Special **This** Week:

CaliforniaTech

Associated Students of the California Institute of Technology

Next Week's Issue

Volume LXV.

Pasadena, California, Thursday, January 30, 1964

No. 15

Steele Foundation Donates New Building

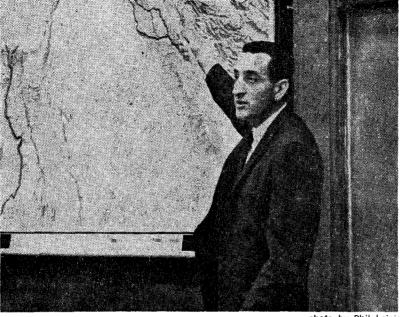
Antarctic Topic In Interview

This week marks the appearance on campus of John Hanessian, Jr., of the American Universities Field Staff. The AUFS is a fairly recent organization, whose purpose is to provide colleges and universities with accurate, first-hand information on foreign areas. The Staff is sponsored by a group of educational institutions, including Caltech. The sponsors finance a group of foreign correspondents, eventually to number twenty, who send back regular reports on their respective areas.

Polar Expert

Mr. Hanessian has been an expert on the special problems of the polar regions since 1954. He has also become acquainted with certain aspects of the Mid-East, particularly Iran's land reform program; relations between the Soviet government and ethnic minorities; and the affairs of south-west Asian countries bordering the USSR. His major interests are in the field of international legal problems, as well. as in the social, historical, and economic aspects of those areas. While connected with the International Geophysical Year, he visited bases in the Arctic and

In 1958 he was awarded a fellowship to Cambridge Univer-(Continued on page 6)



-photo by Phil Lainis

John Hanessian, American Universities Field Staff lecturer, makes a point during his lecture to H5 last Tuesday on land reform in Iran.

Evaluation Poll Issued; **EPC Sets High Goals**

Distribution of the long-awaited Educational Policies Committee Course and Instructor Evaluation Poll will begin today. All undergraduates will soon receive forms containing 20 multiple-choice questions, answer sheets, and a letter of instruc-

Topics to be covered include many of the most frequent points of criticism of individual instructors and several common problems encountered with course organization. Each student should complete one set of answers for each of his first term instructors who taught, or helped to teach, a course carrying more than 3 units of credit. Additional comments on any course should prove valuable and will be welcomed.

Courses Analyzed

All non-personal data will be given to the course instructors and division chairmen for their use, and items of general interest will be published in the California Tech at a later date. Some items of personal information will also be requested in the questionnaire, but all facts which might tend to identify any individual will be held in strict confidence by the EPC. Information from these questions will enable the committee to test many long-held theories about the correlation among individual effort, term grades, and knowledge gained in a course.

Complete answer sheets should be returned to committee members in the student houses or to a box which will be provided for the purpose in Lower Throop. EPC representatives are: Blacker

(Continued on page 6)

Bacher Elected President Of **Physical Society**

Dr. Robert F. Bacher is the new President of the American Physical Society, the nation's largest organization of physicists. He received the honor at noon Sunday, succeeding Dr. John Hay Williams. Bacher will take office at the end of the Society's annual meeting.

Bacher is the Provost of Caltech, as well as the head of the Division of Physics, Mathematics and Astronomy. He is a Fellow of the National Academy of Arts and Sciences and of the American Association for the Advancement of Science. He is also a trustee of the Associated Universities, Inc. of the Carnegie Corporation, and of the Institute for Defense Analysis.

New Electrical Science Facility Will Cost Almost \$2,000,000

The Harry G. Steele Founda- stone's throw from the Steele tion of Pasadena has donated a large part of the funds for a new electrical sciences building at Caltech. Dr. DuBridge and Mrs. Grace C. Steele, president of the foundation, announced today that the building will be named the Harry G. Steele Laboratories of Electrical Science in honor of the late president of U.S. Electrical Motors, Inc. The cost is estimated at \$1,978,900, of which the Steele Foundation has given \$1,136,900. The remainder has been pledged by the National Science Foundation.

The building will be located on Chester Avenue just north of San Pasqual Street, adjacent to Booth Computing Center. It will consist of three stories above ground and two below, with 55,000 square feet of floor space. It will contain 43 faculty offices, 40 laboratories, 38 combination office-laboratories for grad students, conference and lecture rooms, a library, and a dark room. This will accommodate 40 to 50 faculty and staff members and 100 graduate stu-

In acknowledging the donation, Dr. DuBridge said: "It is especially appropriate to have the name of Harry G. Steele attached to our new laboratories in view of his distinguished career in the electrical industry and the long friendship that existed between Mr. and Mrs. Steele and a number of Caltech faculty members. Interestingly, the new building will be only a

Buddhist Talks On Religion

The eightfold way is not just an arrangement of nuclear and sub-nuclear particles; it is also one of the fundamental tenets of Buddhism, the description of the paths one must tread in order to reach enlightenment. Thus stated Dr. Kenneth Yamaguchi, a lay leader of the Pasadena Buddhist Temple, to an audience of about twenty people at the YMCA series on Living World Religions, Monday evening in Clubroom 1, Winnett.

Buddha's History

Dr. Yamaguchi first gave a brief description of the historical origin of Buddhism. In 556 B.C., the son of an Indian king, Prince Siddartha, went out into the world in an effort to learn the true picture of life. Until that time he had been protected from any knowledge of the real world by his father, but after fulfilling his duties to the kingdom by marriage and subsequent production of an heir to the throne, he could no longer avoid the

Gautama's Enlightenment

For six years he studied under one after another teacher, living the life of an ascetic. Each teacher offered some method of reaching enlightenment, but

(Continued on page 6)

home on Holliston Avenue."

