

The California Tech

California Institute of Technology

Volume LIX

Pasadena, California, Thursday, January 16, 1958

Number 12



Bob Walsh

Walsh Picked To Head Tech's Model UN Men

Bob Walsh, editor of the California Tech, was picked as chairman of Caltech's delegation to the forthcoming Model United Nations at the meeting of the BOD last Monday night. He will replace Mike Talcott, previously selected chairman, who resigned the post because of academic pressure.

The delegation of seven Techmen, representing Australia, will travel to the University of Washington for the assembly, which lasts from April 23 through 26.

The delegation will be chosen by the BOD at its meeting next Monday night. Applicants have been asked to notify Dick Kirk, ASCIT President, of their candidacy before the meeting.

Washington Hosts

As this year's host, the University of Washington will supply room and board, and a banquet and concert for entertainment.

ASCIT will help finance the expenditures of the trip to Seattle, which include \$50 for train-fare and \$20 for room and board.

The Model UN consists of approximately 70 member nations from all regions of the West Coast as far East as Utah. The country which each school is to represent is selected in accordance with the size of the school and its performance during the previous year's session.

Caltech Glee Club Plans Concert Tour To Bakersfield

A two-day trip to Bakersfield, Calif., February 20-21, will highlight the busy second-term activities of the Caltech Glee Club. Director Olaf Frodshan and President Ted Oakberg will accompany the club on its first tour outside of the Los Angeles area.

Included in the stay are three concerts in local high schools and two church programs. The Techmen will receive room and board from the churches of the town.

Another feature of the winter season will be an appearance at the Burbank Methodist Church on February 16, singing the first of a series of monthly concerts by college glee clubs at the church.

To prepare for these two performances, extra Sunday practices have been held, rehearsing

Beadle Wins Position At Oxford

Becomes Professor Qn Eastman Award

Dr. George W. Beadle, professor of biology and Chairman of the Biology Division at the California Institute of Technology, has been appointed the Eastman Visiting Professor at the University of Oxford, England, for the academic year 1958-59.

The appointment was announced today by Dr. Courtney Smith, president of Swarthmore College, American Secretary of the Rhodes Scholarships, and one of the electors of the Eastman Professorship.

Other Awards

Dr. Beadle was the recipient of the Lasker Award of the American Public Health Association in 1950, the Dyer Lectureship Award in 1951, and the Emil C. Hansen Prize of Denmark in 1953. During the year 1956-57, Dr. Beadle served as President of the American Association for the Advancement of Science.

The Eastman Professorship was founded in 1929 by George Eastman to bring senior American scholars to Oxford University for a year. During twenty-eight years the list of Eastman Professors has included such distinguished men as Felix Frankfurter, Arthur H. Compton, John Livingston Lowes, Linus Pauling, Wallace Notestein, and Harold C. Urey.

CCF Plans Talks By Local Minister

A series of talks on "The Christian Viewpoint of Life After Death," "The Christian Viewpoint of Purpose in Life," and "The Christian Viewpoint of Sex," is scheduled by the Caltech Christian Fellowship in their Wednesday noon meetings on Jan. 22, 29, and Feb. 5.

Dr. Edward Hart will speak from Immanuel Baptist Church next Wednesday on "The Christian Viewpoint of Life After Death." The meetings are held 12:00-12:55 in the Helps' Dining Room in the student house basement. Lunches may be bought or brought.

the 24 selections in the group's repertoire. The Burbank concert will include 18 of these numbers.

Next Monday night, the sixty voices will render their traditional engagement for the Caltech Service League meeting in the Athenaeum. This will consist of 20 minutes of representative music.

The club has scheduled a return concert at the Westminster Presbyterian church on February 9. With a membership of 2,000, the church serves most of the Altadena community.

Also, the Glee Club will sponsor the fifth annual Interhouse Sing, tentatively scheduled for March 6. Held in the gym, the Sing is a vocal competition entered by a chorus from each of the houses.

TRUSTEE

John Simon Fluor, Los Angeles industrialist, has been elected a member of the Caltech Board of Trustees.

Fluor is president of the Fluor Corporation, Ltd., an engineering and construction firm founded by his father, the late John Simon Fluor, Sr.

Active in civic affairs, Fluor has served as a director and member of the executive committee of the Los Angeles branch of the American Cancer Society. For the past year he has been general chairman of the Los Angeles Fund Drive of the Y. M. C. A.

Special Exam Will Measure Personality

Two experimental tests of one hour duration each will be given to the Caltech student body on Thursday, January 23, at one o'clock. These tests will be administered in regular one o'clock classes on that date for those having one o'clocks, and in 201 Bridge for those who do not have one o'clocks.

Personality Inventory

The tests are of the personality inventory type; they are tests of feeling rather than of knowledge. The results of these tests will have no bearing on grades or in any other way affect the standing of a student at Caltech. Results will go directly to the Educational Testing Service.

The California Institute in cooperation with Amherst, Cornell, Dartmouth, Harvard, M. I. T., Princeton, Rensselaer, Rutgers, Stanford, and the Educational Testing Service is undertaking a study of the personality characteristics of students that appear to indicate success in college work.

Purpose of Study

The purpose of the study is to determine if a test can be devised which will reveal those characteristics which are not touched on by tests of academic ability alone. If such a test can be created and if it proves itself in actual practice it would go a long way toward eliminating the frustrations and discouragements that now occur when students enter college emotionally unprepared to adjust to a college environment even though they may have demonstrated real academic ability.

Announcements

Big T Pictures

All off-campus men should turn in their yearbook pictures to the Big T box in Lower Throop. Seniors should turn in the best two, others choose only one. Those who have not yet been photographed can arrange to do so with Tom Harvey in the physics stockroom.

Student Shop

Applications to the Student Shop will be accepted from Thursday, January 16 to Wednesday, January 23. Those interested in joining should see Al Forsythe in Dabney, John Conover in Ricketts or Bob Pailthorpe in Fleming.

Y Film Series

A sophisticated comedy, "Mr. Deeds Goes to Town," is the featured Y Film Series show this Sunday at 7:30 p.m. It stars Gary Cooper and is directed by Frank Capra.

The program will also include a UPA cartoon, "Willie the Kid." Forty-five cent admission will be collected at the door and, as a convenience, season tickets will be sold.

AUFS Man Finds Tech Alive, Alert

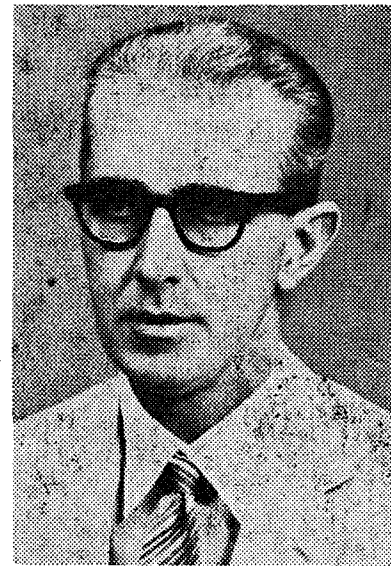
Expert Visits Several Universities; Considers Tech High Spot In Tour

Students and faculty members at Caltech form the "most alive, alert and stimulating group I've met yet," according to Dr. Willard H. Hanna, an American University Field Staff member who spent the last 10 days on campus.

