

Douglas arrives Tuesday

ASCT sets January 28 for annual Winter Formal

The annual ASCIT Winter Formal Dance will be held this January 28, ASCIT first representative Jon Harford has announced. The dance will last from 9:00 p.m. to 1:00 a.m. and will be held at the Altadena Country Club. Harford is responsible for the arrangement of the function.

Mobilgas Run to take place March 18 - 24

The 1956 Mobilgas Economy Run will be held during the Caltech spring vacation, from Sunday, March 18, at midnight to the morning of Saturday, March 24.

All registered students of Caltech are eligible to act as official American Automobile Association observers on the test runs. Where the run will end has not yet been announced.

The forty-odd Caltech students who go on the run will be hired jointly by Mobilgas and the AAA. They will be official observers on break-in runs on all cars and on the final run. Each car will be entitled to 200 miles of break-in run under their supervision.

This year's pay-rate has not yet been announced, but Prof. Peter Kyropoulos, chief observer on the run, has said that it will probably be the same as it was last year: \$1.50 per hour plus eating expenses on break-in runs, \$10.00 per day on the final run. Hotels and food on the final run are paid by AAA.

This will be the sixth year that Caltech students have taken part in the event, having started in 1951.

A sign-up list for those who wish to take part in the run is in the Mechanical Engineering Office, Room 201 Engineering.

AUFS representative E. A. Bayne speaks on current problems in Middle East area

by Frank Kofsky

"Iran has entered its most potentially productive period since World War II," declared Edward A. Bayne, Middle East expert with the American Universities Field Staff, former adviser to the Iranian Government and to the Point Four Program in the Middle East. Mr. Bayne made his statement at an informal meeting with the California Tech staff last Tuesday afternoon. Caltech, a member of the AUFS, will be hosting Mr. Bayne for the next week.

Mr. Bayne pointed out that revenues from Iran's nationalized oil industry, which is operated by an international consortium of petroleum companies are beginning to flow into the country. They are being used primarily for economic development and industrial reforms begun by the father of the present Shah in the 1920's. These much-needed reforms were interrupt-

ed by World War II, Russian interference in 1946 and the outburst of Mossadegh-inspired nationalism in 1953.

"For us in America," Mr. Bayne said, "concerned as we are with the changing Western fortunes in the cold war, the ad-



E. A. Bayne

'Russia - 1956' subject of keynote address; Open house to be featured Friday night



Justice William O. Douglas

Film Series starts Sunday evening

The Caltech YMCA Film Series will begin its second term schedule this Sunday evening, January 29, at 7:30 p.m. in Culbertson. The main feature of the evening will be a dramatization of four famous short stories by W. Somerset Maugham, entitled "Quartet."

Also on the program will be the "March of the Movies," a brief history of the movies, with memorable scenes from "Birth of a Nation," "All Quiet on the Western Front," "The Jazz Singer," and other famous films. An additional short, "Caravan," a color abstraction by the modern painter Jordan Belson, will be presented.

Later in the term, the Film Series will feature "The Titfield Thunderbolt" and "Strangers on a Train." Season tickets are one dollar, while single admissions are 45c at the door.

herence of Iran to the Baghdad Pact last September could be a major comfort. It means that national neutralism into a mutual defense alliance upon which Western security is based."

Bayne cautioned, however, that although there were many signs of progress and hope in Iran, it would be foolhardy to assume that all problems were solved, or that the United States could prudently forget Iran. The country has many problems of a serious nature: it is short of water, which means that it has a limited agricultural frontier. Overpopulation is acute in rural areas. Annual incomes per family rarely exceed seventy-five dollars a year, which means that for many, living standards are among the lowest in the Asiatic area. While the Tudeh Party, which is Iran's communist satellite organization, has been crippled by forthright and violent

(Continued on page 3)

Justice William O. Douglas will arrive at Caltech next Tuesday evening, January 31, for a busy half-week with Caltech students. His keynote lecture that evening will be entitled "Russia—1956," the result of his trip through Russia last summer. Dr. Horace Gilbert, Professor of Economics and a close friend of Douglas, will introduce him at 7:45 Tuesday in Dabney Hall. The lecture will be open to graduates and undergraduates.

Faculty members and outside guests will have the opportunity to hear Douglas speaking on this topic Thursday evening as part of the Athenaeum Lecture Series. After dinner in the Athenaeum, he will speak in Culbertson at 8:30 p.m.

Justice Douglas' program for the rest of the week will include lectures, several discussions with undergraduate classes, "Questions and Answers" with a student panel, and an open house. Mr. Douglas will address the senior public affairs course on "India vs. Red China" at 11:00 a.m. Wednesday. "The Bill of Rights" will be his topic that noon in the Athenaeum with the graduate-faculty lunch forum. Reservations by campus personnel will be accepted at the Y office.

A panel of five students will fire questions at Douglas Wednesday evening in Dabney House (Continued on page 2)

Houses slate social events

Tomorrow night the student houses' social schedules will include a German beer party, an exchange, and golfing and bowling parties.

On Friday, January 27, at 8:30 p.m., Blacker is having a party at Turner's Inn, 634 N. Fifteenth St., in Los Angeles. The Inn has a German Beer Garden and a German Band; they will show you how to polka. Dress is informal.

An exchange with Huntington Hospital will occupy Fleming Friday night. The members of Dabney and their dates will play miniature golf, after which they will return to the campus for an open house. A stag bowling party will provide Friday night entertainment for Ricketts this week. None of the houses have planned social events for Saturday night, due to the ASCIT Formal.

Ingram elected frosh prexy; will hold office until June

Bob Ingram was elected freshmen class president in an election held Thursday, January 19. In this election Brent Banta was chosen as class athletic manager. Both of these men had been appointed to their respective positions during Frosh Camp, and will now serve until the end of the school year.

