The California Tech California Institute of Technology

Volume LVIII

Pasadena, California, Thursday, October 25, 1956



Many man-hours are spent in supervising construction of the Interhouse Dance.

Pollers measure New houses campus opinion up by 1958

The Caltech YMCA and the Humanities course in Political Parties are conducting a survey designed to provide an accurate political profile of campus opinion. Dr. James C. Davies is coordinating the effort; Norm Ellett is chairman

As of last Friday, about 200 completed guestionnaires were returned. This leaves over 200 still outstanding.

Asked to comment on the validity of the poll, Dr. Davies stated: "It is extremely important for accurate statistical analysis to have all ballots com-pleted. The people to whom the polls were sent were chosen randomly from master lists ob-tained from the Registrar's Office. If one of them with certain political views fails to return his questionnaire, this will give added weight to questionnaires of those with opposite views." These questionnaires should be returned to the office.

Members of the political poll committee are trying to personally contact the delinquent persons and obtain completed questionnaires from them. This task must be finished by tomorrow if the results are to be tabulated in time for publication before the November 6 elections

The housing shortage at Caltech will be over by the fall of 1958, according to W. Herten stein, director of Physical Plant Department. Two new student houses, accommodating a total of 160 men, will be opened then. These will provide enough room to end the overcrowding in the present facilities and to allow all applicants for student housing to live on campus.

No wash basins

Although the new buildings will be of the same size and character as the present houses. they will differ in many details of architecture. Located just north of the Olive Walk, they will be three stories high and modern in design. The rooms will all be doubles, and will not be furnished with wash basins. Also missing will be the alley kitchenettes. The houses will have separate courtyards. lounges, and dining rooms, but will be serviced from a central kitchen.

Student Union

Present plans also include a student union, connected to the new houses by the central kitchen. Throop Club, YMCA, and the Book Store will be located in this building.

Dabney Hall and the YMCA lounge will stay open nights

Last week the Board of Control announced that a new schedule of open hours for Dabney Hall and the Y Lounge has been approved by Buildings & Grounds.

Beginning this week Dabney will remain open until 1 a.m. Monday through Saturday, and on Sunday from noon until mid-The front door, Dabney Lounge, and four second-floor classnight rooms will be open during these hours.

Monday through Friday the Y Lounge will remain open from 5 p.m. until midnight and will be available for student use except for regularly scheduled Y meetings.

The new plan will be in operation this week and next on a trial is. If the areas are used sufficiently during the trial period the arrangement will be extended throughout the remainder of the year.

Techmen shudder as timefor Interhouse draws near

may eat night meal in houses

A plan has been formulated whereby off-campus students may be able to get their evening meal on campus. According to George Green, comptroller, and Foster Strong, dean of freshmen, dinner will be served on a five-day-a-week plan at the training table in the basement of the student house.

Too many freshmen

This year more freshmen than ever before have been refused residency in the already overcrowded student houses. The mengof the student houses, on their poll last year, voted to increase the number of non-residencies in an attempt to pre-serve each house's individual color and spirit in the face of ever rising number of members:-The student house dining rooms are too small to seat all those who wouuld like to eat there. The Greasy Spoon tables take care of breakfast and lunch but there are at present no facilities for an on-campus supper.

Five-meal plan

The new plan calls for five meals a week at \$1.10 per meal until the end of the term. The meals would be served at 6:45. It is hoped that the plan will go into operation this Wednesday. If any off-campus students are interested, it is suggested that they see Mrs. Southworth in the student houses.

Other places suggested for the serving of the meals were the Greasy Spoon and the Athenbut these alternatives eum proved to be not feasible.

Pyschiatric aid now available

Students who want help in problems of an emotional or mental nature should see their appropriate dean for referrals to Dr. Daniel C. Siegel. Dr. Siegel is a psychiatrist attached part-time to the student health services, with an office in the Health Center. For "emergency" cases students can make special arrangements to see Dr. Siegel through the physicians at the Health Center.

Since Dr. Siegel's time on campus is limited, referrals are limited to undergraduates and graduates. Referrals are made by Dean Strong, freshmen; Dean upperclassmen; Eaton. Dean Bohnenblust, graduate students; by the institute physicians, to whom students may go directly. Dr. Weir, formerly Director of student counseling, is now engaged in full-time teaching and research, and is no longer available for direct assistance to stu-

dents or faculty members.

House social chairmen give garbled More students reports of plans for annual affair. by Ford Holtzman

Do the snakes seem to be crawling into their pits faster than usual? Are the "busy" men harder to find than usual? Are the Social Chairmen shedding more tears of self-pity than usual? Don't be clarmed. Rejoice! The Interhouse Dance is The social sector is a sector of the social sector of the

in Ricketts tonight

As a special feature, a concert of representative chamber music will be presented this evening at 8:15 in Rickett's lounge. The Thomas String Quarter will perform.

First on the program is the Sonata a Quattro by Scarlatti. Following this are two quarterts, the Quartet in D Major, K 575, by Mozart, and the Quartet in C Minor Op. 18, No. 4, by Beethoven.

The Thomas String Quartet is only one of many groups coming to Caltech this semester, the other groups will appear in the regular Sunday evening concerts in Dabney lounge. An estimated 150 students and faculty attended the last program.

He made it!

Richard N. Van Kirk was elected Rally Commissioner last Thursday to replace departed Charles Bonwell. He was installed at last Monday's BOD meeting.

Running close second and third in the election race were Linus Pauling and Charley Brown, both write in candi-

Aid for study in Mexico

November 1 1956, is the closing date for application for graduate and undergraduate awards for study in Mexico during 1957, it was announced today by Kenneth Holland, President of the Institute of International Education, 1 East 67th Street, New York City

Sixteen awards are offered by the Mexican Government, through the Mexico-United States Commission on Cultural Cooperation, for the academic year beginning March 1, 1957. Eligibility requirements are: a good knowledge of Spanish; good academic record (and professional record if the applicant is not a recent graduate); good moral character, personality and adaptability; and good health. Preference will be given to graduate students. Only junior and senior year students are eligible to apply for undergraduate scholarships.

