

The California Tech

California Institute of Technology

Volume LIX

Pasadena, California, Thursday, February 13, 1958

Number 16

Amendment Passed By Students ExComm Created By Proposal

Four amendments to the ASCIT by-laws were approved by the student body in Tuesday's special election. The amendments reorganized the ASCIT government by establishing an Executive Committee to consider policy and long-range problems and by redistributing the officers and their duties within the Board of Directors.

Appointment of the Head Yell Leader, Business Manager of the California Tech, and Editor and Business Manager of the Big T by the BOD is also provided for in the new set-up.

Official election results showed a total of 239 votes were cast, 198 in favor and 38 opposed to the ASCIT reorganization, 162-76 on the Head Yell Leader proposal, 169-70 on the California Tech Business Manager amendment, and 169-69 on the Big T change.

Nominations for the offices were held this morning in Culbertson Hall. Election of the new officers will take place on February 27.

ASCIT officers to be elected include President, Vice President, Secretary, Treasurer, Activities Chairman, Business Manager, Athletic Manager, Social Chairman, and Representative at Large. In addition the Editor of the California Tech and the Secretary of the Board of Control, a new office created by the amendment, will also be chosen by the student body.

Campaigning on the part of the nominees will begin Monday, February 23. The famous Election Rally will be held the night before the election. In addition, the California Tech will run candidates' statements in next week's issue.

It Can't Happen Here Jobs Gained By Initiative; No Silver Platter Deals

By Brad Efron

Hypothetical Scene: We see a carefree Tech undergrad skipping down the Olive walk, pursued by a frantic Doc Clark.

Techman: Ladedadedadedada . . .

Doc Clark: Young man! (puff-pant) I say there, young man!

Techman: Oh it's you again, Doc. Now look, if I've told you once I've told you fifty times, don't bother me about a summer job until school's out next week.

Doc Clark: Please young man, pretty please, Ramo-Woolridge is hounding me to death for someone, anyone, to hold down their Hawaiian plant for the summer. They don't care about training or ability or anything, just as long as he's a Techman. Name your own salary and hours and penthouse and guaranteed annual wage and . . .

Techman: That'll be enough, Doc. This is no better than Grand Central or IBM or Westing-



Suzie Stofft, Jim Weaver and Rosemary Reuther discuss plans for the Tech-Scripps conference.

Coed Confab Attracts 70 From Scripps, Tech

Thirty-five Caltech men will join thirty-five Scripps women in a YMCA sponsored student-faculty conference to be held this weekend. The conference is designed to permit a closer association of students and faculty as well as an opportunity to discuss the problem, "Is There a Purpose in Life?"

Leaders Meet

The final programming was done in a meeting of the Caltech and Scripps leaders of the conference on Monday evening, Feb. 10. The program, which will begin with registration on Friday afternoon at 5 p.m., is to include three keynote speeches on the general topic, "Is There a Purpose in Life?" The first is to be held at 7:00 p.m., after dinner on Friday evening. It will feature Dr. Gordon Kaufman of Scripps who will discuss "The Theologian's View."

Following this speech will be a panel discussion moderated by Caltech's Dr. Hallett Smith. Smith will bring up questions which have been sent in from the floor. The group will then break up into small discussion groups. Afterward, a square-dance will be held.

On Saturday morning the major address will be given by Dr. Matt Sands, from Tech, who will present "A Scientist's View." His speech again will be followed by a panel discussion and discussion in small groups.

Saturday afternoon will be

taken up by recreation and an early dinner at 5:00 p.m., following which Dr. Theodore Greene of Pomona will give another "Theologians View." There will follow a panel discussion of the speech. Social dancing and a bonfire will complete the evening.

On Sunday morning three faculty members and four students will discuss the important accomplishments of the conference. Smith, who will moderate this discussion, will then give his interpretation of the values of the camp to conclude the conference.

Caltech Jackets Now Available

The long-awaited Caltech jackets, distributed by the Beavers, have arrived, and are presently being distributed.

Due to an increase in manufacturing costs, the price has been raised from \$12.00 to \$12.50. The jackets are available from Beavers Don Owings, Keith Brown, Bob Blandford, and Dick Van Kirk.

Off-campus men can pick up their jackets from Beaver President Van Kirk in room 36 Ricketts.

house offered. Sorry. Say, why don't you try another notice on the bulletin board? Might get someone this time. I have to be skipping along now, or I'll miss Geology Club.

Doc Clark: But young man, Young man!

Techman: Ladedadedadedada . . .

Unfortunately this scene is definitely hypothetical. The Placement Service doesn't find jobs for anyone, but rather helps Tech students to find their own. To quote the real-life Doc Clark, "We don't give anyone a job on a silver platter."

Initiative is up to the individual, and now is none too soon to start initiating if you want summer work. The Placement Service is an invaluable aid in finding who to talk to and how to meet him. The office, open during regular school hours, is on the North first floor of Throop.

Write To Congress Advises Randall

Economist Impressed By Students; Discusses European Achievements

"The student body ought to play more the part of good citizens," said Clarence B. Randall during his visit to Caltech this week. "There's a great invention called the mail."

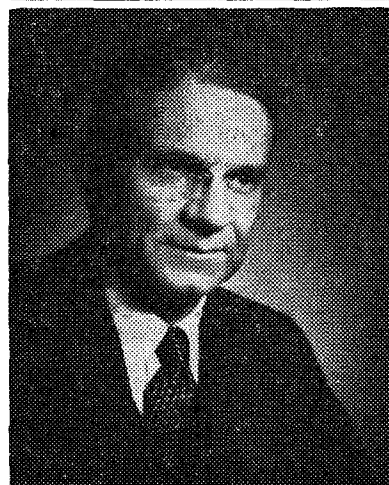
Randall was apparently pleased with the interest shown

discussions has been inspiring."

Students showed most interest in the common market and economic integration of Europe. Said Randall, "Ten years ago I could not believe that the common market was possible. It's a modern miracle. These men are sitting down around a conference table, overcoming tremendous human and psychological barriers, and knitting a fabric that will be hard to break."

When asked about the role of the United States, he added, "World events are driving toward the economic integration of the U.S. with the rest of the free world. I've personally been working on this for two years." He noted that "Nationalism, which is a rampant sign of newness, is being conquered by the older nations. They are learning to live together."

Explaining his job, Randall, who is Special Assistant to the President on Foreign Economic Policy and Chairman of the Council for Economic Policy, said "My main duty is the coordination among various departments. We have group discussions between departments that are interested in a particular problem. It is my job to take the consensus of the group and recommend it as policy. I also attend meetings of the cabinet and national security council to keep informed. I take part of the burden off the shoulders of the President."



Clarence B. Randall

during his two-day stay under the Leaders of America program. "I am tremendously impressed by the knowledge and understanding of economic questions in this technical institution. It compares with the best of liberal arts schools. The quality of dis-

Three Win Travel Prize

Three juniors have been named winners of Junior Travel Fellowships for travel abroad during the coming Summer months, it was announced last Monday. Keith Brown, Bill Graham and Lewis Linson will undertake travel projects in foreign countries, with expenses to be paid in full or part by E. I. du Pont de Nemours Co. The awards have been administered by a faculty committee headed by Dr. Horace N. Gilbert.