In the races for the other class officers none of the nominees received a majority of the votes cast, thus necessitating a run-off election. This election was held yesterday, and at the time that the California Tech went to press, the ballots had not yet been counted.

In this run-off election Frank Cormia and Russ Pitzer were vying for class vice-president, with Dave Allen and Neal de Gaston still in the race for frosh secretary. Frank Childs and George Logemann were the remaining candidates for class treasurer, and in the contest for the two frosh Board of Control seats those left were Doug Carmichael, Jim Cribbs, Bob Huebotter, and Bill McClure.

Student darkroom to be remodeled

The student house darkroom is to be remodeled soon, thanks to the generosity of Mr. Sam Paull, who is donating his time toward redoing the woodwork, and of the Caltech Service League, which is supplying the balance of the funds.

New shelves, a cupboard, and a sink will be built to add to the recently acquired photographic equipment.

Membership in the darkroom association is open to any undergraduate.

Engel will give ore demo talk tomorrow night

Dr. A. E. G. Engel, professor of geology, will deliver this week's Friday Evening Demonstration Lecture on "A Search for Hidden Ore" in room 201 of the Norman Bridge Hall of Physics at 7:30 p.m.

Dr. Engel is a graduate of the University of Missouri. He received his PhD at Princeton in 1942 and joined the Caltech faculty after six years with the United States Geological Survey. He returned recently from a trip to Europe, North Africa and Mexico where he went on a fellowship.

"Ore is a one-crop proposition—it can be harvested but once" says Dr. Engel. "With our increased standard of living and the need for ore becoming greater, it is evident that we must find new deposits to meet those needs." He goes on to ask, "Do we search for new ore deposits in the United States that are, to date, unexplored, or do we attempt to utilize deposits in foreign countries where deposits are yet untapped, and the standard of living low enough to making mining operations economically possible?"

Campus Brewins

"It's true about her, but for gosh sakes don't put it in Brewins." **Mike Engleberg**

Steven Adolph Mager, affectionately known as "Pea Guys" has been purged of his sins (or lack thereof) by the Church in a public confession before Fleming. An unnamed anonymous friend out of the kindness of his heart assembled the necessary ingredients in his room for said Adolph to lower his purity score from that of a boy to that of a man—and I don't mean the queer points.

But when the crucial time came, Steve was nowhere to be found. He chickened out and decided "Feelthy" pictures were better. Now he's kicking his head out of his orifice. Don't worry "Pig-eyes," some day you'll find a "Sow-eyes" who will teach you what it is like.

99 years in the penitentiary

Girl napping may be impossible within our Monastery, but a foray into Whittier territory has satisfied the unsatiable drive of Baird and Keith and M. Bleicher and J. Short. . . . She was asked directions, she was captured in a blanket, and then whisked off in a car. But don't panic for the safety of your little girls all you mothers who read this. They said they were only taking her to a surprise party.

Baby sitters beware

At the Blacker exchange Friday night the Ken Laws quintet was really great, but John Kelly the sax player (no relation to Pete) was loafing on the job. Kell! don't you know the rule about employees mixing with the girls? George Hall, what were you making at the Arty Party besides mobiles, clay statues, and pictures? The women from Glendale J. C., the source of Blacker's exchange, were real neat. The Beak—whenever he would ask a question such as, "How do you like the music?" or, "How do you like our dashing house president?"—would inevitably receive the answer—"CRAZY!"

The most eligible bachelor in the school (who is dancing class manager as well)—you know,

the guy who wows the girls by not stepping on their toes like the other trolls do—has done it again. This kid is so unfaithful it isn't funny. Oh well, poor Marie. That Yellow Rose of Texas, Jan L. Arps had to haggle with Peggy on whether he could have permission to go to the exchange. Now you can see the benefits of single life, Jan.

In the olde country, we . . .

Boy genius, Peter Moretti strikes again. At Blacker's exchange last Friday, ole Pete started scouting for phone numbers. The Moretti approach runs something like this: "And what is your phone number?" "Gee, a Citrus number, that's easy." —Why?—

"Just think, I could phone and

talk all I want for only a dime." . . . silence . . . Well, we can't win them all!

Lonely?

Some people will do anything for sex. At least Kay Sugahara will. A couple of weeks ago Kay sent his name to some lonely hearts clubs. (Actually Kay did not send his own name in but a few of his "friends" did him the favor.) Since then he has been swamped with mail. He has a wide selection of pornographs and desecrations to choose from—ranging from a "Beautiful Southern Belle of 18" to an "affectionate" little lady who claims she is worth \$5000. She is only 65 (think of the old age pension). Made any selections yet, Kay?

(Continued on page 6)

LETTERS

Dear Sir:

Student body morale from the student's point of view varies accordingly as his own. It is extremely difficult for the individual observer to determine whether it is high or low, and still harder to determine which way it is going. Morale itself is hard to define (morale is French feminine of moral). For me, student body morale when it is high means that regardless of conditions there is a desire to make them better. Because I labor under this definition, it is not possible to say that student morale is high.

Unfortunately, it seems that several students who are not entirely apathetic feel that there is a general disagreement on policy between students and faculty. I disagree, because I feel that neither knows the other's views. The faculty is operating on a few misconceptions, and has a tendency to place the risings and fallings of student morale on isolated trivialities, while the students have no knowledge as to the true sincerity with which the faculty has been attacking the problem.

At student camp the freshmen were talkers. They talked of Caltech, radio, sex, Buddhism, chess, math, Greek academies, baseball, liquor laws. Today the field has narrowed. Perhaps we did not know what we were talking about but we talked anyway. I sincerely feel that what might be called an academic at-

mosphere is definitely lacking on campus, and moreover that its missing is quite regretted by most students.

