

"Understanding Music" topic of new lecture series tonight

A series of eight one-hour lectures on "Understanding Music" will be given on campus beginning tonight at 7:30 p.m. in Dabney Hall Lounge. The lectures will be given by Dr. Daryl Dayton, Associate Professor of Music at Pomona College.

The lectures will be in the form of an historical discussion of music and he will discuss the various musical forms as they occurred. The course will be presented in such a manner that anyone, regardless of musical background, will be able to understand it easily.

Dr. Dayton will use the piano and play recordings to illustrate the various forms of music and to emphasize important points in the discussion.

Answer to demand

This series of lectures on music appreciation is being offered by the Tech humanities division in response to the large student demand in the past for such a course.

These lectures will be open to all Techmen; no credit will be given for the course and no extra charge will be made.

Techmen will be welcome to bring dates with them to the lectures.

Tech Little T needs editor

Next Monday night the Board of Directors will choose the editor for the 1955-56 **Little T**. Although responsible for the text of the handbook, his main job is selling enough ads to cover the cost and his own profit. The editor has complete control over business policy and layout, including printing contracts and advertising rates.

Profit

As compensation, the editor gets expenses, the first \$400 profit, and half of any profit over \$400.

Anyone wanting to be **Little T** editor for next year (or pair wanting to be co-editors) should be present at the BOD meeting next Monday or contact Phil Conley, Fleming 68, by that time.

Ray Bradbury to appear here

Ray Bradbury, nationally famous science fiction writer, will be in Dabney Hall Lounge next Wednesday, April 13, at 7:30 to participate in an informal discussion of his profession with interested members of the student body and the faculty.

Bradbury, whose work often lacks accurate scientific detail, has promised to begin by considering the question, "Why do you use science fiction as a vehicle?" His answers should be particularly interesting, since it is rumored that he feels modern science and technology should be done away with rather than further be developed.

Mr. Bradbury comes to the campus under the auspices of **Pendulum**, in continuance of the movement which has brought Aldous Huxley, Pete Burness, and Irving Fineman.

Techmen to get honor keys; 41 will receive certificates

Speedboat, chorus, painting highlight Caltech hobby show

by Bob Deffeyes

The speedboat in front of the humanities building last week was a part of the annual Caltech hobby show. Exhibits were on a strictly non-competitive basis. Anyone even remotely connected with Tech could display work, and some of the connections were remote. However, this remoteness did not in any way detract from the interest and usefulness of the exhibits.

The big question raised at this show was how to define a hobby and how to distinguish it from just a pretty knickknack which someone found in a fish market in Cario. Still, it is pretty fortunate that messy definitions are avoided. The wealth of material is increased by having a few rules.

Part of the value in the exhibit lies in acquainting the individual as to what type of hobby interests him. I hope that the rush of class to lab to class will not continue indefinitely. Sometime some of us will have spare time for a hobby. Knowing how polished stones look is a good preparation to an interest in that work. Another advantage of the campus hobby show is to show both good and bad work with the decision as to good taste and bad taste left to the observer. In a select art gallery, taste is dictated to us by the originator of the exhibit. There are disadvantages to both systems.

No post mortem can really do justice to such an event. Such an article becomes a listing of what impressed the writer. The Caltech mixed chorus surprised Thursday night listeners at the hobby show. There has been a slight tendency to take this group lightly; they are excellent. There is a great lack of music at Tech and the mixed chorus

(Continued on Page 4)

Techmen to get honor keys; 41 will receive certificates

Awards are slated for May assembly; Three Tech students get second keys

Applicants for Honor Keys and Honor Certificates were approved at the Monday meeting of the Board of Directors, with the total standing at 27 Honor Keys and 41 Certificates. Three Beavers will receive their second keys this trip, having earned one for previous work. These ambitious Techmen are Rod Supple, Ray Grieser, and E. M. Boughton.

Key winners are: James Adams, Charles Bodeen, John Andelin, Rod Supple (2), Lyman Fretwell, Ray Grieser, (2), George Madsen, E. M. Boughton (2), Marty Tangora, Phil Conley, James Mebust.

James Lewis, Dick Johnson, Don Roberts, Rube Moulton, Dick Wagenseller, F. M. Trappnell, Alan L. Helgesson, John Young, Arne Kalm.

Bill McDonald, Howard Berg, R. C. Kausen, Ted Johnson, Vince Marinkovich, Jim Workman, Bill Purves.

Honor Certificate winners were: Joe Lingerfelt, Glenn Converse, Ross Brown, Dave Lange, Paul Farley, Frederic Benning, Curt Schulze, Jan Arps, Myron Black, Dick Ashby.

Ted Lang, John C. Carney, Clarke Rees, Herb Rauch, Jay Glasel, John Velman, Lawrence Berry, Andy Perga, Robert Hamson, Bob Deffeyes.

Baird Brandow, Donald Lewis, John Lansingh, Craig Elliot, Dan Chilton, Truman E. Long, Howard Bloomberg, Sam Phil

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Chairman needed for Student's Day

Any Techman interested in the job of chairman of the Student Committee for Student's Day should be present at the BOD meeting next Monday at 7:30 p.m.

The work of the student chairman, along with a faculty representative, is to coordinate the efforts of the students and faculty of Tech in putting on a good show for the potential frosh.

In doing this the chairman must line up about 150 undergrads, grads and faculty members to serve as exhibitors, guides, speakers, and in other activities for the Saturday event.

John Carney new Instituter head

At the ASCIT Board of Directors meeting held last Monday, John Carney was appointed chairman of the Caltech Instituturers.

The Instituturers are a volunteer organization that does various jobs for ASCIT such as decorating for dances and helping at track meets.

Anyone interested in joining the Instituturers is requested to contact John Carney in Blacker.

Dr. Linus Pauling returns from world tour following Nobel Prize ceremony in Sweden

by Al Farley

After an extended world tour, which took them to Sweden, Japan, Israel, India, Norway and Hawaii, Dr. and Mrs. Linus Pauling returned to Pasadena two weeks ago. An interview with Dr. Pauling gave a few of his impressions of the countries he and Mrs. Pauling visited.

The trip started out in Stockholm, where Dr. Pauling was presented with the Nobel Prize in chemistry for 1954 by King Gustav Adolph of Sweden. The actual ceremony was held on Friday, December 10, in the Concert Hall in Stockholm before approximately 3000 people. Following the presentation there was a dinner in the Stockholm City Hall, and the Laureates made speeches of appreciation. Afterwards, the university students of Sweden held a torchlight procession, and Dr. Pauling was selected by the Laureates to make the response to the students. The following afternoon, he gave his Nobel lecture and in the evening he and Mrs. Paul-

ing were the dinner guests of the king and queen at the royal palace. "The Nobel ceremony in Stockholm was very impressive; I think that it must be one of the most impressive ceremonies held in the modern world," said Dr. Pauling. "Every Caltech boy should make this trip".

Their trip was extended be-

yond Stockholm because of an invitation to them from the Government of India and the Indian Science Congress Association to spend six weeks in India as guests of the Government and the Association. Professor Pauling gave three addresses at the Indian Science Congress, which was held in Baroda during the first week of January.

