

USGS, GSA Geologists Meet Here For Conferences, Papers

Surveyors See Pegmatites First; Cordilleran Section Expects 300 for Convention April 9 and 10

During this week and the next, the Caltech Division of Geological Sciences will be host to two of the most prominent Geological organizations in the country, the Geological Society of America, and the United States Geological Survey.

During the early part of this week geologists, paleontologists, geophysicists, and geochemists who are members of the U.S.G.S. or otherwise associated with Survey projects in the Western states descended upon Arms and Mudd in large number.

Pegmatite and Conferences

Following a field trip through Pegmatite district, the Division will play host to these men during a two-day series of conferences. On Wednesday evening, the visitors will meet socially at the home of Dr. and Mrs. Foster Hewitt of the Geology Division.

Supervising geologist for the group is Dr. Ward C. Smith. The other men include visiting survey geologists from other states, from Washington survey headquarters, and officials of the California Division of Mines. Nearly twenty of the visitors are geologists assigned to work on various projects in California under a cooperative agreement between the Geological Survey and the State Division of Mines. They are working in all parts of the state, with headquarters in San Francisco.

(Continued on Page 6)

Whittier College Head To Speak At Y Forum Monday

Current war hysteria will be the subject of Dr. William C. Jones, president of Whittier College, at the first Y Forum of the third term.

The noted collegiate leader will speak Monday evening at



William C. Jones

7:30 p.m. in 119 K. Caltech is very fortunate in obtaining Dr. Jones for the Forum, for his activity at Whittier College and wide circulation in national affairs makes him a unique authority on the moral and social aspect of political problems.

Dr. Herbert Kupper, psychoanalyst, has been called for a series of return engagements after his exceedingly successful outline-lecture on psychiatry last term. The dates for his appearance are being set for late this month.

Campus Calendar

- THURSDAY, APRIL 8**—Upper Class Luncheon Club at the Training Table, 12:00.
- Throop Club Meeting, 12:20 p.m.
- Dancing Class, Culbertson Hall, 7:30 p.m.
- Glee Club Rehearsal in Throop Club, 8:30 p.m.
- FRIDAY, APRIL 9**—Student Assembly, 11:00 a.m.
- SATURDAY, APRIL 10**—Swimming Meet, Caltech vs. Oxy, PCC Pool, 2:30 p.m.
- SUNDAY, APRIL 11**—Musical in Dabney Lounge, 7:30 p.m.
- MONDAY, APRIL 12**—Student Assembly, 11:00.
- TUESDAY, APRIL 13**—Band Practice, Culbertson Hall, 7:30 p.m.
- WEDNESDAY, APRIL 14**—Frosh Luncheon Club at the Training Table, 12:00.
- Y Cabinet Meeting, Y Lounge, 7:15 p.m.
- Fencing Class, Dabney House, 7:30 p.m.
- Orchestra Practice, Culbertson, 7:30 p.m.
- THURSDAY, APRIL 15**—Training Table, 12:00.
- Upper Class Luncheon Club at the Throop Club Meeting, 12:20 p.m.
- Dancing Class, Culbertson Hall, 7:30 p.m.
- Glee Club Rehearsal in Throop Club, 8:30 p.m.

Tentative Assembly Schedule Outlined For Coming Term

According to a tentative assembly schedule released by Fred Wood, Rally Commissioner, Culbertson Hall will feature such activities as beauty contests, conventions, and talks on world affairs in the weekly Friday gatherings this term.

Geology Convention

The Geology Convention will be held this Friday in Culbertson (see article on this page), and April 23, the A.S.M.E. convention will be held, according to the present schedule.

Sterling Lecture

For Caltech men interested in world affairs, the May 7 assembly featuring Dr. Wallace Sterling, will afford an opportunity to catch up on the news. Dr. Sterling, well-known CBS news analyst, is professor of history at Caltech and director of the Huntington Library. He will analyze results of the Italian elections to be held April 18.

Orations

April 30, a week earlier, the prize-winning Conger Peace Orations will be given. The subject of the orations is world or industrial peace. All Caltech men are eligible to submit their orations to Dr. John Schutz before the deadline, April 12. A cash prize is awarded for the best essay.

Beauty Contest

Highlighting the May 14 assembly will be a beauty contest, probably to be held in conjunction with an ASCIT dance. The Varsity Club will present the May 21 assembly.

For music lovers, the April 16 combined program will feature the glee club and orchestra.

The last assembly of the term, to be held on May 28, will be the annual awards assembly.

Schedule Tentative

The assembly schedule is tentative and subject to change. Among other possible assemblies are exchange assemblies with other colleges of this region, sports movies, and dramatic efforts by Caltech's own thespians.

Civil Service Positions At Langley Air Field Announced For Engineers

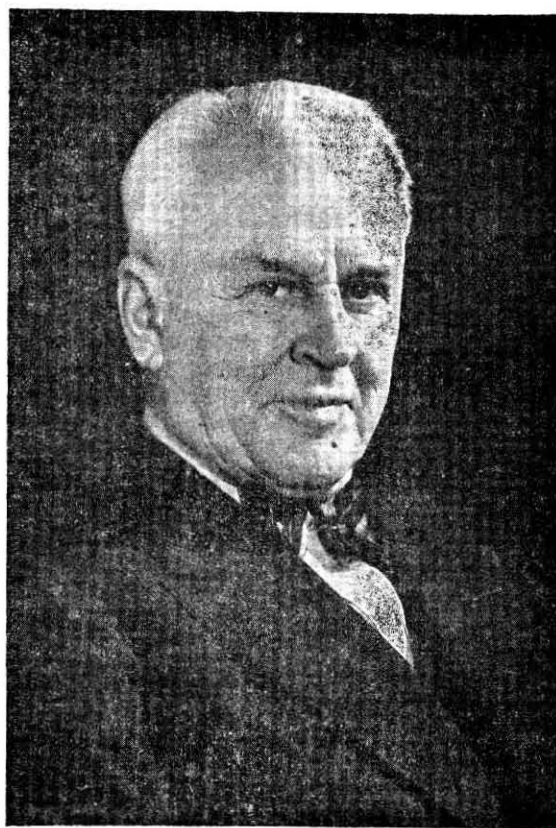
The Board of U.S. Civil Service Examiners, National Advisory Committee for Aeronautics, is accepting applications for an Engineer examination for filling positions paying \$3397 to \$5905 a year at Langley Field, Virginia. The branches of engineering covered by the examination are aeronautical, architectural, construction, electrical, mechanical and structural.

Engineering Curriculum

To qualify, applicants must have completed a standard professional engineering curriculum in a college or university, or they must have had at least four years of successful technical engineering experience or a combination of such education and experience. In addition, they must have had from 1 to 4 years of progressive professional engineering experience. Graduate study in engineering may be substituted for as much as two years of experience. No written test is required; applicants will be rated on the basis of their experience and education.

(Continued on Page 2)

Millikan's Eightieth Anniversary Feted With Faculty Dinner, Program Tonight



ROBERT A. MILLIKAN

Voter Registration To Be On Campus

Arrangements have been completed for voters to register on campus for the coming Federal election. A Deputy Registrar of Voters will be in Throop Hall on Thursday, April 15, from 11 a.m. to 2 p.m. and on Friday, April 16, from 11 a.m. to 4:30 p.m.

Those unable to register at that time may register at other times including evenings at the home of Mrs. A. H. Sturtevant of the Pasadena League of Women Voters, 1244 Arden Road, the southeast corner of Arden Road and California Street. The deadline for registering is April 22.

ASME Chapters To Hold Meet On Tech Campus

Tech will be host to the Region VII ASME Student Conference to be held Friday and Saturday, April 23 and 24. The object of this conference is to pick the best general engineering paper submitted by a student in this region. Each of the schools has already held an intra-mural contest and selected two representatives to present their papers at this meeting. The colleges are: Stanford, California, Southern California, Santa Clara, U. of Arizona, U. of Nevada, and Tech.

Athenum Luncheon

After registering Friday morning, the visiting students will be officially welcomed at a luncheon at the Athenum. The first group of technical papers will be presented that afternoon. Following the business session, a short tour of our hydro-dynamics lab will be conducted.