I know that I am but a hot-headed freshman, and many will feel that in what I have said they are misrepresented or misinterpreted. I make no pretense as to being able to see the full problem. I only feel that it is to our mutual advantage to further cooperation between students and faculty. Understanding means that contacts have to be made. If my letter and sentiments are those of many, I suppose that proper action will take place without my interference. If, on the other hand, sentiment does exist, either among the faculty or students, singularly or in groups, and yet can find no channels of communication—then I shall find that I must take the initiative to establish, whatever be my own naivete, means for intercourse.

Sincerely,

D. Carmichael

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WILLIAM O. DOUGLAS ARRIVES TUESDAY

(Continued from page 1)

at 7:15 p.m. The meeting will be open to all undergraduates.

Although it is not scheduled as a public meeting, one of the most lively affairs during Douglas' stay is likely to be the press conference with reporters from local papers and wire services. This is scheduled for Thursday morning at 10:00. The place will be announced.

Through each morning and afternoon, a number of American history, foreign affairs and economics classes will meet with Douglas for discussions centering around the course topics.

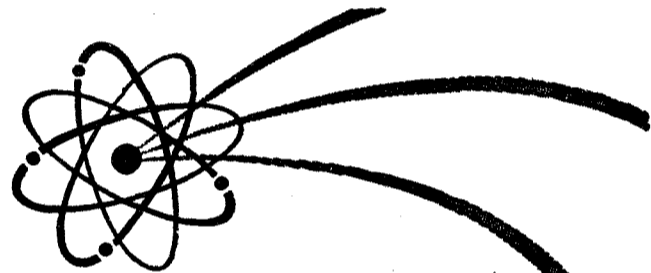
At least one of these will include E. A. Bayne, the AUFSS representative from the Near East, where Douglas has recently traveled.

The final event of the stay will be the open house for undergraduates at Mr. Ed Hutchings' home. More information, including directions, will be available in the Y office and from house program committee members in each house.

Mr. Douglas and his wife will reside in the Athenaeum during their visit.

Arrangements and scheduling are being handled by John Young.

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Earhart Lab can duplicate varying climatic conditions

by Stu Richert

Nearly every climatic condition under which plant growth is possible can be duplicated in Caltech's Earhart Plant Research Laboratory. This lab, located on the corner of San Pasqual and Michigan Avenue, was constructed in 1949, made possible by a grant of \$407,000 from the Earhart Foundation.

Elaborate techniques are used and extensive precautions are taken to control every climatic factor to a high degree of precision and to maintain sterility in the lab. All sand, soil or gravel to be used in the lab is first subjected to steam treatment; all air entering the building is treated by filtration and electric precipitation. All personnel must wash and change clothes before entering the lab. The laboratory consists of a large number of separate growing rooms in which all climatic factors can be varied independently. Heating and refrigeration equipment make possible experimentation over a wide range of temperatures. Humid-

ity is also controllable throughout the lab. Either sunlight or artificial light can be used for the growing of plants. Various types of artificial lights enable research on the effect of light color on plant growth. The glass in the greenhouse section of the lab has water continuously running over it to filter out the infrared. Overhead sprays and a fog machine that can produce fogs of different particle sizes permit variation of precipitation conditions. In some of the rooms the gas content of the air is variable, and the lab even contains a wind tunnel room.

The variation of all of these factors results in a large mass of data for each experiment. Thus all data reduction is done by machine, the experimental results for each plant used in an experiment being coded on an IBM card.

A variety of research is conducted at the Earhart lab. One experimental project, for example, was to determine whether varied climatic conditions affected the ratios of carbon isotopes in plant material formed. Another project was a study of the effect of precipitation conditions on the bud formation and flowering of the coffee plant.

The operation of the Earhart Plant Laboratory has represented a significant advance in plant research. It has enabled determination of plant data of a uniformity previously impossible, and has permitted a precise analysis of the interaction of climatic conditions in affecting plant growth.

Essay contest offers prizes

"The Scientist and Society" is this year's McKinney Essay Contest topic. The contest is open to all Caltech undergraduates except previous first or second place winners.

Ideas for the essays are to be drawn from the following reading materials: "The Gadget Maker," by Maxwell Griffith; "The Value of Science," by Richard Feynman, published in the December 1955 issue of "Engineering and Science"; Robert A. Millikan's autobiography, and "The Big Secret" by Merle Colby.

Essays should be submitted to Dr. Kent Clark before the April 23rd deadline. Judging will be done by a five-man committee, a scientist, two men from our Humanities division, and two men from outside Caltech.

Four prizes are offered, first prize \$75, second prize \$50, third prize \$25, fourth prize \$15.

Additional information may be obtained from Dr. Kent Clark, 301 Dabney.

BAYNE SPEAKS

(Continued from page 1)

action taken since 1953, it is by no means dead.

"We should not forget," Mr. Bayne pointed out, "that Iran has the longest frontier shared with Russia of any of the free Asian countries. And although the government is attempting to better existing conditions, aid is slow in coming. In any large area where such poverty and misery exist, the party that promises relief has a fertile ground with which to work."

Bayne concluded by saying that even though Americans would like to reduce foreign aid, to cut down our support of Iran at this time would endanger the progress which Iran and the West have made toward a mutually productive political climate. If Iran is to be a military factor in the Baghdad Alliance, it must be as a result of high morale among the Iranians, due to continued economic development and technical military improvements. Both of these will prove costly, and Iran does not have sufficient resources to undertake both simultaneously, unless there be a continuation, perhaps even an increase, of American assistance.

Interview Schedule

January

Thurs. 26—BS, MS, PhD/Ae, CE, EE, ME, Ph, Ma McDonnell Aircraft Corporation, St. Louis, Mo.

Thurs. 26—BS/ME; BS, MS/Ae Bell Aircraft Corporation, Texas Division, Fort Worth, Texas.

Thurs. 26, Fri. 27—BSup/EE, Ph, ME, Ma International Business Machines. Interviews will include San Jose Laboratory, Applied Science Department in Los Angeles, and Sales positions.

Fri. 27—BSup/Ae, ME, EE, Ph, Ma, CE, ChE Convair, Fort Worth Jrs. up/Ae, ME, EE, CE, Ph for summer employment.

