

Dr. Wagner To Discuss Guam Harbor Project

Dr. Warren O. Wagner will tell Caltech students about the construction and operation of the Guam harbor model, in a lecture illustrated with movies, next Friday, Dec. 13, at 11 a.m. in 201 Bridge.

This will be the third program to be presented by Caltech's Consolidated Engineering Societies this term. The lecture is being sponsored by the student chapter of the ASCE.

Aids Guam Harbor Improvements

The Guam model is a pint size version of our navy's installations at Guam and is being used in the planning of improvements for that harbor. It is approximately 125 by 140 feet in area and is located near Azusa. It was constructed after a smaller model, located behind the ME building, proved unsuccessful.

All Students Invited

All Caltech students are cordially invited to attend this lecture which will be presented in such a manner that it will be of interest to everyone.

The Consolidated Engineering Societies hopes that this lecture will demonstrate some of the possibilities of civil engineering and disprove the notion that it is a stagnant and unprogressive profession. The Guam harbor project is an example of research in civil engineering.

California Tech To Enlarge Staff

Many Positions Open For Next Semester

The CALIFORNIA TECH has Editorial, News, Feature, Sports, Business and Advertising positions available for next semester.

All men who would like to take advantage of this opportunity to further their journalistic abilities or possibilities should contact some member of the CALIFORNIA TECH staff at the first opportunity.

Journalism Class Offered

Students interested in journalism may sign up for En15b, which will be taught by Professor MacMinn if a sufficient number of students desire the course. The class meets one night a week and offers three units credit.

Larger Staff Needed

In order to provide a more thorough coverage of the great number of social and special events taking place on the Caltech campus, the CALIFORNIA TECH needs a larger staff for next semester.

CAMPUS CALENDAR

Friday, December 6—
Soccer game, UCLA at Caltech, 3:15 p.m.
Basketball game, Caltech at La Verne, 7 p.m.
Ricketts-Fleming Semi-formal Dance in Dabney Lounge, 9 p.m.
Saturday, December 7—
Basketball game, Chapman at Caltech, 7 p.m.
Throop Club Dinner-Dance and frosh initiation, 7 p.m.
Blacker House Semi-formal Dance in Blacker House, 9 p.m.

Yule Theme At House Dances

Last Dances of Term Tonight And Tomorrow; Will Be Semi-Formal

Mistletoe will hang from the ceiling and those B.T.O.'s among us who possess tuxedos will get an opportunity to use them at the semi-formal dances being staged by the student houses this week-end, the last, and best, affairs of the season.

Tonight from 9 to 1 Ricketts and Fleming are combining, Rod Rodriguez and his band supplying music for dancing in both lounges. Sandwiches and punch will be supplied in the way of refreshments.

Christmas Tree at Blacker

A Christmas tree will supplement the other holiday trimmings at Blacker, promised Frank Valle-Riestra and his hard-working committee.

The dance, Saturday night from 9 to 1, will again have music supplied by Rod's excellent combo, and clothing styles will be regular semi-formal — long dresses for the girls; tux's for the fellows if possible. If not, dark suits will suffice.

Refreshments will feature canapes and hot chocolate. Many Blacker alumni are expected.

Dabney Dance at Brentwood

Dabney is stepping out in style, holding its semi-formal dinner-dance tomorrow night at the Brentwood golf club in West L.A. Prime ribs and other palatable delicacies will be served about 8 p.m. The same 5-piece combo that supplied the music for the Dabney-Ricketts Barn Dance will let their instruments cool and slip away into the night at the magic hour of midnight, leaving the Techmen and their dates to their own devices and ingenuity.

Pauling To Speak On Work Of Atomic Energy Committee

Meeting Sponsored By YMCA, Federalists

Doctor Linus Pauling, Chairman of the Division of Chemistry and Chemical Engineering, will discuss the functions of the Emergency Committee of Atomic Scientists, Inc., at 7:30 Monday evening, December 9, in room 119 Kerckhoff.

The meeting is sponsored jointly by the YMCA and Student Federalist organizations and is open to both faculty and students.

Program Aimed at Citizens

The Emergency Committee, which is headed by Prof. Albert Einstein, was formed to promote the use of atomic energy in a manner beneficial to mankind, and to develop a more general understanding among the citizenry of the United States of the implications of the "atomic era" to this country, in order that policies governing the use of atomic power might be shaped more intelligently.

