pole Vault—1. Lloyd (T) 2. Dorman (P) 3. Dyer (P) Discus—1. Brown (P) 2. Lang (T) 3. Smith (P) Javelin—1. Conley (T) 2. Smith (P) 3. Dougher (P).

Score: Caltech, 73, Pomona, 58.

Sportingly yours,

by Bill Davis

This Saturday is the big one. The track meet with Pomona decides whether or not we win the amateur division of the conference. Putting up our best marks against theirs, we would win easily, but somehow Tech teams have the unusual ability to blow the crucial ones. Nevertheless I'm still picking our boys to come through by about fifteen points. The margin may be somewhat less, but this is an optimistic viewpoint.

Crucial events will be the mile, two mile, broad jump, and pole vault. Also Wileman will be a man to watch for a possible upset in the 440. This is the last dual meet of the year as well as the most important, so let's all get out and pull the boys home. Besides, I have a dinner bet on this one.

In baseball this week, it's Loyola over Tech. Saturday the team meets Pomona again. Eventually the law of averages must take over, but the way we are doing now, it's still Pomona over Tech.

Although weakened by losing some players to the Ojai Tournament, the Beavers tennis team should still come through to down Loyola.

Yesterday the swimming team should have beaten Whittier by a very few points for their second conference win. Tab Mt. Sac over the varsity tomorrow though.

It looks like a two way race in interhouse football between Fleming and Ricketts. I may be prejudiced, but Fleming's better defense should pull it through.

Egad

Guest (to host in new home): "Well, old boy, how do you find it here?"

Host: "Walk right up the stairs, second door on the left."

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Frosh sports

Caltech's frosh won their first diamond encounter last week, edging Los Angeles Pacific Bible College 6-5 on Tuesday. Tech scored four times in the first inning and twice in the final one to sew up their first victory. Tony Howell was the winning pitcher, going all the way.

After jumping to an early 8-3 lead last Saturday, Pasadena Nazarene came back on Tech's sloppy fielding and many walks to take the game 17-9.

The Redlands frosh proved too much in track last Saturday. Victories for Tech occurred in the 100 with Cleveland, the 220 with Bonwell, the two mile with Moore, while van Kirk took the broad jump and tied with Barienbrock for first in the high jump.

This week the frosh track team will meet Pomona-Claremont's Sagechicks Saturday afternoon at our own field at the same time as the varsity meet.

A Campus-to-Career Case History



Here Ed Chandler reviews Long Distance facilities between Atlanta and Lincoln, Georgia. He is working from a layout that shows all Long Distance lines in the state.

"My classmates talked me out of a job"

Ed Chandler had a good job all lined up long before he graduated from Georgia Institute of Technology as an Industrial Engineer. But then he changed his mind . . .

"When I got out of college in '50, I was all set to go with a company I'd worked for during a previous summer.

"But then I got called up by the Army. During the next two years I heard a lot of good things from my Georgia Tech classmates who'd gone to work for the telephone company. As far as I was concerned this was the best recom-

mendation any company could get.

"So when I got out of the Army I stopped in to talk with the telephone people. When I saw an outline of their development program, I was sold.

"My first year took me through every phase of handling and estimating costs on telephone equipment from warehouse to installation. I drew up plans for several projects, then went out in the field to see how they were carried out.

"Now I'm helping develop next year's multi-million-dollar construction program for Georgia. I've found it an interesting and rewarding job."

In the engineering department of Southern Bell Telephone & Telegraph Company in Atlanta, Ed Chandler is moving along in his career. Your Placement Officer can give you details about similar opportunities with the other Bell telephone companies like Southern Bell—also with Bell Telephone Laboratories, Western Electric and Sandia Corporation.



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BRADBURY DISCUSSES

(Continued from Page 1)
 solve some of the fundamental problems which arose.

It was the considered opinion of many of those present at this hour of entertainment and en-

lightment that the Caltech student body should have more opportunity to meet people like Mr. Bradbury; people who have a healthy philosophy of life and maintain a constructive skepticism.

KENNETH BOULDING

(Continued from Page 1)
 Of his interests Kenneth Boulding has this to say: "I'm interested in the general problem of the contrast between the 'heroic' ethic of the Bible and

of religious experience, and the 'practical' or 'economic' ethic of ordinary life. . . . I'm interested in the Christian foundations of Quakerism and of the peace testimony, and whether this can be reconciled with a 'political'

pacifism. And of course I'm interested in poetry and how this relates to the spiritual life."

While Boulding is on campus, he will be living in the guest suite in Ricketts House.



Ruth Randall

The school teacher who owns an oil company

RUTH RANDALL teaches Latin at San Bernardino High School, San Bernardino, California.

In 1939 she invested part of her savings in 50 shares of Union Oil Stock. This makes her—along with some forty thousand other people—an owner of the 45th largest industrial company in the country.

And entitles her to examine the report card on our sixty-fifth year of business.

It was the largest in our history. Our customers paid us \$351,731,678.

We didn't keep all of this money, of course. 16.8% of it we paid to our 8700 employees as wages and benefits.

4.8% went for taxes. (This does not include \$60,000,000 additional in fuel taxes which we collected for the government.)

68.2% — by far the lion's share — we divided among more than fifteen thousand other companies and individuals with whom we do business.

This left us net earnings of 10.2%. From which we paid shareholders like Miss Randall

4.5% as dividends for the use of their money, and reinvested the remaining 5.7% in necessary expansion and modernization of facilities.

We hope Miss Randall is pleased with this report. We are certain she should be pleased with herself. For in wisely investing in American industry for her own security, she has helped to create a higher standard of living for everyone.

* * * * *
 YOUR COMMENTS ARE INVITED. Write: The President, Union Oil Company, Union Oil Bldg., Los Angeles 17, Cal.

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