"The Indian Government and people seem to be making great progress in improving conditions in India. I could see how rapid the progress is in science and technology. . . . In addition to the Government of India and local private agencies, such as the Mrs. Ghandi Fund, the Ford Foundation has been making significant contributions to the program of village improvement. I found that the Indian people were deeply appreciative of the efforts of the Ford Foundation in their behalf."

During the three weeks in Japan they visited Tokyo University, Osaka University, and a

(Continued on page 8)



Dr. Linus Pauling

Houses announce weekend programs

This weekend will see a barn dance, a hayride, and an exchange pulled out of the social programs of the various houses. Dabney, Ricketts, and Throop are pooling resources for a barn dance at Mountain Oaks. Bill Allen's Band will provide music for the event. The winner of the Acme Beer Trophy will be determined at this dance. Fleming will entertain County Nurses with an exchange this weekend. Blacker is scheduling a hayride in El Monte Friday night.

Beavers elect new members

The Beavers, campus service organization, has elected 20 new members. The organization, composed of campus wheels and a few fortunate faculty, runs the Caltech Freshman camp and sends speakers to various schools to tell prospective students about Caltech. The new faculty members are Dr. Alan Sweezy and Dr. George Mayhew.

New junior members of the Beavers are Fritz Benning, Myron Black, John Moser, Jim Higgins, Riley Jaschke, Dick Johnson, Arne Kalm, Jim Lloyd, John Young and Bill Davis. Sophomores elected to Beaver membership are Ed Berry, Craig Elliot, Frank Kofsky, Dick Morse, Rube Moulton, Marty Tangora and Jim Workman. Freshman second rep Dick Ashby was also elected.

California Tech

Editors-in-Chief—Dick Hundley and Marty Tangora

EDITORIAL STAFF

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Assistant News Editor—Al Farley

News Staff.....Frank Albini, Bill Hecht,
John Price, Gordon Reiter

Feature Editor . . . Bob Deffeyes

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Howard Hilton, John Howell, Frank Kofsky, Bill Purves, Stu Richert,
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Entered as second-class matter Nov. 22 1947, at the Post Office
in Pasadena, California, under the Act of March 3, 1879.

Secretary's Report

Farrago was the big item on the ASCIT Board of Directors' agenda this week, as the editors requested funds to publish a second issue. Marty Tangora started off by presenting a financial report from the first issue. Total expenditures, mostly printing and engraving, came to \$670.30, while income summed to \$251.25, including \$33.20 from sales and \$218.50 from advertisements. Consequently, **Farrago** cost ASCIT \$419.05. Since part of this was to come from an increase in this year's **California Tech** budget, business manager Jim Lewis presented an accounting of the **Tech** to complete the picture.

Tech income, including the \$1200 budget from ASCIT, amounted to \$3810.41, expenses came to \$3591.15, leaving a profit of \$219.26 so far this year. Combining **Farrago** and the **Tech** in one account, figuring \$600 for third term **Tech** expenses, the \$1800 budget is exceeded by \$199.29 with one issue of **Farrago**.

By eliminating the extra charge for overtime rush work at the printers, by increasing ad rates and volume, and without the initial expenses, **Farrago** editors estimated a \$180 net cost for a second issue.

In the succeeding discussion, it was pointed out that **Farrago** was well-received, and that it offered a local humor not found in other magazines. In answer to a question from the Board, the editors ascertained that a second issue could maintain the quality without repetition. It will be necessary to raise student body dues to pay for the magazine. Consequently, the Board approved a second issue of **Farrago**, giving it a \$180 budget to work on.

John Carney was appointed Institute chairman after a discussion of policy. An attempt will be made to recruit men from all houses to provide specialized work on student body matters. The Instituters will continue to decorate for dances and help on charity drives and rallies, and will also do miscellaneous construction work where necessary. There will be no formal club organization, however.

Lansing reported that work on this year's **Big T** will be completed next Wednesday, so that it will be ready for distribution senior finals week or shortly after.

Next week a **Little T** editor and a Students' Day Chairman will be selected. Lost Week End plans will be laid in detail: Ideas are most welcome.

—Tom Bergeman

LETTERS

(Ed. note: We received this letter from the writers, who directed it to the Athletic Council but wished it to be printed here as an open letter. The writers asked that their names be withheld. Dear Athletic Council:

At C. I. T. we may not emphasize athletics; however, we do participate. When a coach assumes the responsibility of managing one of our athletic teams, he should approach the job with a reasonable amount of "desire to win."

The demonstration we saw on the baseball diamond last Friday appeared to be practically a gift to Pomona. When a pitcher becomes so tired that he obviously loses control, the coach should have enough sense to pull him. For three innings we watched the game go down the drain, while a competent pitcher warmed up.

If this attitude is going to continue, C. I. T. might as well withdraw from the conference.

—Disappointed Rooters

The World and Tangora

by Leona Tangora

It begins to appear as though I should ease up a little on the sarcasm which I usually inject so liberally into this my column.

At least, from the comments I have been getting about my last week's effort, some of my ideas have been misread by my



admiring public. Last week I reported that the faculty had adopted a new overall policy, characterized by emphasis on teaching ability in instructors, by planting grass in bare spots around campus, and by offering a wider choice of courses in the curriculum of the Tech undergrad.

The whole point of the column was contained in the last line, which asked what day it was, since the day was April 1. Now I knew that, and you knew that, but apparently that other guy didn't catch on. I think we can take it for granted that the administration didn't catch on.

Believe me when I say this, that no matter how reasonable

these ideas may seem to you and me, our grandchildren will be growing beards when the administration of the technical institute begin to swing around to them.

First, about the men who are good scientists (or engineers) and poor teachers, I am sure we will continue to hear as we do now about how bad the lectures are in certain upperclass courses which shall here remain nameless, or how incompetent the graduate assistants are in the freshman sections.

Second, I will bet you that for every blade of grass B&G plants here in the next decade, they will plant two new laboratories.

There is one small ray of hope in the third line, about wider choice of courses. This is the series of music history and appreciation lectures which is starting tonight in Dabney lounge. There is not a single course in music or in art on this campus, but there does seem to be a faint chance that we may have one in the near future.

I do hope I'll see a lot of you at that lecture tonight.

What young people are doing at General Electric

Young engineer is responsible for design analysis of \$3,000,000 turbine-generators

The average large steam turbine-generator costs \$3,000,000 and takes two years to build. It is one of the biggest pieces of electrical equipment made. Yet its thousands of parts are put together as carefully as a fine watch. Even a small change in design can affect the stresses and vibration of the turbine, and the way it performs. At General Electric, several men share the responsibility of predicting those effects before the turbine is built. One of them is 29-year-old E. E. Zwicky, Jr.

His job: analytical engineer

Here's what Ted Zwicky does. He takes a proposed mechanical design feature, describes it mathematically, breaks it down into digestible bits, modifies it, and feeds it to electronic computers. (It may take two months to set up a problem; the computers usually solve it in twenty minutes.) Then Zwicky takes the answers from the computers, translates and interprets them so they can be followed by design engineers.