Doctor Pauling was recently made a member of the Board of Trustees of the Committee. In his talk he will explain more fully the aims of the organization and present to the group some of the problems which confront the Committee.

Recently Returned From East

Doctor Pauling recently returned from the East, where he attended a meeting of scientists of all nations. The importance of the work of the Committee to future national policy and international affairs makes this one of the most interesting meetings of the year.

Computer Being Built Here To Analyze Design Problems

In the basement of West Bridge is being assembled a strange machine — an Analog Computer. Designed to take the guesswork out of experimentation and design, the computer can solve problems in days that would normally take years.

The idea for the computer was born over a back yard fence in Pittsburgh. Not an ordinary back yard fence, though, for on one side was Dr. Gilbert D. McCann, formerly with Westinghouse and now Associate Professor of Electrical Engineering at Caltech. On the other side was H. E. Criner, Mechanical Design Engineer for Westinghouse.

Electrons Solve Problem

Criner at the time had been struggling with the problem of determining shaft torques created by a short-circuited turbine-

generator. They discussed the possibilities of solving this problem electrically and this led to the design of the present analyzer.

A small model was built up at Westinghouse and was immediately put to work to solve the turbine problem. Then to demonstrate its versatility, it proceeded to wade through such problems as determining the motions and stresses involved when a vacuum tube is dropped or roughly handled. Normally two years would be required for the general solution of this problem, but the computer ran out the answer in a scant two weeks.

Versatility Proven

Other problems solved were the determination of the motion of the wheels and body of a car as it passes over a stepped bump in the road at a certain speed; the solution of the strains and stresses in a crankshaft; distributed beam problems; and such non-mechanical problems as the analysis of heat flow in a thermal conducting medium, high frequency electro-magnetic wave propagation through space or wave guides, and current through a conduction medium of irregular shape.

Analog Computer Unique

The Analog computer differs from the Eniac computer of the University of Pennsylvania and the I.B.M. computer of Harvard in that they are digital computers. (Continued on Page Four)

Varsity Banquet Monday To Honor Grid Squad Members

Cross-Country, Water Polo Men Also Will Be Feted At Annual Dinner

Next Monday evening, December 9, at 6:30, Techmen will hold their annual Varsity Banquet at the Brookside Golf and Country Club in Los Angeles.

Although football will be in the spotlight, the dinner will also honor members of the cross-country and water polo teams. Tickets may be purchased from any Varsity Club member at \$1.75 per person. In addition to a good steak dinner, an interesting program will be offered, so plan to be there.

Newspaperman Featured Speaker

Featured speaker will be Frederick G. Runyon, editor of the Pasadena Independent, long associated with the sports world. At a varsity dinner several years ago, Mr. Runyon was a guest, and those attending were enthusiastic in their praise of his talk.

Dr. Wallace Sterling, head of the history department, and a familiar figure at all Tech athletic contests, will act as toastmaster during the dinner.

Dr. DuBridge to State Views

President DuBridge will speak, giving his own opinions on athletics in college and especially at Caltech.

Also expected to say a few words will be Football Coaches Mason Anderson and Pete Mehlinger, and Doug MacLean and Norm Lee, recently chosen by their teammates as co-captains for the past season.

Awards to Be Presented

The Wheaton Trophy will be presented to the football player who, in the opinion of his teammates and coaches, is outstanding in moral influence, sportsmanship and ability.

Certificates will be given to the following for earning their major letter in football:

Don Baker, Manuel Bass, Glen Chaffee, Hubie Clark, Larry Dahm, Dick Felberg, Bob Funk, Don Hibbard, Brad Houser, Bill Lanz, Norm Lee, Dennis Long, Neville Long, George Lyon, Doug MacLean, Gerald McKenna, Ordway Manning, Warren Marshall, Stan Mendes, Bill Muehlberger, Lowell Parode, Loren Stringer, Bob Walquist, and Ed Winters.

Griffith Observatory Sets New Schedule

The return of the Griffith Observatory to a peacetime basis was started December 1st, with the establishment of the post-war schedule.

The observatory was a gift to Los Angeles in the will of Colonel Griffith J. Griffith, and is largely supported by the city. There is no admission charge to the large Zeiss refracting telescope, although a charge is made for the shows in the planetarium.

