

CALIFORNIA TECH

California Institute of Technology

Volume LIV

Pasadena, California, Thursday, October 9, 1952

No. 2

Assembly to feature "Jazzics vs. Classics"

Term's first assembly next Thursday Pianist paints similarities, differences

Maurice Zam will provide Caltech with its first assembly of the year on this coming Thursday, October 16. Mr. Zam will give a program entitled "Jazzics vs. Classics," in which he brilliantly illustrates on the piano not only the masterpieces of Bach, Mozart, Beethoven and Chopin, but also the fascinating fact that jazz has fertilized the creative imaginations of some of the most serious musical minds of this century, such as Debussy, Ravel, Stravinsky, and Copland.

Influence of classics

Paralleling this, Mr. Zam demonstrates with equal penetration the influence of the classics on such jazz greats as Gershwin, Louis Armstrong, Bix Beiderbecke, and Duke Ellington.

Starts at 17

Maurice Zam was born in New York City. He has studied with Helen Hopekirk, and later with Artur Schnabel in Europe. At the age of 17 he was illustrating musical lectures at Harvard, and subsequently at many other colleges and universities. He has performed on the concert stage throughout Europe and America.

Quartet opens chamber series

The Caltech Chamber Music Series begins its third year of concerts this Sunday evening, October 12, when it presents the Hollywood String Quartet. This will be the first of 13 programs, all featuring established chamber music players of Southern California. The concerts are on Sunday evenings at eight o'clock in Dabney Lounge, and all are given without admission charge. Students are particularly welcome, and the evenings are planned so that the programs end by nine-thirty leaving time for study.

Three styles featured

The Hollywood Quartet has now attained great reputation through its numerous recordings for Capitol records. Their concert on the Coleman Series at the Pasadena Playhouse last season was one of the best of this series, so Tech is fortunate to secure them for the opening program. They will perform quartets by Haydn, Dvorak and Walter Piston, thus giving students examples of three styles of ensemble writing from three periods.

More concerts than ever

The continued and increased support of the Recording Industry Trust Fund has enabled the Humanities Division to increase the number of chamber music concerts scheduled for this school year. It is hoped that this will make this outstanding series a permanent feature at Caltech.

Campus Calendar

FRIDAY, OCTOBER 10
8:00 Varsity football vs. Pomona at the Rose Bowl
SUNDAY, OCTOBER 12
8:00 Chamber Music Concert, Dabney Lounge
MONDAY, OCTOBER 13
7:30 Film Classic Series at Culbertson

Class of '54 still smallest with 123

Approximately 1032 students have registered at Caltech for the first term, including 424 graduates. The sophomores remain the healthiest class with 179 members, down slightly from 199 at the beginning of their frosh year.

Juniors sinking

The junior class was depleted further with a net loss of twelve members bring their total to 123, and thus edging out the senior class of 129 for the cellar.

The approximate registration data:

Freshmen	177
Sophomores	179
Juniors	123
Seniors	129
	608
Graduates	424
Total	1032

Eleven transfer students were included in the undergraduate totals. To now, 117 freshmen have signed up for AFROTC.

Dance in Dabney after the game

There will be a dance in Dabney Hall Lounge tomorrow night immediately following the football game with Pomona. There will be a dance band there and refreshments will be served. If you can't bring a date, bring yourself: the refreshments are for all.

Film Art Series begins with "Adventures of Chico"

To replace the now defunct Film Classics, a group of graduate students headed by Martin Karplus, have organized a new film series called the Film Art Society.

The first film, to be presented this Monday, is *Adventures of Chico*. This is an American film which was made in 1937 and was produced and directed by Stacey and Horace Woodward. "In the 10 or 12 years since this film was made, there probably has not been an audience that did not think it ranked with the best it ever saw. It is the simple story of a Mexican boy's adventures with animals that inhabit the land he lives," said Cecile Carr in the *Saturday Review of Literature*.

Last year's series was spon-

Shop deadline

The deadline for applying for membership in the Student Shop is tomorrow, Friday, October 10. Those interested should see Phil Birkeland, R20, Bill Gardner, R73, Jim Crosby, B34, Ed Gauss, B56, or Jerry Ross, OC. Applications for membership will not again be accepted until near the end of this term.

Maj. Steffy new AS Prof.

Major Steffy, a 7-plane ace from WW II, is the new AFROTC upper class instructor replacing Colonel Fleming. Before coming to Tech, Major Steffy was a jet-pilot instructor and director of training at Luke Air Force Base in Phoenix, Ariz.

Dean Eaton and Colonel Small will attend an orientation conference at the Air University, Maxwell Air Force Base, Montgomery, Alabama on October 22. They will leave here October 21 by C-121 Constellation. One hundred fifteen college presidents and vice-presidents will meet with AFROTC professors of Air Science and Tactics from colleges throughout the U.S., Hawaii and Puerto Rico.

The conference is intended to acquaint the educators with improvements in future operation of the AFROTC program. The conference will also review the new AFROTC course of instruction for the school year 1953-54.