Hanna, who just returned from a year and a half of travel in Indonesia and the rest of Southeast Asia, spoke before several classes, clubs, seminars and faculty groups during his visit. He warned of a "deterioration" in Indonesia that could lead to Communism.

Caltech Is High Spot

When asked how he felt about his visit to Tech he commented: "You'll think I am buttering you up, but I honestly consider Caltech the high spot in my academic tour. The professors and students all give a feeling of brains at work."



Willard H. Hanna

Hanna's AUFS tour has included several eastern, southern and mid-western universities. His next stop is Harvard. After the academic year, he plans to spend several months writing before he returns to Southeast Asia.

"My wife especially enjoyed the visit," added Hanna. "You people showed us unbounded hospitality."

Hanna was particularly impressed by Techman's interest in "fields other than science." "Science is not enough. Tomorrow's scientists must have political and economic savvy as well," he warned.

James G. Maddox, who has spent the last two years in Mexico, will be the next AUFS visitor. He will be on campus January 20-29.

ASCIT Dance Tops Weekend

A post-game dance following the Oxy basketball game tomorrow night will highlight this weekend's social calendar. The senior class will host couples and stags from Tech and Oxy in Fleming House lounge. This is another in the series of after-game mixers sponsored jointly by ASCIT and one of the undergraduate classes.

For Saturday night, Ricketts has announced that Phil Reynolds will host a house party at his home in Glendale.

Meanwhile Fleming and Throop will be playing Casino at the first joint card party of the term. Blacker and Dabney have scheduled exchanges, the former with Anoakia, a private girls' prep school in Arcadia and the latter with Glendale Junior College girls.

Frosh Slate Announced

Nominations for freshman class offices were opened last Thursday by class prexy Sid Leibovich and are to be closed today at the freshman class meeting scheduled for 11:00 a.m. in 155 Arms.

The following men announced their candidacy before press time Monday night:

President: Kendall Casey, Dohn Schildkraut.
Vice-President: Stan Sajdera.
Secretary: Dick Jones.
Treasurer: Don Forrest.
Athletic Manager: Cleve Moler
Board of Control: Bill Bauer, Larry Cowan, Sid Leibovich.

These candidates, and any others who may be nominated before the deadline today, will be introduced at the meeting.

Voting will be Thursday, January 23, and will be by sections; the section leaders will distribute and collect the ballots for their individual sections. Ballots and tallying will be handled by the ASCIT election committee, headed by Reed Saunders.

Leibovich expressed disappointment at the small turn-out; it is hoped that the frosh class politicians will show more interest in next quarter's elections.

SCOREBOARD

BASKETBALL

Caltech 67; UCR 50
Frosh
Caltech 51; UCR 38

The California Tech

Associated Collegiate Press honor rating: First Class

Editor—Bob Walsh

EDITORIAL BOARD

Steve Emanuel (Executive), Dave Leeson (Executive), Mike Milder (News), Howard Weisberg (Feature), Jim Wilkinson (Sports)

ASSISTANT EDITORS

Cleve Moler (Copy), Dave Nissen (Epicure), Dave Singmaster (Sports), John Torodoff (News)

REPORTERS

Bob Blandford, Bill Bauer, Al Carlin, Ken Casey, Eli Chermow, Gene Cordes, Frank Childs, Larry Crissman, Brad Efron, Bob Eglinton, Ford Holtzman, Mike Jones, Lloyd Kamins, John Lango, Hal Morris, Bob Norton, Kirk Polson, Rolf Richter, Dave Spencer, Louis Stansby, Phil Thacher, Lance Wallace, Joel Yellin, Wallace Yerbovsky

Art—Bruce Allesina, Ted Bate

Photography—ASCIT Photo

Business Manager—Dave Leeson

Circulation Manager—Eldridge Moores

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Secretary's Report

FRESHMAN CAMP

There was a good deal of criticism of last year's New Student Camp. The atmosphere was too formal, the upperclassmen were not adequately prepared nor were they sufficiently conscientious, the faculty was too long-winded, it was cold, dusty, etc. Some were legitimate complaints.

For this reason the Board is planning to appoint a committee next week, the purpose of which will be to produce a proposal of changes in the Camp. There have been many random suggestions; now is a good time to introduce some order into the question.

ASCIT FORMAL

The ASCIT Formal will be Friday, February 28. The place will be the Beverley Hills Hotel. The band will be announced. Iorillo said, "All the details (except the band) have been taken care of."

HONOR KEYS AND CERTIFICATES

Gene Cordes (chairman of the Honor Point committee) stated that all applications for honor keys and certificates must be delivered to him (C box in Ricketts) no later than February 8.

MOBILGAS ECONOMY RUN

At long last a person has been found to take the job of chief observer for the Economy Run. He is Jim Workman, graduate student in Mechanical Engineering. With Workman in charge, Caltech has been accepted again this year to handle the official observation on the Run.

MODEL UNITED NATIONS

The former chairman of the Model U. N. Delegation has, unfortunately, had to resign. For this reason the Board has appointed Bob Walsh as the new chairman.

The rest of the delegation will be appointed at next week's Board meeting. Anyone interested should come to the Board meeting on Monday evening.

ASCIT ELECTIONS

Nominations for ASCIT elections will be held in Culbertson at 11:00 a.m. on February 13. The elections will be held on February 27. Michael Godfrey, ASCIT Secretary

Global News

REDS STEP-UP OFFENSIVE

Russia's "peace offensive" moved into high gear. The Soviets first announced a cut of 300,000 in their armed forces while asking NATO to follow suit. They then sent new disarmament notes to all UN members and several neutral nations as a propaganda move against Ike's State of the Union speech. The note said that, in three months, Russia will call a heads of government conference including NATO, the Warsaw Pact (Russian satellites in Europe), and others; that discussion would center on an East-West non-aggression pact, nuclear bans, a missile-free zone in Europe, removal of foreign troops from Germany, and more trade; and finally, that a foreign ministers' meeting, advocated by the U.S., would accomplish nothing.

ITALY REFUSES

Russia offered Italy unspecified concessions if she would declare herself free from nuclear weapons, but Italy refused. This reply characterized the official reception of Bulganin's peace notes, but the governments and people of Europe still hope for an East-West disarmament pact and see Russia's proposed conference as a possible method of negotiation.

IKE REPLIES

Eisenhower's reply to Bulganin, which is expected to approximate that of other NATO members, said that he would confer with other heads of state only if preparation by lower officials

shows hope of success. He suggested that Russia show her good will by helping to restrict vetoes in the UN, allowing Germany to decide on unification by free elections, and letting Eastern European countries choose their own governments.

STATE OF THE UNION

Eisenhower's State of the Union speech was built around an eight point plan of action which greatly impressed Republicans but which had a less inspiring effect on Democrats and the rest of the world. The eight points were:

There must be more unity in the armed forces and a new central purpose which Ike will personally direct for several months.