The day will be completed by a banquet at the Athenum featuring talks on the engineering aspects of the Mount Palomar Observatory.

Prizes Given

A breakfast will be held for the faculty honorary chairman Saturday. The final technical session will be held and the winners picked for the awarding of the prizes at a luncheon in the Student Houses. There will be five cash prizes of from \$10 to \$50. Each entrant will give a 15-

(Continued on Page 3)

Humanities Dept. To Sponsor Talks On History of Music

The series of four lectures on music being sponsored by the Humanities Division will begin a week from Wednesday, April 14, and will be held on successive Wednesday afternoons beginning at 4:15 p.m. in the Lounge in Dabney Hall. They are being given by Mr. Gordon Thayer of Pasadena. Mr. Thayer is a product of Harvard University, New England Conservatory and the Peabody Conservatory. He studied with well-known piano teachers in Europe and such famous American instructors as Harold Bauer and Ernest Hutchinson.

Historical

The plan of the lectures will be historical. The first one will cover the period from the beginning of western music to the age of Bach. Subsequent lectures will take the following periods of music.

The lectures will be illustrated at the piano and perhaps with some phonograph recordings. It is planned, however, that they shall be lectures with musical illustrations rather than annotated concerts. The lectures are open to the public, but are intended primarily to serve the students and for that reason no outside publicity is being released.

These lectures are being offered to satisfy the enthusiastic interest of Caltech students and as a try-out to determine the amount of serious interest in a cultural approach to music.

First Prominent Pasadena Fireside to be Held Sunday At McCone Home

The popular "Y" fireside program, extended into third term, presents on Sunday an event which, it is hoped, will be the precursor of many similar get-togethers.

The McCones, Institute Associates and prominent Pasadena citizens, will entertain 15 Technicians. The event will begin at 4 p.m. with swimming (for those interested) in the McCone pool, followed by dinner. This affair will be the first in a series of Firesides planned with Pasadena families.

Last Sunday's Fireside, at the home of Col. Goldsworthy, Master of the Student Houses, was very enjoyable.

Friends and Associates to Honor World-Famed Nobel Laureate

Special "Review of Modern Physics" Edition Featuring Millikan's Work to Be Presented

Dr. Robert A. Millikan, California Institute of Technology Professor Emeritus of Physics, Vice-President of the Board of Trustees of the Institute, and former Chairman of its Executive Council, will be honored at a birthday dinner this evening at the Athenaeum by the Caltech Faculty.

Toastmaster for this occasion will be Dr. R. C. Tolman, long an associate of Dr. Millikan at Caltech and Scientific Advisor to the U.S. Delegate to the U.N. Atomic Energy Commission.

The program will include the presentation of a bound copy of a special Millikan edition of the Review of Modern Physics, containing articles on Dr. Millikan's scientific interests and achievements and a series of scientific papers written by his former students and associates. Also included in the program will be a series of short toasts by former students and other members of the faculty long associated with Dr. Millikan here at the Institute.

Background

By way of historical background, Dr. Millikan was born March 22, 1868, in Morrison, Ill., of Scotch-English stock. Son of a Congregational minister, he was the second of six children. He received his BA from Oberlin College in 1891 and his PhD in Physics from Columbia University in 1895.

As an undergraduate, he took part in a wide variety of extracurricular activities; he was President of his Sophomore Class, editor of the school annual, elected to Phi Beta Kappa, and a track star in the 100 yard and 220 yard events. He displayed no particular interest in Physics as an undergraduate, taking only one semester of work in this field, and finding Greek and mathematics more interesting.

(Continued on Page 6)

Deadline Near For McKinney Prize

Entries in the McKinney Prize Contest in English, offering a first prize of \$75 and a second prize of \$50, are due by Friday, April 23. Essays are to be turned in to Professor MacMinn in Room 212, Dabney Hall.

The contest is open to all members of the junior class. A committee of the English department will select the best essays for presentation at a special assembly in Room 206 Dabney Hall at 11 a.m. Thursday, May 13. For further information about the contest, interested students should see Professor MacMinn.

Interview Schedule

- APRIL 8 AND 9**—NORTH AMERICAN AVIATION, INC.—Mr. William Nance, BS - Ae, ME, CE, EE, GS - Ae, ME, CE, EE, ID interested in research and development, design, manufacturing or production (administrative end), field service or erections, or sales. Must be willing to go back east for 18 months.
- APRIL 12 AND 13**—NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS, Moffett Field, Calif. Mr. Edwin Hartman, Western Coordinator at Santa Monica, and Mr. Carlton Bieltch, Asst. to Director of Ames Aeronautical Lab. Seniors and graduate students in electrical engineering field, the field of mechanical design, and research in field of aerodynamics. All Aeronautical students—MS and up.
- APRIL 13 AND 14**—THE TEXAS COMPANY—For work at Beacon Research Laboratories, Beacon, New York. PhD and MS candidates in Chemistry, Chemical, and Mechanical Engineering.
- APRIL 14**—MASSACHUSETTS INSTITUTE OF TECHNOLOGY—OPERATIONS EVALUATION GROUP, a research organization. Mr. E. A. Monaghan. PhD's in Mathematics, Physics and Physical Chemistry, also unusually qualified men receiving MS degrees in the above options.
- APRIL 15 AND 16**—ALLIS - CHALMERS MANUFACTURING CO., Mr. R. L. Engel, Mr. C. W. Schweers, Mr. I. C. Matheson. Senior and Graduate students in ME, EE, ID interested in research and development, design, manufacturing or production (administrative end), field service or erections, or sales. Must be willing to go back east for 18 months.
- APRIL 20**—STANDARD OIL AND GAS COMPANY, Casper, Wyoming, Mr. W. S. McCabe, Division Geologist. Interviewing men notified.
- APRIL 21**—BETHLEHEM STEEL CORP.—Interview of men notified.
- APRIL 22 AND 23**—NAVAL ORDNANCE TEST STATION, Inyokern, Calif., Mr. G. W. Schroeder, and Dr. Bennett. All types senior and graduate students in Ae and Ph, P1—P6 Professional rating men.
- APRIL 27 AND 28**—WESTINGHOUSE ELECTRIC COMPANY, Pittsburgh, Pa., Mr. E. W. Morris and Mr. W. G. Willson. Seniors and Graduate students in EE, ME, and BS men in APH—If advanced, especially interested in this Company they are welcome to an interview also. All must go back East. General talk will be given at 4:30 p.m.

(Continued on Page 4)

Conger Contest Close Comes Closer

The deadline for entries to the Conger Oratory Contest has been set for April 12, it was announced by Dr. John A. Schutz. Entries should be turned in to Dr. Schutz, Dabney 3, before this date.

Contest Subjects

The subject is either World Peace or Industrial Peace, and orations are limited to six to eight minutes. Awards are \$50 for first prize and \$25 for second. The orations will be read and judged in assembly on April 30. Entered so far are Bernard Shore, Bernard Rudin and John Heath.

SAE-ASME To See "Steam Progress"

The ASME and SAE organizations will meet jointly on Monday, April 12th, to see the color movie, "Steam Progress." This sound picture depicts the history of steam as a source of power in American industry. Some of the film is also devoted to showing how modern steam boilers are manufactured.

The meeting will be held in Room 206 ME Building, and will be open to anyone who is interested in seeing this picture.

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Shall We Have Music?

Next Wednesday, the Humanities Department's experimental Music History Survey course will be inaugurated.

On the surface, this may not seem an auspicious enough event to warrant an editorial, especially in view of the Tech's previous conservative editorial policy.

And, very frankly, this editorial is more advertising than editorial. If you read the page one announcement of the beginning of the course and have decided to attend, these lines are not aimed at you.

There has long been agitation for a music course or courses on the Caltech campus as a part of the Institute's humanities program aimed at making the "well-rounded" individual. Wednesday's class, however, represents the first actual academic move in this direction.

Institute Stacks Cards . . .

Granted, the hour selected—Wednesday at 4:15—leaves much to be desired; granted, lack of credit is a severe drawback. Granted even the course outlined is not what you had in mind or would prefer.

But the fact remains that the Institute intends to use this trial course as a criterion in determining the interest of the students at large in such a course-opportunity.