23,000 college graduates at General Electric

This is a responsible job. Zwicky was readied for it in a careful program of development. Like Zwicky, each of our 23,000 college-graduate employees is given a chance to find the work he does best and to realize his full potential. For General Electric believes this: When young minds are given freedom to make progress, everybody benefits—the individual, the company, and the country.

TED ZWICKY, B. S. in EE from the University of New Mexico, Class of 1945, joined General Electric after a year in the Navy, completed our Advanced Engineering Program in 1950.



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Nuclear power plant model loaned by Caltech alumnus

by Peter Moretti

Have you been wondering just what the peaceful use of atomic power may bring about? Science fiction writers for nearly a hundred years have toyed with the idea. A display of a nuclear power plant has been set up on the main floor of Engineering. A tag gives credit to the Westinghouse Corporation and the Fluor Corporation. Further explanations for the presence of this exhibit come from Professor Peter Kyropoulos. The display is a project model shown here thanks to Mr. D. W. Darnell and will be returned next Tuesday, April 12. Mr. Darnell received a B S in M E at Tech in 1922 and is now chairman of the board of Fluor Corporation.

This project model represents an actual proposal; it is constructed to check the spatial relation of the components, including even the operator. This one was planned in accordance with Army specifications for a package power reactor; however, no contract has been made. Nevertheless, this project, which fortunately is not classified, shows how a nuclear plant actually can be constructed.

Flow chart

Posted near the model is a flow chart (very confusing) complete with explanations (ditto), from which the method of operation may be gathered by long and arduous study. The heart of the plant is the core tank, which contains the fuel and also ordinary water. The latter serves not only as a moderator, but also as the agent absorbing the heat generated by the fuel. The whole unit is contained in a large, sand filled tank, which provides shielding. A subterranean room contains the control-rod mechanism. A canal through the sand tank provides access to the core from the top for refueling (once a year for full-capacity operation). When filled with water, the canal shields the core as well as the "hot" objects stored within. In operation, the water around the fuel gets very hot and is kept under very high pressure (1000 pounds per square inch). The water is pumped by way of some fancy plumbing through a couple of heat exchangers which generate steam from the boiler feed water. This steam is used to operate the turbine which drives a generator capable of 2000 KW output. Considerable complexity arises in the many components necessary to pump, purify, and condition the water in the different circuits, as well as the raw water supply. For good measure there is also a large, separate cooling tower receiving water from the steam condensing system. Control is consolidated in a control room. An automatic system shuts the plant down in emergencies.

Everything seems to have been very carefully planned, with an eye to feasibility and practicability. The disposition of waste products has been worked out and the use of rare materials for shielding has been avoided.

Critic Fineman reads, reviews Tech Pendulum

Ed Note: While visiting the campus, writer Irving Fineman agreed to write a criticism of the CIT literary magazine *Pendulum*.

by Irving Fineman

I have read the Spring and Autumn numbers of *Pendulum* and the galleys you gave me, and I am truly impressed by the quality and variety of literary talent, which prompts me to suggest that there is available at Cal Tech the making of an even more valuable magazine than you have achieved, if the editors will suggest to the potential contributors a variety of subjects—whether in the form of fiction or non-fiction—which might not occur to them. For example:

- 1) Adolescent experience and psychology—since students are still fairly close to that period, a rich and significant literature might be brought out.
- 2) The scientific spirit and ethic—related to the general mores of our time; its effect on religion and the emergence of a new religious spirit among scientists; the scientist as an emerging force in society—in politics, economics, international relations, etc.
- 3) Humorous and satiric views of the world of science.

Psychology?

In the area indicated in 1, you have some things by Glasel which are good. More revelations about the childhood and adolescence of high I-Q boys would be helpful to many of your readers, and possibly even enlightening to psychologists.

The area indicated in 3, is a difficult one. A good example is the humor in Prof. Feynman's lectures which rises out of his subject matter, is not imposed on it. There are a number of pieces of general interest — Bodeen's "Mobiles," Lee's "Motion Pictures," and Demetricides, "Revolution at the Cross Roads" which are excellently done; and you should be able to get pieces of that caliber in the field indicated in 2.

Grad students?

It is good to have a sprinkling of graduate student writing, but that should be kept below half the total, which should be representative.

One other suggestion: that you have critical reviews of fiction dealing with scientists: e.g. *Arrowsmith*, *The New Men*, *Not as a Stranger*, *Doctor Addams*, etc.

Campus Brewins

"Unto the pure all things are pure."

—New Testament

Compact operator

On Saturday last Dave Allen, benevolent soul that he is, lent his undersized sports car to one Joe Studeville for a date. Upon reclaiming the auto he found that he had reaped a dividend, a girl's dress belt. The only conclusion to be drawn is that Joe must have quite a technique, for Dave has quite a small car.

Playing with fire

April Fool's comes but once a year and Darb social chairmen, Hal Dale and Ed Berry, thank their lucky stars for that. For the first social event under the

new regime they planned an April first exchange with Huntington Hospital, complete with decorations and stunts to fit the day. However it proved to be an ill-fated choice for the nurse cancelled the engagement at the last minute with the line that they had been given a holiday. Tricky, aren't they, boys.

And he missed the ball

The Beak has been deeply touched by tales of valor this week. Perk Eiselen, boy football player, went out deeper and deeper for a Dabney pass—all the way to the infirmary. For heroism above and beyond we award to P. Eiselen the CROIX DE GURRE. Likewise to the assistant baseball manager who skin-

ned his knee chasing a foul ball.

Purely platonic

Now this can be told: how a well as one with no harmful after effects. Over spring vacation, the Rowdys unleashed Barienbrock to the wives and schemes of Arizona, but to no avail. Prexy's pearl of purity remains unstained. It seems that young Lochinvar was resting comfortably in a sack in his old school dorm when in burst a luscious morsel of old high school acquaintance. She not only burst into the room but right into Gordon's sleeping bag to "talk over old times". Which is what they did, until Barienbrock

(Continued on Page 5)

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

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

SPEEDBOAT, CHORUS

(Continued from Page 1) will help greatly in bridging that gap in education.

In the modern vein, Elizabeth Ann Bartron has done an excellent painting, "Quartette". Robert Bulkley has done equally

well with watercolor. Chuck Bodeen, unmentioned in the entries list, has done his usual skillful job with mobiles. All of the lapidary work was cabochon pieces, although a faceting head was exhibited. Arnold Wilmott brought an excellent collection

of British coins to the show. In the standard hobby forms, good work was available.

