

California Institute of Technology

Friday, March 31, 1950

Volume LI.

## Rocket Films At Assembly Today

NOTS to you—that is, the U.S. Naval Ordnance Test Station is bringing a film and colored slides concerning rocket work at Inyokern and Tech for this week's Friday Assembly.

C. E. Weinland, member of the Development Staff Rocket and Explosive Department, will give a running commentary of the work of the U.S. NOTS in conjunction with the film. Also he will describe the rocket development during the war at Caltech, headed by Dean Watson and Dr. C. C. Lauritsen in OSRD, with the colored slides.

### Question Period

Mr. Weinland has done research at Caltech under OSRD; and, since it is likely that there will be time for a question period, those interested may satisfy their minds about rocket problems and what has been done at Inyokern.

## Stern Awarded French Titles

Dr. Alfred Stern, lecturer in French, German, and Philosophy at Caltech, has been awarded the "Academic Palms" and the title of "Officer of the Academy" by the Government of France. The decoration was officially presented to Dr. Stern on March 24 in the Los Angeles office of the French Consul General.

His latest book was titled "Philosophy of Laughter and Tears," published in French. He has published numerous other writings in his field, and has written an article on "French Science and Philosophy" for the new Encyclopedia Americana.

### World Traveler

Dr. Stern came to Caltech in 1947. He is also a lecturer at USC.

He fled from France in 1942 and was very active in Free French activities. He speaks German, French, English, and Spanish, and has travelled extensively all over the world. He received his doctorate at Vienna in 1923, and is a member of several philosophy honor societies.

## McCrery Men To Stockton Go

It's off to the debate wars for twelve Caltech word-slingers, who leave the home front this Sunday by motor caravan to match post *hocs*, ad *hocs* and ad *libs* with several hundred other college debaters at the Pi Kappa Delta Invitational Tournament being held at College of the Pacific in Stockton next Monday, Tuesday and Wednesday.

Heading the syllogism twisters, bearing ample testimony of the power of spoken words, are newly elected student body president Ulrich Merten, vice president Olly Gardner, and secretary Stan Groner. Others who will go are Allan Beek, Doug Calley, Swaroop Bhang Deo, Bill Dibble, Dick Fairall, Mike Lourie, George Merkel, Ralph Stone, and Dick White.

## Campus Calendar

**FRIDAY, MARCH 31**  
11:00 Assembly in Culbertson  
Jet Propulsion and Rockets  
1:30 Golf Varsity vs. Whittier at  
Annandale  
4:30 Swimming Varsity and Frosh  
vs. Whittier at Pasadena City College  
8:00 p.m. Track Varsity and Frosh  
vs. Occidental at Occidental

**SATURDAY, APRIL 1**  
1:30 Tennis Frosh vs. Redlands  
at Caltech Athletic Field  
1:30 Tennis Varsity vs. Redlands  
2:15 Baseball Varsity vs. Whittier at  
Caltech Athletic Field  
2:15 Baseball Frosh vs. Whittier  
at Whittier

**SUNDAY, APRIL 2**  
7:30 Film Classic Series in Culbertson

**MONDAY, APRIL 3**  
7:30 Film Classic Series in Culbertson

**TUESDAY, APRIL 4**  
12:00 Y-Frosh Lunch Club  
4:15 Baseball Varsity vs. Pepperdine  
at Caltech Athletic Field  
4:15 Track Varsity vs. Nazarenes  
at Caltech Athletic Field

**WEDNESDAY, APRIL 5**  
7:30 Orchestra Rehearsal in Culbertson  
9:00 Glee Club in Culbertson

## Tau Betes To Hold Banquet

Tonight the Tau Betes are holding their second initiation banquet of the year, immediately following the formal initiation of 13 new members:

John Bjerkie  
Edward Davis  
Franklin Goodman  
James Hendrickson  
John Holmes  
James Ibers  
John B. Johnston  
Thomas W. Layton  
James McQuiston  
John J. W. Rogers  
Edward Stern  
George Trilling  
William Wright

### Steak

This time the banquet will be held at Pierre's in San Marino, where all will enjoy a sumptuous filet mignon dinner. After dinner the new pledges will give their annual skit.

Dr. Jahns of the Geology Department will then give a talk on geology illustrated with colored slides. Dr. Neher, the second speaker, will speak on cosmic radiation.

## Drama Club Hits the Road

Fiendish laughter and blood-chilling screams will once more resound when the Caltech Drama Club revives the old-fashioned melodrama on Friday, April 7, at the McKinley Junior High School. This performance is under the auspices of the Caltech Service League and will be held for the benefit of their many activities.

### Apropos Queries

Some of the questions slated for examination are: "What are the employer's problems in hiring men for the summer? What procedure may be followed in searching for a summer job? What can a man just completing his freshman year look for and expect to find?" and, "When should a man start looking for summer employment?"

## Libbey Takes Y Presidency

Dick Libbey edged out Leo Baggerly in the Y elections on March 9th for the presidency of the Caltech Y.M.C.A. Dick has been active in the Y since his freshman year, and during the past year he has been vice-president of the Y. He made the following statement to Tech reporters, "I am looking forward to a year of increasing Y activity both in old and new fields, accompanied by greater participation."

### Other Officers

The other officers elected were:

John Boppert, vice-president;

John Flynn, treasurer; Phil Orville, secretary; Mike Bader, national representative; and Tom Stockebrand, publicity manager.

The new officers were sworn in immediately after their election. Libbey received a two-foot pencil from Burton Housman, last year's Y proxy, on which was inscribed a note to the president wishing him luck in his new office.

## Student Houses--The Philosophy Behind the System

### First of a Series

Recently there has been much discussion amongst the men in the student houses over prices of living in the houses, high prices of repair services, etc.