Defense must speed up to match the advance of science and technology.

Military, defense, and economic support, repayable loans, and private capital for foreign areas must be continued.

A five-year extension of the Reciprocal Trade Agreements Act with greater negotiation authority is needed.

The Atomic Energy Act must be amended to allow exchange of scientific and technical information.

Education and basic research need about one billion dollars for use over the next four years.

Defense needs a one-and-a-third billion dollar increase in payments.

"Works of peace" disarmament agreements, US-USSR cooperation, etc. — should be stressed.

Opinion

The Outside World

by Alan Carlin

The new French Premier, Felix Gaillard, faces many problems, including an empty treasury, uncontrolled inflation, and the threat of mass trade union strikes. The potential catastrophe which each of these problems implies, however, is minor compared to the emotional shock which seems certain to hit the French when they are forced to recognize the fact that they have lost Algeria.

For face has become very important to the French now that they have lost so much of it. First there was June, 1940, then Indochina, and most recently, Suez. And always there has been retreat here, defeat there, and chaos everywhere. Unfortunately, Algeria is a matter of face too; this, in fact, is what the war is all about.

Quirk of History

Consider, for example, why Algeria's neighbors, Tunisia and Morocco, have both been independent for several years, while France has spared no expense to keep Algeria's rebellious population under its control. The answer lies in a quirk of history, the fact that Algeria has been governed as an integral part of metropolitan France since 1871. As a result, no legalistic face-saving formula could be found to give the Algerians their liberty.

There are, of course, a variety of other, minor reasons for France's determination to hold onto Algeria in the face of a determined nationalist movement. One of them may be their reluctance to give up the rich deposits of oil, natural gas, and iron recently discovered in the Southern portion of the country. Another is the voluble opposition of the 860,000 French citizens, not more than half of whom are French by blood, who constitute one-eleventh of the total permanent population and elect 15 deputies to the French National Assembly. They fear, with some justification, that Algerian independence will mean the end of their privileged political and economic position in the country. For they know that 150,000 of the 550,000 Europeans resident in Morocco and Tunisia in the last peaceful year, 1954, have already moved to France, not because they were forced out, but apparently because they had lost confidence in their possible future in North Africa.

First Rebellion

The rebellion against French rule started three years ago—just a few months after Tunisia was granted internal autonomy—in the Aures, a rugged region near the Tunisian border inhabited by a warlike people. The proximity to the border, in fact, originally gave rise to the speculation that Tunisian rebels had crossed into Algeria to make further trouble. The timing and dispersion of the outbreak should

have indicated, however, that it was no isolated outbreak; rather, it spread gradually northward during the spring of 1955. No one really took much notice of it, however, for the French were preoccupied with the rebellion in Morocco at the time.

Beginning in August, 1955, the rebellion spread into the western province of Oran, the number of attacks increased throughout the country, and Frenchmen began to realize that it was more than the work of a few bandits. Worst of all, the European and Moslem communities gradually split further and further apart.

Bloody Phase

The present bloody phase of the war commenced in February, 1956, when Guy Mollet took office with a program of "Pacification-Reforms-Elections" for Algeria. Unfortunately, when the new Premier visited Algiers, he apparently capitulated to the tomato-throwing mob of Europeans that greeted him, and appointed the extreme Robert Lacoste as Resident Minister.

Lacoste established a fully authoritarian regime, saturated the country with the maximum number of troops to maintain order and frustrate rebel terrorism, tried to gain the support of the Algerian peasants, or fellahin, by a huge program of social and economic reforms, and attempted to convince the Moslem population that its future lay with France rather than with the irresponsible nationalists. But a growing tide of nationalism has swept the fellahin, who seem now to firmly side with their fellow Moslems against the ruling minority of French settlers. The often barbarous methods employed by the French army have not helped either. Often in order to protect their own men, the French have been forced to adopt a policy of assuming every Moslem guilty until proved innocent—if still alive—and have apparently used torture repeatedly to extract information from their prisoners.

Finally, in September, 1957, the National Assembly was presented with a Basic Law for Algeria which would have given the territory very limited local autonomy and prepared the groundwork for a federal state. Even its meager, watered-down concessions, however, were too much for the Assembly, which defeated it on the night of September 30 and indirectly brought down the government.

A.L.N.

On the other side of the Mediterranean, the rebels give every sign of growing stronger, not weaker. Their Armee de Liberation (A.L.N.) is the largest in the Arab world, numbering between 85,000 (the French figure) and 100,000 (the rebels' claim) and rules almost all of Algeria during the hours of darkness. By the skillful use of intelli-

LETTERS

Editor, the California Tech:

The California Tech has recently brought to a close a very interesting attack on the IHC. In this attack three editorials appeared, two of them on the sports page. It is a serious flaw for a newspaper to allow any editorial to appear under improper billing. This does not have to be discussed. The final editorial of which I speak gave the men of Dabney, and probably of Fleming, a good smile anyway. The "upset" in inter-house swimming was a surprise only to The California Tech. I hope it helped someone save face to include the reference to this "upset."

The actual criticism found in the one bonafide editorial can not be judged without some prejudice by any house member, including myself. Likewise it could not have been written by any house member without some inflection due to personal loyalties. The particular statements and related facts are interesting and arguable, but I would just like to remind the Tech that the IHC is unique in one respect and must be judged accordingly. It is the only body on campus where men must try to be far-sighted and objective while at the same time are elected to this board to protect and represent the interests and needs of their own houses.

Bob Lange

gence, it manages to keep out of the way of the French army and tie down over 400,000 French army personnel. They have an effective communication system, a medical corps, pension plans, and most of the other requirements of a permanent army. And most important of all, eyewitness reports indicate that army units are greeted warmly by the fellahin, who often must be discouraged from joining for lack of weapons and money.

Not only is the war apparently hopeless from the French point of view, but it is also costly. For one thing, it has meant the withdrawal of five divisions from the NATO forces defending Central Europe. For another, it has resulted in the death of approximately 3,700 Frenchmen in military operations, along with 6,000 wounded, and 1,000 European casualties from rebel attacks. In terms of money, the war has cost France at least \$1.7 billion, including at least \$600 million in foreign currency, or more than half the total French reserves on hand in January, 1956. Although the French probably do not count the 36,000 Moslem deaths for such, they are also worth considering.

The Dilemma

Thus the French cannot win the war, cannot afford to continue it, and cannot face the consequences of having lost it. Yet every day of bloodshed makes it less likely that the two peoples will ever be able to live with one another again. Further, con-

(Continued on Page 4)

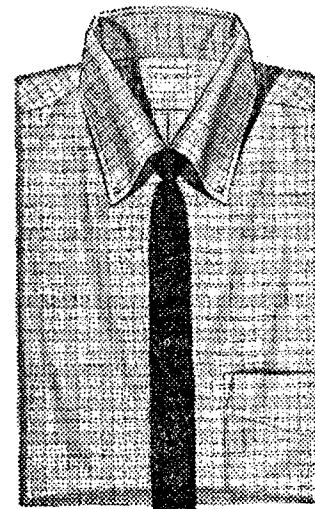
Stop in today for your New Arrow University Shirt

They're waiting for you. Spanking new Arrow University models in soft new Arrow Cambridge Cloth.