Twelve Competed

Twelve juniors competed for the Travel Fellowships, according to Gilbert. Last October, they began work on individual proposals for study or travel projects abroad. They submitted the proposals to the faculty committee early last January, and the committee finished evaluating the proposals last Friday. The twelve were invited to compete last summer on the basis of their high scholastic standing.

Brown plans travel to the Philippines for a summer of

(Continued on page 6)

Announcements

CANDIDATES

The deadline for candidates' statements for the California Tech is 7 p.m., Monday, Feb. 17, and NOT Feb. 10, as was stated in last week's edition. Really.

PRE-REGISTRATION

Pre-registration will be February 24-28. Students are advised to get pre-registration cards early to allow time for consulting advisors. Cards, with advisers sig-

natures, should be returned to 119A Throop before February 28.

NOTICE

A rare, two volume German novel by Doblin entitled **Alexander Platz, Berlin**, is missing from the library in my office. If I loaned it to any member of the faculty or Student Body I would be much obliged if he returned it to me.

Harvey Eagleson

ASCIT Awards Keys, Scrolls

The ASCIT Honor Point Committee this week selected 19 Techmen to receive Honor Keys. In addition, 22 men were awarded Honor Certificates.

Dick Kirk, Gene Cordes, Tony Iorillo, Clarke Rees, Bill McClure, Mike Konrad, Brad Efron, Mike Milder, Dave Leeson, Vince Taylor, Russ Pitzer, Keith Brown, Don Owings, Andy Perga, John Kleiderer, Reed Saunders, Bob Walsh, Don Stern, and Mike Godfrey, will be the recipients of the keys.

Lewis Linson, Doug Shakel, Phil Thacher, Jerry Arenson, Wally Baer, John Walsh, Dick Baron, Dave Spencer, Dave Singmaster, Dick Van Kirk, Cleve Moler, Jim Weaver, Gary Zimmerman, Kirk Polson, John Langgo, Tom Jovin, Bill Kern, Ron Forbess, Stu Goff, Jim Wilkinson, Alan Forsythe, and Nelson Byrne will receive the certificates.

The keys and certificates, which will be awarded at the Awards Assembly next term, are given for participation in extra-curricular and service activities. A total of 100 honor points in a year are needed for a key and 50 for a certificate.

ASCIT Vice-President Gene Cordes and Representatives Tony Iorillo and Brad Efron form the Honor Point Committee.

The California Tech

Associated Collegiate Press honor rating: First Class

Editor—Bob Walsh

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Editorial

Frosh Dorms: Why Ruin Our Greatest Advantage?

The student houses are the one major factor which makes Caltech different from several other top-notch technical colleges. This fact is not realized by many who are favoring the recently proposed plan for freshman dormitories instead of new houses. It is the student houses, and only the student houses which provide the broadness of interest and background which are characteristic of the "hundredth man" of catalog fame.

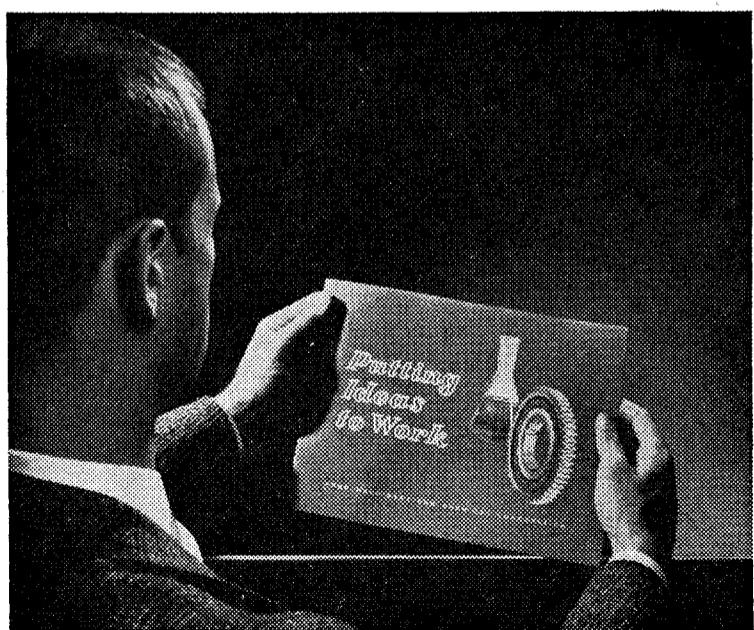
Proponents of the freshman dorm idea have stated that there is a "baleful effect of the cynicism of upperclassmen on frosh attitudes; they should have a year to get their feet on the ground at Caltech before being subject to the erosion of house life." It is the student houses which help the new freshman to get his feet on the ground, certainly not other freshmen. And it is our opinion that the idea of upperclass cynicism is little more than a myth, propagated by men who have little or no contact with upperclassmen.

In the opinion of many students, and in the opinion of the Master of Student Houses, the student house experience is the greatest single educational experience a man can find at Caltech. The student house system is considered by many eminent educators as the most desirable student housing system yet devised; it combines the advantages of both fraternity and dormitory living. This fact is not realized by the great majority of faculty members, who to a man are totally ignorant of student house life, and who have never had more contact with the houses than eating a meal there once a year.

How exactly do the student houses educate a man? It is simply that a resident learns and benefits from direct contact with men who have had similar problems and who will encourage him in his growth. The freshman begins to grow the day he comes here, and he grows because he is in contact with men who are more experienced than he, not because he is in contact with other freshmen.

(Continued on page 3)

ENGINEERING STUDENTS TO DISCUSS INDUSTRY CAREERS



Students majoring in chemical, mechanical, or electrical engineering are now scheduling appointments to obtain information on Food Machinery and Chemical Corporation, a major national producer of diversified machinery and chemicals. Company representatives will visit the campus on **FEB. 27, 28**

Arrangements for individual interviews may be made through the local college placement office.

Global News

SUMMIT CONTROVERSY

The agenda for Russia's proposed summit conference remains a mass of controversy with the sole acceptable negotiation topic being measures to prevent surprise attack. Russia wants a nuclear weapons ban; the United States refuses unless nuclear production is also banned. Russia wants a nuclear-free zone in Central Europe; the United States is afraid that this would neutralize Germany and force American troops out of Europe. The United States wants Germany unification, while Russia wants only agreements between the two German governments. The United States asks for a free Eastern Europe, but Russia says no. Russia links the common desire for freedom of space to nuclear bans and disarmament and hopes for free trade in strategic goods to the Soviet bloc. The United States opposes such free trade.