Fri. 27—BS, MS/ME, EE, Ph Hoffman Electronics Company, Los Angeles, Calif.

Fri. 27—BS, MS/EE, ME, Ph, ChE Firestone Tire & Rubber, Guided Missile Division, Los Angeles. These interviews are primarily for the Guided Missile Division. However, applications of those men interested in Akron will be forwarded.

Mon. 30—BS, MS/Ae, ME Grumman Aircraft Engineering Corporation, Bethpage, Long Island.

Mon. 30—BS, MS, PhD/Ge, Geoph; BS, MS/Ph, EE The Texas Company, Los Angeles, Calif.

Mon. 30—BS/Ge, ME, Ch, ACh, EE Kaiser Steel Corporation, Fontana, Calif.

Mon. 30, Tues. 31—BS, MS, PhD/Ae, ME, EE, Ph, Ma, Physical Ch Avco Advanced Development Division, Avco Manufacturing Corp., Stratford, Conn. and Everett, Mass.

Tues. 31—BS, MS, PhD/EE, PL, ME Liberascope, Incorporated, Glendale, Calif.

Tues. 31—PhD/Ph, Ma, Geoph Newmont Exploration Ltd. of Newmont Mining.

Tues. 31 — Group meeting Westinghouse Electric Corporation 4:15 p.m., 108 Dabney

Tues. 31—BSup/Ae, ME, CE, EE, Ma, Ph Douglas Aircraft Company, Inc.

Tues. 31—BS/ME, EE Bailey Meter Company February

Wed. 1, Thurs. 2—BSup/Ae, ME, CE, EE, Ma, Ph Douglas Aircraft Company, Inc. Douglas is also interested in men who are one year away from employment for summer work—options as listed.

Lunch clubs plan varied programs

The various YMCA lunch clubs have planned a full program for this coming week. Addresses will be given by a psychologist, an AUFSS fellow, and a Supreme Court Justice.

On Monday, January 30, the Freshman Lunch Club will hear Dr. Carl Shaffer, a professional psychologist, speak on "The Psychology of Dating."

Edward A. Bayne, American Field University Staff specialist on Italy, Iran and Israel, will speak to the Undergraduate Lunch Club on Tuesday, January 31.

"The Bill of Rights" will be the topic of Justice William O. Douglas' address to the Graduate-Faculty Luncheon Forum on Wednesday, February 1.

The Graduate Student Sack Lunch Club, an organization newly formed last term, will meet on Thursday, February 2, in the YMCA Lounge, and will hear a talk on Israel from Bayne.

The Y lunch clubs meet weekly at 12 noon at the Training Table under Blacker. Speeches begin at 12:30.

Egad!

She

She goes out with you,
She says nice things to you,
She asks little favors of you,
She makes love to you,
She tells you she's true to you
She says "Dear John" to you.

He

He goes out with her,
He does nice things for her,
He spends money on her,
He makes love to her,
He does things to her,
He gets the shaft from her.

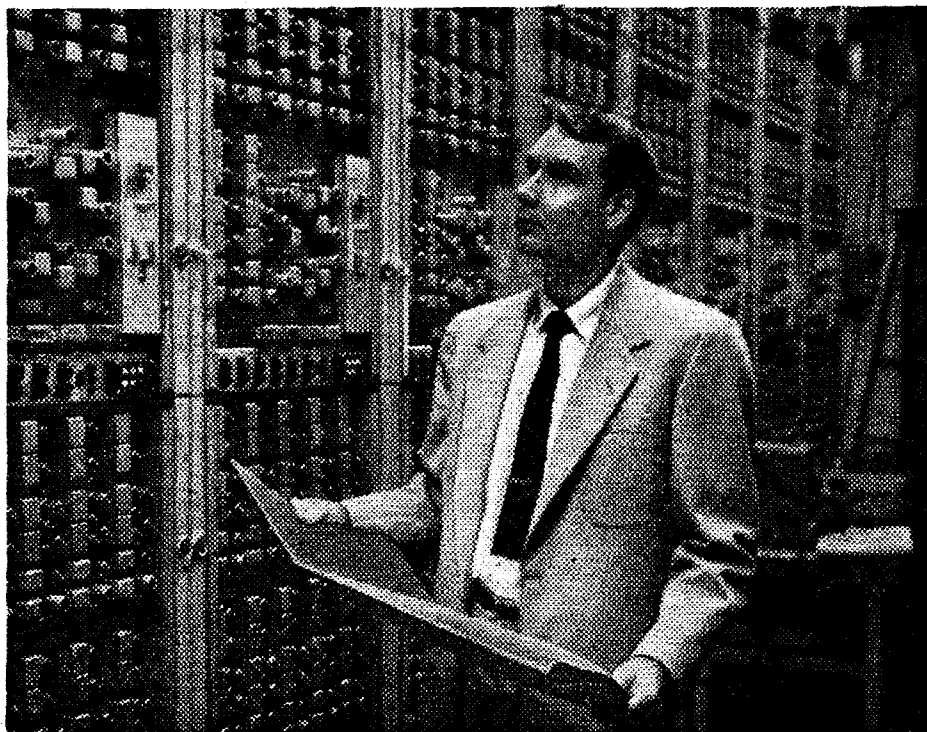
* * *

Prof.: And what are the names of the bones in your hand?
Biol. student: Dice.

* * *

Golfer, to party ahead: "Do you mind if I play through? I've just heard that my wife has been taken seriously ill."

A Campus-to-Career Case History



"I take a job from scratch"

The Air Force introduced Forrest I. Hurst to communications. In 1953 he was Communications Officer at Lowry Air Force Base near Denver, Colorado. He was partially responsible for the communications setup of the President's "Summer White House," and in this assignment he met members of the local Bell telephone company.