Shoulder patch

Selected from eight designs, the shoulder patch for Tech's AFROTC, designed by John Day, has brought forth many favorable comments. The design, a rocket crossing a "T" with an A-bomb background, was chosen for appearance and simplicity.

sored by the Institute and was arranged and narrated by Paul Ballard. Mr. Ballard used to book the films, arrange all the details of their showing and would preview the films to see that they were okay. He accepted a job in France at the end of the first term last year and the Film Classics series was left without a guiding hand. Inasmuch as the Institute was losing money on the series and it was felt that it was too much of a load on Dean Strong and Miss Pond, the series was dropped.

Karplus and several other graduate students felt that the Film Classics Series was too valuable to lose, so they organized the Film Art Society on a basis differing slightly from the orig-

(Continued on Page 2)

Debate team to start season tomorrow

President Hosler will begin forensic program with speech at Occidental conference

A speech clinic at Occidental gets the Caltech Pi Kappa Delta chapter off to a start tomorrow night. Pi Kappa Delta is the national honorary public speaking fraternity.

Bill Hosler, president of the Tech chapter, will give a demonstration of after-dinner speaking at the clinic, which will also include demonstrations by representatives from other colleges. Thirty other Pi Kap members from Tech will also attend the clinic.

Dancing class starts tonight

Dancing Class meets tonight for the first time at 7:00 in Culbertson Hall. There will be two classes every Thursday evening. Women and music are supplied, so this is an excellent chance to polish up your dancing technique.

Beginner's class, from 7:30 to 8:30, will cover the basic steps of the Fox Trot and Waltz. Advanced class, from 8:30 to 9:30, will be a more advanced treatment of the Fox Trot, Waltz and Swing this term. Next term advanced class will cover the South American dances, Tango, Rhumba, and Samba.

Registration for the term will be at 7:00 tonight in Culbertson and costs \$1.75 for eight lessons.

Pendulum: an appeal and explanation

by Leon Vickman

All those undergraduate and graduate students who are interested in contributing literary, art or photographic work of any seriously considered form (for example, short stories, poetry, character sketches, etc.) to the next quarterly issue of *Pendulum* slated for publication early in December, 1952, should contact and/or leave your contributions as soon as possible in the house mail box of one of either Walt Lee, Blacker House; Leon Vickman, Dabney House; Mike Boughton, Fleming House, or George Johnston, Ricketts House. For off campus and Throop Club please address *Pendulum*, Box V., Lower Throop. THE DEADLINE FOR CONTRIBUTIONS FOR THE DECEMBER ISSUE IS MONDAY, OCTOBER 20, 1952.

History of Pendulum

For the benefit of the freshmen and those who are interested in some important information on *PENDULUM* the editors would like to offer the following: Last year there appeared on the list of publications for the first time the Caltech Literary Magazine, *Pendulum*. The magazine staff hopes to continue to do the following things: final system. The films will be presented on alternate Mondays at 7:30 pm. The price for this term's series of five evenings is \$2.50. Tickets may be obtained from Miss Betty Pond in 119 Throop.

October 13: Adventures of Chico (American, 1937). Produced and directed by Stacey and Horace Woodward. "It is the simple story of a Mexican boy's adventures with animals that in-

Dr. Lester McCrery, faculty sponsor of the speakers, says that this year's speech and debate squad should be even better than last year's excellent team, which won several trophies in competition with other schools.

Schedule is given

A full schedule of debates is planned for this year by the Southern California Forensic Association, of which Caltech is a member. The first SCFA practice tournament will be held October 18 at Los Angeles City College. The annual Caltech forensic tournament here is scheduled for February 20-21, 1953.

Officers of Pi Kappa Delta at Tech are president, Bill Hosler; vice-president, Leon Shameson; and secretary, Irwin Rubenstein.

Participation invited

Dr. McCrery is deeply interested in Caltech forensics and asks all prospective public speakers not already signed up to see him in his office, room 309 Dabney. He is Governor for the Western Region of the American Forensic Association and has been re-elected president of the Southern California Debate Coaches Association to serve the coming year.

Essay contest for seniors covers academic freedom

All seniors are invited to enter an essay contest on "The Meaning of Academic Freedom" featuring \$5000 in cash prizes. The contest, open only to seniors, is sponsored by the National Council of Jewish Women in an attempt to arouse awareness of current threats to academic freedom and to focus attention on maintenance and safeguarding of our long traditions of free inquiry and discussion in our colleges.

\$2500 first prize

First prize will be \$2500, second \$1000 and three others will be \$500 each. The contest will remain open until December 31, 1952. The committee of judges is headed by Supreme Court Justice William O. Douglas and includes Dr. Ralph Bunche, winner of the 1950 Nobel Peace Prize; Thurman W. Arnold, former Associate Justice of the U.S. Court of Appeals; Dr. Abram L. Sachar, President of Brandeis University, and Mrs. Douglas Horton.

Additional information is available from the Tech to all seniors who are interested.

habit the land he lives in."—Cecile Carr, "Sat. Rev. of Literature."

Short Subjects: "Plague Summer," "Boundary Lines."

October 27: The Captain From Koenig (German, 1931). Eng. (Continued on Page 6)

Honor section . . .

Once again this year, some members of the sophomore class have been put into an "honor section." Designed to progress at a rate suitable for the top students in the soph class, the honor section compresses three terms of math and physics into two terms and leaves 24 units of time free third term. These 24 units can be used for individual research or for taking extra courses. Presumably another advantage of being in the honor section is that one receives better instruction.