Planetarium Schedule

The new schedule, beginning December 1st, is:
Wednesday, Thursday, open 7 to 10 p.m.
Friday, Saturday, Sunday, open 2 to 10 p.m.
Planetarium shows — When open, 3 to 8:30 p.m., with an additional show Sunday at 4:15 p.m.
Telescope—When open, 7 to 10 p.m. on clear nights.

Prevent Accidents; Drive Safely

"Apathy of Drivers Inexcusable", says Smith

"Lack of attention," says Sergeant Ted R. Smith of the Pasadena Police Collision Investigation Department, "is the main cause of traffic accidents."

Sergeant Smith claims apathy on the part of drivers is inexcusable as driving is a "full time" job.

Be Alert During Holidays

The holiday season is approaching with its high rate of accidents so it is essential to be mentally awake, whether driving or walking. You not only have to watch out for yourself, but you have to watch out for the other fellow. If you're on your toes at all times it might mean the saving of a life.

Selective Enforcement

The Pasadena Police Department works on the principle of Selective Enforcement, with emphasis on prevention rather than punishment. By analyzing accidents they determine the violations involved and then have the boys "Clamp Down" on violators of this section of the vehicle code.

Traffic Toll Increases

In 1943 six people were killed in traffic accidents in Pasadena, so far this year there have been 22 fatalities in Pasadena, with over 850 people being injured in accidents.

California has more registered motor vehicles than any other state, with approximately four million. One half of these are in Los Angeles County, which means this is the most concentrated vehicle area in the United States. In Los Angeles County there are 1,000 people killed each year in traffic accidents.

Yield Right of Way

Violation of right of way in one form or another is the cause of the majority of accidents. Most important is giving right of way at open intersections, when entering a through highway, when making a left turn, and at all times giving the pedestrian the right of way.

DuBridge To Speak At Alumni Meeting

Dr. DuBridge will address the Caltech Alumni Association next Tuesday, December 10, at a meeting to be held in the Pasadena Athletic Club, on the subject "Future Hopes and Possibilities."

The meeting will begin at 5:45, with dinner served at 6:45. Tickets, costing \$2.75, can be arranged for by telephoning SYcamore 6-7121 or Ryan 1-7171, Extension 358.

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Notes On Foreign Students

To my knowledge, Norwegian Nils Gram is the latest addition to our illustrious Freshman class. When he arrived here one month ago, he found eager classmates deep in the mire of their first hitch in one of America's most notorious institutions of academic servitude.

Nils is tall, blond and, blue-eyed. Born in Oslo, Norway, 25 years ago, his appearance and manner are those of one who has known an outdoor life in a land of sublime mountains and severe cold. In music his tastes run to Mozart and Beethoven; in literature he prefers Steinbeck and Hemingway; his favored sport, mountain climbing.

Professional Choice

Like many Norwegian students Nils came to study in

America as a result of the German occupation policy under which the intellectual pursuits of Norway were suspended. When peace came, the single engineering school in Norway could handle but one-tenth of the students seeking technical training. Here at Tech, Nils plans to major in Chemical Engineering. Later he plans to return to his native land to help rebuild its war-ravaged industry.

In Norwegian Underground

Nils is proud of his membership in the Norwegian Underground. Although he received formal training in the Underground's combat team, his chief duty was writing for a secret newspaper which published economic reports of the German occupation. Said Nils, "The . . . Germans took everything they could lay their hands on from industrial machinery to manganese ores vital to their steel industry. My country's economy grew worse and worse. It will take many years to erase the hatred for Germany which broods in our hearts."

Power Is Only Instrument In European Politics

When asked for his views of the present European crisis, Nils commented, "We Norwegians have allied ourselves with the Anglo-American sphere. Like England, we have a labor government and do not approve of the Russian way. I believe that Germany must be rebuilt into a moderately strong industrial nation with a democratic government, if Western Europe is to have security. Power alone commands respect in European politics. Therefore, a strong central European nation is needed to preserve the necessary balance of power."

Views on American Students

"From what I have seen of Americans here at Caltech they seem a friendly lot; more so than European students. I doubt that Americans at European schools are received as kindly as I have been here. I like your crazy American humor, too."

—JOHN BAUER.

National Leaders Call For A World Government Now

"World government is inevitable. The only choice is: do you want to agree on a world government or wait until some nation dominates the world? That choice is coming pretty fast." These were the words of Dr. Arthur H. Compton, as quoted in information released by the **Student Federalists**, a national youth organization which is, according to Owen J. Roberts, former Justice of the U.S. Supreme Court: ". . . the most significant, and may be the most effective developer of sound public opinion of our time."