For this reason, we recommend that if you would like to see a course of this nature, or a series of music courses, included in the curriculum in the near future for credit—then, in spite of the time and lack of credit, support the "trial" course this term.

The instruction will be excellent; you'll find the course interesting, informative, and profitable.

—L. H.

CAMPUS BREWINS

Hedrick Operates

It is interesting about this time of the year to look over the Frosh and note how many under the expert guidance of upperclassmen have made good beginnings on the downward path. Take Thorne Butler; there is a fellow who entered Caltech as a high-minded clean young boy, but now—! This last week end he spent up in the mountains with a rather desirable member of the opposite sex.

Suffice to say, it was not his childhood sweetheart, Louise; no, this callous dog went off to the woods on Friday with another. He did not return until late Sunday when he was seen to stagger in, limp and wilted, but with an expression fully suited to the wicked life he is leading. This college life certainly makes men out of boys.

Woman Trouble

Art Bruington is also having his trouble, now that the uproar has subsided over in Blacker. On Sunday, the complicating factors in his life consisted of four (4) women. Unfortunately, the whole story seems a bit confused, but all afternoon Art kept phoning from various places to see if four girls were hunting for him. Most likely, it was their fathers who were hunting him. Two of them eventually tracked him down which accounts no doubt, for his furrowed brow. The details are still a bit enshrouded in fog, but Art is a good example of the fact that no man can successfully keep stringing four women along indefinitely.

Lover Popowsky

Another freshman who seems to have learned his way around in the little matter of two terms is Bill Popowsky who was elected Dabney House lover for his efforts. His purity score is rumored to be so low now that he will not admit same. He won the office on the basis that he leaves the House around 8 p.m. weekend nights and does not return until 4 a.m. or later. What he does during this period is purely conjecture; however the laundryman reports Bill turns in a large number of lipstick stained hankerchiefs. Hm.

In the same election Ray Brow was elected House "head." The dignity of this column does not permit me to divulge the reasons for this title. If you desire further details, ask Mr. Auerbach, Dabney RA.

Muehl Puts Foot in Mouth

Das Muehl got to his feet and addressed the Pres.: "In nominating this man, let me say that he approached me the other day. "At this point the foul minded Dabney men burst into roars of laughter. So now to be a man in Dabney, the major qualification is that you have approached Muehlberger.

Bruce Hedrick seems to be following the footsteps of his brother at least as far as women are concerned. His Mary arrived at the Union station last Friday night and Bruce was there to meet her. After that came dinner with Dave Warren and Ann Davis at Ann's house (free—what chintz) followed by an evening at the Dab-Flem dance and then taxi service back to Scripps. She's really got her finger on him.

Fleming and Ricketts had very quiet weekends with nothing out of the ordinary to report. The Fleming half of the Dab-Flem dance was poorly attended. Harold Whist finally broke down and took out one of his Norwegian countrywomen from the library.

Ominous Silence

Two House elections were amazingly quiet, which leads this reporter to suspect things. Fleming held theirs last Thursday night and since then all little Fleming men have been seen with little halos around their heads—ain't, natural and doubt it will last for long.

Ricketts had theirs Monday night and from incomplete reports theirs was as innocuous as Fleming's—a little more noise and water (it was raining) but so far NOTHING of interest to note.

Three Flunks?

George Hall, Caltech publicity man, should consult the student houses before releasing figures to the L.A. Times. Quoting from the Monday morning issue, it was stated that only three men have flunked out this year. Come George, I've lost three roomies myself, and rumor (only a rumor mind you) has it there are quite a few faces missing (about twenty or so) that were here last September. We might be good but not that good!!

THE FRONT BURNER

The Pasadena Playhouse has just announced the slate of plays selected for the annual Midsummer Drama Festival this year.

The group represents an attempt on the part of Playhouse and Huntington Library authorities to present a bill of "Favorite Plays of the Gold Coast Days," in conjunction with the current California Centennial celebrations.

Eight plays popular during the Gold Rush Days will be presented during the period July 6 to August 24. Each has particular historic or theatrical significance.

The plays to be presented are the following:

"Lady of Lyons," by Bulwer-Lytton; "The Honeymoon," by John Tobin; "The Marble Heart," by Charles Selby; "Lon-

don Assurance," by Dion Boicault; "Damon and Pythias," by John Banim; "Fanchon the Cricket," by August Waldauer from the George Sand novel; "Fashion," by Anna Cora Mowatt, and "Camille," by Dumas in the Matilda Heron version.

Present Playhouse offering is "Richard III," the seldom-given Shakespearean drama, which opened last night. No performances will be given on April 12 and 13, since during these days the Playhouse is "in use" for the annual one-act play competition among California high schools and colleges.

CIVIL SERVICE POSITIONS

(Continued from Page 1)

Full information and application forms may be secured at most first- and second-class post offices, from Civil Service regional offices, or from the U.S. Civil Service Commission, Washington 25, D.C.

Applications must be filed with the Executive Secretary, Board of U.S. Civil Service Examiners, National Advisory Committee for Aeronautics, Langley Field, Virginia, and will be accepted until further notice. However, persons who wish to be considered for positions which are to be filled immediately should file their applications not later than April 28, 1948.

The CALTECH MUSICAL

SUNDAY, APRIL 11, 1948, 7:30 P.M.

BEETHOVEN: Missa Solemnis


(Solemn Mass in D Major, Op. 123)

CALIFORNIA PHARMACY
PRESCRIPTIONS PHARMACISTS
575 S. Lake Street Pasadena, Cal.
SYcamore 2-6222

PUBLIC STENOGRAPHER
961 East Green Street
SYcamore 3-7156
Miss Gann

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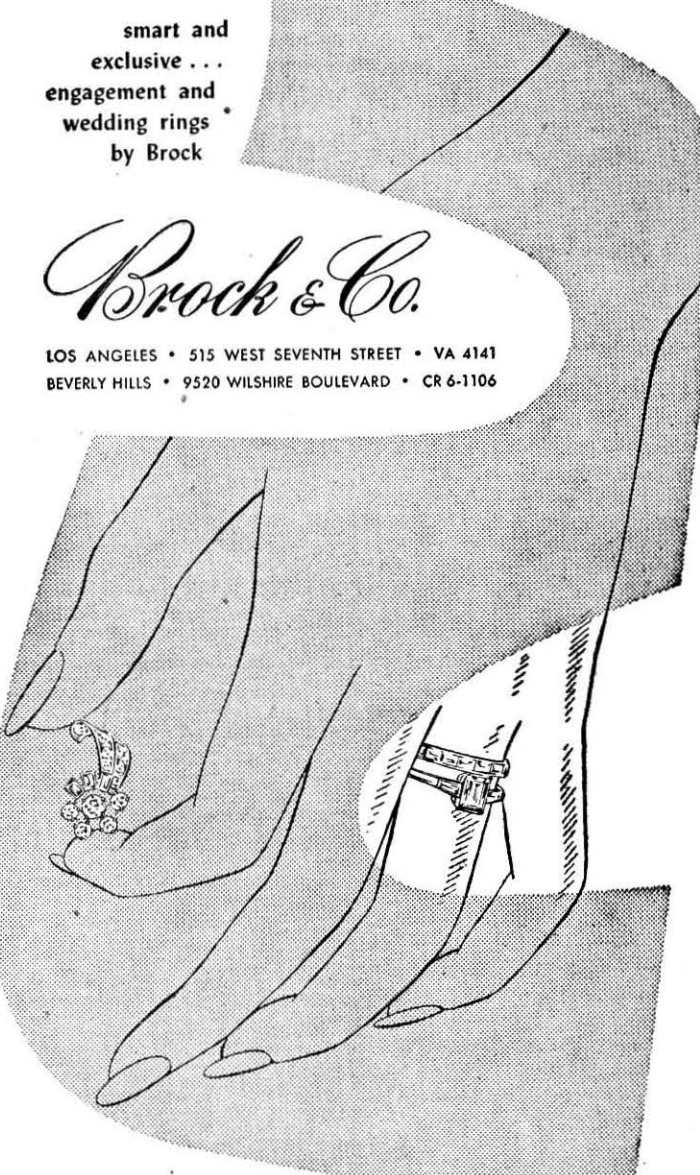
CAMPUS BARBER SHOP
In Coffee Shop Building
(OLD DORM)

Caltech Students Welcome At
Neighborhood Church

A Church of Liberal Religion
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SUNDAY WORSHIP 11 A.M.
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"THE BEST IS YET TO BE"

The telephone will be seventy-two years old this year. Its development within a single lifetime has been a modern miracle: Yet it is only the beginning:

There are any number of men in the telephone business today—some just starting out—who will see greater progress than the past has ever known:

Year by year the next half century will be increasingly theirs. New leaders will appear from among them: Step by step, rung by rung, they will mount the ladder to the top. For telephone management is

employee management and comes up from the ranks.