Good idea elsewhere

If this were a school that specialized in athletic scholarships, professional football teams and being a playschool for rich men's bored sons, then an honor section arrangement would be excellent. It would separate those who were really serious about learning something from the rest of the crowd and give them better instruction at a more advanced level.

But Caltech is in a somewhat different category from the above. Anyone who hasn't flunked out by the end of his freshman year should be a fairly sharp cooky, and if he returns for his sophomore year, presumably it is because he wants to learn something.

Not much spare time

The normal academic schedule here at Tech, combined with some extracurricular activities and some social life is a pretty full load. But if a man is in the honor section he is taking a considerable extra load, necessitated by rushing through three terms of math and physics in two terms. There are two possible results.

One, the man can work extremely hard and probably learn as much as in a regular section. In the process he runs the danger of becoming rather snarkish, and not having time to engage in a normal amount of social, extracurricular and outside activities. Or two, the man may merely spend a normal amount of time studying, thereby learning approximately two-thirds as much math and physics as he otherwise would.

Scholarships and draft board

Either result is undesirable. If a man takes the first path, he suffers, and the school suffers. If he takes the second, his academic background and his grades suffer. You can say what you want about the unimportance of grades, but they are important, leading to eligibility for scholarships and influencing one's draft board.

It has been suggested that all men in the honor section be eligible for renewal of scholarships regardless of GPA. This is fair to the men in the section who would probably be getting better grades in some other section with much less extreme competition.

Arbitrary line

However, it again puts the men in the section in a special category. And it's ridiculous to try and pick out the top 10 or 20 men in the sophomore class and say that they are more intelligent or more capable than the others. Grades simply are not that good an indication of ability. The lower men in the honor section are not at all different from the top men outside of the honor section.

Concerning the quality of instruction, we will not comment other than to say that in some classes it is doubtless better in A Section—in others it is not.

Unnecessary for top men

We believe that the only ones for whom the honor section is a good thing are the few at the very top of the sophomore class who are able to absorb the extra academic load without altering their activities at all and without lessening the amount they learn. But these few are of a calibre that would enable them to take extra courses and do outside investigations and reading or research without any formal honor section arrangement at all.

Thus we feel that an accelerated sophomore honor section is both an unnecessary and an undesirable arrangement.

California Tech

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**CAMPUS
BARBER SHOP**
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ON THE RECORD

BY Bob Deverell

Since the easiest way to start a series of articles like this is with a little bit of everything, the lines which follow will be a short and semi-complete index to music in these parts.

First of all it should be pointed out to those who do not already know that Caltech is graced with a record library with such appropriate paraphernalia as phonographs, amplifiers, and scores. This collection, founded on a grant from the Carnegie Foundation, and perpetuated by the goodness of the Institute, is available to any student of Caltech. The only formality involved is that of clearing with Dr. Mead of the Humanities Division and purchasing a key for a nominal fee—about 35c. For anyone so inclined, the Musicals—as this record room is pompously designated—is an excellent place for procrastinating in a manner the enjoyableness of which is restricted only by surface noise, one's aesthetic development, institute rules, and certain social mores of doubtful value. If you don't know where the place is located, ask anyone (just about).

Evenings on the roof

If you also happen to ask anyone about other musical events in the vicinity, you will find that the musical program of Los Angeles County is a rather mediocre affair, climaxed by an occasional competent performance. The greatest density of competent and superlative musical programs are to be found at the chamber music concerts, one of the best series of which is the Evenings on the Roof. These concerts, presented at the Wilshire-Ebell theatre, specialize in presenting fine but seldom heard chamber works, especially of na-

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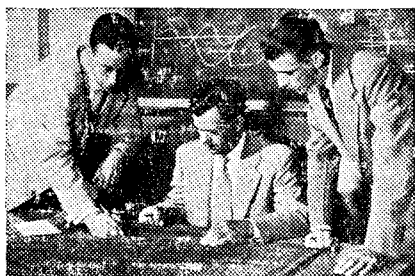
Varied needs of 71 Du Pont plants pose a host of original power problems

Heart of Du Pont's manufacturing program is the power plant. To make some 1200 products and product lines the Company operates 71 plants.

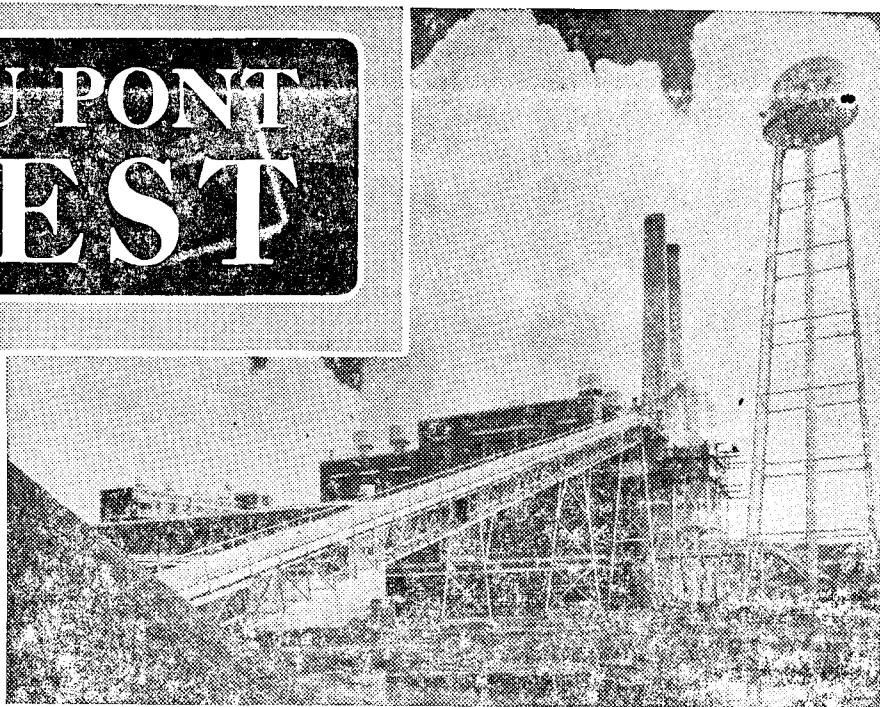
Most require steam and electric generation, water supply and treatment, heat exchangers, piping systems and related services. The designing of these power plants, their erection and operation are all in the hands of engineers, the great majority being mechanical engineers.