These are important statements from men whose political opinions cannot be attacked, and whose warnings point the way for the college men of the country to develop a higher sense of world citizenship, especially as it applies to any international organization which may or may not keep peace in the world.

If you honestly feel that the present United Nations, loosely federated as they are, will maintain world peace, then forget about the above. Otherwise, show up next term and find out what gives with this group.

News For Caltech Vets

Enrollment in an educational institution in a foreign country under Public Law 346.

A veteran eligible for educational benefits under the G.I. Bill may choose any approved foreign institution and make his own arrangements for entrance to it on the same basis as for entrance to an approved school in the United States.

Furthermore, an eligible veteran attending school in the U.S. may transfer to a foreign institution in much the same manner in which he would transfer to another school in the U.S.

Necessary Steps to Take

If a vet wishes to go to school abroad, this is the procedure he should follow:

(a) Find out from the VA Central Office in Washington, D.C., whether or not the institution is approved by the VA.

(b) Secure a letter from the institution agreeing to accept him as a student.

(c) Secure a Certificate of Eligibility to be submitted to the institution upon enrollment.

(d) Secure his own passport and necessary visas.

In addition, the veteran must pay his own transportation and should have enough funds to support himself for three or four

(Continued on Page Four)

A Co-ed's View Of Caltech

A woman in the classrooms? If you are in AM15 (Cole) or Ch226 (Pauling) you should have noticed the cute, shy brunette who sits down front.

After a decent interval of a month and a half your reporter mustered courage and said "Hello." This led to several interesting discoveries: Her name is Kate Liepmann and she is a graduate of Zurich. Since CIT does not register women students she is just sitting in, but she believes there is no reason why Tech should not admit graduate women students.

"Cambridge does, why not Caltech? . . . It would do the fellows good . . . they are very intelligent but too one-sided."

Her husband teaches Compressibility in Gugenheim.

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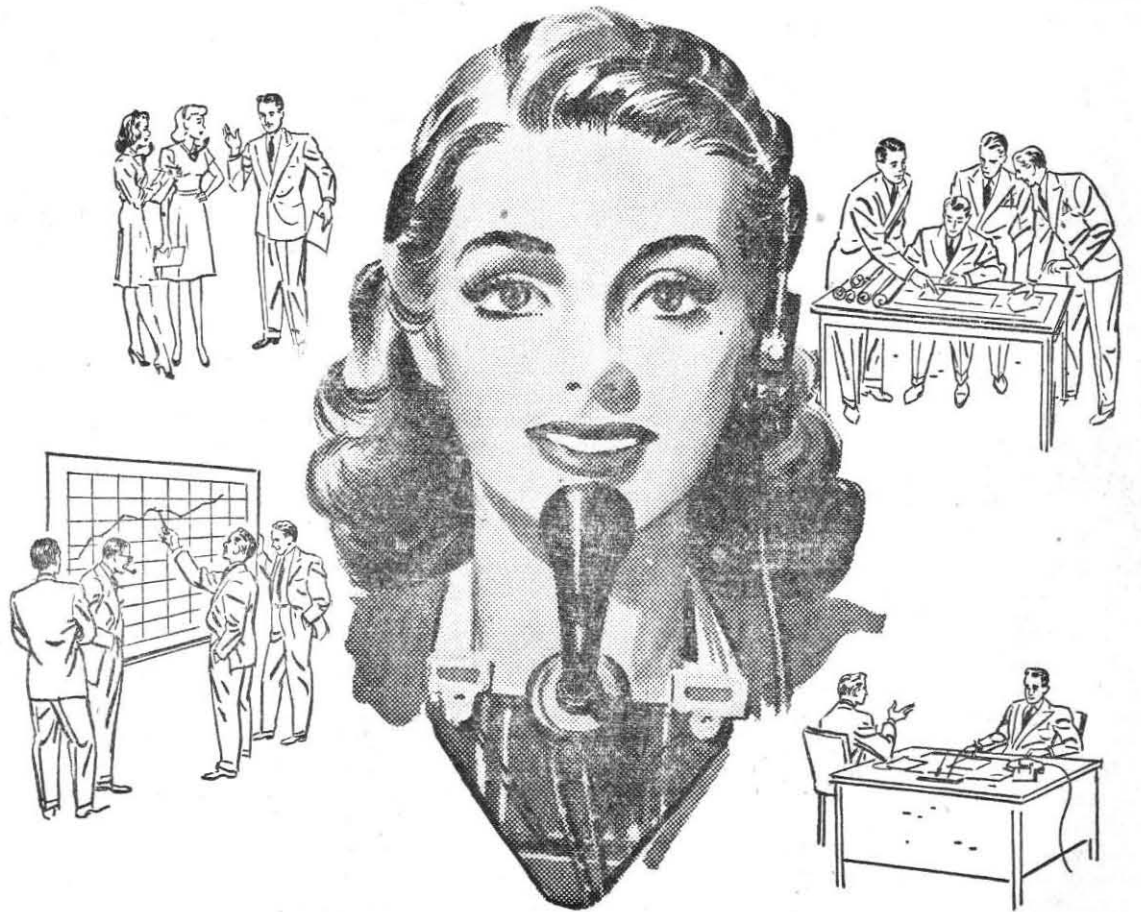
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All-Conference Cross Country Tomorrow A. M.