Seeking to find answers to many of the problems and specific gripes of men in the houses, the interhouse committee has held and will hold another conference with Mr. George Green, Business Manager of Institute, Mr. Glen Green, Manager of the Athenaeum and Student Houses, and Mr. W. Hertenstein, Superintendent of Buildings and Grounds.

### S. H. Philosophy

The first meeting was spent in a discussion led by Mr. George Green explaining operation of the student houses. It was brought out that the primary function of Caltech is instruction and research, and the Bookstore, Houses, Federal Housing Project, Athenaeum, Old Dormitory and Health Center, are auxiliary enterprises which are intended to be operated on a self-supporting basis.

The equipment is located in the subbasement corridor of East Bridge, and the only string attached is that it must be removed from Bridge.

This should be a gold mine of parts for you radio experimenters, there are many old and war surplus sets, parts, and tubes, and some QST magazines.

(Continued on Page 4)

## Billion-Volt Atom Smasher To Be Built at Caltech

### Million Dollar Synchrotron To Begin Operations in One Year

Dr. L. A. DuBridge recently announced plans for a new high-potential atom-smasher of the type known as an "electron synchrotron" to be built on the Caltech campus. The machine will be housed in the present optical shop, which is now being transformed into a high-energy physics laboratory.

The machine was developed through a joint survey by the Office of Naval Research and the Atomic Energy Commission,

who are providing most of the million dollars required for its construction. Two similar but smaller machines are now in operation at Cornell and at Berkeley and their success has encouraged scientists to push on into the billion volt range for which this machine is designed.

### Research Program

Dr. Bacher expects that the first stage of completion will be reached within a year, when the machine will be operated for a while at the 500 MEV level. Enlargement to the billion volt energy level is expected by 1952.

According to Dr. DuBridge, the building of this instrument is in keeping with Caltech's fundamental research program in nuclear physics. Dr. Bacher explained that its purpose was "to seek additional knowledge about the nature of forces that hold atomic nuclei together." He expects this work, using x-rays and electrons from the billion volt synchrotron, to yield additional information.

### How It Operates

The general design of this machine was suggested by Dr. H. R. Crane, now a visiting professor at Caltech. The magnet will have four quadrants with straight sections between, with a diameter of about 36 feet. The electrons will reach nearly the speed of light in travelling 90,000 miles around this "race-track" magnet. A pulse transformer will feed in the electrons at the 1½ MEV level. The high-speed electrons will be used for bombardment of atomic nuclei, with such high energy that mesons should be produced. This particle seems to serve as a sort of 'nuclear glue' and it is hoped that, as Dr. Oppenheimer predicted in his lecture series, that more light will be shed on this problem.

## Bio Club Visits Arizona Desert

By Bruce Stowe

Ten carloads of biology enthusiasts braved the desert heat for four days while participating in the Biology Club's annual spring field trip.

This year's trip took them to the Kofa Mountains and the Organ Pipe Cactus National Monument, both in Arizona, while a hardy few ventured further to the Gulf of California in Sonora, Mexico.

### Desert Arrival

Setting out early on Saturday morning after finals, the group trekked across the desert on U.S. 60-70 until they were safely out of California. Then, meeting along the road for lunch, Dr. Went treated the group to an introduction to the fascinating adaptations of desert flora.

The story of the mistletoe which uses a bird's end to its ends, and of the creosote bush which poisons those of its children which stay near home, was explained as examples were found.

Not content with sticking to flowers, members of the group collected rocks, engaged in geological speculations, spotted birds and animals, as well as enjoying and photographing the beautiful unsmogged desert scenery.

### First Night

The first night's camp was at the foot of the Kofa Mountains, where a magnificent view of the zodiacal light was obtained after sunset. The stars were unparalleled in brilliancy, and the sleepers amongst the saguaro and ocotillo spent a very peaceful night.

The National Monument, located in the desert just north of the Mexican border, proved to be rich in all types of desert vegetation.

In addition, the Rangers gave their full time to guiding the group and comparing information with the various experts available. The extensive collection of birds, snakes, ground squirrels, and other animal specimens gathered from the region by the Park Service was also examined and was available for detailed study by those interested.

### Visit to Ajo

The final day of the trip found the group split as individual interests were followed. A number viewed the open-pit copper mine and refining plant at Ajo, Ariz., and another group went to Mexico to swim and fish in

## Geology Men See the West

By Dave MacKenzie

"See the West with Jahns Scenic Tours." With each car in the 15-car caravan bearing front and rear bumper banners displaying the above slogan, the geologists were off on their annual "regimented vacation"—the Spring Field Trip.

The caravan left the Saturday after finals and returned to Pasadena one week and 910 miles later. It proceeded north to Owen's Lake, southwest to Trona, then north again through the Panamint Valley, east over the Panamint Range into Death Valley and then south through Death Valley and home.

### Jahns at Head

For the second successive year, R. H. Jahns was fortunate enough to have been chosen to lead the 65 rock-hounds on this delightful part of the Geology Department's curriculum. Travelling at the head of the procession and wearing a large orange-and-white guide button on his headgear, Dr. Jahns endeavored to point out in detail, to the interested members of the party, the places of geologic interest at short intervals—one mile, say—along the route.

### B.O. Plenty

Several small mining operations—talc, lead, silver, and borax—had high priority on the list of things to see during the trip. In addition, the group was conducted on a three-hour tour through the American Potash and Chemical Company Plant at Trona. Through the efforts of a Tech graduate, the boys had the use of the 300' by 200' company swimming pool. Except for T. P. Coons, who brought along a stirrup pump for such purposes, this provided the only opportunity to remove the grime and dust which had accumulated on the skin by eolian deposition—i.e., howling dust storms.