No one can go to such a display without being impressed by the intricate gadgets shown. For example, there was a running

model of a steam hammer shown Thursday night. Davy Jones, the walking toy diver, didn't walk for the onlookers. However, he came equipped with patent drawings which rather seemed to indicate that the beast would function. An odd glass picture

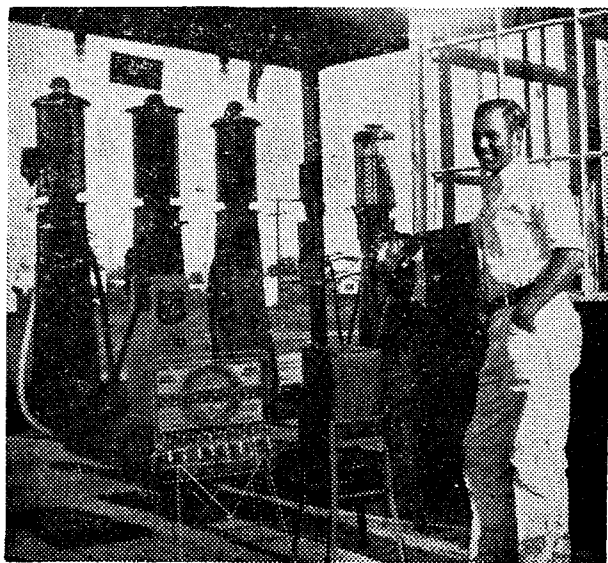
was on the piano. This was painted on three layers of glass with an irregular plate of glass in front. The three layers produced three dimensions and the warped plate destroyed it. However, the originality was interesting.

Henry McNeil

OR HOW TO BE INDEPENDENT AT 46 ON A \$350 INVESTMENT

"WHenever I hear anyone claiming that big business is bad for small business, I think of my own case.

"Back in 1932 I leased this Union Oil service station in Venice, California, with \$350 my wife and I had saved the hard way. Now at 46 I'm financially independent. But I'd never have made it so soon without the Union Oil Company.

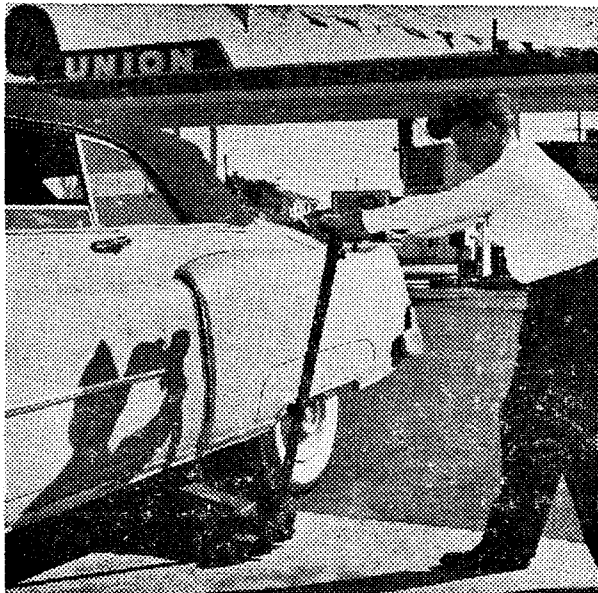


"They taught me how to buy. How to sell. How to service. Even how to hire and train help, and keep my books.

"They'd spend thousands of dollars perfecting new service ideas, then pass 'em on to me for nothing.

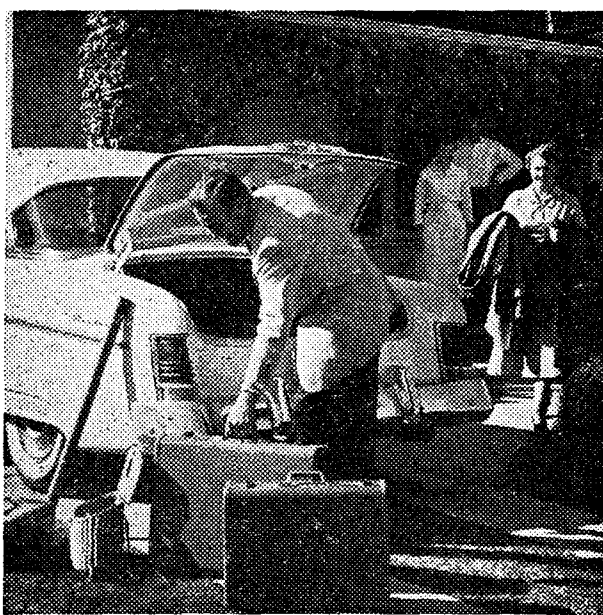
"Best of all, people practically took Union's gasoline and motor oil away from me. They were always the finest in the West.

"Well, business was so good I had the station paid for by 1939. Then I started buying real estate around it. Today my net worth's in the six figures. The children are through college and on their own. Marjorie and I are going to



CUSTOMERS ALWAYS GET THEM BOTH AT MCNEIL'S: THE FRIENDLY SMILE AND THE FAMOUS SERVICE.

travel while we're still young enough to enjoy it. But believe me—I'd never have done half so well



if I hadn't been in business with big business!"

* * * *

Henry McNeil, it seems to us, is the kind of man who would have succeeded with or without our help. But his point is well taken. Big business *does* help small business.

Union Oil is a typical example. We're the 45th largest manufacturing company in the country, with over \$350,000,000 volume in 1954.

But of this \$350,000,000, the lion's share—or 75%—is spent with the more than 15,000



small businesses and individuals like Henry McNeil with whom we do business.

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

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Surplus textbooks are needed for colleges in Japan, Korea

Lester M. Hirsch of East Los Angeles Junior College has issued a request for students' surplus textbooks, which are badly needed in Korean and Japanese colleges. Hirsch is chairman of Books for Democracy, a project concerned with supplying these colleges with books they otherwise could not obtain.

In a letter to Dr. Du Bridge, Mr. Hirsch explained that he visited a number of Korean and Japanese Colleges while teaching with the University of California Far East Command, and there learned of the pressing need for American texts. Those books which were available were being shared by many students. Mr. Hirsch suggested to the National Korean and Japanese Ministries of Education that textbooks might be obtained from colleges in this area, and gained their approval of the project. Next, the United States Information Agency agreed to ship such books overseas.

Students who wish to contribute to Books for Democracy may leave books at the Y office in the basement of Dabney Hall. Textbooks on all subjects are desired; the need is not restricted to technical books. The books will be processed at East Los Angeles Junior College by members of the local chapter of the National Student Honor Society.

CARL'S
CALTECH BARBERS

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Fulbright prize applications due

Government-sponsored Fulbright scholarships, providing expenses and tuition for a year of study in Southeast Asia or Pacific area, will be awarded by the government this spring to college Juniors applying for the year 1956-57.

Closing date for applications is April 15, 1955. Information and application forms are available from the Caltech Fulbright advisor, Prof. Horace Gilbert, in 104 Dabney.

Countries covered by the grants to be awarded are Australia, New Zealand, The Philippines, Thailand, India, Burma and Ceylon.

Applications for Fulbright scholarships to Europe should be made next Fall for the 1956-57 year.

Caltech Y to elect directors tonight

The Caltech Y will hold a meeting tonight in the new Y lounge in building T-1 for the purpose of electing 3 new members to the Y Board of Directors.

The Board is made up of members of the faculty, alumni, and local friends of the organization. The Y officers urge all those interested in the activities of the Y to attend.

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

Friday lecture by Dr. Beadle

Evolution will be the subject of the Friday evening demonstration lecture this week. Professor George W. Beadle will discuss the theory of evolution at 7:30 p.m. Friday, April 8 in room 201 of the Norman Bridge Laboratory of Physics. Dr. Beadle will illustrate evolutionary mechanisms with hereditary traits in man—hemophilia and sickle-cell anemia. He will also discuss the nature of hereditary material as shown by recent studies on viruses and consider the first steps in the evolution of life on earth.