The all-conference cross-country meet, the first since 1942, will be held tomorrow morning at 10:00 in Tournament Park.

Teams from Oxy, Pomona, Redlands, Whittier and Caltech, about fifty men in all, will compete.

The contestants who finish in the first five places will receive medals. The winning team will receive the perpetual trophy.

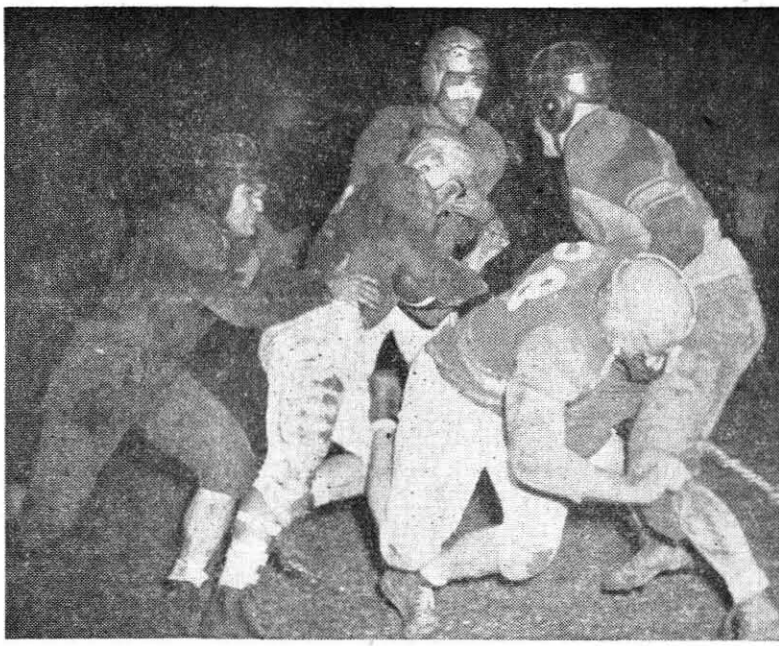
Competition Will Be Tough

The Caltech team will run against tough competition with Redlands as the major threat and Pomona next.

The best record of any man entered in the meet is held by Weed of Redlands in the three-mile event. He may find tomorrow's four-mile run a little more difficult. Olshausen of Pomona and Livengood of Redlands should also provide lively competition. Caltech's threats are Shafer and Doug Brown. Little is known of Whittier.

Caltech Has Won Trophy Twice

The perpetual trophy offered in this meet will be kept permanently by the team that wins it three times. To date, it has been at stake only twice and was won by Caltech both times, in 1941 and 1942.



Gerald McKenna and Bill Muehlberger collaborate to stop Bell of Pepperdine in season's finale.

Soccer Team Meets UCLA Booters Today

This afternoon at 3:15 the soccer team will meet the UCLA team at Tournament Park. This is the second pre-seasonal game that the Beavers will have had with the Bruins, and the team has been working hard in order to avenge last week's defeat. A coach has not yet been found but it is hoped that this situation will be remedied shortly. At the time of writing the line-up is still very vague, but some additions from the football team will make a heavier backfield.

Conference May Be Formed

There are now forty men out for soccer and the athletic office is hoping to have a good schedule lined up for next term. Several games are already planned with UCLA and there is a good possibility that a Southern Conference will be formed, the winner to play the winner of the Northern Bay Area Conference.