### Early Return

The group was not scheduled to return to Pasadena until 6 p.m. Saturday. However, considering the prospect of windy wet weather and chancing the dangers of an unheralded arrival of husbands at home, the trip was disbanded late Friday near Baker and at the heels of Wildman Rigsby, the caravan took off in the driving rain at a great rate for Pasadena.

## Notice

Professor Harald Norinder, Professor of Electrophysics, Institute of High Tension Research, Husbyborg, Sweden, will give a lecture at 4:15 p.m. on Friday, March 31, 1950, in the Physics Lecture Room, 201 Bridge, the title of which will be HIGH VOLTAGE POWER DEVELOPMENTS AND LIGHTNING RESEARCH IN SWEDEN.

## Interview Schedule

MARCH 29, 30 and 31—GENERAL ELECTRIC COMPANY—Mr. H. C. Hill, Industrial Division and Mr. S. W. Scarfe from Los Angeles office and Mr. Curtis from the Hanford Works, Richland, Washington, will interview L. A. representatives will interview Mechanical and Electrical Engineers of BS and MS level for Training Programs and employment. Richland Representatives will interview Chemists, Chemical Engineers, and Physicists of BS and MS level, for Training Program in Hanford Works.

MARCH 31—NORTH AMERICAN AVIATION, INC., AEROPHYSICS AND ATOMIC ENERGY RESEARCH DIVISION, Downey, California.

AEROPHYSICS DIVISION, Guided Missile Research and Development. Mr. D. Myers, Asst. Section Chief Aerodynamics will interview MS degree men and up in Aerodynamics—design experience helpful—upper half of class.

Mr. F. A. Ford, Chief of Preliminary Analysis Section, will interview MS degree men in ME with Aerodynamics major—upper half of class.

ATOMIC ENERGY RESEARCH DIVISION—Dr. H. Pearlman, Chemistry Group Leader, Chemists, Chemical Engineers and Metallurgists of MS and PhD level, BS men in upper 10 percent of class.

Mr. W. Parkins, Group Leader Experimental Physics, Physicists of MS and PhD level of experimental and theoretical type, BS degree men in upper 10 per cent of class.

Mr. C. E. Malmstrom, Group Leader Laboratory, Mechanical and Electrical Engineers of MS and up level, BS men in upper 10 per cent of class.

For further details as to type of work, see special North American bulletin on Placement bulletin board.

APRIL 3—INTERNATIONAL BUSINESS MACHINES, New York, New York. Mr. E. C. Schroedel, in charge of Institutional Dept., and Mr. J. H. Frazer, Mgr. Engineering Labs., Poughkeepsie, N. Y., interviewers. MS and PhD's primarily and a few BS degree men in EE or Physics who have majored in electronics

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**THE SQUARES' CIRCLE****Editor, the California Tech**

Yesterday I received the following communication from Dr. Prof. H. von Splopszill. I have not yet been able to confer with Dr. Stanaway, but I feel that some sort of action should be taken before relations between these two great institutes deteriorate further.

**P. Booputz.****Gnader Herr,**

It has been brought to my attention by Prof. Dr. Geheimrat P. Zwoop the elder, that there appeared last week in the *Zeitschrift fur Kaltech* a paper by Prof. Dr. Stanaway describing research at that Institut on the order of peculation in the domestic fowl. Further, I note that no mention is made of my pioneer work on this subject, even tho this was fully reported on by you during a recent seminar held at Culbertson Hall.

I wish formally to protest this

**ON THE RECORD****Guest Reviewer—George Abell**

Leonard Warren's concert Friday evening at the Civic Auditorium was one of the outstanding musical events during the spring vacation. Despite a heavy rainfall, an enthusiastic audience turned out to welcome the Metropolitan Opera baritone.

**Selections**

Warren was, perhaps, not in top form Friday night; nevertheless, he performed well, giving a more than satisfactory rendition of a wide variety of baritone vocal music. His voice is not outstanding for clarity or freshness, but it contains a rich quality and sufficient power. The program opened with a series of early songs by Handel and others. The first heavy operatic aria of the evening was "Era La Notte" Verdi's *Otello*. The audience's warm response to this prompted, as an encore, the famous Toreador Song from *Carmen*. After the intermission, following a short piano recital by Mr. Sektberg his accompanist, Warren sang the baritone's romance from Act II of *Faust*, and Figaro's aria, "Largo al Factotum," from the *Barber of Seville*. He followed up thees two with another encore, the showy Prologue to *Pagliacci*. Here was, perhaps, the best singing of the evening. The artist was in full command of the range of voice and dramatic ability required for a good performance of the Prologue. The concert was concluded with a series of American folk songs, admirably done.

**Philharmonic Concert**

The Los Angeles Philharmonic Concert season is drawing rapidly to a close. The 16th concert pair at Philharmonic Auditorium last Thursday and Friday featured, as guest soloist, Andres Segovia, famed guitarist.

Mr. Segovia performed the "Concerto for Guitar and Small Orchestra" of Sastelnuovo-Tedesco. At the time the Italian composer began writing music for the guitar, at the request of his friend, Segovia, he was totally unfamiliar with the instrument. This was certainly not apparent in the delightful performance of the concert Thursday evening. The work is rich in melody, and

outrage, which has disrupted work and thrown my Laboratory at the Körnerwurster Institut into an uproar. The hens have stopped laying, I have stopped laying, and I fear that I am beginning to moult. Unless immediate recognition is given to the debt owed to the work here at the *Laboratorium fur Einführung im Naturwissenschaften über der Henne*, I fear that irreparable damage will be done to the whole program on the order of peculation.

I have been informed also that the Poultrymen's Association is considering, upon the recommendation of the hen used at your recent seminar, awarding you the order of the Golden Wattle in recognition of your brilliant discussion of my work. If official action is taken, you will be notified.