The public is invited to attend the lecture, and since audiences are often large, those planning to attend are urged to arrive well before 7:30.

Dr. Beadle has been a member of the Harvard and Stanford faculties as well as that of Caltech, where he has been chairman of the biology division since 1946.

A member of the American Association for the Advancement of science, Dr. Beadle has been named president of that organization for the present year.

CAMPUS BREWINS

(Continued from Page 3)
finally managed to escape under pretext of some other pressing engagement.

Propriety victorious
Adams couldn't believe it (and the Beak doubted it). He was

taxing his evening's entertainment to her home and lo, after following her explicit directions, he found himself surrounded by a motel! But coolheadedness prevailed and he wisely left the register unsigned, said wench's parents being, as he was eventually reminded, the proprietors.

Why do more college men and women smoke VICEROYS than any other filter cigarette?

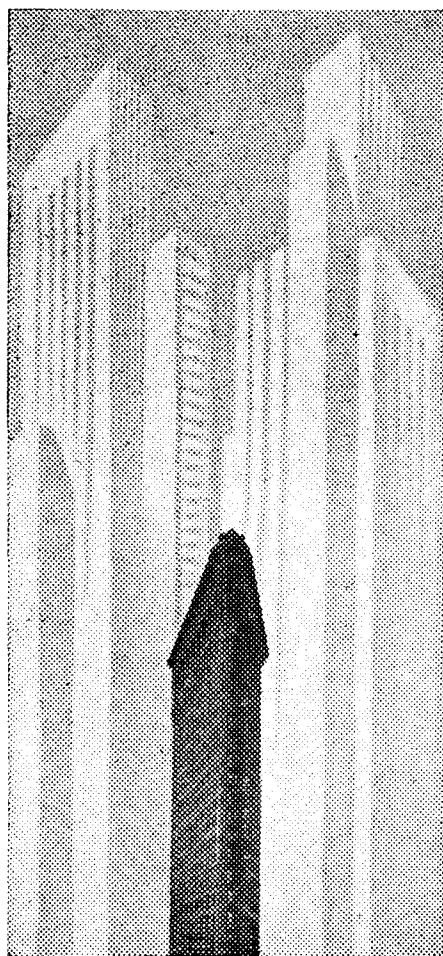
BECAUSE ONLY VICEROY GIVES YOU A PURE, NON-MINERAL, NON-TOXIC FILTER WITH 20,000 FILTER TRAPS IN EVERY FILTER TIP!

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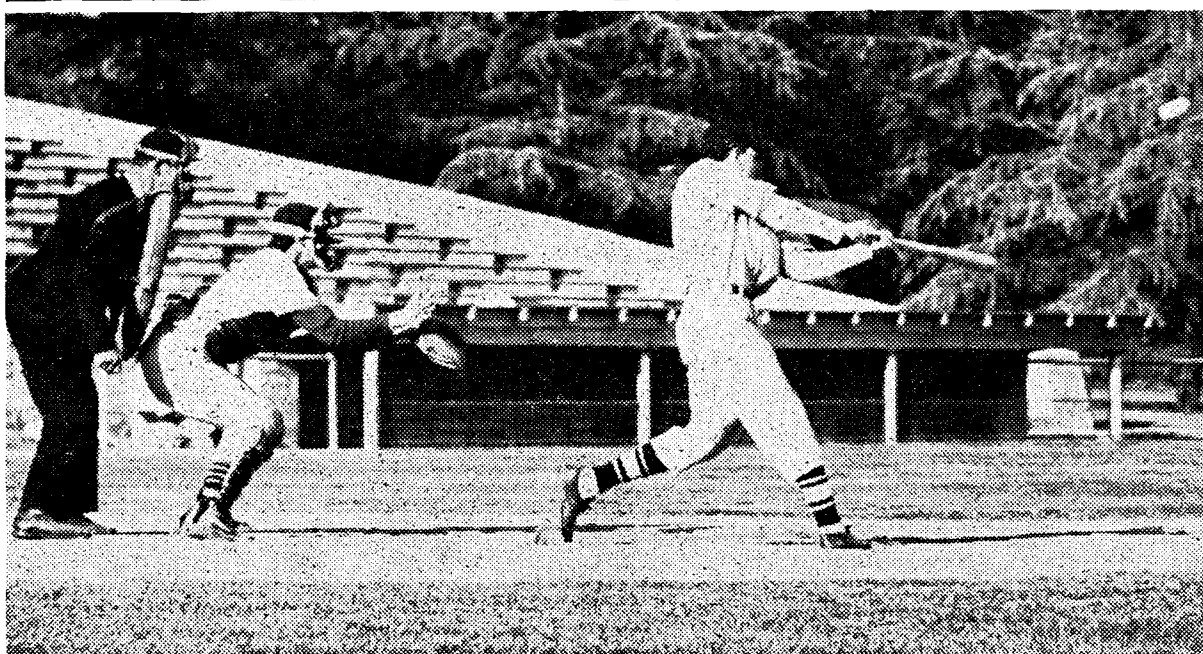
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Horsehidiers blow five run lead to Sagehens; drop to .500 mark in standings by 10-6 loss

Leading 6-1 at the end of the sixth inning Caltech's horsehidiers blew their lead and dropped their first conference tilt to Pomona-Claremont 6-10. Played at Tournament Park, front line hurler Ray Weymann went the distance as he took his first loss of the season on Friday, April 1.

Dropped to a .500 mark in league play the Beavers looked good in every department except pitching as they committed only three bobbles in the field to P-C's four, and stayed even at the plate for 12 hits apiece. It was the last three innings that told the story. In these frames Tech walked six batters, hit one, gave up six hits and committed a wild pitch, along with two errors as the Sagehens scored nine runs to Caltech's zero. The big blow for the Sagehens came in the seventh as catcher Crain unloaded the bases with a grand slam home run to bring them within one run of the Beavers. McGann, Sagehen second sacker blasted a single with the bases loaded again in the eighth to put Pomona-Claremont ahead to stay.



Umpire Stark, and Sagehen catcher, Crain, watch Beaver third-sacker, Hal Morris bang out a triple, as Caltech drops 10-6 conference tilt.

runs in the seventh and eighth innings to bring the Beavers back into contention twice. Hal Morris continued his torrid bat-

ting pace with two singles. Gene Nelson also pasting the apple twice for two hits brought his batting average up to a challeng-

ing .320 right behind Morris.

Score by innings:

| | | | | |
|---------|-----|-----|------|----|
| Caltech | 010 | 221 | 000— | 6 |
| P-C | 001 | 000 | 423— | 10 |

Tennis men split games

The Caltech tennis squad split a pair of matches at Santa Barbara and San Luis Obispo over last weekend.

The Beavers were defeated by Santa Barbara, seven matches to two, but on the following day they came back to edge Cal Poly five to four.