But this is not the most interesting thing about power work here. What challenges the highest skills of the engineer at Du Pont is the wealth of original problems constantly arising. Power requirements vary enormously, not only from plant to plant but from time to time.

Process operating pressures may range from over 15,000 psi. to 2 mm of mercury, electrical requirements



George S. Mahaffey, B.S. in M.E., Penn State '52 (right), B. S. Nowling, B.S. in E.E., Washington State '24, and A. S. Noell, Jr., B.S. in E.E., Duke '51, discuss the power requirements of a new processing area.



This powerhouse for a nylon plant at Martinsville, Va., was designed by Du Pont engineers. It houses two 135,000 lb./hr. boilers and two 7,500 KW extraction turbine generators.

from as low as 7,000 to higher than 1 million KWH/day, and temperatures from -360° to over 3,500°F.

Here are examples of recent "off-the-beaten-path" power problems.

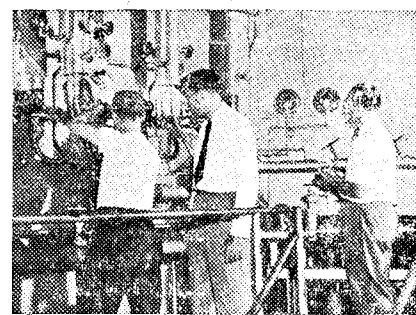
1. A plant using natural gas as its basic fuel produces a waste oil of variable hydrocarbon composition and a waste gas with only 110 Btu/cu. ft. Du Pont M.E.'s designed burners, fans, boilers and combustion controls to permit use of all three fuels for generating steam.

2. At another plant 20,000 gpm of cooling water were to be drawn from a nearby river. Since the water level fluctuated 40 feet between normal and flood stages, it was necessary to evaluate several plans for pump-house constructions against cooling towers. The engineers installed a unique pump house whose submerged vertical pumps operate even when the structure is entirely under water.

Aside from design and construction, Du Pont mechanical engineers concern themselves with such related subjects as economic evaluations, equipment selection, heat balances, load calculations, waste heat boilers.

For example, where various process temperatures from 300° to 600°F. were required, Dowtherm was selected as the supply medium at the rate of 35 million Btu/hr. The engineers installed a central system for primary supply because it calculated to be more economical than separately located vaporizers.

On the operational side, M.E.'s supervise the supply of power and services. They establish performance standards and analyze equipment for results, cost and maintenance.



Edward W. Garrison (right) M.S. in M.E., California Tech '47, and Byron R. Brown (center), B.S. in M.E., New Hampshire '49, supervise adjustment of furnace conditions in a study of power-plant efficiency.

Whether viewed from the design and construction side or the operational side, the diversity of Du Pont's manufacture offers a wealth of opportunities in power work for the mechanical engineer.

OPPORTUNITIES for men and women with many types of technical training are discussed fully in "The Du Pont Company and the College Graduate." For a copy, write 2521 Nemours, Wilmington, Del.



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Secretary's report . . .

Tech editor

A special election for the office of Editor of the **California Tech** has been set for October 30. Nominations will be held two weeks before that date, on Thursday, October 16, at the morning assembly.

Anyone who is interested in running for this office should get in touch with some ASCIT officer at once. The editorship is a job which requires a considerable amount of time, and prior experience in newspaper work.

Student body cards

There are a number of men who have not yet picked up their first term student body cards. If you have not obtained your card, you may do so in the Athletic Office.

Respectfully submitted,
George Johnston
Secretary, ASCIT.

ON THE RECORD

(Continued from Page 2)

Californian composers. Here you may find that, strange as it may seem, Hollywood has not totally extirpated music from many compositions of local composers, although at times almost.

Another quite good chamber music series is the Music Guild Series which features, usually, a very notable sequence of the world's top-rate performers. Its only main fault lies in the insane programs often devised by Alfred Leonard of Gateway to Music, who seems to prefer the odd combo to the good string quartet. Fortunately he is often thwarted.