May I extend my greetings to our learned colleague, Dr. Schmaldfiffle, and the entire staff.

**H. von Splopszill,  
Direktor, Lab. fur E.N.H.**

the guitar, excellently played by the soloist, blended surprisingly well with the symphony orchestra. Owing to the fact, however, that the orchestra was toned down to a comparatively small size to match better the volume of sound which a guitar is capable of producing, the concerto might be better suited to a chamber, rather than a symphony, concert. At any rate, the performance was very well received. The composer himself was on hand to receive a well-earned ovation from a well-pleased audience.

Also on the program was the Chausson Symphony in B flat, of which the conductor, Alfred Wallenstein, gave a superb reading. The orchestra was not quite up to its usual excellence in the opening number of the evening, the dramatic and colorful Overture to *The Flying Dutchman*, but the performance was satisfying. The program was brought to a rousing conclusion with the over-played "Rhapsody Espagnole," by Ravel.

**Events to Come**

In the final concert pair next week, the mighty Second Symphony of Gustav Mahler will be presented with chorus and soloists. Other musical attractions of interest in the near future include:

Heifetz at Philharmonic Auditorium, Friday evening, March 31, Mozart's "The Abduction from Seraglio," in English, by the Guild Opera Company, at the Pasadena Civil Auditorium, Monday, April 3. (Tickets: \$1.20 through \$3.00.)

Hungarian Quartet and Reginald Kell, clarinetist, at the Wilshire Ebell Theatre, Wednesday, April 5.

**• CAMPUS**

"The Moving Finger writes; and, having writ,  
Moves on: nor all your Piety  
nor Wit  
Shall lure it back to cancel  
half a Line,  
Nor all your Tears wash out a  
Word of it."

**... Omar.**

Finals week found all Flemites turned geologists, as they recovered their missing President's bell from a bulky plaster block. Shifts of athletes chipped far into the night until the priceless heirloom was finally disinterred.

Much traveling was done over the holidays. Bruce Stowe returned from the Biology field trip with his car much flattened: driver Weil, eyeing the flora in a nearby ditch, had ground-looped the car thereinto, ejecting both himself and Jack Behnke while owner Stowe remained at the center of gravity unperturbed, though well centrifuged. To restore equilibrium, still-eligible-for-golf Ed Revay shortened his vehicle in a collision. He and Stowe are now reported sharing a single-car garage.

**Here and There**

Mower, Jerry Matthews, and Paul Armstrong, gradually losing their enthusiasm for botany, ended up in Mexico, indulging in less-scientific relaxation. More platonic was the pilgrimage of Dick Libbey, Slodowski, and John Gee, who, after detachedly viewing the Mexican fleshpots, finally found solace in the uplifting utterances dispensed by St. Potpourri Crichton at his Palms Spring retreat. Don Arnold's requirements, on the other hand, were found to be not as easily satiated, and he returned after a week in Tucson complaining about numerically inadequate amusements. Geologists Peck and Cobb ventured forth on their one-unit field trip in a more epicurean vein, equipped with picks, compasses, and fuzzy tongues from the night before, while Dick Jones and Stanaway found the joys of the parallel boards only equaled by the scintillating wit of the local—Utah—women.

**Who's Calliope?**

Less transitory, alas, was the voyage of last year's most outstanding Freshman, Al Haber, who, deciding that Science was a sacred cow after all, voluntarily resolved to dedicate himself to Calliope at the University of Chicago.

Back home, Bob Madden's hours, irregular at best, became practically nonexistent between terms as a consequence of, he says, his reputedly spiritual strivings.

Saturday night in Dabney Hall saw a solemn gathering of the

**BREWINS**

remaining derelicts and dutes: Dzendolet with his biological Juliet, Rodriguez with a stunning amazon, and Moss' Mediterranean beauty—sampling options—this time with a Mediterranean biologist.

Most fruitful of all was the field trip of Valentino Pardee, who sped to Indiana to clinch his well-advertised original passion with a diamond engagement ring, hand specimen, much to the dismay of bettors-to-the-contrary Barrie and Morrison.

**Pilgrimages, etc.**

Out Dabney way high praise comes from the lips of border-crossers Hedrick and Markoff for the adeptness of Mexican shoe-snatchers. Pope Daniel also reports the loss during the same sand-sleep of a pair of swimming trunks which we trust he was not wearing at the time.

Also seen making the Mexican rounds were F. H. Corbato and "Sunny" Picciotto, who, suffer-

ing no thefts, were nevertheless nonplussed when they stopped at Royce's house on the way home and found what appeared to be a gala party in full swing . . . "Just dinner, that's all" . . . quoth Royce.

"Most unbelievable" was the comment of Tunnel residents who were Wrightfully surprised come the end of vacation to hear of the marriage of Bill W. Unlike the plans of most newlyweds, those of this couple have been quite defined: Bill will continue on at Tech though moving off-campus.

We can hardly overlook, then, the opportunity to malign the newly chosen Feature Editor, Bill Whitney. While most of our breed scarcely manage to survive the twenty-seven mile trek to the Walled-in-tribe, Whitney can claim the harder constitution: "Tucson or bust!" his motto, and his quest an ex-Schimppis . . . just what did you use that "tape recorder" for, Bill?

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She: Why, what slim expressive hands you have. They belong on a girl.

He: OK, Baby, you asked for it.