UNITED ARAB REPUBLIC

Egypt's Nasser will have virtually dictatorial powers in his new "United Arab Republic," where he appoints and defines the power of ministers and legislators and heads the one national political party. Yemen alone has thrown off the general Arab distrust of Nasser's Arab unity program and offered federation with the "Republic" if she can keep her king. Israel and the West see Nasser regaining the power he lost when Israel attacked Egypt. Even though he is pro-Soviet, he will dissolve Syria's Communist Party as he has already done in Egypt.

TUNISIAN VILLAGE BOMBED

Tunisia's ambassador Mongi Slim has taken the French bombing of a Tunisian village on the Algerian border before the UN Security Council and will protest an act of aggression. The French states that the village was bombed to discourage Algerian rebels

from attacking across the border. The United States is especially worried about the repercussions on African nationalism and on the moves which Russian propaganda and foreign policy might take.

SPACE COMMITTEES

Congress gladly gave the President 1.3 billion dollars more for defense this year and approved of Eisenhower's Advance Research Projects Agency though allowing it non-military space control for one year only. The new agency created jointly by President Eisenhower and Defense Secretary McElroy will be headed by Roy Johnson, a vice-president of General Electric.

In the administration's new unification of the space effort, Dr. James Killian was asked to lead a space survey and William Holaday was appointed Director of Guided Missiles. Meanwhile, the Senate set up its own committee on space.

(Continued on page 3)

A message to Graduating Seniors and Candidates for Advanced Degrees PHILCO CORPORATION

Government and Industrial Division

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**ON CAMPUS
INTERVIEWS
MONDAY,
FEBRUARY 24**

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- Mechanical Engineers
- Physicists
- Mathematicians

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Opinion

Conquest Of Space Not Mere Stunt

By Howard Weisberg

It looks like the United States is hot on sending a rocket to the moon . . . before the Russians of course.

This is viewed by many of the congressmen, administrators, scientists and military men who run our rocketry programs as a propaganda move, necessary to improve U.S. prestige, but still mere propaganda.

Actually, however, a cursory examination of the facts reveal many excellent reasons for going ahead on what the Pasadena Star News and the Saturday Evening Post are already calling "The Conquest of Space."

Basic Research

Science will benefit from interplanetary research. Data about cosmic rays, facts about the composition of extra-terrestrial

bodies, possible discovery of new life-forms, and data from astronomical observations made from outside the atmosphere, will make obvious contributions to physical knowledge. In fields where current theory is based on unproven conjecture, availability of concrete data may well lead to new insights and radical changes in theory. Space travel may turn out to be one of the greatest projects in the history of basic scientific research.

In technological fields there are numerous possibilities — weather control to name one. Judging from past technological history, one can expect plenty of other practical applications from the new knowledge.

Turning to the military field, future possibilities are even more obvious. Viewed in the light of

the strategic policy of Massive Retaliation, possession of the moon takes on urgent value.

The general idea is that if Our Side has rocket bases on the moon, then the Other Side will not attack, for if they did and they managed to wipe us out on earth, a little later they would be wiped out in turn by our moon-based missiles.

Strategic Advantages

It appears that a moon base, once set up, will possess tremendous strategic advantages. It is much easier to send a rocket from the moon to the earth than from the earth to the moon. In a vacuum a near miss by even a powerful weapon would be harmless, so counterattacks will require great accuracy. A moon base will always face the earth, making observation easy. Or on the other hand, launching bases could be built on the far side, always out of view. Due to the earth's rotation and possible limitation of earth-bound observation stations to one hemisphere, tracking objects from the earth will be a difficult problem. At any rate, it will be quite a trick

to detect an object with a cross section of one-half square meter at a distance of 240,000 miles.

A little more thought leads to unending speculation about reconnaissance satellites, antisatellite satellites, lunar wars and the like. Much of this may be realized in the next few years.

Jealous Rivalry

Ideally, space development should be an international venture, run by the United Nations. But it is probably already too late for any such agreement, and we can look for the same kind of jealous rivalry that has always characterized human ventures. Besides, who would expect the United States and Russia to agree to an arrangement which curtails some of their respective sovereignties, even if it would eventually lead to lessened tensions and possible world peace.

Then again, with a billion people in the world who do not get enough to eat, perhaps we should stick around this planet awhile longer and get it straightened out before charging out to the moon or Mars.

EDITORIAL

(Continued from page 2)

Another point is that there would be greater class and school spirit. It is our feeling that one of the finest traditions at Caltech is the lack of interclass rivalry, which is found to be so petty and juvenile at other schools. As for school spirit, it is our feeling that the houses foster rather than hinder school spirit.

The main point brought forth by proponents of the freshman dorm idea is the reputed success of the system at other schools. This is refuted by more than one responsible faculty member, and particularly by the one man who can rightly claim experience with both systems. Why ban the freshmen from the experience of the student houses at the stage when they can most profit from it? Why give them time to become "out of it?" Why require freshmen to learn broadness and social adeptness from other freshmen or from "house mothers?" Freshmen don't learn physics from other freshmen—they learn from faculty and upperclassmen.

It is our considered opinion that the student houses are among the best thought-out and most worth-while experiences available anywhere. They have proven their worth. Let the critics concentrate their efforts on Tech's weaknesses, in particular the drab, uninspiring, colorless academic program.

THE OUTSIDE WORLD

(Continued from page 2)

PRESIDENTIAL DISABILITY BILL

A bill defining when the President must relinquish his office before his legal term is over is now taking form. The Vice President will take over if the President declares himself incapable in writing or if a committee composed of the Vice President, the Secretary of State, and the congressional leadership decide, on the basis of medical advice, that the President is unable to manage his office. There is already discussion as to whether the bill should be a Constitutional Amendment or an Act of Congress.



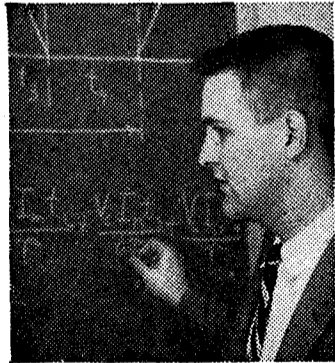
Research Physicist Robert W. Pike, like many other physicists, engineers and mathematicians, came to IBM directly from college. His degree is a B.S. in Engineering Physics. Here he tells you why the electronic computer field is fascinating to the graduate with a physics background.

What's it like to be with IBM?

"I became interested in computers and transistors at college," Robert Pike recalls. "In fact, my senior project was building a small computer. So, when I graduated from the University of Maine in June, 1955, I naturally turned to the computer field. IBM, recognized as a leader in this expanding electronics area, looked like a good place for me."

Bob Pike began his IBM career as a Technical Engineer, starting with a training program that lasted several months. Then, asked to select the work area of his choice, he picked the Semi-Conductor Device Development Group in Research. "My first assignment," he says, "was to plot various electrical and physical device parameters for a large number of transistors in the form of graphs or histograms in order to obtain correlation coefficients of the device characteristics."