We have a wide selection of solids, checks, pencil-stripes . . . all your favorite colors. Each is authentic ivy-league styling: Collar buttons down, front and center back. Stop in today and take your pick of the best-looking shirts on campus. \$5.00 up.

Nash's

PASADENA
141 E. Colorado Street
SY 6-0351



Tech Clobbers UCR for Third Straight

Caltech's cagers smashed the University of California at Riverside for their third straight victory, 67-50, last Saturday on the losers' court. It was never really a contest as the Beavers quickly grabbed the lead, held a 35-25 half-time advantage, and were never seriously challenged.

Bob Emmerling dropped in ten field goals, and added one free throw to lead both teams with twenty-one points. Glen Converse and John Stene both scored sixteen — standout performances that handily made up for the loss of u-struck Fred Newman.

Coach Gene Rock started sending in subs during the second quarter and by the end of the game every team member had played. The win brings Tech's season record to a very fine 3-1.

The frosh team also downed UCR just previous to the varsity tiff, 59-36. The Beaverbabes, behind at half-time, came alive during the second half to completely dominate the contest. Skip Stenbit led the scorers with twenty-one points.

BOX SCORE

Caltech				
Player	FG	FT	PF	TP
Van Kirk, f.	2	1	3	5
Magdaleno	1	0	1	2
Munson	0	0	0	0
Meese	0	0	0	0
Nelson, f.	1	2	2	4
Maley	0	0	0	0
Bass	1	1	2	3
Owen	0	0	1	0
Converse, c.	7	2	0	16
Arps	0	0	0	0
Tibbetts	0	0	1	0
Stene, g.	6	4	2	16
Holland	0	0	0	0
Emmerling, g. ..	10	1	3	21
Blakemore	0	0	5	0
Totals	28	11	20	67
UCR				
Endeman, f.	1	1	0	3
Moore	3	2	1	8
Posey	0	2	1	2
Crim, f.	2	3	3	7
Wilhelms, c.	3	0	2	6
Gerry	3	3	3	9
Zouhar, g.	4	0	5	8
Moore, D., g.	1	5	3	7
Totals	17	16	20	50

Opinion

AS I SEE IT

by Dick Van Kirk

The year 1957 will live as one of the brightest years in the second golden age of sport in the U. S. Just as the twenties produced their heroes and legendary figures of sport, so have the fifties put forth a bright array of athletic heroes. It is perhaps a bit difficult for comparative youngsters like ourselves to conceive of our contemporary heroes as becoming legendary figures with the stature in memory of a Babe Ruth, or a Red Grange, or a Jack Dempsey; but who knows?

When we youngsters become oldtimers, we will sit back and spin tales of the feats of people like Stan Musial and Ted Williams, two baseball players who are not only already living legends, but who show signs of ability to create several more legends before they retire. . . . Sugar Ray Robinson, labeled by some as greedy, by others as generous to a fault, but acclaimed by all as one of the deftest and most courageous of workmen ever to step in a boxing ring. . . . Wee Will Shoemaker, a jockey recognized as the win-

ningest in the business, who may have earned legendary status by committing one of his rare riding mistakes in the stretch of the daddy of all races, the Derby. . . . Bob Gutowski, Bob Richards, and Jim Brewer, three pole vaulters who have done so much to popularize the event in the eyes of the American public. . . . Lew Burdette, who rode out a storm of controversy about wet baseballs and proceeded to sink the already legendary Yankees in the World Series. . . . Don Bowden, America's first member of the 15 miles per hour club in the mile run. . . . Y. A. Tittle and John Unitas, two of the most effective throwers in the realm of professional football. . . . Bob White, Ohio State's answer to the Bronko Nagurski legends. . . . Bob Cousy and Bill Russell, two of the ten men who comprise the greatest basketball team of all time, the Boston Celtics. . . . Wilt Chamberlain, a pro basketball prospect when in high school and an all-time great in college. . . . Barry Mackay, America's chief hope in plans for a reacquisition of the Davis

(Continued on page 5)

Caltech Five Will Host Oxy Tomorrow

Tomorrow, Caltech's winning basketball teams host arch-rival Occidental, currently residing at the bottom of the SCC standings. The frosh open hostilities in the Scott Brown Gym at 6:30, followed by the varsity at 8:00. On Saturday both teams travel to La Verne.

The Oxy game will no doubt be a tough one as the Tigers swamped the only mutual opponent thus far, Cal Poly, by a whopping 101-65 score. However, several factors are in Tech's favor.

The Tech-Cal Poly game was the Beavers' season opener and they had not really got the hang of working together. They seemed nervous and unable to "get going." Since then, they have improved considerably, game-by-game and demonstrated in their last three outings, all wins, that they have the ability and spirit to score the points.

Moreover, Oxy's victory over Cal Poly was played on the victors' notoriously small court with a full-game, full-court press. Although the Tigers have thus far been fairly unimpressive, with an 0-2 league record, they are always dangerous, with a well-balanced team built around six returning lettermen.

SCC Standings

The standings given below are based on games played before Jan. 5. Yesterday, Pomona and Caltech clashed in the Beavers' league opener, while Whittier took on Oxy.

Team	W	L	Pct.
Pomona-Cl.	2	0	1.000
Redlands	1	0	1.000
Caltech	0	0	.000
Whittier	0	1	.000
Occidental	0	2	.000

The SCC league race is something of a puzzle at the present moment. The general preseason sentiment had installed Redlands and Whittier as probable winners, but out of nowhere, Pomona-Clairemont has opened with a rush, holding at press time a 2-0 league record. After losing their first three games P-C turned right around to dump Whittier and Oxy.

Next week, on Tuesday, Caltech's cagers meet Pasadena Nazarenes on PCN's court at 4:15 while the two frosh teams clash in the Scott Brown Gym at the same time. Paz Naz, traditionally strong in basketball, has one of the finest small college teams in Southern California.

CALTECH

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CALTECH VITAMINS

Caltech Genuine Wheat Germ Cereal

CALOID COLD CAPS
NEW, EFFECTIVE REMEDY

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Wines - Liquors - Champagne

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Sticklers!

WHAT IS A BIG METALS TYCOON?

DAVID ALEXANDER
N. CAROLINA STATE
Steel Wheel

WHAT IS A POLICEMEN'S BALL?

HENRY BURKHARDT, JR.
U. OF DETROIT
Cop Hop

WHAT IS A POMPOUS BULLY?

JAMES HIBBS
INDIANA STATE
TEACHER'S COLLEGE
Stuffy Toughie

WHAT IS PUPPY LOVE?

MARINA LA MADRID
U. OF WASHINGTON
Collie Folly

WHAT IS A MARCHING BAND THAT NEVER GETS A LUCKY BREAK?