"The telephone people I met," says Forrest, "were always helpful. I considered them the experts. They gave a very good impression of the Bell System. So three months before I was discharged I wrote to Indiana Bell for an interview, and subsequently I was hired as a Student Engineer."

Today Forrest is in Indiana Bell's Engineering Department, working with

carrier facilities—the means by which a number of telephone calls can be sent simultaneously over one circuit.

Forrest is given the basic circuit and equipment requirements for a job. "My boss farms it out to me," Forrest says, "and I take it from scratch." Forrest does the complete engineering job. He writes the specifications, including wiring plans and the list of equipment for the job. Then the installers take over.

"I really feel that I'm contributing to the telephone business," Forrest says. "My wife does too. When we're in the car we get a kick out of driving by a job that I engineered. Nothing can compare with a career in a business that's growing as fast as the Bell System. It's the place to move ahead."

Forrest graduated in 1952 from Purdue University with an E.E. degree. His career is typical of those which exist in other Bell Telephone Companies, and in Bell Telephone Laboratories, Western Electric and Sandia Corporation. Your placement officer has more information about Bell System companies.



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The Sports Corner

by Bob Walsh

Over the weekend Tech lost two more basketball games to make a total of ten for the season, running our losing streak to seventeen. There admittedly is a certain amount of character-building in sports, even when losing, but a team that consistently loses tends to kill character rather than build it. When a team goes into every game assuming it will lose, and when even the coach takes every humiliating defeat as if it were to be expected, then it is time to ask ourselves whether it might not be healthier to forget intercollegiate athletics entirely.

A team that no longer has a will to win can no longer be said to be engaging in sport. And anyone who has followed our team closely must admit that the spirit and drive which are the life of any team are not particularly noticeable here. Our biggest weakness is a defeatist attitude based on the unfounded assumption that technical students are naturally inferior athletes. And this attitude is supported by coaches who accept losing as the natural order of events.

Tech has only one disadvantage against other schools its size. The individual here has slightly less time than the individuals at most other schools. This means either a little less time for practice or a little less time for sleep. But this disadvantage must be slight, since we do hold our own in the individual sports of track and swimming.

We have in Phil Conley potentially the best center in the conference. Howie Bloomberg, Dan Chilton and Rolland Moody give the team a fair background of experience, and Glenn Converse, Dick Van Kirk, Jim Welsh and Jim Workman give the team a depth of ability rarely seen on Caltech squads.

Although at least half of the men mentioned did not play basketball in high school, they have not been taught the fundamentals of the game—screening and defense, for instance. Coach Carl Shy has not given the team a definite offensive pattern to work from. As a result, the ball is lost on passes some twenty or thirty times

(Continued on page 5)

Gilmer leads L. A. State to 58-41 win over Tech

Tankmen open season Feb 3

With their first meet only eight days away, the Caltech swimmers have been working out in earnest in preparation for the coming season, under the direction of head coach Web Emery. Friday, Feb. 3, the team travels to Lynwood to compete in the AAU relays to be held there.

After finishing a strong third in last year's conference meet, the Beavers are tabbed as one of the favorites to win the title this season. Emery plans to build around his seven returning lettermen and members of last year's freshman team which took the league championship. Among the returning lettermen are Dick Johnson, Jim Ball, Bill Davis, Blaine Navroth, Ed Park, Ross Brown, and John Thomas. team include Clark Rees, Vince article in the *Student Life*, Po-Taylor, and Don Wiberg.

An ebony-skinned whirlwind, clad in a black jersey and char-treuse shorts, paced the L. A. State Diablos to a 58-41 win over Caltech in a non-conference basketball game Tuesday in the Scott Brown Gymnasium.

With guard Fenton Gilmer swishing the nets for 24 points and continually setting up scoring opportunities with his ball-stealing, the Diablos kept the Beavers off balance throughout the game and were in complete command all the way. Tech had its usual difficulty in finding the basket on their field goal attempts, hitting on only 30% of their shots while L. A. State made well over 40%.

**Paz Naz 89
Caltech 20**

The Beavers missed several opportunities to close the gap between the scores merely because of an inability to hit from the free throw line. Caltech made only 7 of 22 attempts for a 31.8 percentage, while L. A. State made 18 of 27, or 66.7 per cent. The Diablos also had the edge in the rebounding department, gathering 50 to the Beavers' 34.

Phil Conley, following his regular pattern, was Tech's leading scorer with 20 points, hitting eight of 15 field goal attempts and making four out of nine free throws. Howard Bloomberg was second high scorer for the Beavers with seven points, while Dan Chilton and Jim Ball had four points each.

What else could we say?

BOX SCORE

Caltech					
Player	FG	F/T	PF	TP	
Converse	1	0	4	2	
Rauch	0	0	0	0	
Chilton	1	2	2	4	
Moody	1	0	1	2	
Conley	8	4	2	20	
Van Kirk	1	0	2	2	
Bloomberg	3	1	2	7	
Workman	0	0	1	0	
Welsh	0	0	4	0	
Ball	2	0	1	4	
Totals	17	7	19	41	

L. A. State					
Player	FG	F/T	PF	TP	
Florintine	0	0	1	0	
Sdudich	2	4	1	8	
Watson	0	0	1	0	
Malhoit	0	0	0	0	
Johnson, P.	0	0	0	0	
McGilvary	4	2	2	10	
Wolford	0	0	0	0	
Jackson	3	2	3	8	
Gilmer	9	6	1	24	
Brenner	2	1	4	5	
Lamp	0	0	0	0	
Bradish	0	0	1	0	
Johnson, D.	0	3	4	3	
O'Connor	0	0	0	0	
Totals	20	18	18	58	

Caltech18-23-41
L. A. State27-31-58

LOOKY! LUCKY DROODLES! HAVE A BALL!



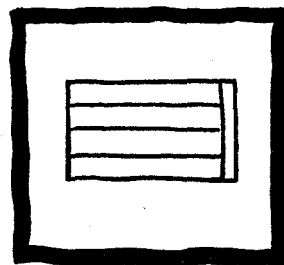
WHAT'S THIS?