Candidates should apply to the U. S. Student Department of the Institute of International Education, the agency which admin-isters the awards.

translate the incoherent palaver and piteous moans of Social Chairmen into newsprint. The following conversations,

though based on fact, proceed largely from this reporter's fevered brain. Blacker

Reporter: Are you John Stevens?

First Troll: No. He is

Stevens: What can I do you for?

Rep: Tell me about the In-ert house for the benefit of the lit-

erate public. Stevens: Well, we're going to have a Jack and the Beanstalk theme. The lounge will be a giant's castle; the band will be on the giant's table. The courtyard will have a beanstalk with clouds around.

- Rep: You're just going to have a beanstalk in the courtyard? Stevens: And clouds.
- Second Troll: And a giant.
- Stevens: Weeeell, maybe a giant. That's Connover's idea. Second Troll: And mine and
- lot of other people's. Rep: Are you going to have a

giant or not? Stevens: Well, maybe. I don't

know, big human figures usually don't work so well. I'm not a glant fan myself.

Rep: Ricketts is going to put genie in the pot. Second Troll: Yeh?

Rep: It's going to tower over

- the student houses. Second Troll: Who are the
- Ricketts Social Chairmen? Rep: Godfrey and Taylor. Second Troll: It sounds like a

Godfrey and Taylor production. Rep: Well, should I put down that you're going to have a giant or not?

Stevens: Weeeell, go ahead and put it in; it doesn't matter. Rep: What are you going to have in the lounge besides a table?

Stevens: Oh, furniture and stuff. All double scale. Rep: Is that all?

Stevens (with deep conviction in his voice): We don't want to have too much. That's the trouble with most Interhouses. They have too much crud in the You've got to leave enough way. room to move around in You might pass this on to the other Social Chairmen. It's no good when people are packed together like sardines. It's just ntt good.

Rep: It sounds exciting to me. Seevens': Yeh. You might tell the other Social Chairmen.

Dabney Rep: Hi, Norm. What's Dab-(Continued on page 5)



Special Release:

Want to win \$5,000 for yourself and another \$5,000 for the scholarship fund of your college?

All you have to do is to win first prize in the current \$41,000 Reader's Digest contest for col-lege students and faculty members. On blanks obtainable at college book stores, you simply list in order the six articles you consider most interesting in the Oc tober issue of the magazine.

You must decide whether Americans are more interested in humor than brains. Will more people read an article on prayer than about the emancipation of Japanese women? Are trading stamps more important than widges? - These are among the subjects covered by articles in the issue.

Contestants with lists closest to the result of a survey of the preferences of Digest readers will receive the prizes. Entries must be postmarked before midnight October 25 and addressed to the Reader's Digest Contest, Box 4, Great Neck, L.I., New вбх York.

There will be 100 prizes of \$10 in book credit from local college book stores. The best entry from each college will receive an additional \$10 in book credit.

(Ed. Note: Suppose that there are N articles in the October issue of the Digest. Then the probability of choosing the six correct stories is 1 in N!/6! (N-6)! The probability of naming the six correct stories in order is. this previous number divided by 6!, or (N-6)!/N! A good estimation of N is about 47, in which case the probability of winning is roughly equal to one in 8 billion. However, don't let us discourage you.)

UNITED ARTISTS

"MAGIC FIRE"

The Story and Music of Richard Wagner COLORADO Bing Crosby Grace Kelly Frank Sinatra "HIGH SOCIETY" UPTOWN "That Certain Feeling" and "GUYS AND DOLLS" STATE SY. 2-7139 RY. 1-0385 WALT DISNEY'S FANTASIA



Board of Control modifiess Honor Code for master keys Last week the Board of Control met in both closed and open

sessions to consider the question of after-hour entry into campus buildings and master keys. The decision reached is somewhat different from that of the Board last year, and therefore should be made clear to the student body.

The ruling of last year's Board on master keys has not been changed. The possession of an unauthorized campus or house master key is a violation of the Honor System.

With regard to entry into campus buildings after the doors are locked, the Board of Control feels that this cannot and should not be enforced through the Honor System. This is not to imply that the BOC endorses the picking of locks, but rather that we feel that this should not be enforced by the student body, but rather by Buildings and Grounds. Therefore, a person entering a locked campus building is taking his own chances with the campus custodians, and is likely to be asked how he obtained entrance to a building.

One may very well ask what the difference is between picking a lock and using a master key. The difference as we see it at this time is on three points. First, the use of master keys became a serious problem last year, not only in the minds of the faculty and the deans, but also in the minds of a great many students. Second, the possession of a master key tends to make the importance of a locked door relatively insignificant in the mind of the person using the key. The habit of using a master key without stopping to think about the lock is not generally looked upon with favor in the outside world and can lead to legal difficulties.

The final point of difference is in the working of the Honor stem itself. If a ruling is not generally accepted, or if its System itself. enforcement is questionable, the Honor System is in danger of weighing itself down with rules, and eventually failing entirely. The possession of master keys has been generally curtailed since last year, and the great majority of students agree that the ruling is a just and correct one. However, because of a great many protests over the ruling last year putting all after-hour entry under the Honor System, and since this rule is, to our way of thinking, unenforcable from its very nature, the rule has been dropped.

There are very few specific rules under the Honor System. However, when one is made it must be made clear to everyone if th Honor System is to operate effectively. Only by the full understanding and cooperation of everyone can, any system such as ours continue to be successful. Consequently, if you have any questions regarding master keys or entry into buildings, do not hesitate to talk to any Board of Control member at any time.

> **Rube Moulton** ASCIT Vice-President

Secretary's Report

DANCING CLASS begins on Wednesday, October 24, with Keith Brown as director.