Many fascinating assignments



A problem in saturation resistance

Other projects followed in rapid succession: Work on a germanium drift, diffused base transistor (he was the second of his group to enter this field) . . . work on silicon as a transistor material doing evaporations of impurities on the silicon (he is known as the "pioneer silicon device man" of his group).

"Silicon is better than germanium because of better temperature and voltage breakdown points," he mentions. "But it is difficult to find a material to wet silicon to form alloyed junctions. I recall making the small contacts with an ultrasonic soldering iron."

Bob Pike was promoted to Associate Physicist in December, 1956. His present assignment is leading a group of technicians in fabricating high-frequency, high-power PNP drift transistors. "We use a process I developed," he says. "These transistors will be used as core drivers in a high-speed memory array."

Ask him about this "most interesting" project and he'll tell you, "Working with the evaporation of alloying impurities and designing 'new' semi-conductor devices."

Sold on IBM

Bob Pike is enthusiastic about IBM as a place to work. "The glowing descriptions of my work," he remi-

nises, "the extensive research facilities and the friendly employee-management relations brought two E.E. friends of mine to IBM from Maine, my Alma Mater."

His future? At the rate IBM and the electronic computer field are expanding, he sees great opportunities. Of course, his own progress will be in accordance with IBM's promotion policy—"strictly on merit." He

has set a tentative goal of Project Engineer within the next five years and expects to continue to specialize in semi-conductor work.



Plotting resistor characteristics



Reviewing technical publications

Bob Pike lives in Poughkeepsie, N. Y., near the Research Laboratory, with his wife and young son. He finds time to garden around his new home and to participate in the IBM Camera Club and a local Audio (Hi-Fi) Society. "It's a busy life," he says, ". . . and one with a stimulating future."

This profile is just one example of what it's like to be with IBM. There are many other excellent opportunities for well-qualified college men in Research, Development, Manufacturing, Sales and Applied Science. Why not ask your College Placement Director when IBM will next interview on your campus? Or, for information about how your degree will fit you for an IBM career, just write to:

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Opinion

The Bullpen

by Ford Holtzman

In two weeks we shall vote for new ASCIT officers, and once again we shall undoubtedly reconfirm our mass conviction that the healthy and conservative extroverts with loud voices and sterile imaginations shall indeed inherit the earth.

Today, if you are foolish enough to wander towards Culbertson, you will be treated with a few minutes of triteness from each nominee and his nominator. The primary purpose of this ritual seems to be to inflate the egos of the several house presidents and the other "prominent men about campus" who will be asked to nominate the various candidates.

Campaign Speeches Empty

Next Thursday you will have the pleasure of going intellectually blind while reading the statements of the various candidates in the *California Tech*. If they all seem the same to you, don't be surprised. They start out by paraphrasing that part of the By-Laws which deals with

the duties of the various officers. Then they list the many offices which they have held in the past (this is supposed to indicate that they have experience—of course they never mention what they actually did in the job, what experience they actually gained); they list their many activities (this indicates that they are active "doers" — they don't sit and think or anything nasty like that); they list their many laurel wreaths (I have a letter in football, so obviously I would make a good officer.) The statements end with a nebulous paragraph exuding "sincerity" and "enthusiasm."

Some Just Drip

Every now and again some highly imaginative candidate will start out dripping with enthusiasm instead of ending with it. Some neglect to discuss the duties of the particular office. Some just drip through the whole statement. And on rare occasion someone will break the pattern altogether and launch



into a naive discussion in two hundred words or less, straight out of Hobbes or John Locke on the virtue of representative government or of honesty. (Vice-presidential candidates are particularly addicted to honesty.)

Conspicuously lacking is any discussion or any opinion on the problems that will face the ASCIT organization in the coming year.

Never an Opinion

Some candidates will discuss the duties of the particular office which they are seeking. But, in past years, they have hardly ever expressed any ideas on how to carry out those duties better than they had been carried out by the incumbent. They have never expressed any opinions on how to improve the caliber of the work of the office.

While some rare souls have seen fit to discuss the virtues of honesty, no candidate has ever discussed the virtues of expensive athletic awards, of having

AntiCampus Brewins

Beak Boo-Boos

Frosh Archie bangs on door. "Your wife is on the telephungie," says the minion. Beak trundles off to phone. "Hello, my love," quoth our hero. "Hiya, K—," says ex-gull friend. Conversation dwindles. Beak returns, a chastened, but much wiser boy.

or not having Harry Bridges come to the campus, of spending \$500 a year on debate, or anything of the sort what-so-ever. No candidate has ever intimated that he even has an opinion on such subjects. While candidates will emphasize the necessity of having capable men on such committees as the Educational Policies Committee, they never discuss the EPC itself or what it should do. The candidates for office will be the last to say that "writing minutes" or "cashing checks" is all there is to their jobs. But when it come to talking about something else during the campaign, they simply don't do it.

Urrp!

And the speeches during dinner are no better than the statements in the *California Tech*.

Then there are the posters — I shall make a solemn vow to vote against the candidate with the best posters.

The election rally is in many ways the best aspect of ASCIT elections. At least it doesn't pretend to be serious.

Is it any wonder that we get a bunch of unimaginative conservatives on the Board of Directors?

Heard From The Wings

By Joel Yellin

For guitar fans, Andres Segovia plays in the Wilshire Ebelle the nights of March 2 and 9.

Those who enjoy the Philharmonic will be interested in the Pasadena concerts, March 26 and April 9. The orchestra also performed last night under Karl Boehm and the review will appear next week.

On the 25th of this month, "Middle of the Night," by Paddy Cheyevsky opens at the Biltmore. It will star Edward G. Robinson. For this reporter, a play by Cheyevsky is always something one cannot afford to miss.

For jazz fans, George Shearing and Buddy Collette team up with their respective quintets tonight at Loyola University.