There will be more good jobs for qualified men in the telephone business in 1958 and 1998 than now. It just can't help being that way. For of all the businesses and professions, there are few more interesting and necessary.

So the future is bright for those who make telephony their life work. For them, "The best is yet to be."



BELL TELEPHONE SYSTEM

Shavings

from the Board
By Stan Boicourt

Jack Ottestad, energetic worker in a variety of student body activities and recently elected Publicity Manager, submitted his resignation to the Board of Directors at its meeting on April 1. In stating his reasons for wishing to resign, Jack said that he wouldn't be able to continue to devote the great amount of time and energy to the office which he felt a student body officer should give.

Regret Loss

Jack's sincere interest and active participation in all student affairs in the past has been a great asset to the school, and it is regrettable that we will not continue to benefit by his efforts in this capacity.

Temporary Appointment

Ralph Loveberg was appointed by the Board to fill the vacant position temporarily. Election of a new Publicity Manager will be held on April 23 together with the election of class officers. Announcement of nomination meetings for the classes will be made individually by the present class officers.

Fight Nearly Won

The long fought for spaces for students to wash and work on their cars are at long last drawing near. Due largely to the efforts of Bob Poindexter, who cooperated like a true diplomat with Mr. Hertenstein, Building and Grounds Director, the Board of Directors gave approval to a plan submitted by Poindexter for regulation of the spaces.

Before the working spaces can be occupied, however, the plan must be approved by the Student Faculty Relations Committee. This action should be taken very shortly, and the final arrangements made in the very near future.

Caltech Scientists Forge New Link In Nicotinic Acid Chain

A scientific search for an explanation of how tryptophane—an amino acid—is converted in the body into a vitamin—nicotinic acid—is one step nearer solution because of the work of two Caltech biologists. They are Dr. H. K. Mitchell and Dr. Joseph Nyc, researchers who have isolated and synthesized a new chemical compound 3-Hydroxyanthranilic acid (3-H for short).

Thus a third link has been added to the tryptophane to nicotinic acid chain that has been baffling scientists since it was first discovered that an amino acid was converted in the body into a vitamin.

Protein Deficiency Common

Proteins are made up of amino acids, of which tryptophane is one. Proteins are necessary to growth in both plants and animals. A protein deficiency can lead to a serious illness, one of the most common of which is Pellagra. This is a disease that is often confined to persons with low incomes who are not getting a balanced diet. It has been particularly common in the south where corn pone and other corn products have dominated diets.

Back in 1937 at the University of Wisconsin it was discovered that nicotinic acid would cure Black Tongue in dogs, a disease comparable to Pellagra in humans. Later it was discovered that a nicotinic acid deficient rat could be cured by feeding it tryptophane because it could convert tryptophane into nicotinic acid. This is the only instance known where this kind of process occurs in the body.

Uncover Conversion Chain

Working with red bread mold, known scientifically as Neurospora, (Continued on Page 4)

THE SQUARES' CIRCLE

Dear Editor: I'm getting pretty dam sore about not having seen a Tech paper for a year and a half. How about a spot on the west end of the campus, or mail orders? Off-Campus Senior.

Editor's Note:

Copies of the California Tech are placed as far west as the lobby of Throop Hall and the YMCA Lounge in Dabney for the convenience of subscribers. Persons unable to come this far east, for whatever reason, may request their copies mailed to them. However, they will have to countenance the delay in receipt thereby incurred.

For those who miss a single issue, and wish to see it, the Humanities and General Library newspaper files are recommended.

APPROACH TO PEACE?

Editor, The California Tech: With amazing rapidity we have been engulfed by fear. Alarmed by the flaming headlines and by a sense of helplessness before the great powers at work in the world today, we have resigned ourselves to war. Diplomacy, good-will, and common sense we have discarded. We are installing the generals and admirals who will punish the enemy and uphold our honor. With confused spirits we await our suicide.

It is not yet too late to change this dismal picture. Many men have realized that there exists power greater than that of armies and dictators. Even today Love, Good-will, and Truth are not impractical weapons. In fact in these lies the only hope of averting the coming catastrophe. Guns will not help us!

We must ask our government to lay down its arms and work for peace and the furtherance of

Two Boards To Float Platforms At Your Expense

Next Saturday night the outgoing ASCIT Board of Directors will hold its annual banquet at the Beverly Hills Tropics.

This obscure version of a Tahitian paradise was chosen as the spot most suitable for such a crew of swindlers and conniving politicians to congregate, by persons who do not wish to be named.

In addition, the new Board, still preserving shreds of its illusion to respectability, and not wishing to be discovered by friends in the company of the aforementioned individuals, has concurred in the choice.

Just as athletes are awarded sweaters, and debaters gavels, so the Student Body servants are allotted \$100 yearly for a communal debauch. In the past years the banquet has been held at such places as the Bar of Music and the Beverly Hills Hotel.

the great principles upon which our country was founded. Individually we must refuse to support our useless, indeed ridiculous, war machine: Army, Navy, conscription, guided missile projects, electronic calculators, and all the destructive research which we as citizens of the World must decline.

Sincerely,
David E. Metzler

Editor's Note

The opinions expressed in this column are not necessarily those of the editorial staff. We will, however, continue our policy to print all letters received. The letters must however be signed and we reserve the right to edit content. We will withhold your name if you so desire.

J. E. Hobson New Director Of Armour Research Foundation

Dr. J. E. Hobson, director of the Armour Research Foundation of the Illinois Institute of Technology, is the new director of the Stanford Research Institute, it was announced by Dr. Alvin C. Eurich, acting president of Stanford, who described Dr. Hobson as "one of the outstanding men in his field."

Degree From C.I.T.

The 36-year-old electrical engineer, who in 1935 received his Ph.D. degree Magna Cum Laude from California Institute of Technology, received the Eta Kappa Nu award in 1940 as "The Outstanding Young Electrical Engineer of the United States." In 1939 he had received honorable mention for the annual award made by the honorary electrical engineering society.

Dr. Hobson was director of the department of electrical engineering at the Illinois Institute of Technology from 1941 to 1944, when he was appointed director of the Armour Research Foundation and member of the foundation's board of trustees.

At Armour Institute

Following his doctoral work at California Institute of Technology, he spent two years as an instructor in electrical engineering at Armour Institute of Technology, then became central station engineer with the Westinghouse Electric Corporation. During his four years with Westinghouse, he was also lecturer in electrical engineering at the University of Pittsburgh, from which institution he joined the Illinois Institute of Technology faculty.

Wide Activities

He has been very active in a number of technical societies, having been a member of the

Throop Socialites Get Bowling, Dance

Forty eager Throop bowlers and their women thundered up the stairs of the Pasadena Bowling Courts Saturday night to open the Club's social calendar with two hours of hot competition. The affair was followed by a punch-dance at the club.

Pins Awarded

Eagle-Eye Lovelock of the Pasadena Ball and Pin emporium conferred "200" Club pins upon Bob Connelly's wife, Larry Sokol, Bennie Bentine's gal Barbara Norling, and Jerry Matthews.

Near-disaster met the party when they returned to Tech for dancing. A main tube of the recently replaced amplifier was missing, but dancing went on by courtesy of the Eastside show. Throop's whole amplifying system was stolen last Christmas.

New Officers

Next event on the club's schedule is the installation dinner-dance to be held in the lounge April 10 at 7:15.

New officers to take over include Gene Mooring, prexy; Dale West, vice-president; Walt Pfeiffer, treasurer, and Bob Connelly, secretary.

American Institute of Electrical Engineers since 1940, serving on various committees, and at the present time being chairman of the Chicago section. Besides his A.I.E.E. activities he is chairman of the program committee of Western Society of Engineers and a member of the board of directors of the National Electronics Conference of which he was first president in 1944 when the conference was started.