MUDEO scheduled for Tuesday, November 6.

BLOODMOBILE will be here on Thursday, November 15.

FALL SPORTS BANQUET features Dr. Sterling, President of Stanford, as guest speaker on Tuesday, November 27.

CHRISTMAS DANCE will be Saturday, December 1, with the traditional admissions of toys for underprivileged kiddles. It won't be a sock hop!

ATTENDANCE AT REDLANDS GAME broke all records since 1949 with 350 student body cards.

ICC DANCE DATE CHANGED (in/case you have to call early to get a date). The Pasadena Civic is being used on February 22 by the women's flower society of Pasadena.

Herb Rauch

ASCIT Secretary

Application of psychology extended by Dr. Wier

The man who used to help harried Caltech students solve their difficulties is no longer ovailable as a student counselor Dr. John Weir, Associate Professor of Psychology, this year was relieved of this extra task so that he might be free to devote his time to other more important work. After receiving his BA at UCLA, Dr. Weir served three vers internship the Vacence Administration and provided

years internship in the Veterans Administration and regeived his Doctorate in 1951 as a clinical psychologist. That same year he joined the faculty of the Institute receiving an appointment research associate; two years later he became an Associate

Several interests

Since he came to Caltech, Dr. Weir has had several important interests. They can be saparated into three main topics: counseling, teaching, and research. Since the counseling portion of his position was not the primary part of his duties, when this be came too demanding on his teaching and research it was decided that the situation could be most effectively dealt with by relinquishing the counseling position. In the future, as before Dr. Weir's appointment, the counseling functions will be distributed between the deans, advisers, and faculty in general. For situations that require a more professional approach the Institute has engaged the serv-ices of Dr. Daniel C. Siegel a psychiatrist. Dr. Siegel may be seen by appointment on Tuesday afternoons

New courses

Among the most welcome innovations in the curriculum is the course in human relations offered to sophomores. Dr. Weir is the driving force behind this course. He is in large measure responsible for its content as well as its inception. It is a definite possibility that other courses of similar nature will be developed in the next few years for all students interested.

Another course which Dr. Weir is currently teaching and very interested in is General Psychology, a senior humanities elective. He is also in charge of the special remedial reading course.

Of primary interest to him is the research he has been conducting here for the past several years. The nature of this work can probably be best illustrated by some of the projects that he has done. Perhaps the best known of his efforts is the Alumni Survey published in several issues of **Engineering** Engineering and Science. In this survey he gathers statisitics on such items as: income in its various relations to grades, activities, deobtained; opinions about nolitics, prejudices, religion.



Another of this jobs was the difficult one of evaluating the College Board Entrance Examinations, a complete story in itself! A couple of years ago he performed a study of the Cal-tech chapter of Tau Beta Pi in which he gained information useful in evaluating the performance of the students at an institution such as Caltech.

Apathy hurts bomb petition

The recent petitions that have been circulated on campus concerning the stopping of the H-bomb tests have, in the words of one supporter "gone over like a lead balloon". The apathy and lethargic attitudes of the students on issues concerning the entire nation is appalling. Out of the numerous petitions distributed, only the one in front of Dabney Hall had any number of serious signers. Those posted in the houses had all sorts of endorsers. Such famous names as Joe P. Troll, Richard Nixon, Herman Talmadge, and Rastus Spasmaguody all appeared on the petition.



Dr. Wier

etc.; civic activities participated in, in relation to undergraduate activity and a host of other interesting information.

Evaluates students

YMCA News

A forum, two special speakers, and the results of the religious highlight the YMCA news this week.

Members of Parliament

Mr. George Thomas, Member Parliament, teacher, and аf world traveler, will speak 7:30 tonight in the YMCA lounge. Mr Thomas was a teacher in Cardiff, Glamorganshire, Wales. He followed this with a career as a member of parliament since 1945. This year he turned world traveler and visited, among other places, Russia. Refreshments will be served after the speech tonight.

Political forum

A forum on the political picture, sponsored by the YMCA, will feature two Democrats and two Republicans from the fac-This will be held in Dabulty. ney lounge at 7:30 on Wednes-day, October 31. The two Democrats are Linus Pauling, chairman of the division of Chemis-try, and Peter Fay, history proor. William Corcoran, chemical engineering professor, and Horace Gilbert, economics professor will present a Republican's point of view.

Quizzing of Democrat

A special Y Athenaeum forum on Thursday, November 1, will present Richard Richards. Mr. Richards was a prominent figure in the recent Democratic con-Angeles attorney, is the state Senator from Los Angeles county. Any undergraduate in coat and tie is invited at 12:30. Film series

The committee in charge of organizing the YMČA film series met to make tentative plans for the films to be shown second term. If nothing unexpected happens to change the committee's proposal, the series will

S. J. Bernalds Tob. Co., Winston-Salam, N. C.

Religious poll

The results of the question on religion on the cards filled in during registration shows the following

| | No preference | 168 | 25.6% | |
|---|---------------------|------|---------|---|
| | Presbyterian | 74 | 11.3 | |
| | Jewish | 74 | 11.3 | * |
| | Methodist | 67 | 10.2 | |
| | Catholic | 59 | 9.0 | |
| | | | an 2""" | |
| | Episcopal | | 6.9 | |
| | Lutheran | 36 * | 5.5 | |
| | Protestant | 35 | 5.3 | |
| | Congregational | 18 | 2.8 | |
| | Baptist | 16 | 2.5 | |
| | Mormon | 15 | 2.3 | |
| - | Christian Scientist | -10- | 1.6 | |
| | Christian Disciples | 11 | 1.6 | |
| | Unitarian | 8 | 1.2 | |
| | Miscellaneous | 18 | 2.8 | |
| | - | | | |
| | | 664 | 99.9% | |

Star gazers study Mars

The extreme proximity of Mars during these past few months has brought out a rash of articles, stories, speculations, by both amateur and profes-sional astronomers, all eagerly expounding views on the small planet

One amateur who is very much interested in Mars is our own Dr. Robert Leighton professor of physics. Dr. Leighton, whose field of study is in the realm of cosmic rays, has been avidly interested in astronomy ever since he was in high school. For five evenings last week, he invited neighbors, students, and fellow faculty members to gaze through his homemade sixteeninch telescope to their hearts content.