For solution see paragraph below.

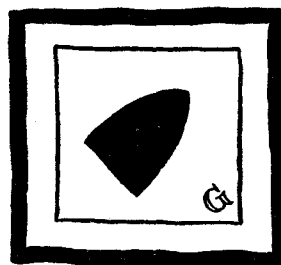
THERE'S NO QUESTION that Luckies taste better—they're made of fine tobacco that's TOASTED to taste better. There's no question in the Doodle above, either (in case you were thinking it looked like a question mark). It's titled: Captain Hook reaching for a better-tasting Lucky. If you'd like to get your hooks on the best-tasting cigarette you ever smoked, light up a Lucky yourself. It's jolly, Roger!

DROODLES, Copyright 1953 by Roger Price

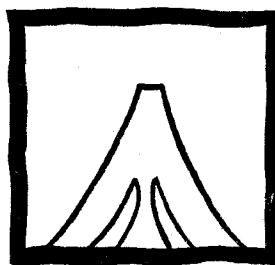
"IT'S TOASTED" to taste better!



LAST BAR OF SCHUBERT'S UNFINISHED SYMPHONY
Theodore Foster
U. of Colorado

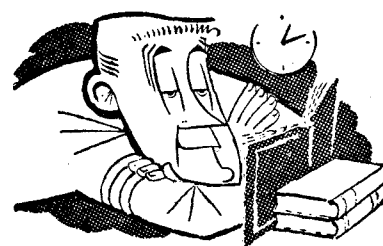


CARELESSLY IRONED HANDKERCHIEF
Kimmo Kautto
U. of Indiana



START OF SKI JUMP AS SEEN BY SKIER
Carol Newman
U. of New Hampshire

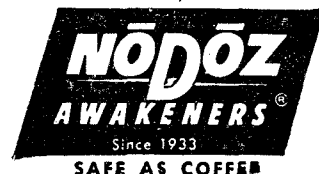
Cramming for Exams?



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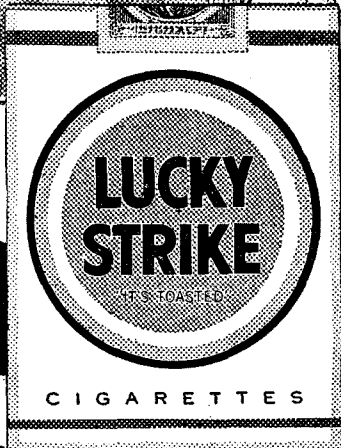
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Caltech invades Whittier, hosts LaVerne Tuesday

Whittier's Poets are favored to hand Caltech another defeat Saturday night as the Beavers travel to the Quakers' gym in the final game of the first round of conference play. The Poets have a one win-two loss record in SCC play thus far this season, having beaten Pomona-Claremont and lost to Redlands and Occidental.

Among the players the Beavers will be especially trying to contain are forward Stan Hubert and guard Joe Wohlmuth, both all-conference selections last season. Tech will probably lead with forwards Howard Bloomberg and Glenn Converse, Phil Conley at center, and Jim Welsh and Jim Workman at guards. Others slated to see considerable action are forward Dan Chilton and guards Rolland Moody and Dick Van Kirk. Also making the trip are Kay Sugahara, Herb Rauch, Bill Kern, Don Wiberg, and Fred Ishihara.

Tuesday the Beavers host tiny La Verne College's Leopards in what promises to be a close contest.

The man to watch for the Leopards will be Glenn Stanford, who set a new school scoring record with 40 points against Grand Canyon College of Phoenix, Arizona, earlier this season. The high-scoring forward is also La Verne's key rebounder. Supporting Stanford are Warren Carter, center; hustling Ben Hines, a guard, and Larry Deal at forward.

The Leopards split with Westmont, winning 64-61 early in the season and losing 104-66 after the holidays. In games against SCC foes, they have lost twice to Redlands and split with Pomona.

Next night home game for the Beavers is Saturday, February 4, when the Redlands Bulldogs, second-place team in the SCC, invade Scott-Brown gymnasium.

Writer critical of Tech's hoopsters

As a matter of interest in connection with the column on the opposite page, we offer the following excerpt from a pre-game article in the *Student Life*, Pomona-Claremont's student newspaper. The article preceded the January 17 Caltech - Pomona game, which Pomona won 74-45.

"Tech in basketball is remarkably similar to Tech in football—Phil Conley plus a lot of guys named Joe. Conley is one of the finest players in the conference, and has been averaging over 15 points per game, but he can't carry the load all alone, and the rest of the team is spectacularly bad.

"Despite the complete lack of ability exhibited by the Tech squad so far this season, the 'Hens can't be too confident of a win, for since the Redlands Tournament they have speedily dropped, simulating the fall of a dead duck. If they continue their graceful downward trip, tonight's game could well be a battle to see which is the worst team. They have lost to some teams that a good high school squad would run right off the court."

Beavers bow to Chapman

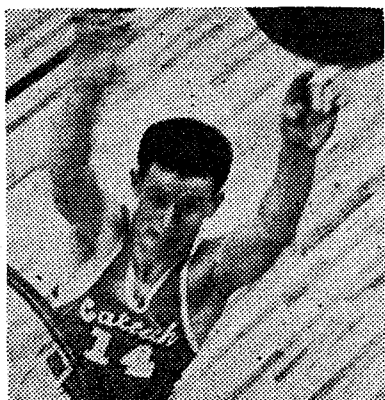
Caltech's varsity hoopsters dropped their tenth game of the season to a hustling bunch of Chapman Panthers Saturday night in the victors' gymnasium.