**On April 4th Don't Miss  
THIS FINE PLAY SHOWN FOR A WORTHY CAUSE**

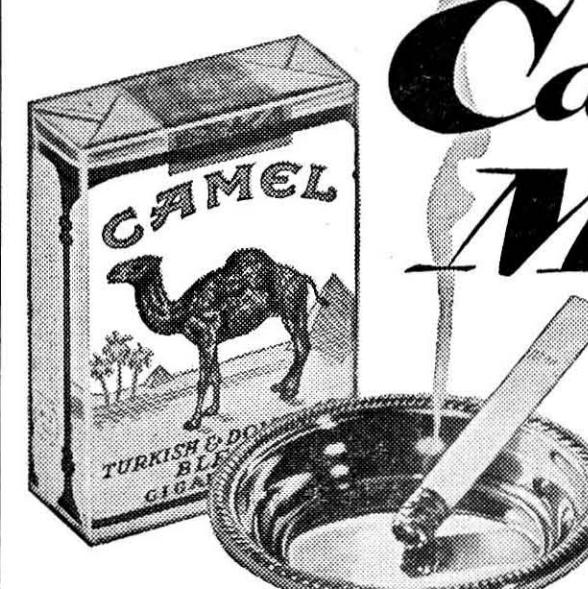
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**ANGOSTURA**  
AROMATIC BITTERS  
MAKES BETTER DRINKS

# Tech Tracksters Draw Runner-Up at SCIC Meet

Attended by the largest crowd<sup>♦</sup> the Caltech track team has seen in some time, the All-Conference relays were run at Oxy the Saturday before finals, March 4. The most appropriate comment was made by an observer who prefers to remain anonymous: "Well, anyway Caltech won the amateur division. As may have been expected, Oxy walked off with the meet to the tune of 49 to Caltech's 21½, Redlands' 20½, Pomona's 18 and Whittier's 11½. Oxy took all the running and relay events, managing to break a few records on the way.

## Standouts

Standouts for Tech were Hal Tyson, who took a first in the shot and a second in the discus, and Martin Walt who took

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## At A Glance

<b>Track—</b>	Oxy, 49; Caltech, 21½; Redlands, 20½; Pomona, 18; Whittier, 11½.
<b>Freshman Track—</b>	Oxy, 64; Pomona, 15½; Caltech, 13½; Whittier, 13; Redlands, 2.
<b>Baseball—</b>	Caltech, 6; Pas. Nazarene, 3; LaVerne, 14; Caltech, 4; Glendale, 8; Caltech, 6; Glendale, 6; Caltech, 3; Pepperdine, 20; Caltech, 7.
<b>Golf—</b>	Santa Barbara, 175; Caltech, 3.
<b>Tennis—</b>	Whittier, 7; Caltech, 2; Caltech Frosh, 9; Whittier Frosh, 0.
<b>Skating—</b>	(race declared "no contest").

<b>CURRENT IH TROPHY POINTS</b>	
Fleming	117.5
Dabney	91.5
Blacker	87.5
Ricketts	63.0
Throop	60.5

## Tech Skiers In SCIC Race

One of the most important ski races of the season was held last Sunday at Snow Valley. The Southern California Intercollegiate Ski Union Race, matching UCLA, USC, and Caltech was held in conjunction with the San Gorgonio Ski Club's Giant Slalom Team Race. Originally scheduled for San Gorgonio mountain, the meet was moved to the more accessible slopes at Snow Valley when a welcome twelve inches of snow fell Saturday.

### Poor Visibility

Unfortunately, the race was upset by intermittent clouds which actually limited visibility to under thirty feet. Gatekeepers had to call directions to some of the racers when the clouds were at their worst in order that they could find the next gate! For a lucky few of the racers the clouds blew away and the sun peeked thru. The net result was that the results were not indicative of the racer's ability alone, but also of the visibility allowed by the weather.

### Price Hurt

The race was marred by an accident which one of our team members, Pete Price, suffered. Pete fractured his ankle when he took a bad spill in some ruts

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## Mermen To Splash Poets Whip Tech Racket Men, 7-2

That classic phrase, "Swimmers, take your marks—go!" will again open the swimming season for Caltech tankmen this Friday at 3 p.m. in the P.C.C. pool. Opposition will be furnished by the Whittier Poets, who are "fielding" a team for the first time in several years.

### Predictions

All the other teams in the conference have had at least two meets so far, making it possible to make a prediction of sorts as to the final season standings. Oxy has soundly trounced all its opponents and with the times the Tiger swimmers have posted, it is difficult to see Oxy taking anything less than first place. Last year's second-place Beavers are going to have a little tougher time doing as well this year. However, with the help of a little luck and superior squad depth we should be able to repeat as runners-up. Whittier, Pomona and Redlands should battle it out for the last three places.

### Squad Stars

The most promising members of this year's squad are Dick Libbey and Dick Von Herzen.

On March 11, the Tech tennis team opened their conference season by journeying to Whittier, only to be beaten by the none-too-impressive score of 7 to 2. Dean Blanchard, playing in the No. 3 spot, won the only singles match for us, while Berk Welch and Roger Baier, playing third doubles, brought Tech its other point. The individual scores are as follows:

### Singles

1st—Rouzer (W) def. Martin (CT), 6-3, 6-3.  
2nd—Phillips (W) def. Pindexter (CT), 6-1, 6-3.  
3rd—Blanchard (CT) def. Chapman (W), 6-4, 6-1.  
4th—Davis (W) def. Baier (CT), 6-3, 6-2.  
5th—Carlisle (W) def. Ed Welch (CT), 6-3, 6-4.  
6th—Beauchamp (W) def. La Fleur (CT), 6-4, 5-7, 6-4.

### Doubles

1st—Chapman-Rouzer (W) def. Martin Blanchard (CT), 6-3, 6-3.  
2nd—Davis-Phillips (W) def. Pindexter-Welch (CT), 6-4, 5-7, 6-2.  
3rd—B. Welch-Baier (CT) def. Carlisle-Beauchamp (W), 7-5, 6-4.