Dr. Hobson is co-author on a book "Power Transmission and Distribution" (1942) and has had several papers published in many engineering magazines.

ASME CHAPTERS

(Continued from Page 1)

minute talk on his paper. Tech's representatives are Bill Seiden and Joe Wechsler.

The conference will be topped off by an inspection trip to the 100-inch telescope at Mount Wilson Saturday afternoon.

CROWN

THEATRE, 129 N. Raymond
Cont. Mat. 12 Noon
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STARTS

THURSDAY, APRIL 8

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Ethel Barrymore

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Adults 74c Junior 50c
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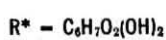
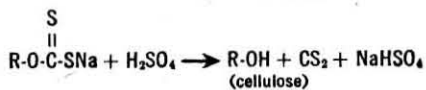
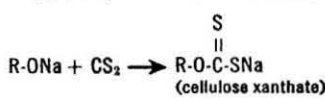
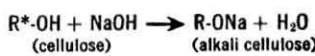
902 East California Street
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SYcamore 3-6704

DU PONT Digest For Students of Science and Engineering

Many Theoretical and Applied Studies Behind Development of "Cordura" Rayon

Stronger, lighter tires made possible by teamwork of Du Pont chemists, engineers, and physicists

On the surface, the viscose process for rayon seems fairly simple. Cellulose from cotton or wood is steeped in NaOH to give alkali cellulose, which is treated with CS₂ to form cellulose xanthate. Adding NaOH gives molasses-like "viscose," which is squirted through spinnerets into a coagulating bath of acid and salt to form from 500 to 1,000 filaments simultaneously:



Du Pont scientists were working to improve on the properties of rayon made by this process when, in 1928, a rubber company asked for a rayon yarn that would be stronger than cotton for tire cords. The problem was given to a team of organic, physical, and analytical chemists, chemical and mechanical engineers, and physicists.

Theoretical and Applied Studies

In developing the new improved rayon, a number of theoretical studies were carried out: for example, (1) rates of diffusion of the coagulating bath into the viscose filaments, (2) the mechanism of coagulation of viscose, (3) the relationship between fiber structure and properties by x-rays, and (4) a phase study of spinning baths.

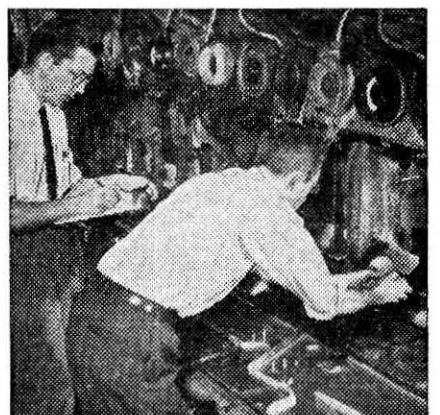
Concurrently, applied research was necessary. This proceeded along many lines, but the main problem was to perfect the spinning technique. It was known that a short delay in the bath between the spinneret and the stretching operation allowed greater tension on the filaments. Du Pont engineers, therefore, designed a series of rollers, each revolving faster than the previous one, to increase the tension gradually.

In addition, a textile finish was developed that combined just the right amount of plasticizing action and lubricating power, allowing the filaments to twist evenly in forming the cord. A new adhesive was prepared to join the yarn with rubber. New twisting techniques for cord manufacture were found, since the usual methods caused loss in rayon strength.

Engineering Problems Solved

Chemical and mechanical engineers were faced with the design and operation of equipment for more than 15 different types of unit operations. Equipment had to operate every minute of the day, yet turn out perfectly uniform yarn. It was necessary to filter the viscose so carefully that it would pass through spinning jet holes less than 4/1000th of an inch without plugging. Some of the most exacting temperature and humidity control applications in the chemical industry were required.

Out of this cooperation among scientists—ranging from studies of cellulose as a high polymer to design of enormous plants—came a new product, "Cordura" high-tenacity rayon, as strong as mild steel, yet able to stand up under repeated flexing. Today, this yarn is almost 100% stronger than 20 years ago. Tires made with it are less bulky and cooler running, yet give greater mileage under the most punishing operating



Determination of spinning tension by C. S. McCandlish, Chemical Engineer, Northwestern University '44, and A. I. Whitten, Ph. D., Physical Chemistry, Duke University '35.

conditions. In "Cordura," men of Du Pont have made one of their most important contributions to the automotive industry.

Questions College Men ask about working with Du Pont

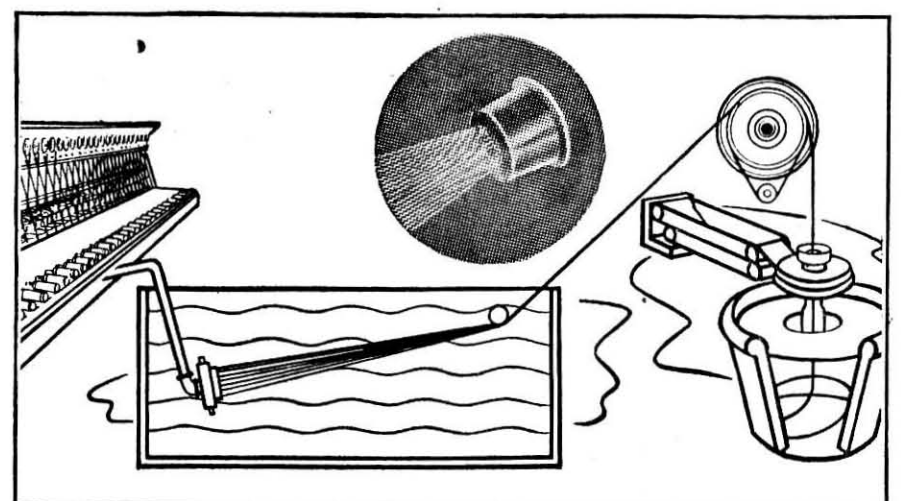
How are new men engaged?

Most college men make their first contact through Personnel Division representatives who visit many campuses periodically. Those interested may ask their college authorities when Du Pont men will next conduct interviews. Write for booklet, "The Du Pont Company and the College Graduate," 2518 Nemours Building, Wilmington 98, Del.



BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

More facts about Du Pont—Listen to "Cavalcade of America" Monday Nights, NBC Coast to Coast



Rayon spinning machine. The spinning solution is pumped through a spinneret immersed in a hardening bath. Filaments are guided over a rotating glass wheel and down into the whirling collecting bucket. Inset shows close-up of spinneret; each hole forms a filament.

World Studytours To Blanket Globe This Summer

"Sightseeing plus insight" is the keynote of the more than twenty studytours offered to college students and described in an illustrated booklet just issued by World Studytours, of the Columbia University Travel Service.

World Studytours, a non-profit educational corporation, was the first agency to undertake student travel to Europe after the war. They arranged one studytour in the summer of 1946 and six last summer. Studytours for 1948 vary in length from 21 days to 97 days, and in cost from \$230 to \$1960. They include Eastern Europe, behind the alleged iron curtain, as well as Western Europe, South America, Hawaii, Australia, New Zealand, and points of interest in the United States.

Several European trips for students are scheduled at costs of only about \$600 from New York back to New York. The figure includes steamship, rail and bus fares, rooms, meals, guides, admission fees, and the leadership of an educator especially skilled in combining the recreational aspects of travel with opportunities to meet people and to observe life abroad in ways which most tourists miss.

Studytours are designed not only to be less expensive than commercial tours, but to be more educative in the best sense of that word. They continue the tradition of the pre-war "Open Road," in cultivating trans-national friendships and giving insight into economic, social, political and cultural movements abroad.

Further information may be obtained by addressing World Studytours, Columbia University Travel Service, New York 27, New York.

PLACEMENT

(Continued from Page 1)

on April 26th in 206 Dabney Hall. All who are being interviewed are requested to attend to save their time as well as the Company's. All others interested in learning about estinghouse are also invited.