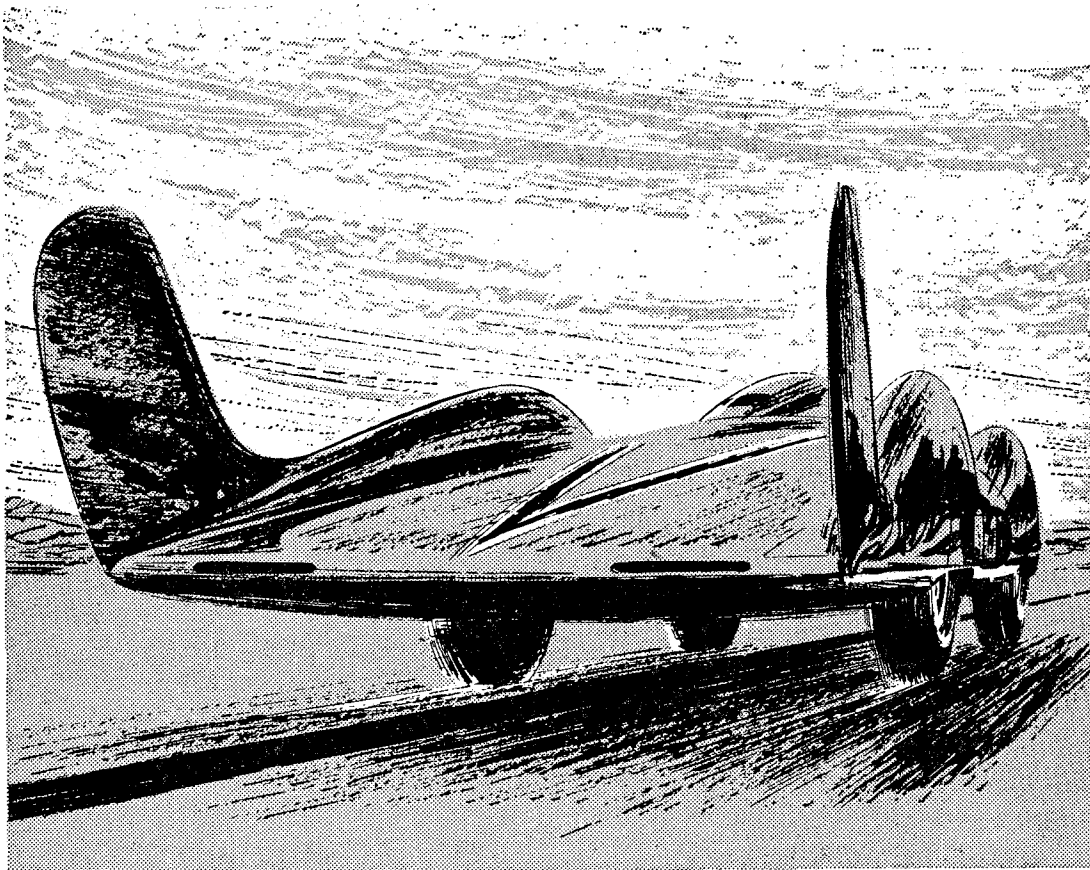
American opera — good, well written opera that is — is rare these days. Good performances are even rarer, but Gian-Carlo Menotti has given us a great deal of this music. "Amahl and the Night Visitors" is probably the most familiar of his works. On the 11th of next month, his "The Consul" will open at the Ivar Theatre. His music is interesting and not so discordant as to be annoying.

The Los Angeles area seems to be full of fine theatre attractions these days. I hope to be able to review them here in this column from time to time.

Getting off to a fast start with

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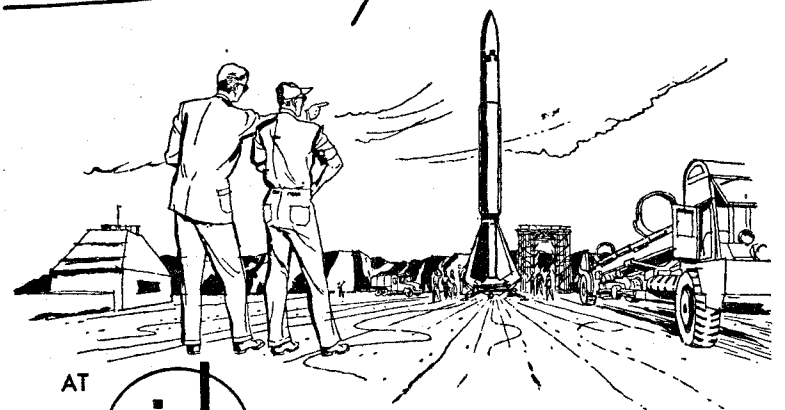


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ON CAMPUS INTERVIEWS

February 19
Meeting 119K, 4:30 p.m.

Jazz

Accent On Keys - - Great Pianists

Bud Powell — Jazz Original
Norgran MGN-1017

By Lloyd Kamins

Bud Powell was the first influential pianist of the modern school. He was the first pianist to study and master the harmonic and rhythmic innovations of the bop experimentalists. As most of these were horn men, such as Charlie Parker and Miles Davis, Bud filled the need and expressed the ideas on piano. Similar to Earl Hines, of an earlier period, Powell viewed the piano as a horn, and in doing so, issued somewhat of an emancipation.

Although endowed with enough technique to express himself in rapid single-noted passages, Powell was still seriously hampered by the demands of the medium, and his work now seems a bit crude. He made excessive use of dynamics, and typically favored little surges within the long phrase played by the right hand. Powell was the first to relatively ignore his left hand, using it sporadically for accents.

Powell's work is interesting in that it was first, and that it spawned countless imitators. These imitators, however, are predominantly more pleasing to hear than Bud himself, as they have further developed his style. Powell has become primarily historical.

Thelonius Monk — Genius of Modern Music
Blue Note BLP 1510

Monk was an essential contributor in the early formative sessions of modern jazz. His conception was, and still is, unbelievably advanced harmonically. He will be hailed as an innovator for some time to come.

Monk is firmly rooted in jazz tradition. The spirit of spirituals and gospels is increasingly obvious in his work. The predominant blues strain is effectively covered by a complex dissonance that insured years of obscurity. For a decade it has been known that Monk was far out, but the big question was: far out where?

Monk is a perfectionist, but his goals are not the common ones, and he appears eccentric and uncompromisingly complex. The beauty in his compositions lies in the harmonies, as evidenced by his superb *Round Midnight*, probably the most beautiful ballad to come out of jazz. Monk's playing style is predictably stark and spare, with no attempts to soften the angular lines.

It is difficult for me to derive enjoyment from listening to Monk; the dissonance distracts me from the fundamental message. I am fascinated by the scope of the man's genius, and Monk serves as a constant reminder of the enormous amount of material to be learned.

Lennie Tristano
Atlantic 1224

Tristano is a recluse. He has been accused of being cold and mathematical in his playing, and of having no feel for jazz. It is certainly true that Tristano juggles tapes, and superimposes instruments and phrases, just as he experiments with intricate mathematical patterns. But what is wrong with being an experimenter, as long as the experiments are successful?

As to Tristano's not feeling jazz, why, the claim is absurd! Jazz is above all an expression of emotion, and the tortured mind of Lennie Tristano is fully delineated in his music. Moreover, no one could possibly claim that Tristano doesn't swing.

There is the ultimate of internal tension present, reflecting the turmoil and conflict residing within the man. I always receive the definite impression that Tristano is just about to burst a blood vessel.

Tristano has two distinct styles. Whenever he blows with the alto sax artist, Lee Konitz, Lennie uses block chordal passages that are orchestral in approach. He shows, therein, his complete mastery of the keyboard, subtly changing tone at a time of the note-crowded chord, and achieving a highly dramatic effect.