THE CALIFORNIA TECH

Debaters go to Santa Barbara

Caltech's thirty-fifth debate season rolls this Friday and Saturday as the Pi Kappa debate squad enters the individual events tournament at University of California at Santa Barbara. Present will be Dave Bregman, Dave Frager, Hap Gier, Tom Morton, Alan Porush and Ken Scholtz.

The tourney this weekend will consist of extemporaneous discussions and talks on some topic concerning the Middle East, oratory, and speeches on literary topics. No debate as such will be eincluded in this practic meet.

Our chapter of Pi Kappa Delta is unusual in that it wins "superior" ratings and top places in major contests with little formal preparation, according to Ken Scholtz, secretary.

Accreditation team visits Tech campus

Observation of undergraduate classes and informal questioning of Caltech students will be a part of the visit of the Western College Association accredita-tion survey team, October 30 thru November 1. Every five years, a survey team composed of university professors visits Caltech and other member schools to determine accreditation, which has bearing on the G. I. Bill Merit Scholarships and like accreditations.

The result of all this intense eye-straining was not · very world-shaking. Nothing much could be seen except the polar caps, and, by the very astute, a few faint markings. Dr. Leigh-ton expressed relief after his open house, and said he was glad that Mars came so close rarely.

Element Synthesis lecture scheduled

Element Synthesis in the -Stars" is the title of this week's. Friday Evening Demonstration Lecture here. The lecture will Friday Evening Demonstration. Lecture here. The lecture will be given by Dr. William A. Fowler, professor of physics, in Room 201, Bridge at 7:30 p.m. The general public is invited to attend.

Dr. Fowler received his PhD from the California Institute of Technology in 1936. He became assistant professor of physics in 1939, associate professor in 1942 and professor in 1946. His major fields of interest have been the structure, energy levels and transmutation of light nuclei; artificial radioactivity; sources of the energy of stars; and in-

DOCUMENTARY FILM CAMERAMAN

ferman Kitchen

Craig, Pat host **Ricketts Friday**

Because of a football game at Whittier this Saturday night, all of the campus social affairs will take place on Friday.

Ricketts will retire to the home of Craig Elliott's girl, Pat Covington, this Friday night for a "rousing good time" in the relative seclusion of a private house

Blacker is throwing a Halloween party complete with cos-tumes and stuff, Throop, Dabney, and Fleming are getting to-gether in the famous resort town of Sunland (right next to Tujunga) for the first barn dance of the year.





HAVE A REAL CIGARETTE ... have a

Discover the difference between "just smoking" and Camels!

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THE CALIFORNIA TECH

Campus Brewins

The perfect squelch (of the week, at least) was intentionally overheard at Scripps during the Blacker exchange with Dorsey. A very beakish Schmippsy was seeking to discover the great mentality which she had heard lurked in all Techmen. In this case, she was seeking to discover it in Ger (the Bear) Lawrence.

Said she: "Gosh, you go to Caltech? That's wonderful! Er, what do you major in?"

Said he: "I don't know I haven't been to class yet." The Schimppsy stopped seeking.

Victorian? I guess!

Re the same Blacker versus Dorsey exchange. It seems that the festivities came to an abrupt end at 10:30 (yes, that's 10:30) because of a rule that must have originated with Queen Victoria.

As the housemother rushed the Blacker men(?) out, admonlishing, "Hurry up and leave, please! The front gate will be locked" one of the celverer boyth yelled, "Does this mean we'll have to spend the night here?" The expression on the housemother's face was memorable.

Wow!

At last Saturday's football game with Redlands, we noticed five wayward girls wandering about the periphery of the Nose Bowl, haggling with the noble ticket salesman about getting into the game. Along came clean-cut Clark Bell, and with

The fair Sec's



Barbara Nallick

Luckly for the other candidates most of the campus never saw Throop Club's write-in nominee for Homecoming Queen. Her name is Barbara Nallick; her presence has greatly increased Techmen's interest in the placement office where she works.

Besides being pleasing to look at and talk with, she swims, hikes, iceskates, misses the snow she enjoyed in New York, and, get this, likes Tech! This last characteristic is probably because everyone who knows her is doing his best to be entertaining. /

This reporter's friends have all gone to the placement office to check on interview schedules at least twice this week. Why don't you?

Fisher's RESTAURANT and COFFEE SHOP 3589 E. Colorado St. A Tech Favorite Since 1947 Open 7:00 a.m. to 1:00 pim.' 7 Days a Week

one fell swoop settled the whole matter by taking all five, quite ostentationsly, inside. To pick up five girls—no mean feat, we assure—rates an award of some sort, and Clark probably got his, since (a) every girl was a queen; (b) three of them had swimming pools (statistics supplied by C Bell). Wow!

- Stags, rags, jags

Some of the more society-conscious flemingoes dressed it up and staggered to the Breastraunch Inlock Tea and Fashion Show. While ogling the models (nome of which was over fourteen) they were appalled when-Miss Piggy Nose, girl MC, said, "This maternity smock is ideal for the VERY popular Caltech exchanges!"

Neatest move of the week As Blivet and Snider scaled the wire fence after the gyrene game, R. Herlein offered his advice in a clear distinct voice. "Watch out for your "***!!"

Later, this sage simpered, "How was I supposed to know Rabbit's date was" standing behind me?"

Nothing at all has happened in Ricketts house. Nothing at all.

by Jacob Lublimer.