L.A. Philharmonic

You too may be thwarted in your sincere efforts to find enjoyable music if you go to the

concerts of the Los Angeles Philharmonic. Dr. Wallenstein, its conductor, is the only musician I know of who can put thinking people to sleep with Wagner, Beethoven, and Ravel. However, if you can derive pleasure either from seeing a large orchestra grind, or else by casting pennies toward the conductor's podium from the second balcony, the Philharmonic wants you. It may also be instructive to observe the fantastic assortment of queers that inhabit main floor seats during the concerts.

Another strange assortment of people can be found at the Coleman Chambermusic Concerts which are presented at the Pasadena Playhouse. It has been stated that Pasadena is where old people come to die, and it seems that a great number of them insist on trying to do it at the Coleman Concerts. The audience response to great performances has in the past been very poor there, for only in Pasadena could a beautiful performance of Bartok's quartets be received with shocked silence. Nevertheless, these concerts are worth hearing, even if you must share them with the stodginess of Pasadena's "Art Lovers," effete Women's Clubs, and plain dead wood.

FILMS, ARTS SERIES

(Continued from Page 1)

lish subtitles. Produced and directed by Richard Oswald. With Max Adalbert, Willi Schur. Received New York Critics Award as Best Foreign Film of the Year (1932).

Short Subject: "H2O," "Rhythm of a City" by Arne Suchsdorff."

November 10: "The Battleship Potemkin (Russian, 1928). English titles. Directed by S. M. Eisenstein and photographed by E. Tisse. A dramatic interpretation in terms of mass movement of the 1905 mutiny on the battleship Potemkin.

Short Subject: "1848."

November 24: "Moana." (American, 1926). Directed and photographed by Robert J. Flaherty. "A dramatization of the traditional forms of hunting, fishing, and love-making in Samoa, ending with the ceremonial of the tattoo by which male Samoans were formally initiated into manhood."

"Song of Ceylon" (English, 1934). Produced by John Crierison and directed by Basil Wright. "Song of Ceylon" provides a rare insight into the lives of the Singhalese."

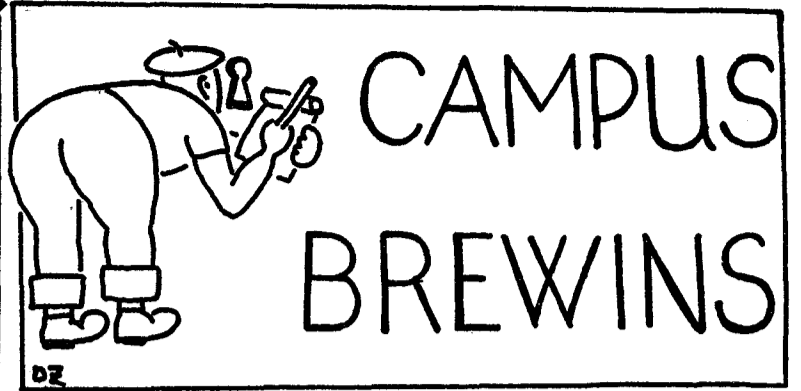
December 8: "The General" (American, 1927). Directed by Buster Keaton. With Buster Keaton and Marion Mack. The machinations of a machinist whose locomotive was caught between the North and the South in the Civil War.

Short Subjects: "In the Park" and "The Immigrant," two comedies starring Charlie Chaplin.

You can escape

You can escape this, however, if you attend the concerts presented not infrequently at Caltech, free of charge (usually), and often quite good. Thanks to our own philosopher, Dr. Mead and money from the Carnegie Foundation, we are often privileged to hear renowned artists play here on campus. A sharp

(Continued on Page 6)



If there is one thing I pride myself on, it's my humility.

—McCormick.

The big event of the past weekend was the Scripps Open House. Warned by previous experiences, and wishing to be prepared, we borrowed for the occasion a cigarette lighter, and practiced for hours to get the proper nonchalance in producing and lighting it.

The ladies definitely know the vital ingredients to a good exchange—proved it by furnishing these ingredients to an extent which made for an unignorable and unduplicable aesthetic coziness on the dance floor (vis. it was a leetle crowded). Ken King and Frank Dryden gained near notoriety for their plot of time spent with the girls vs. the number of girls met (comparable situation: CIT vs. Redlands—plot of number of first downs vs. number of touchdowns). Bill Parker should fall into this same classification, but after the first 15 minutes there were no witnesses an' he ain't talkin'. Only complaint comes from Phil Bates who ended his evening on a bitter note—seeme like his house president (Bill McCormick) buttonholed him for his (Phil's) car's usefulness at 10:30 and told

him to get ready to abscond on a double-date for coffee, Phil did, and sat in his car with his damsel until midnight (poor boy) waiting for the rest of the evacuees. At this time simultaneously his girl had to leave. Last seen our Phil was disgruntledly driving his overloaded (not with vital ingredients, either) vehicle as unScrippsward as possible.

Tacit frosh

The Frosh Tea Dance is somewhat an oddity—the only thing a frosh will say about it when asked is, "Oh Yeh, that,—it did not last long enough and the entertainment used up too much time that we could have used meeting wimmen' with." Draw your own conclusion. We're almost sorry we're not a frosh (but not quite).

It was gratifying to observe the large numbers of freshmen present, making first-hand observations before deciding to join either the To-Blazes-With or the

(Continued on Page 4)

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CAMPUS BREWINS

(Continued from Page 3)

Viva-La-Scripps school of Caltech thought. For our own part, we felt it was a highly successful affair—one worthy of repetition at the first available chance.