Complete Basketball Schedule

Fri., Dec. 6, LaVerne, there.
 Sat., Dec. 7, Chapman, here.
 Sat., Jan. 11, Loyola, here.
 Fri., Jan. 17, Pomona, there.
 Sat., Jan. 18, Chapman, here.
 Tues., Jan. 21, Oxy, here.
 Fri., Jan. 24, Redlands, there.
 Sat., Feb. 1, Pomona, here.
 Fri., Feb. 1, Whittier, here.
 Sat., Feb. 8, La Verne, here.
 Sat., Feb. 15, Oxy, there.
 Fri., Feb. 21, Redlands, here.
 Fri., Feb. 28, Whittier, there.
 Sat., March 1, San Diego NTC, there.

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Tech Loses To Oxy 9-6 In Water Polo

Techmen Outplay Tigers in Second Half Wed.

After outplaying the Tigers 5-3 in the second half, Tech's water polo team finished their next to the last game of the season last Wednesday on the not-too-long end of a 9-6 score.

All of the players showed pretty well against Oxy; Palmer, Dixon, Waters, Willson, and Murphy doing quite well. This was the last league game of the season, as the game tonight is with El Camino in Inglewood. Tech would have done much better if there had been more players available for replacement, as the opposing teams have all out-numbered Tech, and were therefore able to save their top players for crucial moments, or for obtaining a safe lead. It is well known that there are a number of fair water polo players on campus who did not show up or stick with the team throughout the season.

Ski Club Members Have Vast Weekend

Skiers Give Thanks for Snow, Turkey, and Hut

Over two dozen Ski Club members enjoyed the one and only winter sport at Snow Valley last week-end, besides the comfort of a well-furnished hut and excellent meals cooked by Mrs. Carmichael.

Although there was but a foot of well-packed snow, the skiing was good from 10 a.m. until dark. The harness tow was running as well as the three rope tows, affording the crowd a good opportunity to get a maximum amount of skiing.

Those skiers who feel safe in devoting this week-end to skiing (with 10 studying days left,) should contact the parties listed on the bulletin board in lower Throop.

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Muir Cagers Down Engineers; Beaver Defense Improving

Dabney Cagers Cop Interhouse Crown From Fleming

Season's Final Contest Is Hardest Fought

In a playoff of a previous tie, the Dabney House basketball squad turned back a hard-fighting Fleming team to win the interhouse cage crown with an undefeated season.

Both Teams Previously Unbeaten

Both of the teams had scored wins over the other three members of the league, and last week played to an 18-18 indecision. The championship contest saw both teams fighting savagely to win not only the crown but a side bet of dessert also.

Dabney Overtakes Fleming Lead

Overtaking an early Fleming lead, the men of Dabney forged ahead late in the first period and maintained control of the fracas through a rough, hard-fought second half to arrive on the long end of the 26-21 score.

Blacker Is Low Team

The rest of the league saw Ricketts emerge in third place while Blacker edged Throop for cellar laurels.

Final Standings

	Won	Lost
Dabney	4	0
Fleming	3	1
Ricketts	2	2
Throop	1	3
Blacker	0	4

Play LaVerne Today; Chapman Saturday Night

The Caltech varsity casaba quintet went down in defeat, 38-31, in a rematch with Muir J.C., played at the Armory Wednesday afternoon.

First Half Even

The first half of the contest showed both quintets about evenly matched in ability to miss shots, and the score stood 18-16 in favor of Muir as the second half began. At this point the Engineer quintet came to life with a five-point splurge to take the lead.

The Mustangs countered with a rally of their own, however, and quickly built up a 10-point lead, which a Beaver rally near the end of the game was unable to erase.

Tip-ins Tell Tale

The margin of the contest was the Mustang five's ability, in the waning minutes of play, to make good on their followups and tip-ins.

Pyle of Muir led in scoring for the afternoon with six field goals for 12 points. For the Engineers, Ted Bowen's three baskets and two foul shots were tops.

The starting Caltech quintet consisted of Bowen and Jay Montgomery at forwards; Paul Saltman at center, and Harry Moore and Bill Cox at guards.

Games This Week-end

This afternoon the Beavers meet the LaVerne five. Tomorrow they will play host to the strong Chapman College squad.

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From The Exchanges

Veterans needing homes on the University of Colorado campus will soon be assigned points to determine their eligibility. Points will be given for the number of school quarters completed, for the first child and each additional child, and for each month the application has been on file in the housing office.