Mr. Steele was president of U. S. Electrical Manufacturing Co., later U. S. Electrical Motors, Inc., from 1927 until his death in 1942. He was a prominent figure in Los Angeles and Pasadena cultural affairs, and was keenly interested in Caltech's progress. His activities included the Los Angeles Art Museum, the Southwest Museum, the Pasadena Art Museum, the Pasadena Community Playhouse, the California Club, the Tournament of Roses, the Los Angeles and Pasadena Athletic Clubs, and several yacht

The Steele Laboratories will provide facilities for intensified work in physical research and systems research. Physical research includes solid state physics, plasma physics, and lasers. Systems research deals with the transmission and detection of signals, automatic control of devices and vehicles, and computers. Research in these fields could lead to new developments in energy conversion, power generation, communication, and in the study of the analogies between electronics and the mechanisms of the human brain and nervous system.

Notices

BUD AND TRAVIS

Tickets are now available for the Bud and Travis Concert. Get yours before they go on public sale. Tickets are available from your friendly House social chairmen.

SIGN UP NOW

Anyone wishing to be a frosh camp counselor next year should submit his name as soon as possible to Mike McCammon in Lloyd. The deadline for applications is noon on Friday, February 7.

SCRIPPS CONFERENCE REGISTRATION

Registration for the Caltech-Scripps Conference will begin tomorrow, Friday, January 31, at 12:00 noon at the YMCA O on the second floor of Winnett Student Center. A five dollar down payment will be required at the time of the registration. This cannot be refunded after Monday, February 10. There will be room for only 40 Techmen so be sure and sign up early.

CHESS TOURNAMENT

The Caltech Annual Chess Tournament will be held this term and is open to all undergraduate and graduate students attending Caltech. An organizational meeting for all players interested in participating will be held at 7:30 p.m., Thursday, February 6, in 205 Dabney. If unable to attend, contact Richard Stanley, 51 Fleming, or Martin Cooper, 127 Page, before the time of the meeting.

DENSE SMOG

Today at 7:30 p.m. in Dabney Lounge, Dr. A. J. Hagen-Smit, professor of biology, will outline his research and conclusions on "Smog as a Community Problem" and will describe his experiences on the Air Pollution Control Board.

Bethe Describes Nuclear Strategy

BY TIM HENDRICKSON

Dr. Hans A. Bethe, a visiting professor of physics at Caltech, spoke on "Strategic Stability and Disarmament" Tuesday evening, January 28, in Dabney Lounge.

Bethe's talk marked the first program in a series of Institute Lectures arranged by the faculty committee on programs and assemblies. Chairman of the new committee is Dr. Edwin Munger, professor of geography.

Head in 1958 of the President's Science Advisory Committee, Bethe has been an important consultant for the Atomic Energy Commission, and was chief of the theoretical physics division of the Los Alamos Scientific Laboratory from 1943 to 1946.

Cold War Calmer

Bethe began by describing how "today we live in an atmosphere of great calm" as contrasted to Cold War conditions two years ago. Then thermonuclear destruction seemed a grave possibility; today there prevails a "general relaxation" of tensions.

This change, Bethe stated, was a consequence of an ironic necessity - that the United States, if America were to preserve the validity of her traditional defense policy of massive retaliation, had to concern herself first with the protection of her missiles, and then with that of her citizenry.

Tension Relieved

It had become apparent that the nation striking first in a nuclear conflict had a distinct advantage; the exchange ratio was, as estimated by Bethe, ten to one in favor of the aggressor. That is, the agressor might expect to destroy ten of the attacked nation's bombs for every one of his own. Thus there prevailed the attitude that a counterforce strike might make marginal the armaments of the United States should alter her policy and determine to strike the first blow.

Less Advantage

The tense situation was relieved, however, by technology; "hardened" launching sites for the Minuteman Missile reduced the exchange ratio to a slight advantage to the United States. Polaris-missile equipped nuclear submarines, too, contributed to the relaxation of tensions.

Bethe concluded by recommending that the United States must now place more emphasis upon the development of conventional weapons as Kennedy's "alternative to surrender or holocaust."

And lastly, Bethe stated that the United States should now "negotiate from her strength" to affect a settlement on such long-standing political friction points as Berlin.

are primarily concerned with

handling and keeping track of

ASCIT money, which amounts

to about \$16,000 to \$20,000 a year.

This job involves such mechan-

ical duties as writing the checks,

keeping the books, and checking

bank statements. It also involves

such jobs as preparing a com-

prehensive report of the financial

activities of ASCIT for the fiscal

year, keeping the Board inform-

ed as to the financial status of

the corporation, and keeping

track of the business managers

The Social Chairman, with his

assistants, handles Lost Week-

end, the Winter Formal, the

Christmas Dance, and various

smaller events. Depending on

his gung-ho-ness, he can do such

things as after-game dances, or

even run the dance class. An im-

Editorials

Rate 'em

Sometime today you will receive a questionnaire from EPC asking you to evaluate last term's courses and instructors. The questionnaire consists of 20 multiple-choice questions, and you will also receive an answer sheet for each course. This is the first time such a poll has been taken at Caltech, and it should be most interesting if handled in the spirit it is given.

Perhaps our pleasantest recreation here in the beloved Institute is moaning about the courses and instructors through which we have had to endure. Here is the finest opportunity to preserve those moans for posterity.

But this poll is more important than just a release for pent-up antagonisms. This is a rare opportunity to critically assess our program here and offer some constructive suggestions. The EPC has put in considerable time and effort to prepare this poll, and it is certainly not too much to ask for us to give an honest evaluation.

Answer each question as carefully as you can—presenting your criticisms, not the opinions and platitudes of others. This survey is definitely not conductive to bull-session analysis. And another point. Even the most carefully prepared questionnaire cannot be pertinent for every Institute course, so make ample use of the space for additional comments.

> -Don Green J. C. Simpson

Run, Spot, Run

Every year about this time, the California Tech runs an editorial encouraging Techmen, i.e. you, to run for ASCIT offices. Yet another editorial always seems to be needed the next year, and 1964 is no exception.