Usually, though, Tristano will play single lines, with his left
(Continued on page 8)

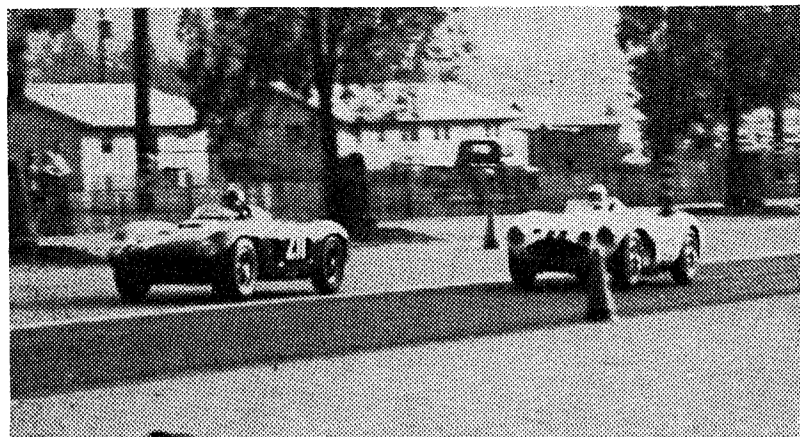
Pit and Paddock

By Bob Norton

Last weekend was the time for upsets and exciting duels at the first CSCC races of 1958, held at Pomona.

In the under-1500cc main event, Jack McAfee stalled his Porsche Spyder on the starting line and then had to catch the whole field, being led by Ken Miles in another Spyder. It took McAfee half the race to catch up with Miles, and for the rest of the event the two engaged in a thrilling wheel-to-wheel duel. McAfee emerged as final victor by five hundred feet.

The over-1500cc main event provided its share of thrills. Bob Oker kept his well-worn Aston-Martin DB3S ahead of Richie Gunther's 2.0 Testa Rossa Fer-



Richie Ginther being pursued by Bob Oker in the main event.

rari for some time, but soon the two were fighting it out for the lead spot, which passed back and forth between them. Once Oker was so anxious to get past

Ginther that he passed him on the outside in the middle of a fast bend. It was all to no avail, however, as Ginther finally won by a scant thirty feet.

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HUTCH . . .

Shown in this self portrait is Steve Hutchison, ubiquitous cartoonist, here drawing a typical denizen of Caltech. He was a hit with his ingenious caricatures, spurred on by helpful comments from the large audience invariably present. Setting up shop one night each in the four houses several weeks ago, he succeeded in capturing the inner personalities of nearly 200 men, at the amazing rate of one every few minutes.

A specialist in jobs for college groups, Hutch travels to many western colleges. His only previous visit to Tech occurred two years ago.

King Next

Rev. Martin Luther King has been announced as the next guest of the YMCA Leader of America program. The Alabama desegregationist will be on campus Feb. 26 and 27.

Houses Schedule Full Weekend

This week's social calendar shows a full complement of nine social events, as the houses party it up before the lean, cold time of finals.

Ricketts' traditional Apache Dance tops the weekend with its Bohemian atmosphere of the slums of Paris.

Tech's steam tunnels will acquire red lights for the night

TRAVEL PRIZE

(Continued from page 1)

work at Silliman University, a college-hospital-mission station. He will report on medical research opportunities in underdeveloped countries.

Graham will viist all the major centers of Europe with an eye toward surveying employment opportunities for Tech graduates, in the fields of research, technical and sales representative work, and civil service.

Linson plans to travel throughout Europe, meeting students and observing student life to acquaint himself with their "ambitions, ideas, and philosophies."

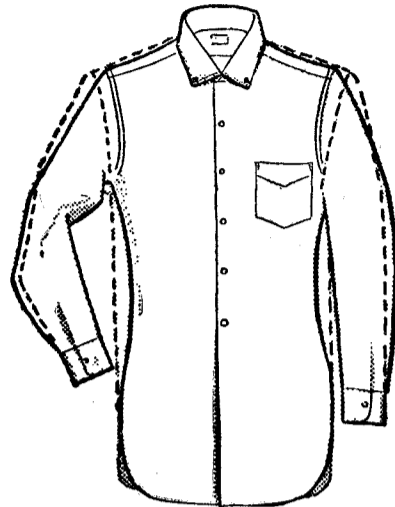
and become the Sewers of Paris — the only approach to the underground realm. Ricketts' lounge will become a French cafe, complete with private booths and pizza. As always, the Apache costumes will include beards for the men and abundant makeup for the women.

Fleming has planned two exchanges for this weekend, one tonight with Scripps' Browning Hall, and one Saturday with Whittier. Friday night will find the Fleming men attending their off-campus Artist's Party.

Blacker has scheduled a Valentine's Dance for Friday night. On Saturday they will hold a Pasadena-wide treasure hunt, followed by refreshments and prize awards in their lounge.

Dabney will host a Valentine's Dance, complete with orchestra and full decorations on Friday. They will travel to a mountain retreat on Saturday for an informal evening party — their Suma Holiday.

Throop's Valentine's Dance is scheduled for Saturday.



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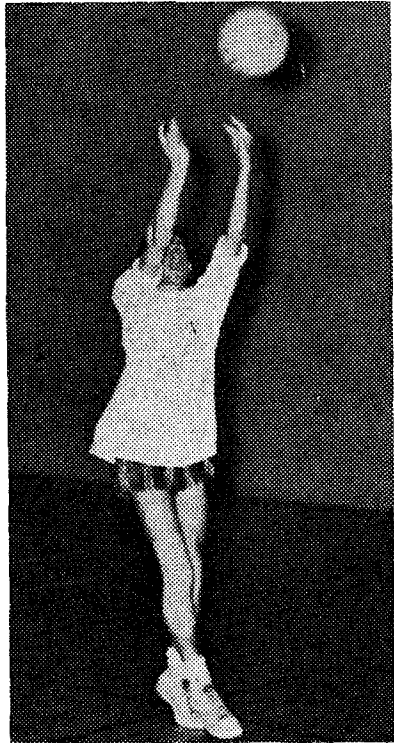
Tigers Squeeze By Fired-Up Tech Five; Poets, Diablos Trounce Beaver Cagers

Tech's small but game basketball team came very close to upsetting Occidental on the Tigers' court last Tuesday. Rallying from an eleven-point deficit, the Beavers closed the gap to 66-64 in the final minutes, and Oxy was forced to call on all their skill and luck to pull out a 72-67 victory.

Caltech grabbed an early lead, but this vanished when Oxy rallied late in the period and spurted into a 32-25 half-time advantage. The second half was played on even terms as the score see-sawed around this seven-point margin, until Tech put on the full-court press and came on with a rush.

With the score 66-64, Tech gained the ball only to lose it on a controversial play, where many fans felt the referees missed a foul. Whatever happened, Gene Rock, who was chosen "coach of the week" by the Independent-Star News, and his crew gave a great account of themselves.

Fred Newman was high-point man for the night with 28, followed closely by Ralston of Occidental, who hit for 25. Rounding out the Beaver scoring were Sonny Nelson, 14; Glenn Converse, 10; John Stene, 9; and Bob Emmerling, 6.



Sonny Nelson sharpens up his shooting eye, preparing for Oxy game.

Tech's casabamen fought gamely, but were beaten back by Whittier on Friday and again the next night by L. A. State.