APRIL 29
STANLIND OIL AND GAS COMPANY, Tulsa, Okla. Mr. C. F. Bedford and Mr. S. B. Richards. BS men and up in ME, ChE, EE and CE in technical positions in the producing department. Mr. C. L. Larson will interview men for both the Geological and Geophysical Departments in Ge, Ph, and Ma. Job will be in middle, Southwest, and Rocky Mountain areas—Summer work available for a limited number of students who will graduate June 1, 1949.

UNIVERSAL OIL PRODUCTS has a few openings for MS Chemical Engineers, PhD's in Physical and in Organic Chemistry who desire employment in the CHICAGO AREA. Application blanks must be filled out and returned to Placement office before APRIL 12.

For a definite appointment and application blank, please contact the Placement Secretary, Room 120, Throop Hall, as soon as possible.

CALTECH SCIENTISTS

(Continued from Page 3)

pora, scientists uncovered two steps in the conversion chain. Tryptophane breaks down into a second stage to become a compound known as kynurenine. This is the result of a rearrangement of the atomic pattern of tryptophane. Now a third stage, in which a side chain of atoms is discarded resulting in 3-H, has been discovered.

Feeding certain strains of Neurospora with any of the three isolated chemical compounds causes an increase in nicotinic acid production.

Tests Being Made

Tests are now being made with rats and preliminary work has shown that feeding of rats with any of the three compounds results in their excreting more nicotinic acid. Will it also work in man? That remains to be seen, but Dr. Mitchell points out that a surprising number of chemical mechanisms are common to both large and small organisms.

The new chemical compound 3-H may not be found in food as both tryptophane and nicotinic acid are. This compound can be obtained from an alkaloid found in the seeds of the Nigella flower, also known as Love-in-the-Mist.

Is Caltech Communistic?
—Read the L.A. Times

Beaver Nine Drops First League Tilt Poet Pitching Tells

Coach Ed Preisler's Varsity baseballers dropped an 8 to 3 decision to Whittier at Tournament Park, Monday afternoon. It was the Techmen's first conference game of the season.

Galvez Pitches One-Hitter

Glenn Chaffee pitched good ball for the Beavers, although troubled at times by wildness. His mates were set down with only one hit, a single by Don Morrison. Both Chaffee and Poet flinger, Galvez, pitched the entire game. All Caltech runs were earned, while the Beaver chucker gave up 7 earned runs.

Tech Infield Snappy

The contest was well played, each side making an error. The high point of Tech's play was the snappy infield work of Don Morrison, Chuck Norman, Stu Butler, and Milt Strauss, climaxed by a quick double play in the seventh inning.

Jarnagan Hits

Poet right fielder, Jarnagan, was tops in the batting department with a perfect average of three hits in as many times at bat, and the Bard fielder was responsible for three Whittier runs.

Pomona Next

Coach Preisler was pleased with his charges despite the loss. He especially singled out the fine work of signal-caller Petrulas, Saturday the diamond squad journeys to Pomona in its second chance to grab a league win. The Sagehens defeated Redlands last week and will be tough to beat. Tuesday La Verne visits Tournament Park in their first meeting with the Beavers this year. First ball will be chucked at 4:20.

| Whittier | AB | R | H | PO | A |
|--------------|-----------|----------|----------|-----------|-----------|
| Walker, c | 5 | 2 | 1 | 8 | 0 |
| Nuffer, ss | 5 | 0 | 2 | 1 | 1 |
| Elias, cf | 4 | 0 | 0 | 0 | 0 |
| Chandler, 1b | 4 | 0 | 0 | 12 | 0 |
| Jarnagan, rf | 3 | 3 | 3 | 0 | 1 |
| Dillon, lf | 3 | 0 | 0 | 1 | 0 |
| Hall, 3b | 3 | 1 | 1 | 0 | 1 |
| Erbe, 2b | 2 | 1 | 1 | 5 | 3 |
| Galvez, p | 2 | 1 | 1 | 0 | 5 |
| Total | 31 | 8 | 7 | 27 | 10 |

| Caltech | AB | R | H | PO | A |
|----------------|-----------|----------|----------|-----------|-----------|
| Petrulas, c | 3 | 1 | 0 | 8 | 0 |
| Butler, 2b | 3 | 1 | 0 | 4 | 4 |
| Smith, 1b | 0 | 0 | 0 | 0 | 0 |
| Strauss, 1b | 0 | 0 | 0 | 11 | 1 |
| Baker, cf | 1 | 0 | 0 | 0 | 0 |
| Patterson, cf | 1 | 0 | 0 | 1 | 1 |
| Norman, ss | 2 | 0 | 1 | 4 | 4 |
| Morrison, 3b | 4 | 0 | 1 | 1 | 4 |
| Winchester, lf | 3 | 0 | 1 | 0 | 0 |
| Hedrick, rf | 1 | 0 | 0 | 0 | 1 |
| White, rf | 1 | 0 | 0 | 0 | 0 |
| Chaffee, p | 3 | 0 | 0 | 0 | 2 |
| Spaulding | 1 | 0 | 0 | 0 | 0 |
| Boutelle | 1 | 0 | 0 | 0 | 0 |
| Total | 28 | 3 | 1 | 27 | 18 |

*Batted for Winchester in 9th
†Batted for White in 9th
Whittier.....0 1 0 0 1 1 2 3 0
Caltech.....0 0 0 1 0 0 2 0

Errors: Erbe, Norman. Stolen bases: Elias, Morrison. Three base hit: Jarnagan. RBI: Galvez (4), Nuffer (3). Double play: Morrison to Butler to Strauss.

Frosh Sports Roundup

—By Earl Hefner

Through the fine engineering of Ed Preisler, a few boys on the now defunct Frosh basketball squad got together last Sunday at Brookside Park for a picnic. Lunch was preceded by a vigorous contest which saw the "Meanies," led by the Coach himself, whack the "Cleanies," guided by team captain Al Sereno, by a pair of touchdowns. Following a picnic lunch, courtesy of Mrs. Bunton, et al, a two hour game of workups was carried out, and by five o'clock everyone was complaining of aches and bruises.

Sereno Team Captain

Al Sereno, incidentally, was voted honorary team captain by the team just before the end of last term. Probably no one on the quint worked harder and deserved the honor more than Al. The Frosh forward is having his hands full at the present, holding down second base on the young Beaver diamond team.

Wave Game Cancelled

Concerning the outfit just mentioned, Saturday's Frosh opener with Pepperdine was cancelled because of the heavy dew at Angewood. That leaves only seven games at present on the Frosh schedule, two of which are with the Wave Frosh. The tennis match with Whittier Saturday was also rained out, but was rescheduled for last night.

Track Team Loses

From the sound of the score of last Friday's Frosh track meet at Oxy, we didn't do too well. One of the chief reasons for our lack of points is our weakness in the sprints and hurdles. Distance men, including Bob Cobb and Walt Edwards, are plentiful, and the team is quite strong in that department. On the field we are weak in a few events, such as the pole vault, which was defaulted to Oxy, and the javelin. John Lewis and Art Miller can be counted on for points in the shot and discus. Incidentally, Art is approaching the Frosh record for the discus, and may surpass it by the finish of the season.

Ski Club Third In Snow Valley Meet

Weather Conditions Excellent For San Gorgonio Rendezvous

LACC Ducks Beaver In Close Contest

Last Monday at the PCC pool the Caltech swimmers lost to a strong LACC team in a hard-fought meet which gave the Beavers their first defeat of the season. The Tech boys fought from behind throughout the meet, and finally drew to a tie with the LACC squad in the next to last event. The visitors won this, the free-style relay, however, and thus were victors with the final score standing 41 to 34.

Medley Team Loses

The LACC team started strong by topping Merrick's Medley Trio by a matter of inches, thus breaking the trio's record of solid wins last year. Dixon took over for the home team by pulling to a spectacular split-second finish of first place in the 220. LACC was close behind, however, with both second and third places.

Narrow Lead

Harris and Mitchel followed up with high points in first and third of the 50. Continuing to narrow the opponents' lead, Hammond and Hilton grabbed second and third of diving, and Montgomery and Hall took similar places in the 100-yard backstroke.

Reach Tie

The next two events brought the fighting Caltech crew even with City College as Palmer won the 220 breast stroke and Curran and Dixon paced each other to first and second in the 440. The final relay proved too much, however, and the mermen lost this spirited match.