Because griping is one of the major campus sports, a good many people around Caltech spend an awful lot of time complaining about ASCIT. These complaints usually accuse ASCIT of being incompetent, of showing favoritism, of not doing something, or, worst yet, of trying to do it and not succeeding. There are few people at Tech who don't realize the great improvement in non-academic life that a solidly supported student government would bring.

Now, however, when the opportunity is given everyone to help change ASCIT to conform to his own desires and ideas, there suddenly appears a void. No one seems to believe strongly enough to really try and improve Tech by running for an ASCIT office. The experience of innumerable past ASCIT officers (and newspaper editors!) has shown that lack of time is a valid excuse only about 10% of the times it is used. Other popular excuses are just as weak. It remains that anyone who wants to can usually afford to run and hold an ASCIT

An ASCIT office (or editorship) is not solely an altruistic endeavor. The experience gained really is, believe it or not, a valuable commodity to have in later life. And, of course, there is also the prestige (get your name on ASCIT stationery) and the graft (you too can get 17 front seats at the ASCIT concert).

A good student body government is vital to any campus, but in Tech's hyper-scientific atmosphere, it should be essential. Run for ASCIT offices, and make it that way.

Oh, yes-somebody be editor.

J. C. Simpson Don Green

CaliforniaTech

Editors-in-Chief J. C. Simpson, Don Green

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> **Business Staff** Dick Karp, Manager Circulation: Guy Jackson

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ASCIT Begs For Money; **Prizes Offered**

This is the week for the annual ASCIT charities drive. This consolidated drive was instituted by ASCIT to prevent various organization from taking up too much of the Tech student's time, and the money collected is contributed to three charities chosen by ASCIT.

In previous years, there have been complaints that the identity of the ASCIT drive was lost in the large funds of the national charities. Therefore, this year three local and smaller organizations are being chosen. The contributer will be able to feel that his contribution is actually being noticed. The organizations that will be helped this year are: the Pasadena Boys Club, the L. A. County Mental Health Association, and the World University Service.

As an incentive, the house which has the highest average contribution (graduate students included) per house member by Friday will win a steak dinner served by the faculty on Monday, February 10. The waiters will be Dr. Huttenback, Dr. Sutton, Dr. Corcoran, Dr. Pings, and Dr. Allen. Reports from last year's winner, Lloyd House, indicate that the dinner is fun for all.

ASCIT Bites Back

Bob Liebermann ASCIT President

With ASCIT nominations coming up next week, it was felt that some information should be made available about the offices which will be open. Since the present President and Vice President do not feel that their offices can be described in writeups of this sort, they request that anyone interested in running for their offices contact them. The following nine descriptions, written by the present office holders, covers the other offices which will come up for grabs on February 18.

The office of Secretary has traditionally been one of both record and humor and will hopefully remain so. It has been the duty of the Secretary in this era to accurately record the intricate weekly mayhem of the BOD with a touch of humor aimed at giving many a reason to read the minutes. Other penances include letter-writting and the summer contacting and information programs and, of course, the serious part of the office. The Secretary has a vote on the Board of Directors and therefore, must quite seriously attend to this responsibility.

The duties of the Treasurer



Plunk, Whistle, Toot, and Boom

Lukas Foss was here last week and gave us an interesting illustration of Barnum's famous maxim. Let me establish at the start that I am not a habitual cultural troglodyte; nor am I any kind of a music critic. But with respect to both matters, I do have ears. And a limited tolerance for having my leg

Perhaps I should also say that Tuesday's chorus rehearsal is not included in the above diatribe. Behold I Build an House is a early piece of Fossiana, and interesting evidence that Mr. Foss can write music, or at least used to be able to. Its style is tonal; it has melody, and seems to me vaguely like Stravinsky, although others say Bartok. At any rate it was very pleasant. Equally pleasant was Foss' demonstration of virtuoso chorus direction. All of us have watched choral rehearsals at one time or another, but few of us, I daresay, have seen such noticeable improvements worked with such economy of direction. To round out the evening there was a question period in which our guest acquitted himself with cleverness, sure-footedness, and good humor.

Stomach Pains

Alack, all this served to lure us back Wednesday, when the spotlight was to shift to Mr. Foss' most recent composition. called Echoi. Many of us were prepared to sit patiently through a twelve-tone something, but in this we had underestimated the man from Buffalo. It appears that he has passed clean through the twelve-tone phase (which is now passe, I'm told), and entered into a transcendent world of electronicism, improvization, and the musical "happening." I haven't space or stomach to describe all the manifestations of contemporary Fossism, but the musical "happening" bit consists in introducing an element of strife among the performers. The

By Steve Schwarz

percussionist is equipped with two kettledrums, vibraphone, chimes, gong, cymbals, woodblock, sandpaper, oriental wind chimes, and maybe some other things; the pianist has only his piano. Nonetheless the greedy percussionist wishes to silence the pianist. He plays louder and louder to drown out his adversary, finally coming over to the piano with little mallets to bang on the piano strings themselves. This last tactic having been successful, the victor flies into an ecstasy of triumph, kicking the piano and the music stands, and ultimately pounding on the lid of a garbage can.

Sound Effects

All this comes through sounding like a great deal of plunk, whistle, toot, and boom. One excuse for its not sounding like music might be that its emotional appeal (which music is required to have, according to my dictionary) lies in the drama ly mild, even with all that bang- Committee has been formed, (Continued on page 3)

Take Gas, Choudhry!

portant part of his task is "talk-

of the publications.

ing up" all ASCIT events, including concerts, dances, and the rest. He also presides at Interhouse Social Committee meetings, and helps organize all-campus exchanges, class events, and other random events.

Stamp Out Jocks

It is the duty of the Board of Directors to see that all matters of ASCIT interest are handled in the best possible manner. As a member of the board the Athletic Manager has a lot to say in the decisions, especially those concerned with the athletic policy. All the athletic awards are recommended to the board by him; in this capacity lies his greatest responsibility. For a short period in each term the Ath. Mgr. has it rough. In the first term it is his job to put on the Fall Award Banquet. In the second term there is the Basketball Awards Assembly, and in the third term there is the big Awards Assembly.