The Beavers led the Poets at the end of the first half, 32-30; mainly on the shooting of Newman and John Stene. In the second period, however, Hal Reese and Bob Osborne each dumped 13 points to lead the Quakers on a 43-point scoring binge in the last twenty minutes. Gene Rock's crew could only muster 27 and so lost 73-59. Newman was high point man with 25.

The Diablos apparently play a looser brand of basketball on their home court. In opposition to their 55-52 win over the Beavers a few weeks ago, the LA State boys fought their way to a 39-31 halftime lead, then poured on the steam in the last period to win going away, 83-51. Terry Brazadier and Frank Jackson scored 23 and 20 points, respectively, for the winners. Newman dumped in 17 for the Tech contingent.

Netmen Win

Tennis Team Opens '58 Season; Downs PCC 3-2

Showing early season rustiness, Caltech's varsity tennis team took three out of five singles matches from a determined PCC last week.

Swimmers to Meet SMJC

Tomorrow, Caltech's varsity swimming team hosts Santa Monica Junior College in the first '58 meet to be held in the Alumni Pool. The tankmen from Santa Monica are perennially tough in the water and will provide rugged competition for the Beaver mermen.

The Beavers, though they scored a victory over the Los Angeles Athletic Club on Friday, are not yet up to last year's par. That meet was little more than a practice contest, being the first of the season.

Web Emery's crew, stands an excellent chance of improving a third place showing in the '57 SCC campaign. Back from record-breaking performances last year are Don Owings and Clark Rees, bolstered by such point-

Frank Cormia, Tech's first man and a good choice for top league honors, had an off day, losing to Kneft of Pasadena, 6-2, 3-6, 4-6. Bob Tokheim had little difficulty in disposing of Barnes of PCC, winning 6-4, 6-2. John Walsh played a very tight, three set match, finally pulling out a 6-2, 3-6, 9-7 win. Recovering quickly from a second set scare, Read Warriner defeated Fry of Pasadena, 6-0, 1-6, 6-3. Carl Morris suffered a tough second set setback, finally losing 6-0, 6-8, 3-6.

Helped greatly by rising sophs, the varsity is looking forward to the possibility of the first league championship in the last few years. Tech's first match at Oxy on February 22 will undoubtedly tell the story.

getters as Bob Blandford, Keith Brown, and Bob Smoak. In addition, several promising sophomores, notably Dave Tucker and diver Pete Rony, have come up from the '57 frosh squad.

Horsehidiers Start Drills

On Monday the Caltech baseball season officially opens as both varsity and frosh teams start regularly scheduled practice sessions. Things got underway this week when varsity coach Ed Preisler and frosh mentor Jack Petersen gave chalk talks and began organizing prospective team members who have already started getting into shape.

Tech generally produces highly competitive teams in this field, having tied for the SCC championship in 1956. Anyone interested in baseball should contact Preisler at the athletic offices or turn out on the diamond about 4:00 p.m.

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Smash Cash
CAROL KREPON, BARNARD

WHAT IS A MOVIE STAR WHO GIVES A TESTIMONIAL FOR LUCKY STRIKE?

(SEE PARAGRAPH BELOW)



WHAT IS AN IRRITATING MONSTER?

Naggin' Dragon
GARY LAIR, OKLAHOMA A. & M.

MOVIE STARS can have the best of everything. The one above (Miss Va Va Voom) drives a limousine so swanky it carries a sports car instead of a spare. Her swimming pool's so large it has tides. When it comes to cigarettes, Miss Voom picks (Surprise! Surprise!) Lucky Strike. Says she, "A Lucky is just as light as they come, dahlings. Its divine taste comes from fine tobacco . . . and simply everyone knows it's toasted to taste even better!" All of which makes her a *Quotable Notable!* Light up a Lucky yourself. You'll say, "It's the best-tasting cigarette I ever smoked!" End quote.

WHAT IS A CROCHETING CONTEST?

Lace Race
LEE SCANLON, AMHERST

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WHAT SOUND DOES A BROKEN CLOCK MAKE?

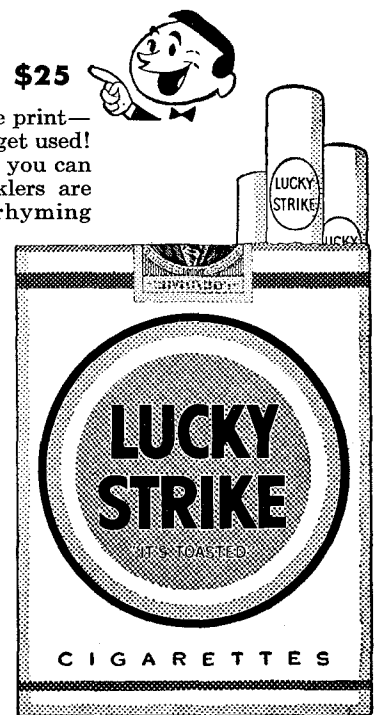
Sick Tick
INNA KOMARNITSKY, CHATHAM COLLEGE

WHAT IS A CHIN STRAP?

Face Brace
KAREN RUNNING, AUGUSTANA COLLEGE

WHAT IS THE SECOND VIOLIN IN A TRIO?

Middle Fiddle
AMELIA LEW, CAL. COLL. OF ARTS & CRAFTS



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Frosh Dorms Proposed In Housing Plan

A plan to convert two of the three proposed new student houses into freshman dorms is being considered by the Faculty Committee on Student Houses. The plan would provide upper-class advisors for the freshmen, and perhaps postpone their rotation for a year. The Committee will consider all possibilities for undergraduate living organization before it approves final construction blueprints, and is submitting the above plan for discussion among administrators and students.

Proponents of the proposal feel that freshmen need a year by themselves to develop and build a healthful attitude on the high ideals and optimistic dreams of scientific success which they bring with them from high school before being exposed to upperclassmen supposedly possessing cynicism and poor study habits.

The upper class advisory system, modeled after that used by Stanford in utilizing a freshman dorm plan, could fill in for the feeling of equality with sophomores, juniors, and seniors now boasted to be available to the new students through the unique house system, according to Dean Foster Strong. He, along with faculty members, believes that several upperclass leaders and students best suited to the advisory job will volunteer when the full nature of their responsibility is formulated and presented as a personal challenge.

These positions, called "sponsors" at Stanford, are considered the highest campus honor and the supervising sponsor is a job sought over that of student body president, disclosed Strong.

One more argument circulating in favor of housing all frosh together for one year is to foster school and class spirit above house loyalty. Strong points out that Caltech can't ignore, class unities without ascertaining the reason behind their strength at most other schools in the country.