Throop Retains Bowling Lead

Resumption of the Interhouse Bowling League after spring vacation found many of the faithful apparently attracted by other activities. However, undaunted by depleted ranks, the bowling went on, although several houses were saved from bankruptcy by corraling a few unsuspecting spectators to fill in.

Throop Ahead

By winning seven of eight games this week, Throop Club practically assured itself of the league championship. Present odds against this coming to pass are 65,000,000,000,000 to 1; any takers see Bob Benton. Ricketts got a firm hold on second place by also winning seven, while third-place Fleming was winning but one. High team series of 2172 was fired by Throop No. 2, while Blacker No. 2 shot high game of 759. Present standings: Throop, 76 wins; Ricketts, 53; Fleming, 47; Blacker, 43, and Dabney, 41.

High Games

High individual game of the day was a tremendous 239 rolled by George Felbeck of Blacker. He included a string of six strikes in this effort, and would have tied league high game with one more. Only three series over 500 were recorded, headed by Woody Bratnober of Throop with 188-180-218—586. Bob Levy of Ricketts took second honors with 533, and Felbeck was third with 515. Rolf Erickson of Throop scattered eight strikes in his last game for third best game of 209.

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More people are smoking
CAMELS
than ever before!

CONNIE HAINES

CAMEL is the cigarette for me!



Pathmen Drop Triple to Oxy, Santa Barbara

Plagued by minor injuries, and sore muscles, a sadly depleted Beaver track team succumbed to the overpowering strength and depth of Oxy and Santa Barbara in a triangular meet held on the Oxy oval last Saturday, April 3.

Drop Both Ends

The triangular meet score was Oxy, 66; Santa Barbara, 61½; Caltech, 35½. The Beavers dropped both dual meets, losing to Oxy 87 to 44 and to Santa Barbara 83 to 48.

Good Spots

Despite the lopsided scoring, Doc Hanes' proteges were not lacking in strong individual performances. High point of the day for the local boys was Martin Walt's winning 13 foot pole vault. If Walt continues at this rate, the 22 year old Caltech record of 13' 2 7/8" should soon topple.

High Scorer

Dwight (Salty) Schroeder, the poor man's Jesse Owens, who entered just about everything but the 2-mile, was high point man for the day, taking a second in the low hurdles, a fourth in the broad jump, and eking out a first in the 100 after the starting gun caught him setting his blocks thus giving him a rather slow start. Hal "the form" Tyson copped a first in the shot and a second in the discus, while Wells de Barnes took the baton in last place and finished well in front to take the mile-relay for the Engineers.

100—Schroeder (CT), O'Halloran (O), DeLine (SB), Frieze (O), 10.3s.
220—Powell (SB), O'Halloran (O), Shaller (CT), E. Brown (CT), 23 secs.
440—Inman (O), Moore (SB), Rasmussen (O), Barnes (CT), 51.2.

880—Savage (O), Campman (SB), Bradford (SB), Das (SB), 2m 4.6s.
1 mile—Lee (O), Das (SB), Miller (O), Skidmore (SB), 4m 38s.
2 mile—Skidmore (SB), Peterson (CT), Staffanson (SB), Rowe (SB), 10m 56s.

220 Low Hurdles—Inman (O), Schroeder (CT), Engman (SB), Nelson (SB), 25.1s.
120 High Hurdles—Nelson (SB), Lawrence (O), Lloyd (SB), Schlegel (O), 15.6s.
High Jump—Doty (O), Thorsen (O), tie between Hegglund (CT) and Engman (SB), 6 ft. 2 3/4 in.

Broad Jump—Jennings (SB), Engman (SB), Tajima (O), Schroeder (CT), 21 ft. 8 in.
Pole Vault—Walt (CT), Berokoff (O), tie between Cooper (SB), Henning (O), Pike (O), 13 ft.
Shot Put—Tyson (CT), Levin (O), Chilcott (O), Thompson (O), 46 ft.

Discus—Patton (SB), Tyson (CT), Behrens (SB), Baker (O), 135 ft.
Javelin—Lloyd (SB), Nippell (O), Pearson (O), Doty (O), 163 ft. 5 in.
Mile Relay—Caltech (Cornelius, Simons, Sylvies, and Barnes), Santa Barbara, Occidental, 3 min. 28.9 secs.

Beaver Sports

INTRAMURAL FOOTBALL HEADS HOUSE SPORTS

With Fleming leading second-place Dabney by 14 points in the Interhouse standings, a hotly-contested battle is expected for the decisive first-place points in the current touch football competition.

A Dabney first would whittle the Fleming lead to nine points, and would give Dabney a fair possibility of overtaking Fleming the two remaining Interhouse sports, tennis and basketball. However, a Fleming first would leave Dabney only a slim mathematical possibility of moving the trophy off the Fleming mantle.

Practice Sessions

Fleming, with a turnout of over 20, has been holding practices for more than a week. Dabney has likewise held extensive practice sessions and has developed a speedy backfield combination. Throop was having difficulty organizing a team; if a team is fielded it probably will be weak. The Blacker vs. Ricketts round-robin opener last night probably will decide third place.

Conventional touch football rules will, in general, be followed. A first down will be awarded if a team advances the ball across the 50-yard line. A fumbled ball will be a free ball and may be advanced by either team.

Blacker played Ricketts last night, while Throop is scheduled to meet Fleming this afternoon. Following is the remainder of the schedule:

Mon. Apr. 12—Ricketts vs. Dabney
Tues. Apr. 13—Blacker vs. Fleming
Wed. Apr. 14—Dabney vs. Throop
Thurs. Apr. 15—Ricketts vs. Fleming
Mon. Apr. 19—Blacker vs. Throop
Tues. Apr. 20—Fleming vs. Dabney
Wed. Apr. 21—Throop vs. Ricketts
Thur. Apr. 22—Dabney vs. Blacker

MAY 14 IS

THEATER NIGHT

Beavers Drown Mustangs, Redlands In Swim Meet

Talkin' It Over with The Goon

Not enough is said about those men who daily knock themselves out running after a little ball with fuzz on it. You would think that someone is trying to keep the local racketeers out of the spotlight.

However, during a little spare time, I happened to drop in on Johnny Lamb who, as a well-known golfer might say, gave me the clue on this year's prospects. For the first time in many years Redlands hasn't picked up the option on the Southern California netters while our pals, the Bruins, seem to have taken over the Perry T. Jones farm system at the L. A. Tennis Club. As a result, the Bulldogs have lost their first Conference matches and seem out of the race for the crown.

Coach Surprises

Surprisingly enough, coming from a Tech coach, Johnny said, "We have the best chance of winning the championship this season. Our team is well rounded and has no obviously weak spots." Could this be Caltech?? Maybe old Lee A. has opened the safe a little bit on the sly.

Johnny went on to say, "The squad has fine spirit, and competition during practice has brought a lot of men along this year." With such fine talent as Bill Shivar, Larry Nobles, Charley V. and others, Coach Lamb has a good chance of aceing the other squads.

Good chance to see the boys in action this Saturday on the T.P. asphalt when the Beaver battles the Sagehen in what might be the deciding matches of the Conference. A little support from you fans might go a long way in bringing home a winner.

Win Column?

And speaking of turning out to help the Orange and White wind up in the win column, it was very disappointing to see only about 15 or so stalwarts up in the bleachers Monday afternoon watching the Whittier-Tech baseball game. You men who missed this exciting game also missed seeing one of the most humorous umpires in baseball. When Mr. Ashford dusts off the plate and says "Play ball!", he is constantly clowning for nine innings without missing a play.

But back to the subject of rooters and the outcome of games. It was certainly clear that when the team had the support of the bleachers they went on a scoring spree of two runs. Chuck Norman was saying after the game if the crowd had started to back the players up that it might have been a different ball game. See you at the big track meet with Redlands Saturday at 2:30 o'clock at Tournament Park.

Close Scoring Highlights Affair As Tech Takes Three Way Contest

The swimming picture looked very bright last Friday at Muir JC when the Caltech mermen easily swamped the Redlands aggregate and nosed out the Muir splashers to take a three way victory in the Varsity meet. Scoring in the tri-meet was Tech 46, Muir 45, and Redlands 11.