Stamp Out Activities The Activities Chairman has a great deal of opportunity to do many things. The major weekly task, apart from participating in Board Meetings and helping to heap rays of light upon otherwise beshrouded subjects, is to run the Coffee Hours, fulfilling the three-fold task of attracting students, making sure of good faculty attendance, and keeping the cream and sugar pitchers full. In addition, he can try his hand at entrepreneural tasks, along the lines of Munchkins and the upcoming Bud and Trathe conflict situation. But the vis concert. Also, as of this year, impression of conflict is certain- the ASCIT Permanent Publicity

(Continued on page 3)

Nine Left in Frosh Runoffs; Twenty-one Bite The Dust

The Election Committee announced Wednesday that there would be reruns in all races for Freshman Class officers. Twenty-one candidates of the original 30 were eliminated on the first ballot. The runoffs will be held Friday noon, January 31, in the seven Houses. There will not be an up-campus polling place, so freshmen who are unable to vote in the Houses should contact George Reeke, #68 Ricketts, anytime before Friday noon to pick up an absentee ballot.

Presidential candidates who survived the first cut and qualified for the final election were Doug Eaton, Lot Ensey and Mark Satterthwaite. Candidates for Vice-President will be Arlin Peters and Jon Romney.

Running for the office of Freshman Class Treasurer are John Eyler and Clyde Staley, and for the office of Athletic Manager are George Kurata and Rich Touton.

This election was unusual in that there were thirteen candidates for the office of Freshman Class President, bless their hearts! Unsuccessful candidates were: Craig Carlyle, Rashid Choudhry, Bob Dickinson, Jim Fishbein, Pete Krause, Fred Lamb, Karl Overbeck, Wally Rippel, George Sharman and Mike Squires.

B&G Grows Tubes; **Ivy To Come Later**

BY TIM HENDRICKSON

Contrary to popular belief the masses of large and small steel tubing running through the ivy in front of Thomas are not apparatus for raising spaghetti cultures. They are, instead, the components of a sprinkler system designed to irrigate the stunted ivy that has the misfortune of growing in front of

Dubious as it may be, B&G has an explanation for the form the system has taken. By keeping the lines above the ground, they plan to eliminate most of the installation expense. The sprinkler system is expected to pay for itself eventually through the money saved by eliminating hand watering.

Although the pipe lines and sprinkler heads are painfully visible now, B&G optimistically claims that under the sprinklers' waterings the mangy ivy will grow as lush as that in front of the Physical Plant Building.

(The B&G laboratory manual, The Blight on the Ivy, is currently available in the bookstore.)

The system is composed of many random sizes of pipeline. The large two-inch line is the main feed supply to all the sprinklers, and the various intermediate sizes direct the water to the sprinkler nozzles. The very small tubing serves as the control for one of the six control valves; the automatic system is controlled by the gold anodized box on the facing side of Guggenheim.

Hence, one caution: at all costs avoid walking through the ivy near Thomas during the hours from 1:00 to 4:00 a.m.

More Audience

(Continued from page 2)

ing thrown in - the effect is a comical one, really. At any rate, even if Echoi does fit some broad definition of music, it doesn't fit mine, which stipulates that the listener must get pleasure from the experience. I have yet to find anyone who says he found Echoi a pleasant experience, let alone would like to hear it again. Me, I felt very lucky to escape after the third movement, when the tape recorder broke down.

Student Body Offices Described

(Continued from page 2) with representatives in each House, to help the Activities Chairman keep the student body informed of the activities.

Stamp Out Houses

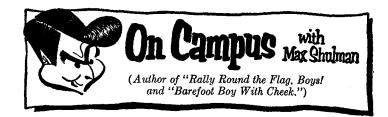
The basic two duties of the IHC Chairman are being chairman of the IHC and a member of the Board of Directors. Despite the intentions of those involved in the by-laws amendment last year placing the IHC chairman on the BOD, usually there is little connection between the two bodies although there are definite benefits, particularly around the time of the freshman visitation program. The IHC has (hopefully) taken on duties that were relegated to the Master of Student Houses until last year, including inter-House disciplinary matters. This is expected to continue.

Representative at Large is the one office open to freshmen interested in the student body government. His only responsibilities are conducting the Blood Drive third term, The Charity Drive second term, and keeping sports events posted on the bulletin board in front of Throop. That means the job affords a good opportunity to become familiar with how ASCIT han-

dles the campus organizations it sponsors, without being responsible right away for controlling their finances. After a year on the Board he knows who is running most of the clubs and committees on campus.

The first job of the BOC Secretary, like that of any BOC member, is to make useful contributions to the discussions at meetings. Beyond this, the Secretary has three particular duties: to take down minutes at meetings, to type these formally for the permanent records, and

to communicate to the Deans any official decisions the Board may make. The Secretary may be called upon by the Vice President to assist in some details of the Vice President's job. Like the Vice President, the Secretary has no suffrage in formal votes. It is felt that the administrative jobs of the Secretary of the BOC are important to the Vice President, are interesting in themselves, and, via the records, are important to the future of the Honor System.



THE INNER MAN

College is fun and frolic and fulfillment-except for one melancholy omission: we don't get to enjoy Mom's home cooking. (In my own undergraduate days, curiously enough, I did not undergo this deprivation; my mother, a noted crosscountry runner, was never home long enough to cook a meal until her legs gave out last Arbor Day.)

But most of us arrive at college with fond gastric memories of Mom's nourishing delicacies, and we are inclined now and then to heave great racking sighs as we contemplate the steam tables in the campus cafeteria. Take, for an extreme example, the case of Finster Sigafoos.

Finster, a freshman at one of our great Eastern universities (Oregon State) came to college accustomed to home cooking of a kind and quantity enjoyed by very few. Until entering college, Finster had lived all his life in Europe, where his father was an eminent fugitive from justice. Finster's mother, a natural born cook, was mistress of the hauté cuisine of a dozen countries, and Finster grew up living and eating in the Continental manner.