Playing a smooth ball-control game, the men from Orange dominated the play in the first half, pulling to a 20-7 lead early in the period. Coach Carl Shy's Beavers were unable to work the ball effectively, and as a result most of their shots came while off balance. Chapman controlled the backboards almost completely in the first half, and with guards Art Bias and Dick McCarter hitting well from outside and big center Bob Hamblin scoring from the pivot, the Panthers piled up a 35-17 half-time lead.

In the second half the Beavers began to score more frequently, but the Panthers more than matched Caltech's point output. Chapman broke through the Tech defenses for 42 points, while the Beavers poured 33 points through the nets for their largest scoring effort of the season for one half of play.

Phil Conley led the Caltech scorers with 21 points.

Meet the Varsity



Jim Welsh

One of the bright spots in the Caltech basketball picture is Jim Welsh, junior guard. The 5'11" hustler has been a sparkplug of the Beavers defenses in their games to date, and his elusiveness is vividly demonstrated on the "give and go" play, where he passes into the center and drives in, taking a return pass for an easy layup.

Welsh, who escaped the wintery blasts of Tacoma, Washington, by coming to Tech, is in the geochemistry option, and is as yet undecided about postgraduate plans.

After serving a year's apprenticeship on the freshman basketball squad, Jim moved up to the varsity last season to find it overloaded with guards, but a year's hard work and a few graduation losses have combined to put him at the top of the list.

THE SPORTS CORNER

(Continued from page 4)

each game, and the opposition maneuvers at will against an uncertain defense.

And worst of all, Shy has made little attempt to instill a winning spirit in the men. If anything, his effect has been the reverse. He rarely talks about winning; in the early games the team was told to take it easy because we were not ready yet, and when the team loses, they may be told that they did as well as could be expected. His half-time talks are more philosophical than instructional. Coach Shy is a nice guy, but you can do an athlete a lot more good by chewing him out than by consoling him.

If the team decides it will win; if Shy teaches them fundamentals and an organized offense and emphasizes winning; if Moody learns to be part of a team; if Bloomberg learns to act decisively; if Chilton, Van Kirk and Welsh will pass more carefully; if the whole team will shoot and rebound with confidence—then Tech will win more than its share of basketball games. If not, then all we can expect is endless defeats.

Frosh Sports Roundup

by Brent Banta

Same old story for the Frosh basketballers last week: lack of aggressive team play cost them two possible wins. After a slow start against Pomona-Claremont, 88-49 on the seventeenth, the Junior Beavers came back strongly on the following Friday to drop a very close one to Pasadena Nazarene, 54-50.

A margin of three to five points was all that separated the Beavers and Nazarene during most of the second half. If Tech hadn't gone completely cold for a span of several minutes in the half, the score probably would have favored us. A lot of increased hustle by the Beavers held down the Pasadena fast breaks, giving the guards a fair chance of breaking up the plays. Fred Newman and Jerry Just garnered most of the points in both games.

After a heart-breaker like that, it seemed like the Frosh would be ready to climb all over Chapman on the next evening, but even some great defensive work teamed with 59 points was unable to tame the Panthers, as they racked up an impressive 73 points. We just missed too many shots, most of which were

set up through some really effective rebounding by Bob Lebovitz, and ball-banditry by guards Ray Magdaleno and Fred Newman. In the scoring department, Newman and Lebovitz were high with 20 and 13 points apiece.

Starting lineups for the past few games have found Jerry Just at center, Bob Lebovitz and Bill McClure at forwards, and Fred Newman, Bob Ingram, Dave Mees or Jim Cribbs in the guard spots. Support in the stands hasn't been really outstanding in recent weeks; how's for a big change this Saturday when the Frosh take on Whittier away.

Interhouse sports

Matches get under way at 9:30 Saturday in the Interhouse Tennis Tournament. The meet is a one-day affair, and J. H. Norris, Director of Interhouse Athletics, hopes to finish the last matches early in the afternoon. Each house will enter three men for singles competition and a doubles team. By the end of the day each man will have played 48 matches, 12 against each of the other houses.

A frank message to graduating electronic and mechanical ENGINEERS

You know it . . . we know it . . . so let's be frank about it.

The demand for engineers—experienced or graduate—far exceeds the supply. And, from now on in, you are going to be sought after more than a triple threat halfback for next year's varsity.

You will be promised many things (including the moon with a fence around it), and for a young man just getting started these things are pretty hard to resist.

So, again, let's be frank. We at Farnsworth won't promise you the moon. (Although we are working on some ideas that may eventually get you there and back.) We are an old, young organization. Old, in the sense of being pioneers in the field of electronics. (Our technical director, Dr. Philo Farnsworth invented electronic television.) Young, by being the newest division of the world-wide International Telephone and Telegraph Corporation, devoting our efforts exclusively to research, development and production of military and industrial electronics, and atomic energy.

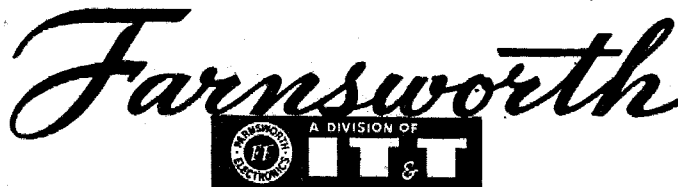
All of which makes Farnsworth big enough for stability and technical perspective, yet small enough for mobility, flexibility and recognition of the individual. Here you will be associated with and encouraged by a team of eminent scientists and engineers with many "firsts" to their credit in the field of electronics. Here you will be heard . . . not just one of the herd.

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ON CAMPUS INTERVIEWS:

FEBRUARY 3

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audience

theatre

MARCEL MARCEAU Biltmore Theatre

Marcel Marceau, French pantomimist, returns to the Biltmore Theatre this week to present "Marcel Marceau in an evening of Pantomime."

The show consists of several pantomimes; some of which are very good, others miss their mark considerably. The evening as a whole depends on one's point of view. As such, the show can be considered highly entertaining or exceedingly dull.