At Santa Barbara, only Ralph Miles was able to salvage a singles win. He beat Mike Perrett 6-3, 8-6. In the doubles Miles teamed with Al Poisner to win the three sets 6-3, 2-6, 7-5.

The Tech raquetmen came from behind to edge Cal Poly while the wind was blowing in gusts up to fifty mph. Gil Beebower and Dick Schmid won the second doubles match, while Miles and Poisner defeated their opponents in the third doubles 6-2, 6-4 to cinch victory for Caltech.

Miles was the only undefeated Tech netter during the trip. He was victorious in two singles and two doubles matches.

Santa Barbara had previously been beaten by Cal Poly but rose above the Beaver netmen to hand them one of their few defeats.

Big Beaver batsmen

Big guns for the Beavers in the hitting department were Weyman, Gene Nelson, Hal Morris and Ed Nelson, each with two hits. Smart signal calling from the bench resulted in two runs being added to the Caltech score through successive squeeze plays by Madsen and Koontz in the fourth inning to put Tech in the lead 3-1. Madsen's leaping effort placed the ball neatly out of reach of the charging infield in a very exciting bit of play.

Morris bats .343

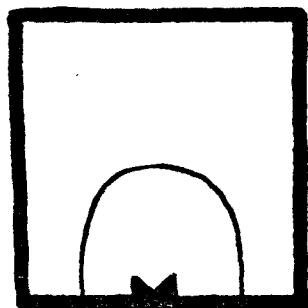
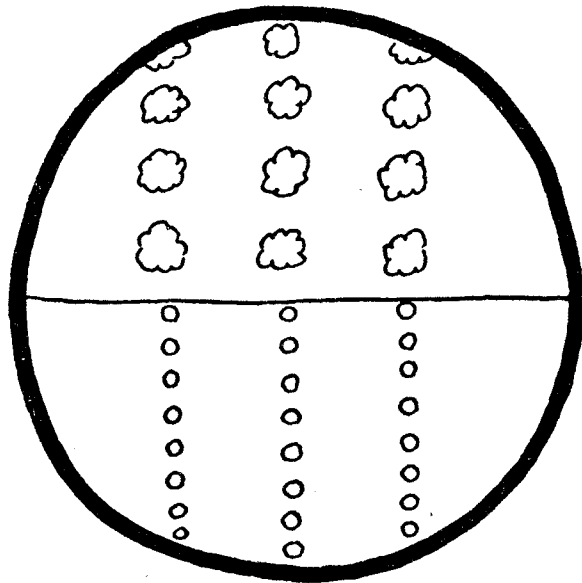
Morris, although adding only two hits to brace his .343 batting average (.444 in league play), gained safety on the sacks five times, his hits being abetted by 2 errors and a fielder's choice. Ed Nelson led the Beavers in the runs-batted-in column collecting two, but the Tech nine left 10 men on the sacks against the six the Sagehens deserted.

Westmont drops Tech

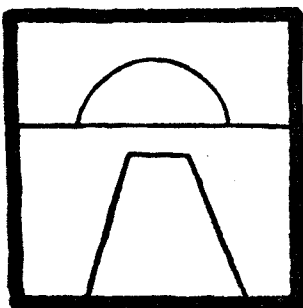
Westmont College, previously trounced 8-1 by Tech during the vacation, invaded the Beaver's backyard to hand them a 25-9 shellacking. Lack of pitching depth again dropped the Caltech diamond men as Westmont nine collected 21 hits off Hunt Holladay and Jim Snyder. First baseman Al Goldberg showed surprising power at the plate, although aided by a terrific wind blowing out toward centerfield, as he smashed consecutive home

LUCKY DROODLES! LOADS OF LAUGHS!

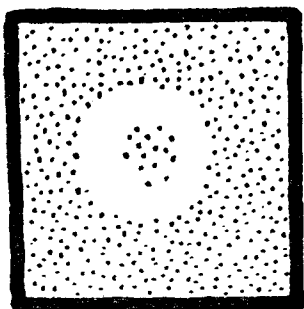
WHAT'S THIS? For solution see paragraph below.



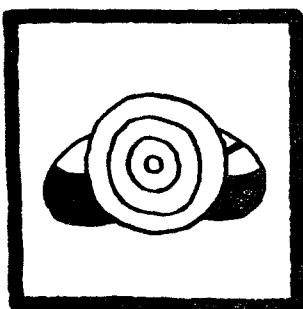
SMALL GIRL SKIPPING ROPE OUTSIDE WINDOW
Pierre Midol-Monnet
Lehigh University



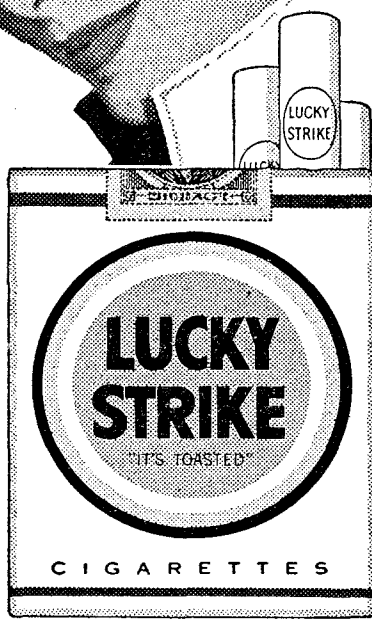
LAST SUNSET SEEN BY PIRATE WALKING PLANK
Ernest Gorospe
University of Hawaii



AERIAL VIEW OF CUSTER'S LAST STAND
Robert L. Wright
University of Virginia



FAT MAN AND FAT LADY BEHIND BEACH UMBRELLA
Judy Gendreau
Marquette University



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by Jim Mebust

Belated orchids to Phil Conley, whose 216 foot javelin throw still ranks third in the nation. A Stanford man threw it three feet farther to hit 219 and a San Jose strongman heaved it, with the help of a wind, over the 230 mark. Wonder what Phil could do with a wind like that on Saturday?

Jim Tyler rang up 18 points in Tech's triumph over Whittier in track. This rates him as the Beaver athlete of the week in our book.

Who said that?

Seems like I have been called on rather early to defend my choice of the Beavers in the baseball battle. They could do the defend themselves this weekend against Whittier, there. If Weymann can consistently pitch good ball it could be a walkaway, but it won't be because the team is fighting their own efforts to be as good as they can be, and losing their spark doing it. This game could set them back on the right track. To stay on that track Snyder and Holladay had better get in shape to give Weymann some support on the mound.

That quality called "intestinal fortitude"

Mike Duke, rugged Beaver backstop, played the Pomona game with a broken finger on his throwing hand, no wonder they were stealing on him. He'll be back in three weeks but Coach Preisler is going to be hard put to find a temporary receiver of the same caliber.

Sagechicks trample frosh

The frosh baseball team was defeated by Pomona last Friday by a score of 32-8.

The game started evenly, and the score after three innings was 8-7 with the Pomona's frosh leading. After that, Pomona's pitcher settled down, and Tech's battery difficulties remained at a high level.