He arose each morning at ten and breakfasted lightly on figs.



hot chocolate, and brioche. (It is interesting to note, incidentally, that brioche was named after its inventor, perhaps the greatest of all French bakers, Jean-Claude Brioche (1634-1921). M. Brioche, as we all know, also invented croissants, French toast, and—in a curious departure—the electric razor. Other immortal names in the history of breadstuffs are the German, Otto Pumpernickel (1509-1848) who invented pumpernickel and thus became known to posterity as The Iron Chancellor; the two Americans, William Cullen Raisin (1066-1812) and Walter Rye (1931-1932) who collaborated on the invention of raisin rye; and, of course, Hans Christian Andersen (1805-1875) who invented Danish pastry).

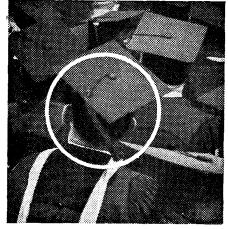
But I digress. Finster, I say, breakfasted lightly at ten a.m. At eleven a.m. his Mom brought him his elevenses. At twelve she brought him his twelveses. At 1:30 she served his lunch: first a clear broth; then a fish course (porgy and bass); then an omelette; then the main course—either a saddle of lamb, an eye of sirloin, or a glass of chicken fat; then a salad of escarole; and finally a lemon soufflé.

At three p.m. Mom served Finster low tea, at five p.m. high tea, and at ten p.m. dinner-first a bowl of petite marmite (she trapped the marmites herself); then a fish course (wounded trout); then an omelette of turtle eggs; then the main course either duck with orange or a basin of farina; then a salad of unborn chicory; and finally a caramel mousse

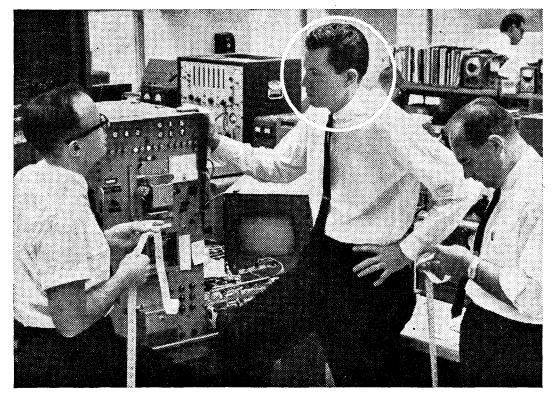
And then Finster went off to college, which reminds me of Marlboro Cigarettes. (Actually it doesn't remind me of Marlboro Cigarettes at all, but the makers of Marlboro pay me to write this column and they are inclined to get surly if I fail to mention their product. Mind you, I don't object to mentioning their product—no sir, not one bit. Marlboro's flavor is flavorful, the filter filters, the soft pack is soft, the Flip-Top box flips, and the tattoo is optional. Marlboros are available wherever cigarettes are sold in all fifty states of the Union. Next time you're in the U.S.A., try a pack.)

But I digress. We were speaking of Finster Sigafoos who went from Continental dining to dormitory feeding. So whenever you feel sorry for yourself, think of Finster, for it always lifts the heart to know somebody is worse off than you are.

We, the makers of Marlboro, can't say whether European food beats ours, but this we believe: America's cigarettes lead the whole world. And this we further believe: among America's cigarettes, Marlboros are the finest.



John Lauritzen wanted further knowledge



He's finding it at Western Electric

When the University of Nevada awarded John Lauritzen his B.S.E.E. in 1961, it was only the first big step in the learning program he envisions for himself. This led him to Western Electric. For WE agrees that ever-increasing knowledge is essential to the development of its engineers-and is helping John in furthering his education.

John attended one of Western Electric's three Graduate Engineering Training Centers and graduated with honors. Now, through the Company-paid Tuition Refund Plan, John is working toward his Master's in Industrial Management at Brooklyn Polytechnic Institute. He is currently a planning engineer developing test equipment for the Bell System's revolutionary electronic telephone switch-

ing system.

If you set the highest standards for yourself, both educationally and professionally, we should talk. Western Electric's vast communications job as manufacturing unit of the Bell System provides many opportunities for fast-moving careers for electrical, mechanical and industrial engineers, as well as for physical science, liberal arts and business majors. Get your copy of the Western Electric Career Opportunities booklet from your Placement Officer. Or write; Western Electric Company, Room 6405, 222 Broadway, New York 38, N. Y. And be sure to arrange for a personal interview when the Bell System recruiting team visits your campus.

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Tigers Trip Tech, 102-81 Grapplers Beat LACC; Tech gave Oxy a scare in TuesBow To Stags, 18-16

day's basketball game, but was unable to hold out as Oxy pushed to a 102-81 victory. After opening an early 8-4 lead, Tech slipped and Oxy led at the half by eight, 47-39. Tech got hot at the start of the second half and closed to 55-54. Oxy managed to keep a slim lead until the eight minute mark. After leading 81-75, Oxy rattled off nine quick points and put the game out of reach at 90-75. The game ended at 102-81.

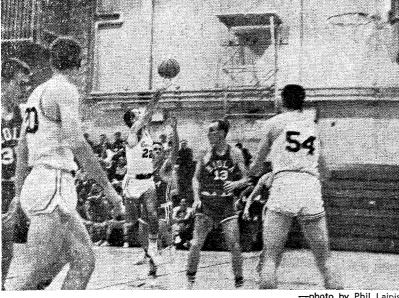
Tech had the hot hand as it shot 45% from the floor. Joe Weis swished through 27 points, while Dick Burgess scored 21. Reliable Gary Dahlmann had 17.

In two of the most exciting games this writer has seen this year, the Caltech Beavers were defeated 75-71 by the LaVerne hoopsters Saturday night and 74-69 by the Biola quintet Friday night. The Beavers were hampered in both games by the loss of two of their top subs. To add to the team miseries, several of the players had colds.