(SEE PARAGRAPH BELOW)

MEMO TO MAESTROS: is your band dawdling instead of tootling? Is it full of feeble fifers and drooping drummers? Well, this musical slowdown may be traceable to lack of Luckies. Better give your band a break—and make it a Lucky one! A Lucky, you see, is a light smoke—the right smoke for everyone. It's all cigarette—all naturally light, wonderfully good-tasting tobacco. And Luckies' fine tobacco is toasted to taste even better. Now then, what's a marching band that never gets a Lucky break? Why, it's a *Sore Corps!* (Wasn't that cymbal?)

STUCK FOR DOUGH?

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We'll pay \$25 for every Stickler we print—and for hundreds more that never get used! So start Stickling—they're so easy you can think of dozens in seconds! Sticklers are simple riddles with two-word rhyming answers. Both words must have the same number of syllables. (Don't do drawings.) Send 'em all with your name, address, college and class to Happy-Joe-Lucky, Box 67A, Mount Vernon, N. Y.

WHAT'S A FRENCH BASKETBALL PLAYER?

MELVYN NIZNY
U. OF CINCINNATI
Tall Gaul

WHAT IS A WELL-DRESSED BOXER?

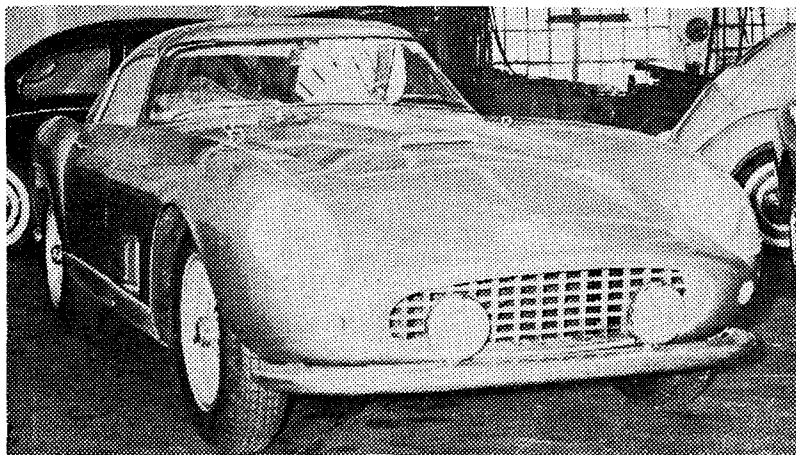
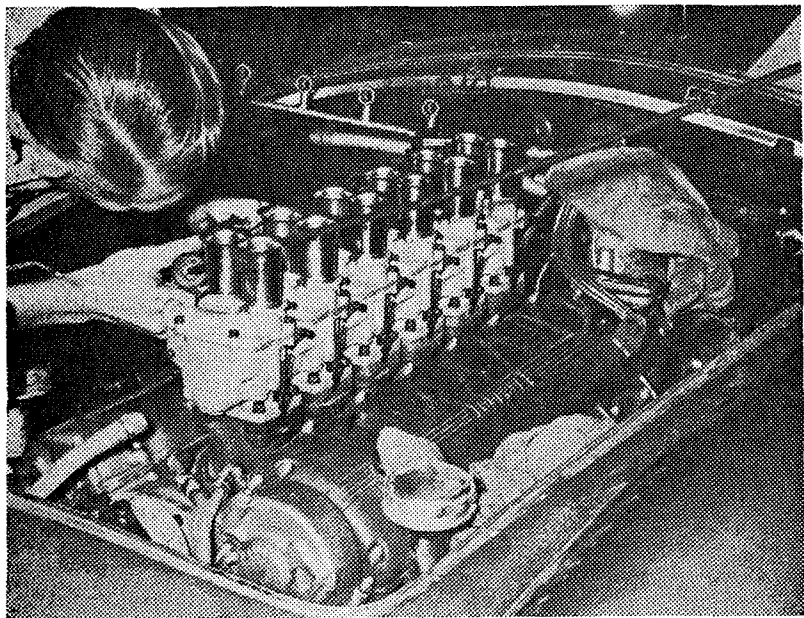
WARREN BODOW
SYRACUSE
Dapper Scrapper

WHAT IS A CLAIM JUMPER?

LOIS REICHARD
KUTZTOWN STATE
TEACHER'S COLL.
Acre Taker

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Pit and Paddock

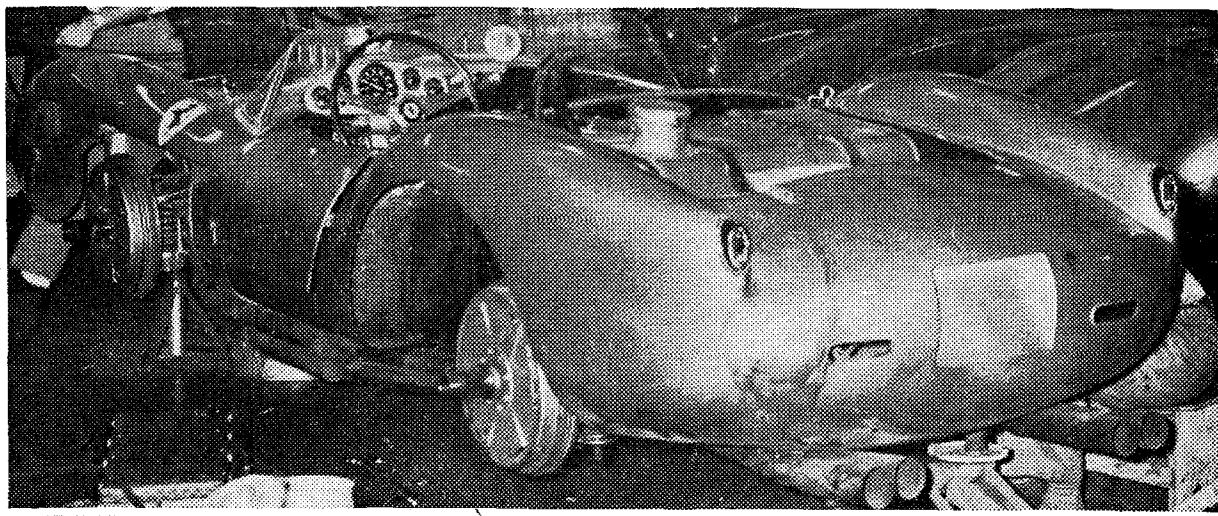


ADJACENT—The Ferrari Berlinetta coupe, winner of races and yours for \$12,000. This is a lighter version of the Gran Turismo Coupe and is powered by the 300 hp engine.



LEFT — A good view of the six dual throat Webers that are used in von Neuman's 3 liter Testa Rosa Red Head.

BELOW — Von Neuman's new Testa Rosa, the only one now in the country. It is scheduled for the big Argentine race.



by Crissman, Eglinton & Norton

We outdid ourselves this week. We dressed up in rented tuxedos and marched bravely into the Ferrari Representatives of California. Mr. Ray Lovely, no less, was taken in by our clever ruse and showed us around the establishment.