In the October issue of the Atlantic Monthly there is an interesting discussion by the magazine's music editor, John E. Conly, of the relative merits of "live" (i.e. heard at concerts)and "recorded" music from the point of view of the listener. That "live" music gets the short end of Mr. Conly's stick is no surprise, since, as the editor of **High Fidelity**, he is true to the electronic cause. Had the author been a concert manager, the conclusion, L suspect, would havebeen different.

"Tinkle-tankle"

There is one serious school of music, for which the question of live versus recorded music is academic, if it is raised at allnamely the "tinkle-tankfe" school as one English critic called it), which is currently in the forefront of young composers in Germany, France and Italy. These composers, including Giselher Klebe, Karlheinz Stockhausen and Pierre Boulez, write much of their music not on staffs, but on semilogarithmic graph paper, indicating frequencies durations, and, parametrically, intensities. (Ed. note: That will be \$50, Lubiner.) The sounds are produced electronically and put together on tape, according to specifications. Twelve tones

The Lively Arts

Actually, the development is not so revolutionary as if appears. The revolution, if there was one, came more than forty years ago, when Schoenberg, Webern and Berg gave up free, "tonal" melody as the basis of "nusical creativity by introducing the "twelve-tone" technique, by which each of the twelve tones of the' even-tempered scale is used throughout a composition in accordance with a rigid, pre-established pattern of "tone row". Since, once the basic "row" has been selected, the melodies (if they can be called that) virtually write themselves, the composer's ingenuity is expressed chiefly through his use of rhythm and of tone color.

Thursday, October 25, 1956

Who knows?

There remains only the question made famous by Charlie Brown of "Peanuts"—namely, "But is it art!" Frankly, I have seen a few pages of "score" (they reminded me of a EE lab report), and I have heard performances of some of the more "conventional" works of Stockhausen and Klebe (the audience was, musically, quite sophisti-cated; about one-half left the hall). In any case, it is unwise to judge the possibilities of a new artistic medium by a few pioneering experiments. Look at the progress the movies have made since "Tillie's Punctured Romance". Or have they?

PERSONALIZED SERVICE APPOINTMENTS IF-DESIRED ASK ANY UPPERCLASSMAN - OUR BEST ADVERTISERS Carl's Caltech Barbers 906 East California, asser Lake SYcamore 3-7554

What young people are doing at General Electric $1 \frac{\partial u}{\partial \alpha} + \frac{v}{AB} \frac{\partial A}{\partial \alpha} - \frac{w}{B}$

Young mathematician helps pace engineering advances

Recently General Electric developed a compact, new motor for industrial use. But before the motor could be put into automatic production, one difficulty remained: to design a protective end shield that would confine any possible explosion to the motor itself.

The manywho solved the tough mathematical problems involved is R. A. "Pete" Powell — a mathematical analyst whose job is to assist other engineers in math problems which arise in any number of different projects.

Powell's Work is Varied and Important

Because he is not tied down to any one project, Powell seldom has two similar assignments. Taking established engineering and mathematical principles, some of them extremely complicated, Powell applies them to advanced engineering problems. In doing this, Pete is able to make such calculations as the distortion of a small part of a jet engine caused by vibrations, the deflection occurring in a turbine part when it runs at operational speeds, or the forces exerted upon a rotating shaft by lubricants.

27,000 College Graduates at General Electric

When "Pete" Powell came to General Electric in 1953, he already knew the kind of work he wanted to do. Like each of our 27,000 college-graduate employees, he is being given the chance to grow and realize his full potential. For General Electric has long believed this: Whenever fresh young minds are given freedom to make progress, everybody benefits — the individual, the Company, and the country.

Educational Relations, General Electric Company, Schenectady 5; New York



INTERHOUSE DANCE

(Continued from page 1)

ney going to do for the Interhouse?

Ellet: Did you write the article on our social program last week? Rep: I didn't do it.

Ellet: Our theater party was on Saturday, not Friday.

Rep: What about the Inter house?

Ellet: You didn't even mention what we did Friday.

Rep: Interhouse?

Third Troll: Our theme will be Toyland.

Rep: Well, what are you going to have in the lounge? Third Troll: Humpty dumpty,

Gilbert chemistry set, mural decorations .

Rep: What are these murals going to depict, fairy tails? Ellet: No, more like Mother

Goose. That'll be more appropriate.

Third Troll: And balloons on the ceiling

Rep: What will you have in the lounge?

Ellet: I don't think we should tell-vou Third Troll: You can tell him

the name. Ellet: Well, OK. Volcorno!

Rep: Which? Ellet: Volcorno! V-o-l-c-o-r-n-o. Volcorni!

Rep: What's that?

Ellet: I can't tell you. We're not sure it will work, and we don't want you to put some-thing in the paper that we might not earry through.

Rep: What else? Third Troll:, A ginger bread house, merry-go-round, a toy soldier

Ellet: We're going to have Paul Smith's band.

Rep: What's a Volcorno?

Ellet: Come to the Interhouse and find out. Fleming

Gilson: Come in. What can I do you for?

Rep: The Interhouse.

Gilson: Yes, fans, we are going to have an Interhouse. Pull up a bed and sit down.

Rep: What will your theme Gilson: A Venitian theme. We don't have a fancy name for it yet. Something like "Venice in the Moonlight", or "The Canals of Venice", or; but we don't need a name. What's in a name? A rose by any other name is a rose

is a rose is a rose. **Rep:** What'll be in the courtyard

Gilson: In the courtyard. Well, a canal with a gondola in it; a fountain, a clocktower with men beatingonbells and stained glasswindows and cathedralsbut nopigeons thereouttolunch and blttofogoshmpffffft . .

Rep: May I quote you?

Gilson: Yes, indeed you may. You may preserve everything I say. Don't let me stop you. Go right ahead; I don't .