In the Friday night game both teams battled evenly throughout the first half with no side able to move to more than a four point advantage at any point in the half. The halftime score was a tie, 34-all.

Rally Falls Short

At the start of the second half the Beavers began to play well enough to open a small lead which stretched to 50-46 with about ten minutes remaining in the half. Biola then spurted and took over at 56-53 with about eight minutes to go. Biola opened this to 68-60 with about three minutes left. Then Tech began to rally and closed to 68-66. This was as close as the Beavers could get, however, as the game wound up as a victory for Biola by the score of 74-69. Joe Weis led the Beavers with 19 points, followed



-photo by Phil Laipis

Gary Dahlmann leaves Biola defender flat-footed as he scores in Friday game. Biola's last quarter surge downed Tech, 74-69.

by Dick Burgess with 14. Leon Thompsen scored a career high of ten points and played an outstanding game on defense.

Repeat Performance

Saturday night's game was almost a repeat of the previous night's game. Both teams exchanged the lead in the first half but LaVerne emerged on top at the halftime buzzer, 34-32.

The Leopards spurted at the start of the second half and quickly opened up a 48-38 lead. The Beavers rallied later in the half to close the gap to 66-63 with several minutes remaining.

LaVerne began to stall and the Beavers had to foul to get the ball, but the good free-throw shooting of the Leopards kept them out of reach and the game ended at 75-71, Biola.

Joe Weis appears to be back in form as he again led the Tech scorers with 20 points. Dick Burgess has regained his early season prowes as he hit for 19. Dennis McCreary played an inspired game and netted 12 points for his effort.

Christie Leads Fleming House To Discobolus Game Victory

tie led the Fleming Discobolus football team to a 34-19 victory over Ricketts in this week's Discobolus action. Christie showed accuracy that has seldom been seen on the football fields of the varsity, let alone a Discobolus game.

Bombs Away

Hitting his prime targets of Bill Owens, John Nady, and Bill Schoene, Christie moved the offense well and added the scoring punch which the Fleming Interhouse team was lacking. The long bomb was the main weapon as Christie hit Owens and Schoene in the first half for long scores.

Varsity footballers Ken Evans, Tom DeKlyen, Lee Peterson, and frosh Gary Ihas led one of the toughest and strongest teams around in the form of the Ricketts starters. The hard rush put on by Evans and Ihas was a delight to the fans as the Fleming blockers found themselves on the ground most of the time. However, Christie was up to this scare and threw screen passes to break it up. Despite the hard rush, he was able to complete his tosses.

Early Lead Wins

Fleming rushed to a 27-0 lead before the Ricketts team knew the game had started. A Ricketts score on a pass from Evans to Peterson showed Ricketts was on the field as the half ended 27-7. The scoring in the second

Varsity starter Mutha Chris- half slowed down a little as Fleming scored once more before the fourth period started. Two later TD's by Ricketts came late in the game when the outcome had already been clear.

> The game was clearly the story of experience in the game against inexperienced varsity players. Ricketts had the material but couldn't do anything with it while Fleming showed a polished team.

Discobolus	Standings
Ricketts	10
Blacker	8
Fleming	7
Lloyd	4
Page	4
Ruddock	4
Dabney	3

Varsity Rating Race

Perennial varsity rating trophy winner holds a seven point lead over last year's winner in this year's varsity rating race. Points are doled out on the basis of four points for a varsity participant, and two points for a varsity manager or a frosh participant, and one point for a

manager.	
Fleming	57
Ricketts	50
Blacker	47
Dabney	44
Lloyd	42
Ruddock	31
Page	28

Oxy Triumphs 93-63 As Frosh Drop Three

The frosh hoopsters traveled to Occidental Tuesday, and came out on the short end of a 93-63 count. Playing a variety of offenses, the Oxy offense was devastating. Making use of home privileges, Oxy shortened the distance from the basket to the backcourt line and made use of the shorter court.

After opening a 41-28 halftime margin, Oxy swept through the second half like pros. Though at times the Tech frosh looked good, Tech was inconsistent. Gray Jennings led the scorers along with Herb Jubin. Both had 12 points.

The Caltech Frosh dropped two games last weekend to the Junior Varsity teams from Biola and LaVerne. Both Biola and LaVerne are non-conference teams and hence, the losses didn't change the league record.

On Friday the Tech frosh faced a zone defense for the first time this season. As a seasoned basketball fan would know, the way to beat a zone defense is to shoot well from the outside. However, the frosh were as cold as Alaskan bathing beauties, and hence, points came hard. After a shaky start, the frosh came back into form as the half ended 39-27.

Shooting even more coldly in the second half, the frosh were never really in the game. The game ended 76-49. The final shooting wouldn't beat the Poly girls' volleyball team. Admittedly, the frosh were without the use of two of their stars. Ed Hsi was out with a sprained ankle and Herb Jubin also missed the game. Gray Jennings added the leading scoring punch with 14 points.

Against LaVerne on Saturday, the frosh faced a giant in the form of a 6' 10" center. If you don't think this effects the game, try plying the game with a large tree right in front of the basket. Despite this towering advantage, LaVerne added speed and accuracy to form a devastating offense. LaVerne led at 47-28 at the half, paced by the Oak tree and a good running game. They just missed the century mark as the game ended at 96-60. Gray Jennings led scorers with 22.

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Caltech's wrestlers won their first match of the season Tuesday night, beating a depleted LA City College team, 25-8, in the first home match for the Beavers. Since it was finals week for LACC, only four of their grapplers showed up for the match. Nevertheless, Tech beat the ones that showed up 10-8; LACC forfeited three matches for an additional 15 points.