Frosh Nosed Out

Varsity and Frosh teams were battling closely throughout the meet, but the Caltech Freshmen, composed entirely of Noel Reed and Dick Libbey, were squeezed out by a narrow two points, 20-18.

Tech Spikemen Meet Bulldogs Here Friday

Caltech should field a much more potent track team this week against Redlands than they did last week at Occidental. Doc Hanes' sun lamps and liniment have been working overtime, and some of the boys should be in better shape. The meet will be held in Tournament Park, starting at 2 p.m.

Men in Better Shape

Elroy Chinn, who has been under the handicap of sore muscles, colds and a lack of work, should begin to hit his stride on the broad jump, and Bob Funk will have his perennial case of shin splints sufficiently under control to register in the sprints. Jack Marshall, who was sidelined last week, having left his front teeth in his steering wheel, should be good for a place in the mile, although Redlands probably will dominate the distance events as usual.

Probable Point Winners

The word is that Dave Mad- (Continued on Page 6)

Tech Golfers Drop Redlands Club Team

The Caltech golf team got off to a very encouraging start last Friday in their first conference match of the season. Playing on their home course, the Montebello club, the Tech hackers turned in a near-perfect series of victories, Harry Moore and Jack Hoffat being the only members of the team to drop points to the Redlands group. Moore was held even by Smith on the back side, and Moffat was two down to Johnston at the end of the front side.

Revay, Benton, Sims and Kostelac logged 3 points each for the home squad, Moore gained 2½, while Moffat got away with 2.

| CALTECH | REDLANDS | up |
|----------|---------------|-------|
| Moore | def. Smith | 1 |
| Revay | def. Palmer | 4 5 3 |
| Benton | def. Rieger | 4 6 7 |
| Sims | def. Roberts | 8 6 3 |
| Kostelac | def. Peterson | 5 6 3 |
| Moffat | def. Johnston | 3 6 1 |

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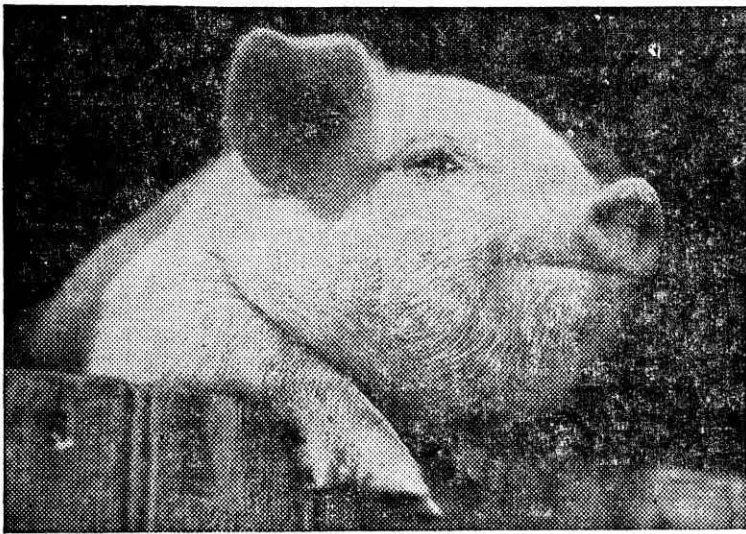
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MILLIKAN ANNIVERSARY

(Continued from Page 1)
ing, but when he was hired by Oberlin as a graduate instructor in elementary Physics, the unawakened genius began to stir.

Contributions

Dr. Millikan has made many notable contributions to the fund of human knowledge of the physical world. He isolated and measured the ratio of charge to mass of an electron in his famous oil drop experiment. He determined Planck's constant for the first time by direct photoelectric means, thus experimentally establishing the validity of an Einstein equation that has become second in importance in electromagnetic theory only to Maxwell's equations.

The report of his studies of the Brownian movement in gases silenced the last opposition to the kinetic theory of matter. He discovered the laws governing the extraction of electrons from metals by fields alone, thus clear-

ing up many mysteries surrounding the nature of metallic conduction. He established experimentally and theoretically the law of motion of a particle falling toward the earth in the atmosphere, to which problem Stokes first gave a solution known as Stokes' Law. He did experimental work with Dr. I. S. Bowen on the spectroscopic properties of light metals in all stages of ionization, thus forming the basis for the introduction in 1925 by Uhlenbeck and Goudsmit of the spinning electron theory. He has done and is still doing basic research into the nature of cosmic rays.

Honored

Dr. Millikan has been awarded honorary degrees by some 23 colleges and universities all over the world. He has been awarded more than 16 honorary medals and prizes ranging from the Nobel Prize in 1923 to the Order of Jade from China.

GEOLOGISTS MEET

(Continued from Page 1)

Cordillerans Convene

Following close on the heels of the USGS meet, the Cordilleran Section, Geological Society of America will congregate at Caltech on April 9 and 10. Various section meetings are scheduled for the presentation of scientific papers in the fields of seismology, structure, mineralogy, petrography, paleontology, stratigraphy, and geomorphology.

One of the most interesting and controversial topics to be touched on in the meet will be the Miocene-Pliocene boundary on the Pacific Coast, which will be covered in a symposium of the Paleontological Society.

Branner Club Dines

Non-academic activities will include luncheons and the annual Branner Club dinner, to be held at the Pasadena Athletic Club. A tea will be held for visiting ladies and the Sunday following the meetings will be devoted to a field trip into the Palmdale-Upper Ventura Basin area led by Drs. Wallace and Johns.

An exhibit of geological equip-

ment and apparatus by various commercial companies under the direction of Rudolph Von Huene in 101 and 102 Mudd promises to be one of the most interesting features of the meeting.

Geology Club Hosts

The Caltech Geology Club will act as host for the meeting, with President Sam Martner and Convention Chairman Blake-more Thomas in charge of preparations.

Advance information indicates that the largest attendance on record will be surpassed by the meet, with some 300 expected. Most of the well-known geologic figures of the West will be present.

TECH SPIKEMEN

(Continued from Page 5)

den is going to take a crack at the 100 and 220 this week. Herb Simons' twisted knee is fast getting back into shape and he will be in there in the 880 this Saturday. Tyson, Walt and Schroeder should be good for first places in the shot, pole vault and low hurdles, respectively.

Dabney Men Meet Orr Girls Tuesday; Theatre Party Next

As one of his last official functions, outgoing Dabney Vice-President Dick Alexander managed to obtain a dinner exchange with the women of Orr Hall at Oxy.

The exchange, held last Tuesday night, was notable because it was the first obtained with an Oxy women's residence group. Difficulties were encountered since all the halls at Oxy eat communally in a joint dining room, cafeteria style. But some

30 Dabney men braved the memory of standing in line and trekked to Oxy while an equal number of Orr girls were at Dabney.

After dinner at Oxy, Techmen were guests of the Oxy girls at the weekly Oxy all-campus "Mixer" dance.

BEAVERS DROWN

(Continued from Page 5)
of the season's best. Starting time is 2:30 p.m.

Varsity: Medley Relay—Caltech (Montgomery, Palmer, Eschner), 3:27.5; 220-yard free style—Johnson (M), Dixon (T), Curray (T), Blackman (M), 2:34.5; 50-yard free style—Hops (M), Harris (T), Collins (R), Woodall (M), 26.7; Diving—Knesel (M), Hylton (T), Schneider (T); 100-yard free style—Hops (M), Murphy (T), Lamb (M), Waters (T), 62.1; 150-yard breast-stroke—Montgomery (T), Hall (T), Hogdon (M), Long (R), 1:57.2; 200-yard breast-stroke—Palmer (T), Lynn (R), Broxen (M), Boicourt (T), 2:52; 440-yard free style—Johnson (M), Dixon (T), Shoen (T), O'Brien (R), 5:51.4; 400-yard relay—Muir, 4:20.

Activities at Tech included alleged entertainment following dinner, then television, dancing and game room activities.

This Saturday Dabneyites and dates en masse will attend the Playhouse production of Richard III. The performance will be followed by dancing in the lounge.

SKI CLUB THIRD

(Continued from Page 4)
astic Ski Union scheduled for April 17. Teams competing in this gathering will be USC, UCLA, Muir, PCC, Redlands, Whittier and Occidental.

A Ski Club meeting will be held April 13 to decide officers for next year.

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