## Beaver-Poet Contest Starts Ball Season

### Tech Drops Four of Five Tilts; Hosts Whittier Team Here Tomorrow

The Caltech baseball squad will make its debut tomorrow afternoon at 2 o'clock when they meet Whittier on our diamond. Although the local nine hasn't shown too well in its practice games, we can expect much action from the Preisler bunch and the Poets are definitely in for a surprise if they rely too heartily on our past scores.

Caltech's practice games leave much to be desired in that they have dropped four of their last five practice games. March 11 saw Tech's only victory as we drew two runs in the seventh against Pasadena Nazarene to set up a well played 6 to 3 contest. Local sticks accounted for 11 hits in that game.

### Holiday Games

Games played over the holidays had none too happy an outcome, however. LaVerne stopped us with a somewhat decisive 14 to 4 count while Glendale took a 6 to 3 decision. We will remember that on the Thursday before finals the same Glendale team won 8 to 6.

Last Monday Tech played a wild and wooly game with Pepperdine. The Pepperdine diamond folk amassed 20 runs while Beavers were putting across 7. The hitting angle looked better, though, as the Tech crew pounded out 12 hits to the visitor's 14.

Tomorrow's game will feature either Grey or Deane Smith on the mound with Pfeiffer donning the mask. Duane Neverman will play first with Don Baker at second and Karasawa on the hot corner. Stallkamp draws the nod for short while the Sophomore outfield will consist of Snider, Wise and Koons.

## Golfers vs. Poets Today; Lose to SB

Bouncing back from their recent defeat the hands of Santa Barbara before finals, the Beaver golf squad plays host to the Whittier knickerbockers for their first conference tourney this afternoon. The matches will be played at the Annandale Country Club links out on Colorado St. near Eagle Rock.

Ed Revay tied for low score in the Santa Barbara contest with an exceptionally good 71. The results were as follows: Reid (SB) tied Revay (CT), 1½-1½; Dawson (SB) def. Bennett (CT), 3-0; Bob Bingham (SB) def. Sims (CT), 2-1; Emmons (SB) def. Pardee (CT), 2½-½; Nergord (SB) def. Moffat (CT), 3-0; Pete Reid (SB) def. Holmes (CT), 3-0. Final score: Santa Barbara, 15; Caltech, 3.

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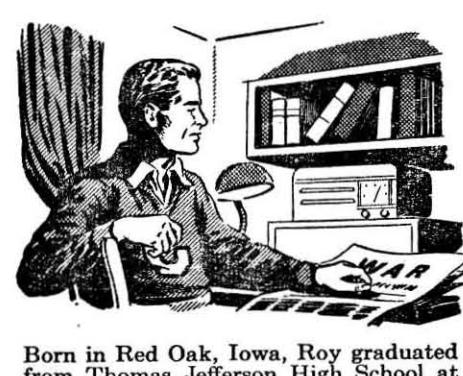
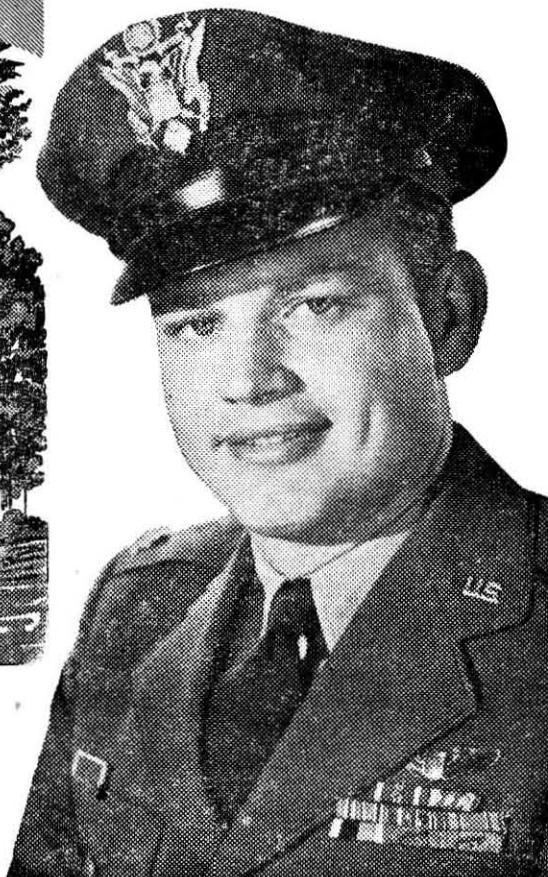
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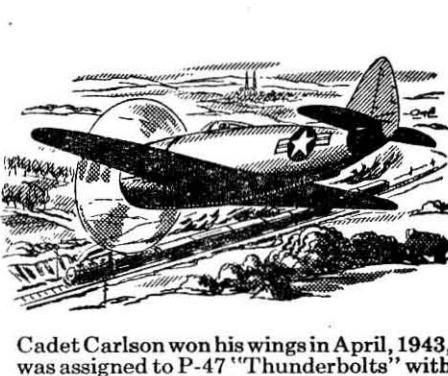
## Major Roy Carlson, U.of Iowa, Training Executive, U.S. Air Force!



Born in Red Oak, Iowa, Roy graduated from Thomas Jefferson High School at Council Bluffs. He was ready to enter the University when war changed his mind.

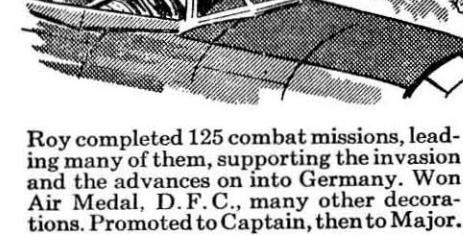


He went to work at Consolidated Vultee in San Diego, building PBY's and B-24's. But it wasn't long until he had put in his application for Aviation Cadet training.