We were immediately drawn to von Neuman's brand new 3 liter, 300 horse power Testa Rosa Red Head, which just happens to be the only one in the country at this time. The mechanics 'were busy 'getting 'it ready to send to Argentina next week.

More fitting to our costume was the Berlinetta coupe, a lighter, more streamlined version of the Gran Turismo Ferrari. It was the same car that won the Tour de France and finished fourth over-all in the

1957 Mille-Miglia.

Upon asking prices we were told that the Gran Turismo 3 liter coupe sells for a paltry \$12,000 and a new 2 liter Testa Rosa can be purchased for a mere \$11,000. After pooling our resources, we found that we did not quite have the change. Under the pretense of fetching our checkbooks, we made our getaway.

We took in the imported car show at the Shrine auditorium last Friday evening. This show, which ends this weekend, is terrific. We had a gay time sitting in every thing from an Isetta to a new 300 SL Roadster. Norton got stuck in a Berkely, but we managed to get him out after an hour's hard labor. We tried to sit in a Maserati, but some yo-yo had locked the doors. I wonder why?

CAMPUS BREWINS

Good Line

That unsubtle casanova, M. Milder was squiring a young lady at the Scurvey House exchange last Friday. The line he used on this chick was one of the most unique that Beak has ever heard.

It all started when out of the clear blue he asked her if she likes to be pushed around. The answer was sort of garbled but this didn't slow Mike down. His next comment was more to the point, namely, "Why don't we relieve our tensions?" Her courteous reply was, "Let's dance." You would think that by now he would get the hint, but the final blow came when she said, "I have to be in by 1:30 unless I take an overnight and I haven't any place to stay." Master mind Milder thought this one over for a while. Quoth he, "Am I

being propositioned?"

Paul Procures

Mighty Paul M. was really impressed with things south of the border, so now he is offering to the highest bidder a trip to So. America in his jeep. Deal is reputed to include his sister.

Saul Scores

Beak has found the person on campus who is the most hard up socially of us all. One o'clock Sunday afternoon rolled around and Alev's black box gave a gentle ring pulling poor S. Dipachuco out of his beauty sleep. Voice on the other end explained that there were three ready, willing and able nurses at L. A. County who wanted to go to the beach with him alone. Saul rose to the occasion (in more ways than one) and trotted off for the beach with these young lasses. Beak couldn't get all the details but Saul came back late that night looking very spent.

THE OUTSIDE WORLD

(Continued from page 2)

tinued identification of the United States and the West with this example of blind colonialism can only serve to push the North Africans into an arrangement with the West's real enemy, as has happened in the Middle East.

Briefly, it is high time for the United States to disassociate itself from policies which are contrary to our ethical standards and our interests.

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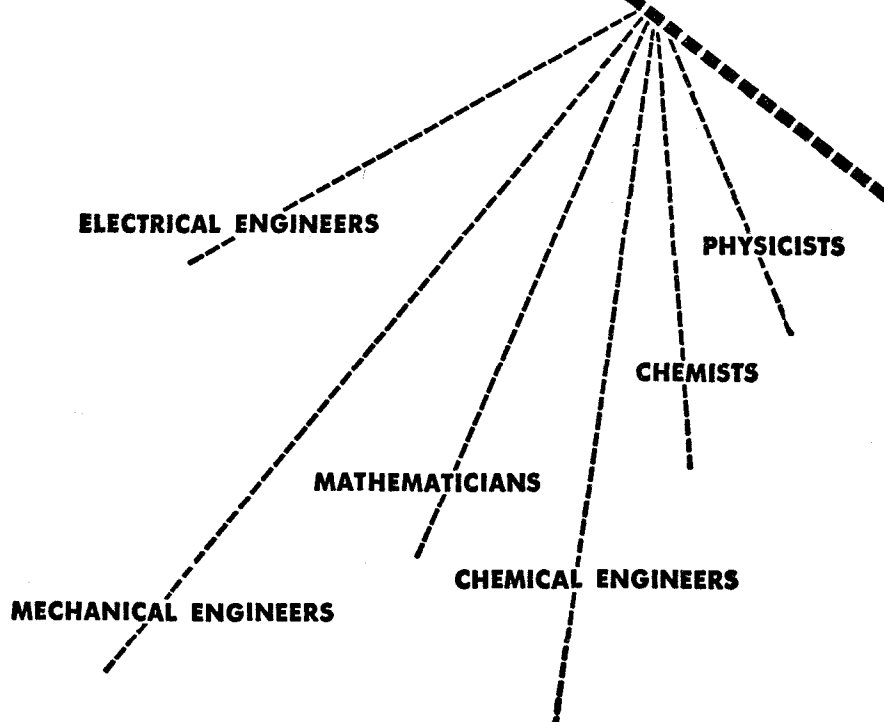
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UNIVERSITY OF CALIFORNIA RADIATION LABORATORY Livermore, California

Opinion

Human Review

by Bob Blandford

The purpose of this article is to outline an idea which is not widely enough recognized at the present. Briefly the idea is this: our world economy today is complexly industrialized and is dependent on low grade ores which require involved processing. This economy is far more vulnerable to physical damage than any economy before it. Indeed, it seems to be so vulnerable that a world war could disrupt it so that it could not start again. This would result in widespread starvation and a reversion to an agricultural society.

When the first oil drills were being sunk, oil was often found only a few feet deep. Today we take a barge into the Gulf of Mexico, erect a platform and sink a shaft miles into the earth.

Once we scraped coal from the surface of the earth with steam shovels. Now we are beginning to mine thin seams and are even thinking of burning out thin seams underground. To mine a thin seam we use crawling, com-

plicated machines with iron rakes and conveyor belts.

Once we smelted ninety percent iron ore. Now we are learning the more complicated and delicate methods necessary to smelt twenty-five percent taconite.

All of these more complicated techniques for getting raw materials use more power than the older techniques. All of them are more dependent for their continued operation upon a smooth flowing economy. All of them would be difficult to start from scratch. The question is, "Where can you begin to build it up again?"

Dr. Harrison Brown, of Caltech, in his book, "The Challenge of Man's Future," continues this argument to propose that starvation and an agricultural society will follow a major disruption of the world economy. He uses the following illustration.

After World War II Western Europe took several years to get back on its economic feet. This

Jazz

Max Roach - - - Jazz in 3/4 Time

by Lloyd Kamins



EmArcy MG 36198, featuring: Sonny Rollins, tenor sax; Kenny Dorham, trumpet; Billy Wallace, Ray Bryant, piano; George Morrow, bass; Max Roach, drums.

This is new, this is unique, this is unusual, but moreover, this is good listening.

Jazz waltzes have been tried many times in the past, along with such abortions as ¾ boogie

and ¾ ragtime. Competent musicians have recorded waltzes, among them, some of my personal favorites, but this album marks the first successful swinging jazz waltz session.

This is not a new attack on an old cliché. This is not a device, presented for its appeal as a freak. No humor is intended here. Hard swinging jazzmen are not portrayed tripping

along against an um-cha-cha rhythm section. Even the elements of satire and sarcasm are absent. There is but one goal, and it is realized. The set swings.