Much has been said on the other side in defense of the present procedure of immediate house membership. Men are worrying about the social development of the freshmen isolated without cars and dating contacts in the area. Would there have to be a rule prohibiting upper-class house members from loan-

Jazz -- Jolly Wailing at the Track

(Continued from page 5)

hand in his lap, only occasionally brought in for surprising full chords that serve to punctuate the message. The never-pausing line is filled with conceptually amazing phrases that flow from the big right hand. The brilliant melodic and rhythmic patterns never cease. A phrase is introduced, elaborated, and concluded before the listener is aware of it. This results in the listener consistently being a measure or so behind, and falling further back during the

ing cars because there would be, in effect, a year-long rotation process? Stanford and other schools being cited by sponsors of the frosh dorm plan, it has been noted, are co-educational.

Most present house members vehemently insist that the experience of the first year in the house is an indispensable part of a maturity process that Tech is now able to offer. There is widespread fear that the people who do volunteer to move from the

house into the dorm would be the less desirable members who have not built a strong house loyalty.

Strong indicates that the discussion is just beginning, and he frankly admits not knowing the answers to all of the objections being raised. He suggests that all students who have friends in schools under a frosh dorm system try to find out its success so as to add practical experience to back the opinions.

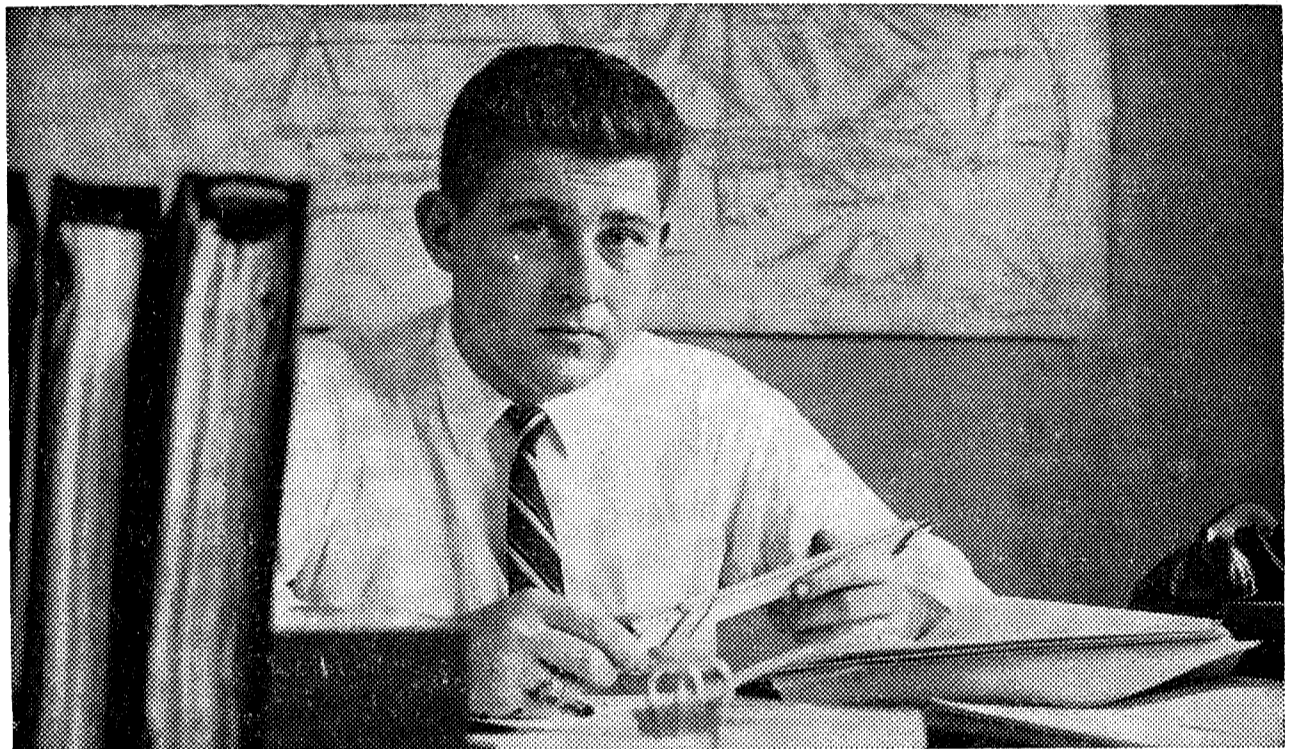
time consumed in marveling over the development of the fleeting theme. Such defects should be more common.

An outstanding example of Tristano's genius is **Turkish Mambo**, which is neither Turkish nor a mambo. The track consists of three repeated rhythmic phrases, one in 7/8, one in 5/8, and one in 3/8. Against this ever changing pulse, Tristano wails with a driving 4/4 solo. It's amazing.

Pete Jolly — Duo, Trio, Quartet
RCA Victor LPM 1125

Jolly is representative of the young, contemporary pianists who draw upon the earlier work of the pioneers for style and conception. Jolly has been influenced strongly by Bud Powell, as has almost every pianist following that artist. Pete has added a driving left hand to Powell's style, and has come closer than Powell in reaching what they both strive for. Moreover, Jolly has absorbed a good bit of the back-to-the-rotso style of Horace Silver, something always laudable in my opinion, and the combination is devastating, at times. Jolly also does more with a ballad than Powell had ever done.

Pete is currently wailing at the Track, in our own little Pasadena, and I urge you all to go down and dig a few sets. He needs some help, too. The denizens of the Track are consistently clamoring for **I'm Looking Over a Four Leaf Clover**. On Sundays, there is a great little jam session going all day, with at least one horn. I can't get used to Pasadena going hip, but I'm not complaining.



John Lawlor, B.S. in E.E., Brown, '52, answers some questions about

An engineering career with the Bell Telephone Companies

John Lawlor is a Transmission Engineer with New England Telephone and Telegraph Company in Boston. His answers reflect his experiences during five years in the telephone business.

Q How did you begin as an engineer in the Bell Telephone Companies?

A My first fifteen months were spent in "on-the-job" training—changing assignments every three months or so. These assignments gave me a broad, over-all background in telephone engineering. And they were accompanied by plenty of responsibility. They progressed in importance with my ability to handle them.

Q What is the attitude of older engineers and supervisors toward young men?

A I've found a strong team spirit in the telephone company. You're encouraged to contribute your ideas, and they're received with an open mind. Young men and new ideas are regarded as vital to the continuing growth of the company.

Q How about opportunities for advancement?

A I'd say they depend on the man. Opportunities to demonstrate your ability come with each new

job you're given. The size and importance of your assignments grow with your ability to handle them. All promotions are made from within, and the growth of the business is creating new openings all the time. One more thing. Most telephone engineering locations are convenient to colleges. You can aid your advancement by keeping on with your studies.

Q How does the telephone company stack up where pay is concerned?

A Starting salaries are competitive with those offered by most large companies. Raises are based on merit, with several increases during your first two years with the company. What's more, your performance is reviewed regularly to make sure that your pay keeps up with your progress. All things considered, I think a Bell Telephone career is second to none in rewards and opportunities.

Find out about career opportunities for you in the Bell Telephone Companies. 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 "Challenge and Opportunity" to: College Employment Supervisor, American Telephone and Telegraph Company, 195 Broadway, New York 7, N. Y.

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