A warning

Car-driving Bill Gardner and carless-for-the-evening Bill McCormick got their signals crossed with the result that McGork had to hitch a ride back with Lynam, who had a flat tire on the way back. McGork is now in disrepute with the sports car crowd for stooping so low as to ride in a

Buick. Gardner, frosh Bob Kausen, and dates took off to a dimly lit establishment advertising itself as "The Viennese—Superb Cuisine." There, for 75 cents each, they got small sandwiches made with Hungarian Glubmumph. Take heed.
Dabonair as always

Remembering their conquests of the previous week, last Friday night the gentlemen in green journeyed eastward to the Scripps Refinery. But little daunted by the more than slightly unfavorable ratio, they acquitted themselves in a manner befitting Dabney men. Thomas in

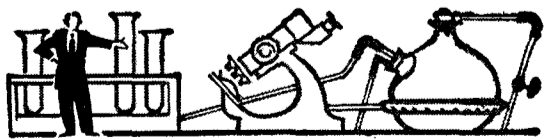
particular managed to find a maiden of congenial tastes, but the situation is rather clouded at the moment. Dave King picked up where he left off last year, and it appears that absence only makes

Providing comic relief, the
(Continued on Page 5)



JUST WHAT GOOD ARE PROFITS ?

During the last 20 years a great many uncomplimentary things have been said about profits. Left Wing propaganda has been so successful that many honest Americans were actually beginning to wonder if maybe there wasn't something evil about profits after all. But the answer is plain if we understand one of the most important functions of profits in our economy. It is simply this:



The chance for profit constantly encourages the development of new and improved products. Because of the competition for profits, every business strives to put out better and more use-

ful products, with greater efficiency, at lower prices. (At Union Oil, for example, we're spending \$10,000 per day on research—and our competitors work just as hard as we do on product improvement.)

Because of this essential function of profit the American people have better products in greater abundance than the people of any other country. As a consequence, we enjoy the highest standard of living the world has ever known.

It's not hard to see, then, why the profit motive must be preserved. Yet present tax policies and government controls are discouraging production by destroying the profit motive. And without this incentive we Americans cannot

possibly show the progress in the future that we have shown in the past.



UNION OIL COMPANY
OF CALIFORNIA

INCORPORATED IN CALIFORNIA, OCTOBER 17, 1890

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Building, Los Angeles 17, California.

Athlete of the week

By NICK

A good defensive unit is just as important to any football team as its offensive players, but because they don't get much chance to score, defensive players get little glory. One such member of the Orange and White is Neil Stefanides, ace linebacker and one of the backbones of the Beavers.

Few equals

Stefanides plays both as an offensive end, at which he's no slouch, and as a linebacker, at which position he has few peers in this league. Many a time he has kept the Techsters in a game by intercepting a pass or stopping the completion of one at a crucial point.

Two letters

Neil scales 180 lbs. on a lean 6 foot frame. He's a two year letterman, and he'll leave a big hole in Coach LaBrucherie's defense when he graduates this year. Neil's been in Blacker since he entered Tech.

All-conference

All-conference linebacker honors went to Stef in his Soph year, and he's played at the same fast pace since. You'll find his name in the starting lineup of every game the Beavers played last year. He scored once against Whittier last year on a 32-yard pass play.

Sixty-minute man

Stef comes as close to a sixty-minute man as you'll find on any football team these days, but his forte is still defense. Last week he snagged two passes for 22 yards against Redlands. Look for that big number 88 in Tech's lineup this Friday, and for the rest of the season. You'll see plenty of it.

CAMPUS BREWINS

(Continued from Page 4)

Dabney-Scrapps Opera Company gave the farewell production of "Duty's Contract." Co-author and ex-prexy Shreve arrived in time to hear the performance, but failed to succumb to the romance of the evening and returned home shortly thereafter. The bouquets were all for Jaffe, though, with his memorable rendition of the telegram, and his treatment of "Suzi Scrapps."

Converging back on Fleming from all parts of the world Fleming men were shocked to find Doktorater Bulman involved with yellow convertibles. Carl Rambow and Tom Slodowski proved to have made it legal over the summer, although Larry Starr, Al Haire, and Mo Lerner returned from their tours of European Rotlichthausen empty-handed.

Hot frosh

Fleming Frosh Bill Davis is

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BEAVER SPORTS

Coming attractions

Friday, Oct. 10—**Football**, Pomona at Rose Bowl.
Tuesday, Oct. 14—**X Country**, Nazarene at Tech.
IH Baseball, Throop vs. Dabney
Ricketts vs. Blacker

Pigskin Prognostications

GAME	Mr. Musselman	Al Nicholson	John Wall	George Patraw
UCLA Rice	UCLA 13	UCLA 7	UCLA 13	UCLA 18
Wisconsin Ohio State	Wisconsin 14	Wisconsin 20	Wisconsin 22	Wisconsin 25
Washington Illinois	Illinois 6	Illinois 7	Illinois 14	Washington 6
Princeton Penn	Princeton 7	Penn 3	Penn 13	Penn 9



COACH BERT LA BRUCHERIE
—unveils grid machine—

a pretty hot operator. Practicing water polo at the P.C.C. pool, he spied some cuties at a drama rehearsal. Dripping wet he jumped up on stage, introduced himself, and returned to practice with several phone numbers.