Rep: Will you have cabbages floating down the canal? Gilson: Cabbages!! I should

say not. We'll have rutabagas and truffles with caviar. No cabbages for us. We don't bother with such mundane trifles.

Wiberg (crawling through the window): Hey Gilson. Do you want to go out and eat it?

Gilson: Yo ire un momento. Good heavens!! I have the red plague on my feet. Fourth Troll: I wonder how

they got so red. Gilson: I don't know. Oh,

probably from those boots I've been wearing all day. They were tanned. Now my feet are tanned Rep: What about the lounge?

Gilson: Well, what about the lounge? Hack, hack. (For the benefit of the insensitive, Gilson is coughing.) Are you still here' Hack, hack. Don't worry. Al great artists are consumptive They always die young.

Rep: The lounge.

Gilson: The lounge will be made into a street scene with shops, sidewalk cafes, flower markets, etc., usw,

Rep: Where'll you dance?

Gilson: In the dining room. There'll be a spiral staircase vanishing in the distance. Hack, hack. With various lighting Fifth ..Troll: Hey, Gilson. Whatyadoin?

Rep: He's dving young. Gilson: Lighting's the thing. If you have the proper lighting you can make anything look good. White light is not too good. It shows what you have too well.

Rep: Anything else in the lounge?

Gilson: At one end there will a sort of bas relief effect with skylines superimposed on one another. We'll splash blue light on the whole thing. Lighting's the thing. With proper lighting you can make anything look good . .

Rep: Thank you Mr. Gilson Gilson: White light's no good; it shows the

Ricketts

Taylor: Come in. (Talking on the telephone) Whose a pill? Awww, you don't Yes? . really think so? . . . I'm impressed. . . . Well, what about He's got a '56 Friday? You mean he'll Chevie? stoop to talk to you? . ». . I'm impressed . . . Thursday? Just a minute I'll look on my calen-dar Thursday is OK but still pill isn't I'm im-pressed Goodbye Really we should get together . Good I'm impressed Good-bye. (click) Operator, how much will that call I just placed cost?

Rep: Are you through?

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THI FIDELIJY - HI FIDELITY - HI FIDELITY - HI FIDELITY

Taylor: What can I do you for? Rep: What about the Inter-

THE CALIFORNIA TECH

house? Taylor: Just a minute. Thirty-eight units!! I'll charge half of

it to the House. It started out as a House call. What's half of thirty-eight?

Rep: Twelve and two-thirds. What about the Interhouse?

Taylor: We're going to have an Arabian Nights theme. The lounge will be an Arabian palace with a city outside. At one end there will be charcoal braziers which will flash colored flames intermittently.

Rep: This city will be in the ounge?

Taylor: Nineteen units! That's fortune. Uhhh, no. We'll have a false wall in the lounge with fancy windows in it through which will be seen the city. Rep: Will the city be a painting

Taylor: No. There will be little houses and mosques and stu made out of paper mache and that sort of crud.

Rep: What about the courtvard?

Taylor: As you enter through the entrance from Blacker, you will walk through a torn page in a book .

Rep: The Koran?

Taylor: I guess. You'll walk into Ali Baba's cave filled with all sorts of loot

Rep: Gold and silver? Taylor: Hmmmmm Sure

Rep: And uranium, and US notes, and Suez canal bank

voui

stock? Taylor: (no comment)

Rep: Don't let me bother you. Taylor: Don't worry, I won't. Anyway, when you pass through the cave, you'll see a genie coming out of a lamp on the pot,

towering over houses . . . Rep: Towering over the student houses?

the student

Rep: Yes Rep: But how are you going to do it. You're not sculptors. Taylor: With chicken wire and

paper mache . Rep: I don't believe it.

Taylor: Well, if it doesn't

work, we won't have it. But I think it will work. Rep: Anything else in the

courtyard?

Taylor: Yeh, a flying carpet. Rep: A flying carpet?

Taylor: Yeh.

Rep: Goodbye

Taylor: Have faith.

Throop

Rep: Gene,, when can I talk to you about the Interhouse? What about right Robkin:

now? Robkins: Now, what can I do for you?

Rep: The Interhouse.

Robkins: Yes. We're going to have an interplanetary, space station theme. At one end of the lounge we will have a false glass wall with planents and twinkling stars and so forth on the other side of the glass. At the other end we'll nave a refueling tank where, ahem, you can get refreshed. And, oh yes, there

future is

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education.

will be an airlock contraption at the entrance. Rep: What about the court-

Page Five

yard? Robkin: Nothing in the court-

yard. Rep: Nothing.

Robkin: We were thinking of having a modern utilities theme We'd build a big toilet in the lounge. People would dance in the pot. They'd enter through the drain.

Rep: Would you flush that down the drain?

Robkin: We weren't planning on it. Anyway we thought the space station theme would be more appropriate.

Rep: Really? Can you tell me more about these glassed in planets?

Robkin: The class is starting now. Can you see me tomorrow afternoon?

Rep: No. The paper has to be put to bed tonight. Is there any major item that you may have left out?

Robkin: No. that's all we're going to do.

Rep: OK. I guess I'll have to be satisfied with the material I've got.

Welcomol

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Personal Interviews

ON CAMPUS

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THE CALIFORNIA TECH

Frosh Sports Roundup

by Brad Efron

Beaver gridders to travel for Whittier tilt saturday

Caltech's football team moves to Whittier this Saturday night for their third conference pigskin engagement. The Beavers will try to snap a three game losing streak at the expense of the high Rying Poets. In their last two encounters Whittier mattled Riverside, 59.0, and stung Occidental, 32-14.

The Poets are definite title contenders at this writing. The Occidental encounter was pegged as a tossup, but sophomore tailback Gary Campbell threw four TD passes to spark the Whittier offense. Campbell, a junior college All-American at Fullerton last year, will amply test Tech's pass defense.