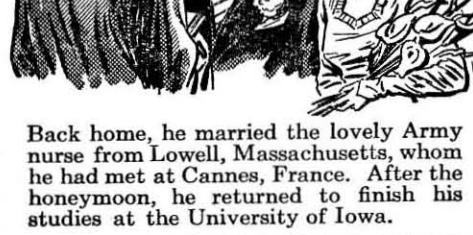


Cadet Carlson won his wings in April, 1943, was assigned to P-47 "Thunderbolts" with the 368th Fighter Group in England, to break ground for the Normandy invasion.

Major Carlson is now Chief of Operations, 2471st Air Force Reserve Training Center, at O'Hare International Airport, near Chicago. Has two husky sons, a fine job, a great career still ahead of him!



Roy completed 125 combat missions, leading many of them, supporting the invasion and the advances on into Germany. Won Air Medal, D. F. C., many other decorations. Promoted to Captain, then to Major.



Back home, he married the lovely Army nurse from Lowell, Massachusetts, whom he had met at Cannes, France. After the honeymoon, he returned to finish his studies at the University of Iowa.



If you are single, between the ages of 20 and 26½, with at least two years of college, consider the many career opportunities as a pilot or navigator in the U. S. Air Force. Procurement Teams are visiting many colleges and universities to explain these career opportunities. Watch for them. You may also get full details at your nearest Air Force Base or U. S. Army and U. S. Air Force Recruiting Station, or by writing to the Chief of Staff, U. S. Air Force, Attn: Aviation Cadet Branch, Washington 25, D. C.

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## UCLA Professor to Discuss Acoustics

Dr. V. O. Knudsen, Professor of Physics at U.C.L.A. and world famous authority on acoustics, will be the speaker at the Seminar in Sound, next Tuesday, April 4th, at 4 p.m. in room 201 Bridge.

Dr. Knudsen will speak on architectural acoustics, with emphasis on the design of halls and studios for the playing of music, and will answer questions.

The Seminar, E.E.-200, will continue throughout the term on Tuesday afternoons, with leading engineers and scientists from the field of sound as speakers.

## IRE To Elect New Officers Monday

The IRE will have an election of officers Monday, April 10, in Room 052 Arms, at 11:00. The officers to be elected are the Chairman and Secretary. Those seeking office who would like the names of the IRE members for electioneering purposes should see Edsel Worrell in Room 37 Dabney.

Also at this time there will be a talk by Bernard Walley of RCA on the Vidicon and Graphicon, new developments in cathode-ray tubes. The Vidicon is a television pickup tube and the Graphicon is used in radar.

## STUDENT HOUSES

(Continued from Page 1) should be added to a reserve fund to take care of major repairs and alterations.

In case there is any excess of income from the student houses, the money has always gone into this reserve fund and never into anything else.

### War Surplus

By 1947 there was accumulated in the reserve fund about \$125,000. In large part this accumulation was due to the minimum amount of repair work which could be done during the war years when the houses were occupied by the Navy.

During 1947, 1948, and 1949, the reserve was dipped into for repairs to the tune of \$56,000. This year it is expected that an additional \$15,300 will be spent from the reserve fund, \$6,500 of which is for the new game room in the west trunk room.

During 1947, 1948, and 1949, the student houses were operated at a loss which amounted to about \$26,000. This money did not come out of the reserve fund, but was provided from general Institute funds and not from other auxiliary enterprises.

### B & G at Cost

It was pointed out that the building and grounds department has nothing in its budget for the Student Houses. All work done in the Houses by Buildings and Grounds is charged to the student house operations.

Mr. Hertenstein stated that as far as the student houses are concerned, Building and Grounds acts like an outside vendor on an actual cost basis and that Building and Grounds charges, as a rule, are less than an outside organization because its operating costs are lower. It is designed to save the students' money.

### Any Beaks?

It was emphasized that if there is a legitimate gripe about anything, the students should let their house presidents know, so that any injustice may be investigated.

## TECH TRACKSTERS

(Continued from Page 3) to be much doubt about the out-and-easy first in the pole vault.

Tonight at 7:30 we again meet Oxy on their field in a dual meet. While there doesn't seem to come, Caltech intends to give Oxy a good battle, especially in the field events. There should be several meet records broken.

Final results of the Conference Relays are as follows:

**Shot Put**—47'8½", Tyson (CT), Levin (O), Feary (W).  
**100-Yd. Dash**—9.9, Parker (O), Mason (R), Ladwig (R).  
**Javelin**—175'11½", Ward (R), Dennis (O), Sieben (O).  
**Dist. Medley**—10:38.9, Oxy, Pomona, Caltech.  
**High Jump**—6'1½", Doty (O), Thorsen (R),ie Beckman (R).  
**Pole Vault**—13'0", Walt (CT), McMurry (O), Crandall (W).  
**880 Relay**—1:27.6, Oxy, Redlands, Whittier.  
**Shuttle Hurdles**—57.8, Oxy, Caltech, Pomona.  
**Mile Relay**—3:17.9, Oxy, Whittier, Pomona.  
**Broad Jump**—22'11 3/4", Krudt (O), Welsh (P), Schlegel (O).  
**Discus**—131'9", Emmett (P), Tyson (CT) (128'8½"), Colbath (P).

## TECH SKIERS

(Continued from Page 3) just before the finish gate. Until he fell Pete had run a beautiful race and had, perhaps, one of the fastest times of the day.

Because of the weather a meeting was held at the conclusion of the race and the Collegiate division of the race was considered no contest. A substitute race is planned for next week, possibly at Snow Valley.