The Oxy gals have finally seen the light. Last Friday Collins received a call from an Oxy girl saying she wanted to talk to Dick, but couldn't remember which Dick. She then requested all the Dicks in Fleming to call her. On Monday another similar call came, this time for all the Johns. The choice of names was unexplained.

O' sport Lyman

You have probably seen the plush orange and white pseudo Chevrolet being pushed around campus. It is none other than the famous Lynam Techmobile. Straight word has it that anyone of the female sex riding upright therein is required to write name, address and phone number on a prominent part of the body.

X-Country hopes rise

The second week rolled around for the harriers with heavier workouts slated. Coach Pilkington hopes to have the squad in reasonable shape by next week. A practice meet is tentatively arranged with Pasadena College for Oct. 14. This will give him an opportunity to see how the team is under fire. He already has a fair idea of how they are in daily workouts. He says, "We have good material and a lot of spirit. If we can look as good in meets as we do in practice, we'll have a winning club."

Frosh look good

Another reason for the optimistic outlook are the frosh. There are quite a few out and several lettermen. In the past it has been depth alone which produces a good frosh team, so experience and depth should make a great squad.

Interhouse meet

The first interhouse meet is October 17 and a couple of houses are still lacking men. So let's see some more out there!

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Grids show power in Rose Bowl opener

Beavers outgain, out pass Bulldogs

Hampered by injuries to key men, and without game experience in their new split T, the Tech Beaver showed the Bulldogs of Redlands a hot grid iron. In the first and fourth quarters the gridders showed power and finesse which point toward a winning season.

Big Edge

The statistics give Tech a big edge of 247 to 169 yards gained. Unfortunately statistics don't show breaks (or score). Thanks to three intercepted passes and inconsistent tackling, Kismet awarded the score to Redlands, 35-12.

Tallman stars

Tech scored first in the early moments of the game when tackle Charley Tallman took a fumble in mid-air on his own 44 and ran it to the Bulldogs' 17. Seven plays later Ed Gehle went over left tackle for the score. Redlands then scored twice, first after an intercepted pass was run to the Tech one-yard line and then after Eric Ward's punt was blocked and recovered by the Bulldogs on our 13.

Redlands romps

The half ended 14-6, and then on the first play of the second half Bulldog Jim Ellis slipped around left end for a 62-yard touchdown jaunt, incidentally, Redlands' only earned touchdown of the night. Two more intercepted passes set up scores and at the end of three quarters it was 35-6. The Beavers completely dominated the last quarter, scoring once, and having the ball on Redlands' 18 when time ran out. The final score came on Jack Walker's plunge over right guard culminating a drive which started on Redlands' 46-yard line.

The future

The Beavers definitely show signs of coming along this season, and certainly cannot be counted out of the conference race. Coach Bert LaBrucherie, while displeased with the outcome of the game, still thinks the team showed lots of promise and believes we will come up with some wins this fall. If injuries do not cripple the small squad, you can expect the Beavers to hit the winning road soon, perhaps against Pomona this Friday in another tussle at the Rose Bowl. Team spirit is very high, and you can bet that the team which gave away four touchdowns to Redlands will not be the same outfit which will meet Pomona.

Starting lineups: Gee, Earnest,

Peekin' In

By Patraw

The element of chance is a funny thing. "The breaks" can go for you or against you. A break can rear its head in many different ways and can produce some odd situations. The game last Saturday is a striking example of this. A quarterback mistaking the zero yard-marker for the ten-yard marker, or an overlooked ineligible receiver cost the Beavers quite a bit. But aside from freak plays like this, it seems that breaks are actually produced by mistakes, and if they can be capitalized on they are the bad breaks. This seems to be summarized by a post-game comment, "The boys wanted to win badly and they went out there to do that, but costly mistakes meant the game." A quick look at the game statistics will show the importance of costly mistakes over things like net yardage gained and pass completion.

* * * *

As yet the seventh game of the series is an unknown factor, but the Dodgers still look good from this corner.

Ed. note—That's what it says.

Taylor, Pilant, McDonald, Abbett, Grieser, Fazio, Walker, Johnson, Gehle.

Score by quarters

Redlands	7	7	21	0-35
Caltech	6	0	0	6-12
				Redlands Caltech
First downs	8	13		
Net yards rushing	176	184		
Net yards passing	23	83		
Passes attempted	17	17		
Passes completed	3	7		
Punts, average	35.6	37.0		
Kickoffs, average	46	42		
Yards lost, penalties	80	24		



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Caltech Y going to beach on weekend

The Caltech Kick-Off Conference will be held this Saturday and Sunday at J. S. Johnson's beach house at Emerald Bay.

Mr. Bruce Maguire will speak to about 30 students and Tech Y officers on "Religion and the College Student in 1952." After a discussion of this problem, relaxation will be offered in the form of swimming, volleyball, football and other activities.

See Frank Dryden

Anyone interested in the Y and in expressing his ideas for the coming year's program is welcome to attend the conference. See Frank Dryden in Blacker or Wes Hershey in the Y office. The cost will be \$2.50 to cover meals.