The Beavers, whose offense was sputtering in two conference outings, finally came to life against Barstow last week. If Tech can keep their offense alive and manage to contain Whittier's fine passing, then this week's tilt looms as a real contest. Lineups:

| | | Wbittier |
|---------------------|-----|-----------------------|
| Bill Moeur (150) | LE | Ed Wynkoop (160) |
| | | John McMurty (185) |
| Russ Pitzer (180) | LG | Bill Brashears (185) |
| Lance Hays (175) | C | Dick Ferguson (185) |
| Jim-Snyder (185) | RG | Dave Jordan (190) |
| Larry Whitlow (215) | RT. | Charles McMurty (265) |
| Ed Nelson (185) | RE | |
| Don Stocking (145) | LH | Vince Deveney (155) |
| Ed Krehbiel (187) | FB | |
| Chuck Malone (175) | | Jon Scharer (175) |
| Dick Van Kirk (165) | QB | |

Oxy bashes Beavers The toy tigers from Occidental beat a scrappy but outplayed Caltech footbalt team 43-0 last Saturday. It was a rugged, hard fought game all the way, with several Caltech frosh receiving injuries. Back Al Laderman, who was outstanding in the first part of the game, was forced to leave the field with a twisted ankle at the beginning of the second quarter. Ends Herb Hartung and Sam Tratter and line-backer Carl Gotchail all turned in fine games. Best performances of the day on the Occidental side were given by two_rather_thin_cheer-leaders, wearing orange beanies.

Water polo is the major sport at Caltech to at least fourteen Tech freshmen. Led by coach Warren Emery, these boys swim two hours a day, every day, to maintain the terrific endurance necessary in waterpolo. Team members are: forwards—Walt Stoltz, Paul Widess, Pete Rony, Don Voet, Bob Thompson, and Dave Mitchell; guards—Doug Dunham, Dennis Johnson, Kent Frewing, and Jerry Wilhelmy; centerbacks—Dave Tucker and Ken Doughty; goalies—Mike Mann and Dave Singmaster.



So she went for the full count at a high-priced beauty saloon and bought several quarts of Midnight on the Pyramids.

But Caesar wasn't buying the pitch. "Hmmm," thinks Cleo, "I'll finesse the Queenship with my ace."

Whereupon she sauntered in with several tankards of the fine beer that Egyptians had been brewing for thousands of years. (Let's face it—here comes the commercial.)

"By Jupiter," said Julie, "this is good! Such clear, sparkling brilliance! Such refreshing flavor! Such creamy foam! Be mine... be Queen... but above all be generous with this delightful brew! Wherever did you learn to make it?"

"Why ... my mummy taught me," she answered coyly, passing him a pretzel.

And from then on, Cleo clung to Caesar; even in Rome where she heard a soothsayer mutter something about the Ides of March.

Reversion of the second second

"Ah, the Ides of March," exclaimed Cleo, "that's Bock Beer time in Egypt."

> Not long after, Caesar got rubbed out, and Cleo got herself back to Egypt where she carried on with Marc Anthony until Augustus upped and fixed his wagon. Anthony did himself in and Cleo did likewise when her charms failed to awe Augustus.

> "I'll take a short bier," said Cleo as she lay dying from the asp's sting.

And so ended the career of one of the best salesmen that beer ever had.

MORAL: You, too, can make social conquests with the help of fine beer. Treat a friend to a bottle of Budweiser. And (unless he's a tightwal) he's sure to return the compliment.





What Cleopatra taught Caesar

.She asp ed for it

Once upon a time there was a snazzy squab named Cleopatra living in Egypt. She came from a very good family and had a figure like a million bucks,

One day she met Julius Caesar, who was Roamin' Egypt on a very liberal expense account.

"Ah ha," thinks Cleo, "here is where I create about six pages for *The Decline and Fall of the Roman Empire*. When I'm through with this boy, I'll be Queen of Egypt and he'll be selling his memoirs in drugstores for two-bits a copy." The Bulldogs opened the scor-ing quickly, as they stopped Cal-tech's opening offensive drive

at the four yard line and scored in five plays, the drive culminat-ing in a 38 yard TD pass by

The score mounted to 19-0 in

the second quarter, as Ryan hit two more receivers on scoring

passes. The Techmen took the ensuing kickoff and marched 80

yards to score, with fullback Ed Krehbiel banging the ball over from the six yard line. The

from the six yard line. The halftime score stood at 19-6 in favor of the Marines.

In the second half the Beaver ground attack produced three

more touchdowns, as Charley

Malone, Don Stocking, and Bob Ingram hit the scoring column

for Caltech. The 25 points scored by Cal-tech represented the highest point total recorded, this season

against Barstow, and the sum

total of the Beaver yardage came

in running plays, as the Tech-

men failed to complete a pass. Ed Krehbiel and Charley Ma-

lone were Caltech's biggest of-fensive weapons, with Krehbiel picking up 154 yards in 25 car-

ries, and Malone gaining 105 in 19 attempts. Dick Van Kirk dis-

played a superb kicking foot, as

he averaged 43 yards per punt

CIT Barstow

12

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/20

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22

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6

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38

40.7 /

38.6

J-10

0 6 12 7 25 6 13 7 13 39

for the game.

First downs

Passes comp.

Punts, no.

Punts, ave.

Fumbles

Barstow

Passes int. by.

Kickoffs, Ave.

Yards passing

Passes att.

Rvan.

Barstow nudges

Barstow Marine Depot's air-minded Bulldogs displayed a superb passing game to outscore Caltech's varsity footballers, 39-25, in an offensive duel Saturday night at Barstow. The Beavers displayed their biggest ground offensive of the season, grinding out 376 yards

rushing in four long seoring drives. Barstow's offense centered around guarterback-coach Lt. Pat Barstow's offense centered around guarterback-coach Lt. Pat Use principal and the Green Bay Packers, who completed 13 of 18

Ryan, property of the Green Bay Packers, who completed 13 of 18 pass attempts for 233 yards and five touchdowns. His pinpoint passing kept the Beaver defenses spread out, and the Buildogs picked up 203 yards on the ground.