Kilroy's Trail

An old familiar note reading "Kilroy was here" was found in the liver of a cat that a Michigan State College student was dissecting.

Average Ages

The median age for campus male students is 22½ years and the median age for female students is 18½ years, a Mississippi Southern College survey reveals.

Veterans Disband

John Muir Junior College war vets decided to disband their organization. The student body prefers not to have restricted membership clubs on campus.

New Radio Station

Starting next January 6 KSU, the Stanford University radio station, will begin a two-month trial period of broadcasting.

Shadows of John L.

Rutgers University announces that they have a five-week coal supply on hand. When it is depleted the school threatens to burn wood!

Mathematical Music

Students attending a lecture on the history of jazz music at the Illinois Institute of Technology were treated to a "non-Euclidean boogie" composition written by a math professor on the campus.

Musical Baedeker

The arrival of Christmas season has fortunately somewhat revived the depleted jazz scene around Los Angeles. The big attraction is Jack "Big Gate" Teagarden and his combo, currently playing at the Suzy-Q, phone-booth sized nitery on The Boulevard. Jack gives out with his pleasant singing and tailgate tram, but unfortunately is hampered in his fine efforts by poor acoustics and a generally unappreciative audience of typical Hollywood zombies.

Bauduc Quits TD

After a short and stormy sojourn with Tommy Dorsey's band, Ray Bauduc, ex-Crosby drummer, has returned to leading his own small jazz group at the Club Babalu, on 5th Street between Hill and Broadway. Ray still gives out with a beat that shakes the rafters, but the absence of his star trumpeter, Joe Graves, who remained with TR, is only too noticeable. As is too often the case with night clubs that cater to jazz, Club Babalu is a dive, with the band's music chaotically conglomerated with strains of juke-box tunes from near-by eateries and the usual bar noises. It is too bad that the jazz fan has to take his music with watery gin and green beer.

Ulcer Alley Jumps

Billy Berg's musical circus on Vine Street has reshuffled its personnel and currently features the blowing of Trummy Young and Roy Eldridge, both graduates of the recent Norman Granz "Jazz at the Philharmonic" fiasco. Eldridge, incidentally, is ahead on trumpet in the nation-wide "Down Beat" music poll.

Frank Valle-Riestra

Campus Brewins

A certain Dabney Frosh is still wondering about a phone call he received last Monday night. A girlish voice asked, "If my neck is 12½ inches in circumference, what is its diameter?" Without batting an eyelash he pulled out his trusty sliderule and gave her the answer with a correction for the elliptical neck shape. After he gets a few more dimensions he may ask her what her name is.

Novel Decorations

Bob Darrow apparently is quite proud of his unique collection of letters from a certain little woman in Venice. If you are curious, just drop up to room 41 Ricketts and look at the walls.

Fall Marriages

Bob Scott, just returning to Ricketts, is about to marry Charlotte Holmes, at present secretary to Professor Lund, in charge of the Tech libraries.

Frank Dore celebrated Thanksgiving by marrying Nellie Reeves, a USC girl. After an enormous wedding in Balboa and a brief honeymoon, Frank is back at the grind again at Tech.

Love on the SP

Chuck Auerbach apparently had a most enjoyable train ride back to Tech at the end of the recent four-day vacation. She is a Hollywood girl. We will all have a chance to see her Saturday night.

Club Blacker

Who was it that turned the Blacker lounge into a night club over the vacation? I had no more than stepped in the door, when a waiter stepped up and asked me what my order would be.

Desperate

Does anybody know whom Dave Caldwell is taking to the Blacker semi-formal? At last reports after seven fruitless phone calls, he wasn't sure himself.

Men About Town

I really get around trying to keep up with these Techmen. I had to travel all the way down to Santa Monica to see Dick Alexander and Bud Mittenthal at the recent USC homecoming dance. Why don't you guys stick a little closer to home; gathering material for this column keeps me busy enough visiting the local dens of iniquity.

Something for the Boys

Brad Houser brought his sister to dinner at Ricketts the other night. We hear that by the time she left at 1 a.m. she had made quite an impression on the Rowdies.

Wolves

Bob Stappler, Rog Chambers and Frank Evans have been frequenting the bar at the Green Hotel recently. I wonder what the big attraction is up there.