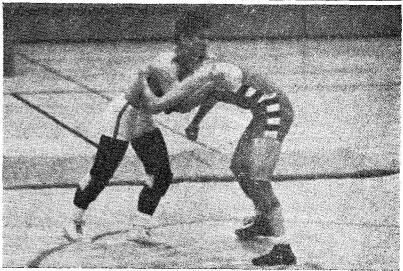
Both teams forfeited the 123 class. McGehee, in his typical mid-season style, lay down on his back and let Taylor of LACC pin him in 1:36 of the first period. Fujimura pinned Giron of LACC in 2:01 of the second period in a hard-fought victory for Caltech. Faulconer, Paciorek, and Groth all won by forfeit. Then Kershaw of LACC outmuscled Powell of Tech for a 5-1 decision in the 177 class. In the final varsity match, Kampe regained his usual ferocious style and pinned Morse in 1:06 of the first period.

In exhibition matches Faulconer (CT, 147) pinned Taylor (130); Groth(CT, 167) beat Morze

(185); Peters (CT, 177) was beaten by Kershaw (177); McGehee (CT, 130) beat Taylor (130).

Last Tuesday the Techmen wrestled to an 18-18 tie with LA State. The most unfortunate part of that match was the injury of Tom Latham, co-captain and top man in the 167 class. Latham will be out for the season with a shoulder injury.

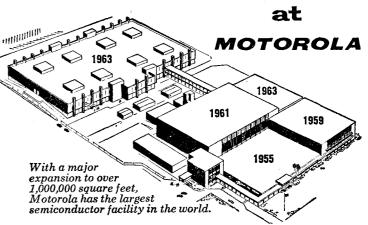
Friday night the league wrestling championship went to Claremont-Harvey Mudd in a close 18-16 loss for the Beavers. Most of the matches were close and could have gone either way. McGehee, Faulconer, Paciorek, and Powell won their matches for Caltech. This match is considered to be the league championship since Caltech and Claremont-Harvey Mudd are the only teams to have wrestling teams. Caltech defeated CHM in both of the matches last year and necessarily claimed the league championship. With the loss last week, Tech needs a victory in the next match to tie the league standings. That match will be played at Claremont on Feb. 17.



-photo by John Williams

Frank Fujimura wrestles with LACC opponent in home opener Tuesday.

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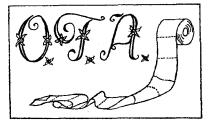
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AN EQUAL OPPORTUNITY EMPLOYER



BY J. K. EVANS

This week we will discuss a sad case. This actually has nothing to do with football except indirectly, for the sad case I intend to discus is that of one Irving Osbockle. Irving was a passionate, devoted fan of practically everything. This led to his downfall.

Irving was one of those people who stand in line outside Dodger Stadium all night for tickets for the fifth game, or sleep all night on the curb of Colorado Street on Dec. 31, or write violent letters to the Ku Klux Klan, or march up and down the street waving a "Pauling Bites" sign. Most of these poor misguided souls are not really too bad off, because usually they get involved in only one of these minor idiocies. Irving was in all of them.

Nothing Halfway

This in itself would not have been too bad, either, if it were not got the fact that Irv didn't do anything halfway. When he stood in line outside Dodger Stadium, he brought his own portable outhouse and charged everybody else two-bits apiece to use it. When he slept on Colorado Street, he pitched a twelve-man Army surplus tent by driving rock pitons in to the sidewalk; he had a refrigerator,

SPORTS

a bar, and an electric blanket plugged into the nearest street light. When he wrote the letter to the Ku Klux Klan, he not only expressed his own opinions, he quoted thirteen chapters of Proverbs, two books of the Koran, and 733 lines of e.e. cummings. When he carried the sign for Pauling, he had a five-pound bucket of the real McCoy suspended from the corners; the police didn't dare come close enough to arrest him.

Saw The Light

However, it was none of these things that caused Irv to come to this unhappy end. It was when Irv got religion that he met his untimely demise. One of those traveling revival meetings came to town, and several of Irv's friends decided to take in the show. So Irv went along. When he returned home, his wife noted a strange glazed look in his eye, but she thought he'd just stopped off for a few drinks with the boys. Little did she

Crackin' Good Time

The next morning Irv left at the crack of dawn. From that day on he was never home more than a few minutes at a time. He ate few meals at home, and often phoned to tell his wife

that he would have to work late and would stay overnight at the YMCA or a fellow office worker's apartment so he would not have to make the long drive home. It was quite a shock to Mrs. Osbockle when the police called and asked if she would like to come down and press charges against her husband.

It seems that the police had picked Irv up on 47 counts of bigamy. He had 48 wives spread from Pacoima to Tustin, and all 48 of them were pregnant. You see, the topic of the sermon that Irv heard that night at the revival meeting had been "The Flood." The story of Noah, told in ringing tones with much waving of arms, had touched Irv deeply. And the very last line of the sermon had been: "And Noah said to the animals and to his sons, Go forth and multiply."

Irv never did anything half-

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little ball hawking by Ricks was not enough to save Ruddock from defeat at the hands of champion Lloyd. Gillespie's passes, called from his handy-dandy little giant play book which he carried with him at all times, lofted the game right out of reach despite hard line play and some fine reddogging by Ruddock's Blackinton. Of course Gillespie was a little inaccurate on occasion, but that is to be expected when the defender is five inches taller than the receiver. However, flips to his bearded end and a few tosses to halfback Crabtree enabled him to put the game fairly well on ice.

Ruddock was not lying down on the job by any means - the boys in blue just did not get the breaks. The game was a lot closer than the score would indicate; in fact, one referee thought it was all tied up at 13-all until he asked for the final score. Ruddock got two bad breaks in an over-the-head snap on a punt, which was downed on their own 11 and led to a Lloyd score, and an illegal procedure penalty which nullified a long gainer. However, some of that came back in the form of a questionable pass interference penalty (there was no question

to the referees, though - they called it and they stuck to it) which gave Ruddock a first down on the Lloyd three and consequently a score.

Nevertheless, you can't take it away from Lloyd. Their passes clicked, their rush had Ricks running scared on occasion (he was caught for sizeable losses several times) and if necessary they could even run with the ball. Lloyd won it fair and square.

In other games played last week, Blacker scored two TD's in the last period to defeat Page for its first victory of the season. Lloyd triumphed over Ricketts 20-6 on the strength of a fourth period TD on an interception by Jim Crabtree.