Pomona.

Caltech, 39-25

THE CALIFORNIA TECH

Mustangs mop Millermen, 5-1 many miscues

Caltech's varsity soccer team opened its league season, Saturday, losing to Cal Poly of San Luis Obispo, 5-1. Cal Poly was gifted with several excellent players led by their center for-ward. Caltech's lone goal was scored by Bob Norton on a penalty.

Cal Poly is picked to take the crown this year and Tech put up a good fight. The score is not indicative of the way the battle really went, however. Outstanding for the techmen were the two insides, Steve Makk and Luis Baez-Duarte. This combo effectively took care of the opposing halfbacks on defense and pushed the ball up on offense. Thin backfield

The main trouble with the Tech team so far is the lack of replacements in the backfield, especially at the halfback posi-tions. When the first string went out, the defense had several holes of which the Mustang forward line took full advantage.

The junior varsity traveled to Westwood to meet ther Bruin counterparts. The trip was for nought however, as UCLA tal-leyed five times while the Beavers were being blanked. Hugo Fischer, the Tech right inside, played a very spirited game but was forced to take a secondary position after a disagreement with the referee. **Touring Pros**

Statistics were received from a touring soccer team from Jerome, Arizona, which is looking for games with local competi-Advanced notices indicate that the Superbas, as they are called, are headed by some Latin American all-stars, including Ignatz Kołowski, Mordecai Wong, Tiburcio Gonzales, Alphonso Bedoya and E. Temev Ankirk. The Tech team hopes it can meet this team to gain experience.

tion.

Look! Van Kirk

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|----------|----------|-------|------------------------------|--------|-------------|
| Team | Won | Lost | Points | Points | Pts. |
| Ricketts | | · 1 · | 221/2 | * O | 221/2 |
| Throop | | 1 | 22 1/2 | 0 | 221/2 |
| Blacker | 2 | 2 | 12 3/2 | 15 | 27% |
| Dabney | 2 | 2 | 121/2 | 9 | 21 3/2 |
| Fleming | 0 | 4 | 5 | 12 | <u>s 17</u> |

On Every Campus... College Men

and Women are discovering why

Outstanding foulup of the day occurred when the referee threw the ball over the heads of two ers lined up for a face off, com-players lined up for a face off, completely mystifying all concerned. Also, his erratic foul calling was more clear after he blew his whistle and then decided there was no foul. Next he called J. V.

Vince Taylor for standing on the bottom when Vince was not near the ball, an act which does not count as a foul.

Poloists lose to

Pomona varsity

by Don Wiberg

weirdest refereeing this reporter

has ever seen, Pomona set back

the championship hopes of our water, polo team, 6-2, Friday at

Highlighted by some of the

However, the worst blow came when the Beavers were deprived of star scorer Clarke Rees' services with three quarters left. The referee decided to call a foul/on Clarke for hitting a Pomona man in the leg with his stomach. Rees replied, while swimming back to his position, "Oh, for God's sake!" At this impertinence, our Puritan arbiter threw him out of the game for cursing.

Receiving this setback, the team decided to fight harder. Velinty took this to heart and promptly fouled out, followed a quarter later by Taylor, who dragged his Pomona guard with him

The defense shone consistently throughout the game. Ed Park proved he is one of the best guards in the league, completely stopping Pomona's leading scorer. Keith Martin played well at guard during the latter stages of the frame and showed he can pass the ball.

It is too bad this had to happen, especially after the team showed its superiority. They led 2-1 in the first quarter while scoring at the more defensible shallow⁴ end. When Pomona plays here later this fall,







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Page Seven



Thursday, October 25, 1956

Darrell Stuart

Or how to paint your way up the ladder

You hear a lot of talk these days about the danger of big companies getting bigger.

"What people overlook is that every big company creates opportunity for small ones to start and grow strong. I'm a good example.

"I quit school at 15 and went to work as an apprentice painter. When I was 22 I started a little decorating business in Santa Barbara, ·California.

"In 1930-when I was 33-I had an idea I could do better by specializing. So I bid on painting a Union Oil service station. I got the contract, gave my decorating business to my superintendent, and started to specialize.



DARRELL STUART, PAINTING & DECORATING, 1919

"I had a truck, a hired hand, and \$1000 I'd borrowed from the bank. I did a better paint job on that first station than Union had ever been able to get for the money-and still made \$40. As a result, I kept getting more contracts and borrowing more money. Profits I put back into the business for equipment.

"Today, Darrell Stuart Inc. gets most of the paint work for Union Oil's marketing department, and a sizeable amount from other de-



DARRELL STUART: "BIG BUSINESS IS THE BEST FRIEND AND CUSTOMER SMALL BUSINESS HAS."

partments, too. We still bid competitively on every job-and still do a better one than Union itself can do any other way.

"We employ over 200 people, work 92 trucks and own our own building, mortgage-free. Last year we grossed over a million dollars.

ONE OF DARRELL STUART'S JOBS: THE POPULAR UNION OIL STORAGE-TANK HALLOWEEN PUMPKIN.



"But the point is: if Union Oil hadn't given me the chance, I'd never have had the incentive to come this far. In my book, big business is the best friend-and customer-small business has!"

Last year our customers paid us a record \$368,760,900. That's strictly big business.

But when you take a closer look, you find we spent 72% of that \$368,760,900 with more than fifteen thousand other companies and individuals with whom we do business.

Many of these companies-like Stuart'shave grown with us. As long as we continue to do a better job, there's a good chance some of those small companies will be the big ones of tomorrow. *

YOUR COMMENTS ARE INVITED: Write: The Chairman of the Board, Union Oil Company, Union Oil Building, 617 West 7th Street, Los Angeles 17, California

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