Due to beseeching pleas from a certain lovely girl out Claremont way, hers and affiliated names will no longer be mentioned in this column.

COMPUTER BEING BUILT
(Continued from Page One)

That is, they are high speed devices for solving calculus problems arithmetically. They are designed primarily for the solution of non-linear problems and are limited to 10 or 20 degrees of freedom. The Analog computer on the other hand is designed primarily for the solution of linear problems and in the present model will have over 100 degrees of freedom. This will make an ideal solution possible for the problem of wing flutter and other problems involving the complex vibrations of plates.

Principle

The principle of the Analog computer is, as its name implies, the solution of mechanical problems by setting up an electrical circuit analogous to the mechanical system in question and studying the behavior of it under voltages applied in magnitude and frequency relative to the forces acting on it in the mechanical system.

There are at present three other analog computers under construction in the country. Both M.I.T. and the General Electric Co. are working on a computer for the solution of special problems such as those encountered in servo-mechanisms. Westinghouse and Caltech are working on a computer for general use that will encompass the other two and indeed far exceed them.

There is an immediate need felt on the campus for a pocket model computer for use in physics and math tests, but Dr. McCann tells us that computers weighing under a couple of tons are not in sight as yet.

Classified Ads

TYPING—prompt service, rates reasonable. Mitchell, SYcamore 4-7036.

FOR SALE—Remington triple head electric razor. Reasonable price. 32, Dabney House.

PORTABLE RADIO FOR SALE—Dabney, Room 3.

CAMPUS BARBER SHOP

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Extension 212

WSSF Drive Ends; \$954.10 Collected

Dabney Wins Records; All Gifts Generous

The WSSF drive sponsored by the campus "Y" closed November 21 with \$954.10 in the fund.

Dabney Wins Contest

Of this total, student gifts, both graduate and undergraduate, amounted to \$647 with Dabney House heading the list with \$160, an average of \$1.30 per man, to win the \$10 worth of records given to the leading house.

The gifts from the faculty were generous: one faculty member who preferred to remain anonymous, contributed \$15 in the memory of Dr. Laing.

"Y" Secretary Wes Hershey expressed thanks for the splendid co-operation shown by both the faculty and the student body in the drive.

NEWS FOR CALTECH VETS
(Continued from Page Two)

months after arrival in the foreign country.

Large Selection of Schools

The more than 500 educational institutions approved to date by the VA are located in almost every part of the world. At the present time, however, the State Department is not granting passports for study in Germany, Austria, Japan or Korea and the Soviet Embassy is not granting visas to students wishing to study within the Soviet Union.

For further information on this subject, contact the VA office at 137 N. Marengo in Pasadena. W. A. Christopherson.

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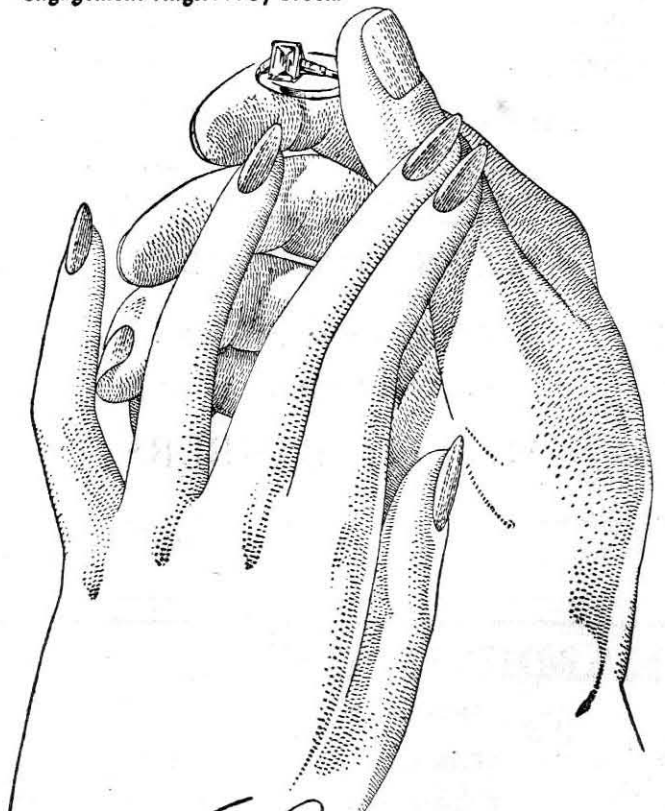
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