Syncopation In

Roach, with his flawless performance, proves that syncopation is not limited to the medium of 4/4 time. He utilizes all the mechanisms of the drummer to bring about the creation and release of tension, and his superlative linear solos are wholly unrestricted by the meter. The bass, of course, stays on a straight 3, (sounds strange doesn't it?) but the piano and drums vary the accents and stresses in a style reminiscent of Horace Silver.

It must again be noted, however, that there is no evasion of the ¾ beat. At all times the triple pulse is apparent and can be felt with ease.

Funky

The track entitled Blues Waltz illustrates the funky qualities of a slow waltz, when properly treated. Funky, by the way, is synonymous with gutty, as opposed to inessential. The track has an engaging down-to-earth appeal. It is the mood that rock and roll attempts but never attains. I view it as somewhat ironical to find the mood in a waltz.

Other tunes, such as Lover and I'll Take Romance, are played in their original ¾, and not in the 4/4 that most musicians are forced to play them in. It is only in the original meter that they sound free and unrestrained.

When the horns take the first solos after the head arrangements, an inattentive bystander might take them as played in 4/4 as they very obviously pick up and move out. The triple pulse is maintained, however.

Rollins as Wayne King

Rollins and Dorham seem to have no trouble whatsoever with the unique meter, and although much practice was probably required to establish familiarity, both horns appear completely at home. Since the release of this album, Rollins has been putting out a waltz per LP, and may soon become the Wayne King of Jazz.

I will, at some later date, expound on the virtues of Sonny Rollins. Let it suffice for now to say that he is one of the great creative forces in jazz. His powerful, virile style is sprinkled liberally with wit and sensitivity, and his blistering — sometimes blistering — approach is original, rather than derivative.

The jazz waltz is now established, and it doesn't feel unnatural, or present any great problems to the performer. It amuses me to consider, however, that the people with troubles are the "studiously hip" listeners. These are the cats who do not really feel the music, but affect practiced muscle convulsions at the first sound of modern jazz. Any modern jazz. It looks as if they are going to be forced to develop a whole new array of paroxysms, seizures, and undulations, all in ¾.

was true even though a lot of aid poured in from the undisturbed United States and even though high-grade ores were still available. What would be the situation today if every country in the world were mangled and there was no country to offer help?

In the current "Bulletin of Atomic Scientists," Dr. Brown mentions the following example. A power supply network back east extended to several stations and had grown like Topsy over several years. Once a thunderstorm disrupted the network in six or seven places and suddenly

people realized that if the network stopped there was literally no one who knew how to start it again.

In Brown's words — "As we can see, industrial society as a whole is extremely vulnerable to disruption by war, and the vulnerability is increasing rapidly as weapons become more effective, and the range of warfare increases, as the people become more dependent upon the smooth functioning of the industrial network, and as the reservoir of easily obtainable resources decreases. It is clear that industrial civilization cannot afford the luxury of many more wars.

It is conceivable that the next war could so shatter industry that it would be unable to recover. On the other hand it is also conceivable that it could survive two or three more. But in any case, the number which can be tolerated is finite, and each conflict will decrease further the probability that industrial civilization will continue to exist."

When these ideas are discussed I often notice that people become impatient and want to begin talking about more practical matters like personal relations. I feel that students at least should be worried enough about these ideas to discuss them, to write about them to their friends; and to ignore the example of the man who was accused of negative thinking because he informed his friends that the ship was sinking.

AS I SEE IT

(Continued from page 3)

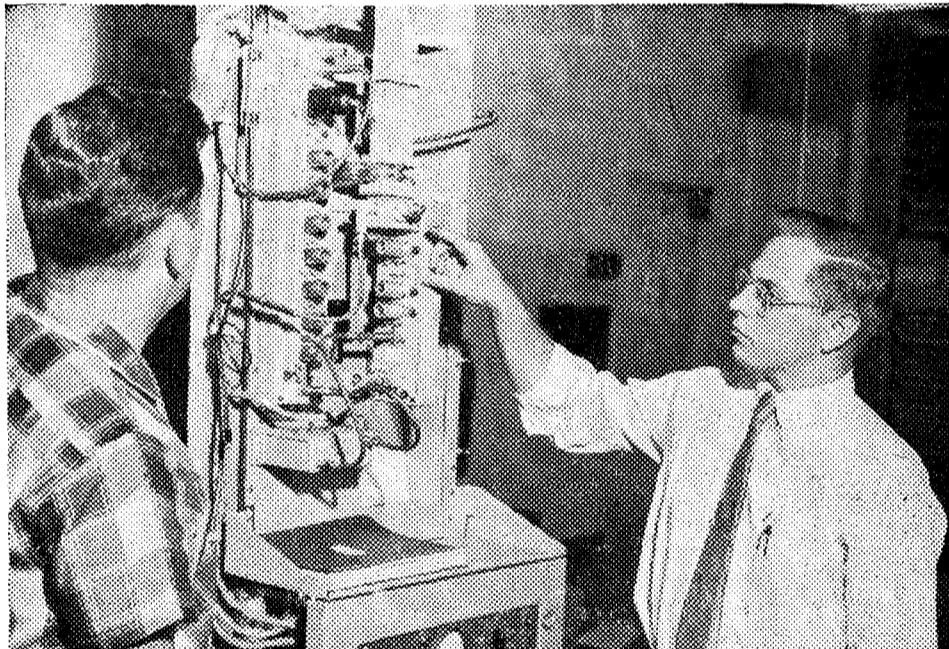
Cup. . . Mickey Mantle, another in a long line of legendary figures in pin-striped baseball suits.

Take your pick and spin your yarn about any of these men. There's not much doubt that at least a few of these will join the Ruths, Cobbs, Granges, Jones, and Rocknes in the ranks of the all-time sports heroes.

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A Campus-to-Career Case History



John Reiter (right) discusses the route of signals from the wave guide through the IF stages of a microwave receiver.

"This was the kind of challenge I was looking for"

Here's what John A. Reiter, Jr., B.S. in Electronics, Arizona State College, '54, says about the biggest project so far in his Bell System career.

"This was the kind of challenge I was looking for—a chance to assist in planning a microwave radio relay system between Phoenix and Flagstaff, Arizona. Five intermediate relay stations would be needed, and I began by planning the tower locations on 'line of sight' paths after a study of topographical maps. Then I made field studies using altimeter measurements, and conducted path-loss tests to determine how high each tower should be. This was the trickiest part of the job. It called for detecting the presence of reflecting surfaces along the

transmission route, and determining measures necessary to avoid their effects.

"Not the least part of the job was estimating the cost of each of the five relay stations. All told, the system will cost more than \$500,000. When construction is finished in December of this year, I'll be responsible for technical considerations in connecting the radio relay and telephone carrier equipment.

"This assignment is an example of the challenges a technical man can find in the telephone company. You take the job from start to finish—from basic field studies to the final adjustments—with full responsibility. To technical men who want to get ahead, that's the ultimate in responsibility."