PENDULUM

(Continued from Page 1)

ter the growing interest in creative writing that has appeared on the campus, offer a publication outlet to those who wish to have recognition for their writing and artistic efforts that otherwise would probably not be recognized, to give complete freedom to our writers with respect to form, subject matter and style . . . This is a unique policy for any magazine . . . To facilitate this we have been given complete student control of the publication, particularly with respect to the editing of the material submitted. All of this allows the student body to meet their classmates on the printed page, allowing a unique viewpoint into the thoughts of the Techman.

75c per term

As to finances, a subscription campaign asking 75c for the three issues is planned for this school year. Individual copies will be sold at 30c each. However, this year, as last, the generosity of the Humanities Division provides for the balance necessary to maintain the quality of the printing form.

New French philosophy

One of the major features of the December issue of **Pendulum** will be a non-fiction article which will include an explanation of a new philosophy, formerly unpublicized in the United States. The philosophy, **Lettrisme**, has come from the well-known Left Bank of Paris, and expresses very interesting theories of economy, politics, art, poetry, and the production of the cinema. The article will include some of the writings, art work, and theories of this group in Paris, since one of the editors has obtained permission to translate and reprint material from their newspaper and their book on the cinema, **Ion**, which won excellent recognition at the International Film Festival at Cannes, France. The editors feel that **Pendulum** will assume importance through the publication of such articles.

Grad students too

This year a special appeal is directed toward the graduate students on campus to contribute to the magazine. Also,

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WHEN YOU ARE THIRSTY
or
WHEN YOU JUST
NEED RELAXATION
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THE SPACE BEAVER

By WALT LEE

Pogo

Simon and Schuster's new book **I Go Pogo** (\$1.00) is now available—at least on order—at all book stores. Now obtainable in room 36 Blacker are "I Go Pogo" buttons. Walt Kelly obliged with 1500. Also in room 36 are copies of the latest issue of **It**, which contains a review of all the Pogo comicbooks and a biography of Walt Kelly. (The issue also contains an original Ray Bradbury story.)

The Man in the White Suit. Just a note on the noises of

"LEAVE IT—"
"WE DO IT."
8 a.m. to 8 p.m.—Sat. 8 a.m. to 8 p.m.
LAKE AVE. WASH-OUT
563 S. LAKE AVE.
(at California)
SYcamore 2-0687 Pasadena 1

the fabulous molecule machine: "Bubble, bubble, high drip, low drip, gurgle, gurgle, gurgle, high drain, low drain, squirt, squirt." Director Alexander Mackendrick and sound editor Mary Hubberfield obtained the bubbles by blowing through a glass tube into a pan of glycerine, drips by pinging two different size pieces of brass and glass against the palms of the hands; and the drain by forcing water intermittently through a small opening with a microphone amplifying the sound.

By trial and experiment the sounds were merged into several combinations, gaining a build-up effect just as an orchestra might stage a theme and develop it to a crescendo.

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ON THE RECORD

(Continued from Page 3)

eye on the campus calendar should tell you whenever such a concert is about to take place.

A sharp eye on the campus calendar should also tell you when midterm week of the first term will be. Look for it because

Coral Records have taken the basic theme, added a Samba rhythm, and made a record of it. Appropriately enough, it is called "The White Suit Samba."

it coincides beautifully with the opera season presented at the Shrine Auditorium by the San Francisco Opera Company. In addition to the old favorites such as **Aida**, **Il Trovatore**, **La Traviata**, etc., there will be performances of two very remarkable but very rarely heard works — Montemezzi's **Love of Three Kings**, and Puccini's three one-act operas, **The Triptych**.

In conclusion let me say — There is good music around here if you look.

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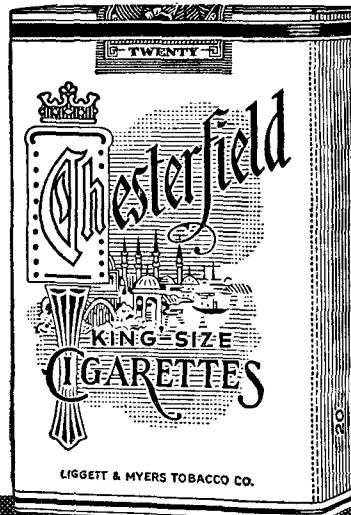
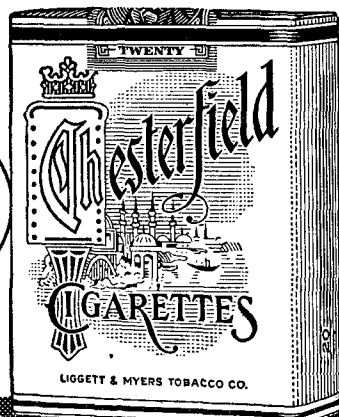
A group of people from various walks of life was organized to smoke only Chesterfields. For six months this group of men and women smoked their normal amount of Chesterfields—10 to 40 a day. 45% of the group have smoked Chesterfields continually from one to thirty years for an average of 10 years each.

At the beginning and at the end of the six-months period each smoker was given a thorough

examination, including X-ray pictures, by the medical specialist and his assistants. The examination covered the sinuses as well as the nose, ears and throat.

The medical specialist, after a thorough examination of every member of the group, stated: "It is my opinion that the ears, nose, throat and accessory organs of all participating subjects examined by me were not adversely affected in the six-months period by smoking the cigarettes provided."

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