The winning pitcher was Koster, who pitched the entire game, the loser Van Kirk. Howell started for Tech and gave up four hits and seven runs, three

earned. Van Kirk entered in the third and gave up one hit and eight runs (seven earned) before Kern, who yielded eight runs (six earned) and five hits, came on in the fourth. Baker pitched the sixth, allowing five hits, nine runs, no earned runs. The Tech moundmen allowed a total of twenty walks, and catcher Hoag, who substituted for Stocking, made eleven passed balls.

The outstanding Tech plate performance was by Chuck Stone, who had a single, four walks, and two stolen bases.

The score by innings:

| | | | | | | |
|---------|---|---|---|---|---|------|
| Caltech | 0 | 1 | 6 | 0 | 0 | 1-8 |
| Pomona | 1 | 1 | 6 | 9 | 6 | x-32 |

The frosh nine have their next game against Pacific College, here next Tuesday.

Tankmen dropped

Last Friday the Tech swimmers traveled to Los Angeles City College only to absorb a 58-26 defeat. Tech's only first places were taken by Dick Johnson in the backstroke and Bill Davis in the breaststroke.

Ed Park copped a second in the 50 yard freestyle and a third in the hundred. Bill Below scored with a second in the individual medley and a third in the backstroke. Other point winners for Tech were Harold Almond, second in diving; Hunt Small, third in diving; and Blaine Navroth, second in the 440 yard freestyle.

Tech's frosh swimmers lost to the LACC 'B' squad 51-31.

Vince Taylor took first and second in the 100- and 220-yard freestyles, respectively. Clarke Rees took Tech's only other first in the individual medley. Wayne Smith, Jerry Pjerrou, Bob Smoak, Don Wiberg, and Ron Leonard also took seconds. Pjerrou has filled a great gap in diving and the conference championship seems closer.

Today at 4:30 the powerful Hornets of Fullerton JC come to Tech. On their team is Jack Webb who has broken several national records this year. Those wishing to see a possible national record set in the backstroke or the individual medley should be sure to attend the meet.

Tyler stars as Beavers romp

Lewis doubles in distance runs

Caltech's varsity track team, led by Jim Tyler's 18 point splurge, defeated Whittier last Saturday on the Poet track. The margin of victory was 76-55.

Tyler had a great day, winning the high jump at 5 ft. 11 1/4 in., the broadjump with 20 ft. 9 in., and the 100 yard dash in 10.2. He took second in the 220 yard dash to finish his day's work. John Lukesh copped the 220 with a fine time of 22.0, after taking second in the hundred behind Tyler.

Phil Conley tossed the javelin 200 ft. 7 1/2 in. for a new field record and also picked up a third in the shot-put. Ted Lang twirled the discus 141 ft. 4 in. for his best-ever effort, coming within 11 in. of the school record set by Tillman in 1944.

Lewis doubles

Don Lewis scored a neat double, winning the mile in 4:44 and the 880 in 2:03.5. Fred Witteborn, after running second in the mile, came back to take the two mile in 11:11. The high wind hampered all the running events.

The 440 yard dash was won by Harris of Whittier in 50.6, with Tech's Roger Wileman a close second and Marty Tangora third.

Golfers lose

In their first conference match of the season, the Tech golfers dropped a decision to Pomona 25-11, at Los Serranos Country Club. The team was up to full strength this week, however Pomona's well balanced team was too much for the Beavers.

Tech's George McDonald came through again this week by firing an 82 and winning his match 4-2. Pete Abbey looked good in taking five points, and Paul Farley was again low for the Beavers with a conservative 78. John Bush did well in his first appearance with the team scoring 87. Tomorrow the team returns to Brookside for a rematch with L. A.

Relay scores

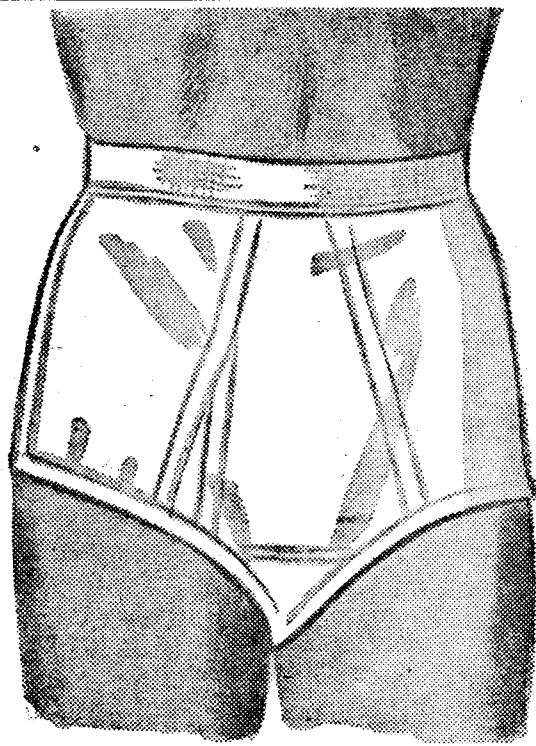
The Beaver relay team of Lewis, Rod Supple, Tangora, and Wileman won the mile relay in 3:29.8 to end the day. The relay was very close all the way, and Wileman won by only a stride.

March Field comes to Tech tomorrow at three o'clock for a dual meet. The meet dopes out very close, and could go either way. A lot of support might bring out some sterling Beaver performances. Let's get out and show the team that the student body is behind them.

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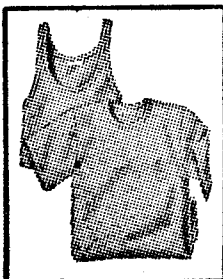
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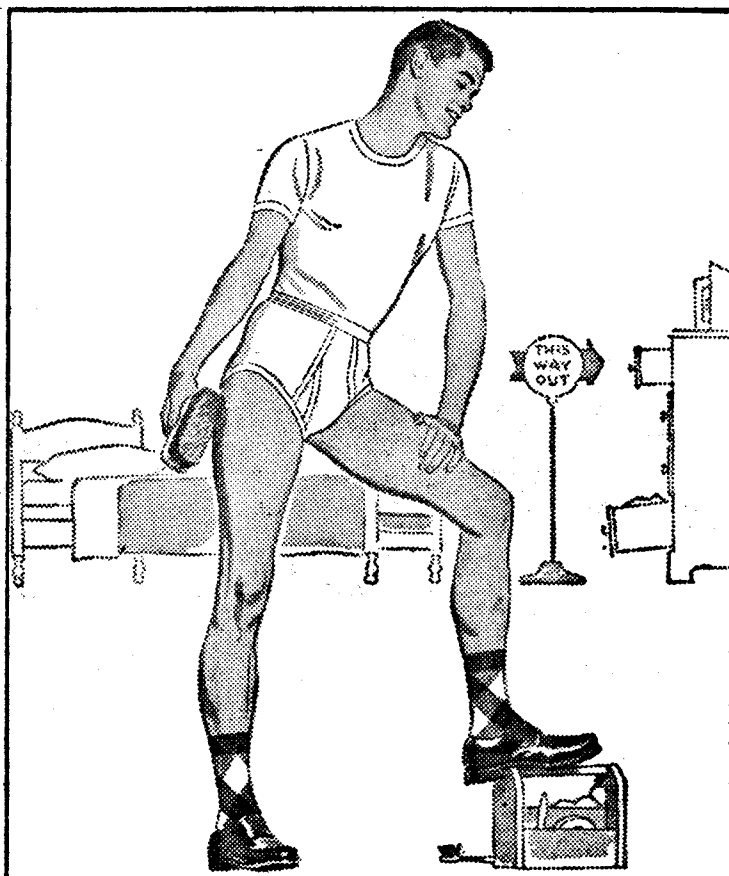
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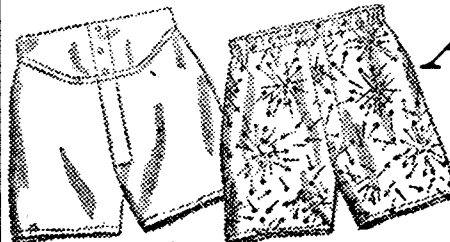


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Frosh win

Taking eleven first places, the Beaver freshmen swamped an undermanned Whittier track team 80-23 in Whittier Saturday.