Marceau appears on stage, with white face and white jumper, against a black back drop and into his routines.

This type of performance, to be at all appreciated, demands the strict attention of the audience. Marceau not only demands attention but gets it. Even in some of the slower parts of the show, the audience cannot forget the silent white figure on the stage.

Marceau uses a flick of the hand and an uplifted eyebrow to convey what some actors are never able to convey. As he himself says, "Pantomime is the art of expressing feelings by attitudes and not a means of expressing words through gestures." Perhaps none succeed in doing this as he does.

Marcel starts out left footed with a pantomime, "Walking against the Wind," that is hardly hilarious, but he improves as the evening proceeds. When he fights an imaginary opponent in "Tug-of-War," one can almost see the rope jerking him across the stage. "The Public Garden" gives Marceau a chance to put his talents to work in impersonating 14 people.

The second act, which features BIP, Marcel's creation, is considerably more lively than the earlier part of the evening. In "BIP plays David and Goliath" Marceau runs rampant, dodging behind a small black screen as David and emerging as Goliath. This is undoubtedly one of the high spots of the evening.

Some of the pantomimes unfortunately did not measure up to these performances, making the evening somewhat spotty.

Two assistants, Pierre Verry and Paul Sanchez, who hold placards announcing Marceau's pantomimes, do much to keep the show tied together.

All in all the evening is interesting in a different sort of way.

Marcel Marceau will close Sunday night. In addition to his evening performances, he will present matinees Saturday and Sunday at 2:30 p.m. The Biltmore Theatre is located on 5th at Olive in Los Angeles. Tickets for the evening performances are priced from \$1.10 to \$3.30. A limited selection of seats is available up to curtain time.

—Dick Kirk

JENNY KISSED ME, starring Rudy Vallee is a very enjoyable comedy. Pasadena Playhouse, 39 S El Molino, Pasa. Eves Sun thru Thurs 8:30. 90c-\$2.40; Fri & Sat eves 8:30. \$1.20-\$2.40; Sat matinee 2:30. 90c-\$1.80.

JOY RIDE at the Huntington Hartford Theatre, 1615 N Vine, Hollywood, has been revised since it was reviewed in audi-

ence. Altho now much better, it still needs work. Nightly 8:30 & Sat mat 2:30. Fri & Sat eves \$2.20-\$4.95; Other perf \$2.20-\$4.40. FESTIVAL. Comedy by Sam & Bela Spewack. Players' Ring Theatre, 8351 Santa Monica Blvd, Hollywood. Tues, Wed, Thurs, Fri & Sun eves 8:30. \$1.65-\$3.30; 2 perf Sat eve 8 & 10:45. \$2.20-\$3.30.

THE MOCKING BIRD STILL SINGS. Mexican Players present orig story about life in early Calif. Wed thru Sat eves 8:30; Wed & Sat mats 2:30. Padua Hills Theatre, 3 mi N of Claremont. \$1.80.

HELLZAPOPPIN OF '56. Olsen & Johnson. Glamorous girls, stooges, singing chorus, new sketches, new gags, new acts. Music Box Theatre, Hollywood Blvd at La Brea. Tues thru Thurs 8:30. \$2.20-\$3.85; Fri eve 8:30. \$2.75-\$4.40; 2 perf Sat 7:30 & 10. \$2.75-\$4.40; 2 perf Sun 2 & 5:30. \$2.20-\$3.85.

THE MEMBER OF THE WEDDING. Eves Thurs thru Sun at Horseshoe Stage, 7458 Melrose, L.A.

—John Lansingh

music

BOSTON POPS ORCH with Arthur Fiedler conducting will be at Pasa. Civic Aud. Tues, Jan 31, 8:20, \$1.25-\$4.00. Shrine Aud. Sat, Feb 4, 8:30, \$1.65-\$3.30.

ISAAC STERN is soloist with the LA Phil in all-Mozart program; "Magic Flute" Overture, Divertimento No. 15, Violin Concerto No. 3, Symphony No. 41. Tonight at 8:30, tomorrow at 2:15, Phil Aud, \$1.00-\$3.75.

BALLET ESPAGNOL with Teresa and Luisillo in Pasa Civic Aud tonight at 8:20, \$1.25-\$3.50.

MOZART BIRTHDAY CONCERT with Roger Wagner and LA Chamber Sym. Program will include the Requiem, K 626, Tomorrow at 8:30, Royce Hall, UCLA, \$1-\$3.00.

SHRINE AUDITORIUM this Saturday: Perez Prado band, Stan Kenton Orch with June Christy.

COMING UP Rudolf Serkin plays with the LA Phil Feb 2, 3 in Phil Aud. Andres Segovia recital Feb 4 at the Wilshire Ebell Theater. Ballet Russe will be here near the middle of Feb.

—Al Farley

Campus Brewins

(Continued from page 2)

Last week in this column there appeared in all sobriety a public announcement to the effect that one Daniel Wulff (sometimes pronounced Wolfy) had sworn off anything which wore skirts. This week in this column there appears in all sobriety the following retraction: "She's neat." Who? "I just met her on the bus and you gotta—just gotta—drive me up to Altadena so's I can see her again!" Our idol has fallen.

Sloe eyes and blonde

When a man is kidded in the lounge about this being "the one and only true one," and he turns

red instead of laughing, the Beak begins to worry. When it happens to a boy like Clark Reese we really feel sorry for him. Wednesday he met her un- auspiciously at the music concert. Thursday he discovered her name and phone number. Friday they went to the demonstration lecture in Bridge. Saturday the pair did the town, and then he was hooked. They say she even has a swimming pool where Clark can practice backstroke.

* * *

He: I've loved you more than you'll ever know.

She (indignantly): Next time let me mix the drinks.

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Tuesday, January 31, 4:15 P.M., Room 108 Dabney

C. S. Purnell, E. W. Morris and R. K. Collins will interview from 9:00 A.M. on, February 1 and 2

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