Here are the individual results:

Name	School	Time	Place
Burham	USC	1:35.7	9
Stranahan	CIT	1:49.1	10
Miller	USC	1:52.5	11
Deding	UCLA	1:58.7	12
Jones	CIT	1:59.7	13
Grossman	UCLA	2:20.8	14
Gross	UCLA	1:18.7	1
Blom	CIT	1:21.2	2
Roberts	USC	1:21.6	3
Brodie	UCLA	1:23.5	4
Ogling	UCLA	1:23.6	5
Clark	USC	1:25.9	6
Boehm	UCLA	1:25.9	7
Gardner	CIT	1:30.5	8
Price	dnt		

## FROSH SPORTS ROUNDUP

(Continued from Page 3) this race, incidentally, Oxy set a new conference Frosh record. The little Beavers took another second in the sprint relay as Fazio and Walker in the 220, Teague in the 440, and Johnson in the 880 were timed at 3:49.8.

Pat Fazio placed third in the close behind Oxy's 1:33.5 time. In 100 with a 10.4, one-tenth of a second behind the winner. He also took a fourth in the broad jump. Al Teague placed fourth in the shot-put.

### Tennis

Our Frosh netmen completely ran away with the Whittier Frosh squad in defeating them, 9-0. The winners in the singles events in order were first—Palmer Smith, 6-1, 6-1; second—Ed Eylar, 6-1, 6-0; third—Jim Allison, 6-0, 6-0; fourth—Bob Wood, 6-0, 6-0; fifth—Dick Ireland, 6-0, 6-0; and sixth—Tom Emery, 6-0, 6-0.

The first doubles were won by Smith and Ireland, 6-0, 6-1; the second by Emery and Wood, 6-0, 6-0; and the third by Bill McCormick and Paul Langdon, 6-0, 6-1.

## INTERVIEW SCHEDULE

(Continued from Page 1)

for research and development work. BS and MS EE's and Physicists majoring in electronics to do sales work for two years or so and then will branch into engineering field.

4 or 5 summer men in above brackets. However, summer men will probably be working in stock room or some similar type of work.

**APRIL 3, 4 and 5**—E. I. DuPont De Nemours & Company, Inc., Wilmington 98 Delaware. Mr. J. W. Reynard, Personnel

Division, Interviewer. PhD degree candidates in Chemistry, Chemical and Mechanical Engineering and several of the Biological fields (plant pathologists, plant physiologists, bacteriologists, and biochemists). Both 1950 and 1951 PhD degree candidates in above options desired.

**APRIL 5—KAISER STEEL CORPORATION**, Fontana, Calif. Mr. J. F. Giroux, Personnel Supervisor, Interviewer. Mechanical Engineers interested in their training program which is designed to familiarize them with the organization and production methods of the plant. At the com-

pletion of this program, approximately one year, the trainees will be fitted into permanent positions, in accordance with their interests and abilities.

**APRIL 6—MARQUARDT AIRCRAFT COMPANY**, Van Nuys, Calif. Mr. John Drake, Interviewer. 18 and up in Aeronautics and Mechanical Engineering. Thermodynamics in background preferred. The Company is working on supersonic missiles and their allied mechanical accessories. No summer men at this time.

**APRIL 6, 7—UNION OIL COMPANY OF CALIF.**, Los Angeles, Calif. Mr. J. P. Rockfellow, Mgr. Employee Relations, In-

terviewer. BS and MS degree men in Chemical and Mechanical Engineering who might be prospects for their Manufacturing Department Trainee Program.

**APRIL 7—PETER KIEWIT & SONS COMPANY**. Representatives will give a Group Discussion at 4:30 p.m. in 206 Dabney Hall. Very important that you already signed up for interview. If interested in learning about the Company and its needs you may attend. A few Sophomores or Juniors interested in more or less non-technical summer employment in Arcadia—be at the meeting.

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### ROBERT RYAN

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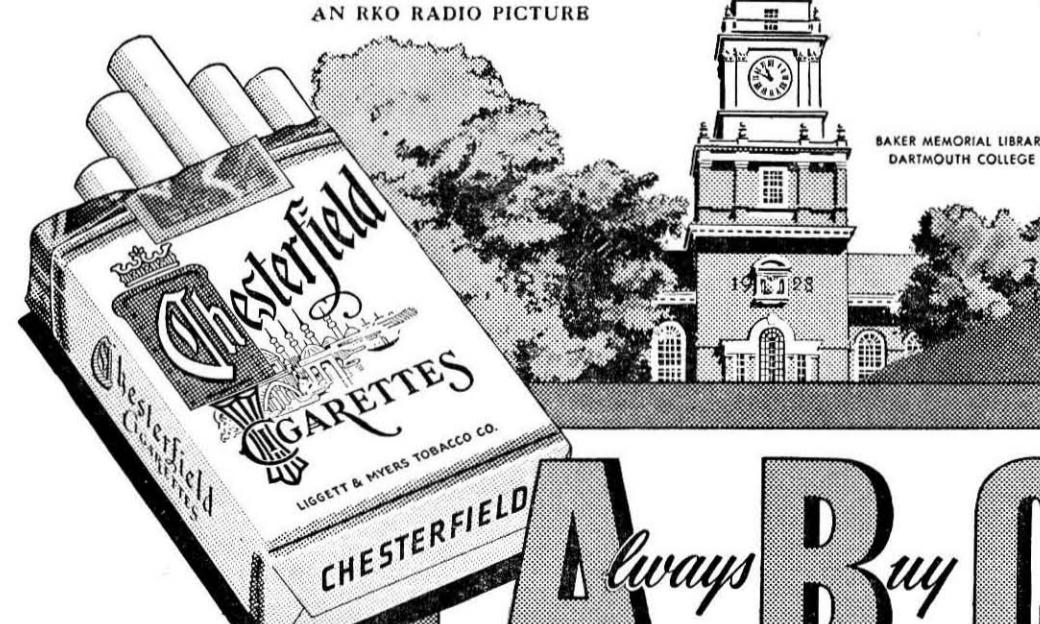
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