Whittier entered men in only the dashes and field events. Gerry Lawrence took firsts in both low and high hurdles and the pole vault without opposition. Chuck Bonwell won the 440, Mike Rusch took the 880, Tom Moore and Reed Saunders finished in a dead heat in the mile, in events Whittier failed to enter. Moore out-distanced all varsity and frosh competition to take the 2-mile in 10:59.

Forrest Cleveland won the 100 in 10.7 seconds, Dan Horowitz took the discus. High winds and poor competition hurt times. The mile relay team ran unopposed and finished in 4:01.5.

After a week lay-off the team will meet Redlands here on Saturday, April 16.

Egad!

Two drunks blundered into a girl's dorm coming home one night. One lost his head and ran; the other remained calm and collected.

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Spanish grants for study given

Five fellowships for study in Spain are available to American graduate students for the 1955-56 academic year. The awards, given by a private donor, are administered by the Institute. Closing date for application is May 1, 1955. The fellowships provide tuition, maintenance, travel, and incidentals.

Candidates must be United States citizens under 30 years of age. Other requirements are: a bachelors degree by the time of departure; demonstrated academic ability and capacity for independent study or research; a plan for advanced study at a Spanish University or for research; a good knowledge of Spanish; good moral character, personality and adaptability; good health; and ability to provide for any dependents.

Applications may be obtained from the U. S. Student Department of the Institute of International Education, 1 East 67 Street, New York City.

Delegates chosen for United Nations

John Young has been named chairman of the Caltech delegation to the United Nations conference to be held in San Francisco May 5-7. Other members of the delegation are Jan Arps, Tom Bergeman, Hugo Fischer, Dick Kirk, Ted Matthes, Herb Rauch, and Larry Rhodes.

ASCIT will pay the registration fees to the conference for the above students; other expenses are to be borne by the individual delegates. Anyone interested in attending the conference as an observer is requested to contact John Young in Blacker.

Frosh chem option meeting cancelled

Contrary to previous announcement, there will not be a general meeting with the chemistry department consultants for freshmen interested in that option.

Students wishing information about the chemistry option should arrange to see either Dr. E. W. Hughes, 159 Crellin, or Dr. W. A. Schroeder, 54 and 63 Crellin.

DR. LINUS PAULING

(Continued from Page 1)

number of industrial plants. In Toyko and Kyoto, Professor Pauling gave public lectures, which were translated into Japanese, on the subject of the hemoglobin molecule in health and disease. These public lectures were sponsored by the Asahi Press, publishers of a leading Japanese newspaper, and were so well attended that several hundred people had to be turned away.

"The caliber of the scientific and technical people in Japan is very high. The quality of the work done is excellent, but Japanese scientists are handicapped by lack of financial support in the universities, which is a result of the poor economic condition of the country as a whole."

In Israel, Dr. and Mrs. Pauling visited the Weizmann Research Institute, Hebrew University in Jerusalem, the Technion (Institute of Technology) in Haifa, and the potash plant at Sodom on the Dead Sea. They spent Christmas eve in Bethlehem, the customary difficulties in passing the border from Israel to Jordan having been relaxed to permit this pilgrimage to be made.

Library has free books

Dr. Roger Stanton of the Caltech humanities division has announced that 250 to 300 duplicate and unwanted books will be given away this Friday. The books cover all fields and subjects and have been accumulated by the humanities department over the past three years.

These books will be given away in the humanities library until the supply of copies is exhausted. As the demand for these copies is great, those interested in acquiring books are urged to come to the library tomorrow as early as possible.

Although most of these books are of a technical nature, a number of them are on non-scientific subjects and of general interest to Caltech students.

On their way back to the United States, Dr. and Mrs. Pauling stopped off to see their son, Dr. Linus Pauling, Jr., Resident in Psychiatry in the Queens Hospital, Honolulu. After two weeks back at the Institute, Dr. Pauling is now making ready to leave for a month to give a series of lectures at Harvard.

TECHMEN TO GET HONORS

(Continued from Page 1)

lips, Bruce Blackie, Pete Lauritzen, Alan Poisner, Reed Saunders, Michael N. Bleicher, Frank Kofsky.

Don Evans, Dick Schmid, Ray Orbach, Ed Park, Jon Harford, Van Walkley, and Don Nierlich.

Keys are awarded to those persons earning 100 or more points and certificates to those earning 50 or more points under the system outlined in the Little T. Briefly, honor points are awarded on the basis of participation in extra-curricular activities, with awards ranging from a compulsory key for the ASCIT president to one or two points for minor activities.

The Honor Point Committee was composed of Vince Marinovich (chairman), R. C. Kausen, and Bill McDonald. The Committee reviewed applicants submitted, and the BOD approved same; keys will be distributed (the year is engraved on the key) at the annual Awards Assembly.

The period during which points may be accumulated is from the beginning of third term one year to the end of second term the following year.

Interview Schedule

- Fri., 8—BS, MS, PhD/Ae, ME, EE, Ph Convair—Pomona, California.
- Fri., 8—BS/ACh; MS/ChE Titanium Metals Corp. Henderson, Nevada.
- Fri., 8—BS/ME/ACh Goodyear Tire and Rubber Company of California, Los Angeles. Company looking for men either for training program or direct hire into Technical Service Department.
- Mon., 11—BS, MS/EE; BS/Ph Collins Radio, Burbank, California
- Mon., Tues., 11, 12—BS, MS, PhD/ Ae, CE EE ME Ma Ph McDonnell Aircraft Corporation St. Louis, Mo.
- Tues., 12—Jrs., BS/ME, Ge Tide Water Associated Oil Co.
- Tues., 12—BSup/Ph, Ma, EE Computer Control Co.
- Wed., 13—BSup/ME; Soph., Jr./ME's for Summer Norton Air Force Base, San Bernardino, California.
- Thurs., 14—BS/EE, Ph Cascade Research Corp.
- Fri., 15—ACh, ME, EE—One year away from final degree Protzer & Gamble, Long Beach. Interviews will be for a Summer Work Shop Program to learn more about the operations of the Long Beach plant and operations of the Company. Program of two weeks duration—22 August through

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