John Reiter is building his career with Mountain States Telephone and Telegraph Company. Find out about the career opportunities for you. Talk with the Bell interviewer when he visits your campus. And read the Bell Telephone booklet on file in your Placement Office, or write for a copy of "Challenge and Opportunity" to: College Employment Supervisor, American Telephone and Telegraph Company, 195 Broadway, New York 7, N. Y.



Classical Music

Heard From The Wings

by Joel Yellin

It is always interesting to hear the question: "What is modern music?" debated so vociferously. The average music lover or concert-goer tends to think of contemporary writing as high-brow, uncomprehensible dissonance. This feeling probably stems from the belief that classical music has grown freer throughout the years until it has now reached the point where it has gone too far.

By freedom one usually means liberty to use many different interval combinations. It is thus supposed that Mozart and Haydn, for instance, used a set of intervals which were mainly composed of the consonances, sixths, thirds, etc. and the perfect fourth and fifth. However, looking closer one finds dissonances all through the work of these composers. The difference is in the fact that emphasized beats do not contain these difficult sounds. (Even here we have no hard and fast rule.)

"Keys" Developed

Generally, one can say that dissonance distribution has changed little since Beethoven, though these intervals tend to occur on emphasized beats more and more.

Another factor in musical evolution was the development of the system of "keys." Most familiar music, popular and classical, utilizes this system. But, by 1900 these consonant harmonies had reached their culmination in the writing of Wagner and Richard Strauss. Harmonic changes were written to occur with such great rapidity that the listener found it impossible to put his finger on the exact key. There seemed to be no more variations to be had. What was to be done?

Impressionistic School

New systems had already begun to develop. Debussy and Ravel formed the basis of the impressionistic school which essentially drew pictures in sound. Hindemith found the solution of neo-classicism. This meant returning to the basis of musical sound in the middle ages: pure interval harmonies. Hindemith's symphony "Mathis der Mahler" is a fine example of neo-classicism.

Modal Harmony

For others, with Bela Bartok perhaps the most well known, a return to modal harmony was necessary. A mode can be thought of as a set of seven consecutive white keys on the piano. These are given names, according to which tone they start on: Dorian, Ionian, etc. A good example of modal harmony is Malaguena, the familiar piece by Lecuona.

Revolves Around Tone

Other contemporary composers, Stravinsky and Shostakovich in prominence, kept that the basis of the old harmonic system. They saw that each old key revolved about two tones,

the first in the scale, or tonic, and the tone a fifth higher than this, the dominant. The music of these writers will be seen always to revolve about one particular tone, although there are no limitations placed upon harmonies, as in the old key system.

Twelve Tone

The last and most radical of the new harmonies was the twelve tone system, invented by Arnold Schoenberg. This consists of picking a random sequence of twelve notes from twelve tones of the chromatic scale and using this as a theme upon which to build. After development, this system became very interesting. An extreme example of twelve-tone writing is Schoenberg's "Song of the Night."

THIS WEEK'S INTERVIEW SCHEDULE

Thurs. 16—MS, PhD/Ph, Ch, Ma, Ae, EE, ME **Aeronutronic Systems, Inc.**, Glendale, Calif.

Thurs. 16—BS, MS, PhD/ME, EE; MS, PhD/Ph, Ma **Airesearch Manufacturing Co.**

Thurs. 16—BS/EE, ME, CE, ACh **Dresser Industries, Inc.**

Fri. 17—BS, MS/EE **Electro Engineering Works, Inc.**, San Leandro, Calif.

Fri. 17—BS, MS/Ch, ME, ChE, Ph **Grand Central Rocket Company**, Redlands, Calif.

Fri. 17—BS, MS, PhD/Ae, ME, EE, Ph **N.A.C.A. — Ames Aeronautical Lab and High Speed Flight Station.**

Fri. 17—BS, MS, PhD/EE, Ph **Varian Associates**, Palo Alto, Calif. Jrs/EE, Ph for summer employment.

Mon. 20—BS up/CE **California Department of Water Resources** Summer employment for any engineering student.

Mon. 20—MS, PhD/ChE **Ethyl Corporation** Summer employment for ChEs approximately

one year from MS or PhD degrees.

Mon. 20, Tues. 21—BS up/ME, EE, Ae, Ph **Minneapolis-Honeywell Regulator Company.**

Mon. 20, Tues. 21—BS, MS, PhD/Ae, ChE, EE, ME **Pratt & Whitney Aircraft**, East Hartford, Conn.

Tues. 21—BS, MS/ChE, CE, EE, ME **Colgate-Palmolive Company.**

Tues. 21—BS up/EE, Ph **Good-year Aircraft Corporation—Arizona Division**, Litchfield Park, Ariz.

Tues. 21—BS/CE, EE, ME **Southern California Edison Company**, Los Angeles, Calif. Freshmen/CE, EE, ME for summer employment.

Wed. 22—BS/ME **Brown Citrus Machinery**, Whittier, Calif. Interested in ME for drafting during summer vacation.

Wed. 22—BS/ME, EE, CE, Ch **Carnation Company**, Los Angeles, Calif.

Wed. 22—BS, MS/ChE, ME, EE, CE, Ch, Ph **Linde Air Products Company** Jrs up/ACh, ChE, ME for summer employment.

Wed. 22, Thurs. 23—BS, MS/EE; BS, MS, PhD/ChE, Ch, Ma, ME, Ph **Standard Oil Company of California.**

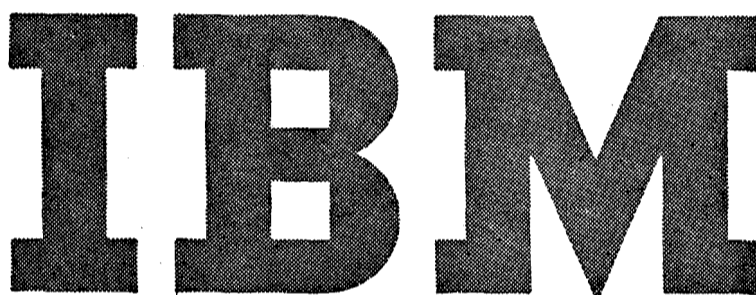
Thurs. 23—BS, MS, PhD/Ae, ChE, CE, EE, ME, Ma, Ph **Convair, San Diego** Jrs. up/Ae, ChE, CE, EE, ME, Ma, Ph for summer employment.

Thurs. 23—BS up/ME, EE, Ae, Ph, CE, ChE, Ch, Ma **Air Force Flight Test Center**, Edwards Air Force Base, Calif.

Thurs. 23—BS up/CE, EE, ME, Ph, Ma; MS, PhD/Ae, ES **Grumman Aircraft Engineering Corp.** Bethpage, Long Island, N.Y.

Thurs. 23, Fri. 24—**International Business Machines Corporation**: BS/EE, ME — Sales; MS, PhD/Ma, EE, ME, Ph, Applied Science. Summer employment for MS and PhD candidates. BS up/Bio, Ma, Ch, Ph, ME, EE for summer.

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