Ricketts dropped it's fourth straight, to Dabney, 20-6 on Monday. On Tuesday, Fleming finished its season with a squeaky 13-7 victory over Page.

Interhouse Football Standings

	\mathbf{w}	${f L}$	\mathbf{T}
Lloyd	6	0	0
Ruddock	3	1	1
Dabney	3	2	0
Fleming	3	3	0
Blacker	1	3	1
Page	1	4	1
Ricketts	0	4	1

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February 21, 1964

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Penquins Are Peaceful

Hanessian Lectures on Iran and Antarctic

(Continued from page 1) sity by the Institute of Current World Affairs, for research on polar problems. His doctoral thesis, on the subject of international controls in the Antarctic, is now in preparation, and is being considered for publication in England. Since joining the AUFS in 1960, he has visited all major centers of polar studies in Europe and the Pacific

Squabblings Squashed

According to Hanessian, the Treaty of 1959 brought an end to the territorial squabblings in Antarctica and paved the way for peaceful and useful research. The United States, the United Kingdom, the Soviet Union, France, Australia, Chile, and Argentina were among the twelve signatories of the treaty. While territorial claims in Antarctica still exist, the treaty has effectively shelved these claims indefinitely. However, although the noise of territorial claims has calmed down, the problem of jurisdiction of the continent is still at doubt, and a settlement has not yet been reached by all the nations involved.

The present treaty will remain in effect as it stands for thirty years. The treaty itself doesn't stop even then, but at the end of this thirty year period it can be amended. Among the terms in the treaty are bans on armaments and nuclear testing in the antarctic, and the right to inspect various camps to assure that the terms of the treaty are being upheld. The United States checked the Soviet camp as late as last month under this provision.

Fertile Field

Turning to the research work carried on by the United States, Hanessian pointed out that while the number of stations in Antartica has been reduced since the IGY, the amount of research has actually broadened and is now on a permanent basis. Today research projects are being conducted in fields varying from meteorology, oceanology, and solar disturbances to medical research and geology. When polar orbiting satellites become prominent, the antarctic will take

Evaluation Poll

(Continued from page 1)

— Mike Ball; Dabney — Frank Winkler; Fleming — Roger Minear; Lloyd — Volker Vogt; Page — Leon Thomsen; Ricketts — Bill Satterthwaite; Ruddock — Joe Weis. These people can supply additional material and can answer other questions if necessary. Students are urged to fill out the poll immediately upon receiving it and return it by next Monday, February 3.

Improvement Sought

This poll is primarily designed to give the faculty information about methods by which undergraduate teaching methods and course offerings can be improved. Most division chairmen and other faculty members believe this questionnaire can greatly improve the quality of instruction and the selection of material in their course offerings. It is therefore vitally important that everyone taking the poll give serious consideration to this survey. In particular, all responses must be solely one's own opinion and should not be influenced in any way by the statements or opinions of others. The EPC believes that this poll will provide an excellent chance for undergraduates to play an active part in improving their chances to profit from a Caltech education.

on even more importance as an area for research.

One of the major research problems facing the scientists is that of determining the geographical features of the continent. To date, only about 5% of the land has been explored. The exploration is hampered by the huge amounts of snow and ice covering the continent; a 5000 foot mountain may appear to be only 20 feet high because it is buried under tons of snow. Even so, scientists have found that Antarctica is actually an archipelago instead of a solid continent.

Also in Hanessian's busy schedule was a talk on Iran to the H5 Public Affairs class last Tuesday at 11 a.m. The main point that he made was that there has been a great and farreaching change in the policy between the Soviet Union and Iran. This policy started in 1962, and is very important to America.

Krushy Loves 'Em

Hanessian stated that this change was part of Krushchev's policy of co-existence; "the continuation of a kind of war between our way of life and the Soviet's way, without resort to arms." Because of this so called "reapproachment", one finds the curious case of the U.S.S.R. carrying on friendly relations with countries where the Communist Party is outlawed. In Iran this policy seems to have no basis in history. Because of this radical change, the U.S. will have to change its attitude in the Mid-East and, perhaps, in the rest of the world. Few Iranians now believe, although they did a few years ago, that it is likely for Russia to actually invade Iran.

To explain this new policy and the previous one, Hanessian resorted to geography and history. The "border (between the U.S.S.R. and Iran) is hermetically sealed."

Russian Scapegoat

After an attempted takeover by the Soviets in 1945, relations were "stable and unfriendly." The Communists were blamed for everything that went wrong in Iran, and the Soviet Union continually blasted back. In 1953, through the leadership of the U.S., negotiations were started, which led to the formation of CENTO in 1954. The U.S.

failed to join CENTO, so it has a great lack of cohesiveness.

In the summer of 1962 a new Shah, Alam, who was once a Communist, took over. He issued statements that there would be no missile bases in his country. The Soviets offered economic aid, and in November of 1963, the President of the Soviet Union arrived. On the same day he addressed their parliament, an Iranian plane was shot down by Soviets. One possible explanation for this was that someone high in the military wanted to weaken Krushchev's power. Hanessian doubted that this incident would change policy. He added as a final note that this is peaceful coexistence at work and that America must re-examine some of its policy.

Buddhist Speaks

(Continued from page 1)

Prince Siddartha found none to be satisfactory. Finally, he sat beneath a bo tree, resolved to sit there until he reached either death or enlightenment. For 49 days and nights he sat there, until he finally reached enlightenment with the realization that while every effect has a cause, the conditions surrounding the event are also significant in the outcome.

The present basis of Buddhism is embodied in the "Four Noble Truths." These are: the truth of suffering; the truth to cause of suffering; the truth to cessation of cause; the truth of Way.

These are interpreted as meaning that man's anxiety ("suffering") is caused by ignorance, i.e., man's mind cannot encompass all there is to know. But by reaching enlightenment, man can find peace of mind, putting anxiety out.

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