

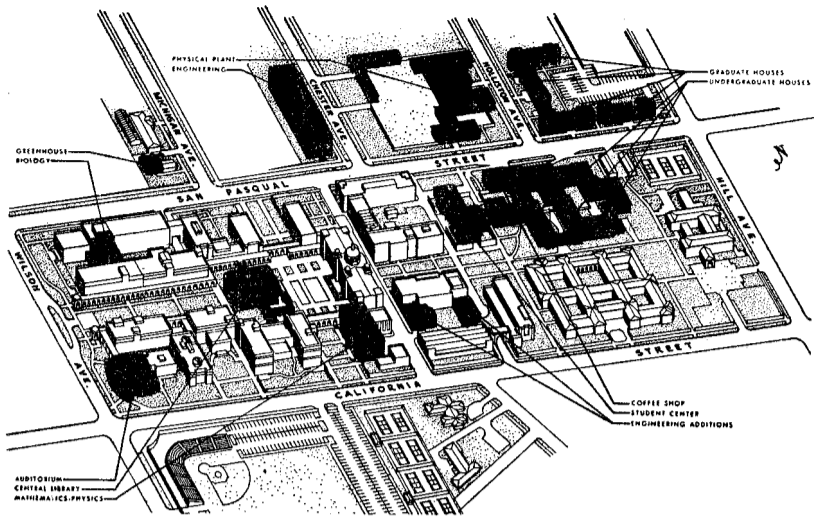
The California Tech

California Institute of Technology

Volume LIX

Pasadena, California, Thursday, February 20, 1958

Number 17



Godfrey, McClure, Owings Vie For ASCIT President

CANDIDATES DEBATE AT ELECTION FORUM

Candidates for the top four ASCIT positions will engage in a round-table debate before the entire student body next Sunday evening under the auspices of the California Tech. The round-table will be held in Throop Club beginning 8 p.m. Discussion is planned to center around two general topics: the proper function of student government, the position of student government in campus life; and the importance of the recent ASCIT reorganization.

Candidates for ASCIT President, Vice President, Secretary, and Treasurer have been invited to participate. A member of the faculty will moderate the round-table. He will introduce questions submitted directly by the student body; questions should be turned in, written and sealed, to Bob Walsh—additional questions will be accepted in written form from the audience during the discussion. Participants may not submit questions.

This debate is a brand-new innovation in campaign procedure that was timed to take advantage of student sentiment to revitalize ASCIT government. In the last few weeks such sentiment was mobilized effectively for the first time in the 23 years of ASCIT history, culminating in a successful amendment to reorganize ASCIT.

The California Tech sees in this turn of events an opportunity to orient the political campaign in a more meaningful direction, consistent with the broadened responsibilities enunciated for the ExComm positions.

Keen Interest Marks Elections For New ASCIT

Amid the keenest interest in several years, the ASCIT election campaign is swinging into gear. Activity will begin in earnest this coming Sunday, when candidates will participate in a forum discussion beginning at 8:00 p.m., and campaign posters will go up the same evening after 10:30 p.m.

Nominated last Thursday was a slate of some 24 candidates, headed by presidential candidates **Mike Godfrey**, **Bill McClure** and **Don Owings**. Sparring for the key position of ASCIT Vice-President are **Jim Wilkinson** and **Russ Pitzer**.

Keith Brown, **Brad Efron** and **Tom Jovin** are seeking ExComm and BOD seats as ASCIT Secretary, while **Jerry Arenson** and **Dave Singmaster** contest the position of ASCIT Treasurer.

The candidates for the other offices are as follows:

Business Manager: **Dave Spencer**, **Frank Greenman**; Athletic Manager: **Tony Leonard**, **Wes Shanks**; Activities Chairman: **Doug Shakel**, **Bob Thompson**; Social Chairman: **Frank Childs**, **Ken Dinwiddie**; Representative-at-Large: **Pat Henry**, **Sid Leibovich**, **Gary Ihler**, **Tom Tisch**; Editor, The California Tech: **Mike Milder**; BOC Secretary: **Bill Bauer**.

Beginning next Monday the candidates will tour the houses during mealtime to deliver campaign talks. This will continue until Wednesday noon.

The campaign will be climaxed by the annual election rally in Culbertson. Students will leave dates, friends, and cameras at home.

Voting will take place next Thursday in the houses and in front of Dabney Hall.

ASCIT EPC Sparks Physics Course Change

The Physics Department is considering important alterations in the undergraduate physics curriculum, in line with the recommendation of the ASCIT Educational Policies Committee.

Dr. Robert Leighton, who is in charge of a faculty committee presently reviewing the physics course, announced at last week's Student-Faculty Relations Committee meeting that the physics department would undertake the following course changes:

1. A course in applied mathematics will be offered to third term sophomore physicists. This

(Continued on page 5)

New Buildings, Additions Head \$16 Million Drive

(Editor's note: Today's late issue is to allow the California Tech to make first public announcement of Caltech's Development Campaign.)

Sixteen new buildings, an increase in faculty salaries, and additions to several existing buildings are the goals of Caltech's \$16,100,000 development campaign announced this afternoon by President Lee A. DuBridge.

DuBridge termed the program, which is Tech's first organized appeal for capital funds, "the most ambitious undertaking in the history of the Institute." In his announcement to assembled press, school officials and faculty members, he said "The challenge of survival of the free world is an intellectual challenge." He expressed Caltech's desire and ability to lead in meeting the challenge.

Included in the new buildings will be three new Student Houses, a Student Activities Center, four graduate houses, a coffee shop and an auditorium. New technical facilities will include a physics-mathematics building, a biology laboratory, a plant research lab, an engineering building and additions to the present engineering buildings. The Institute's libraries will be consolidated in a new Central Library and new facilities for the physical plant department will be built. Total cost of the additions, including \$900,000 to acquire the land, will be \$13,600,000.

Faculty salaries will be raised to competitive levels as part of the development program. At the present time the lowest salary paid a Caltech PhD by industry is more than the highest Tech can offer him to teach, DuBridge pointed out.

Dabney Hosts Bridge Tourney

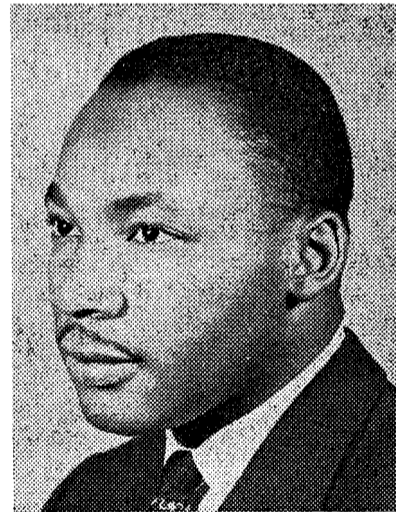
The National Intercollegiate Bridge Tournament will be held Thursday evening, February 27, after dinner in the Dabney House Dining room. There is a fee of 75 cents per contestant. It will be a duplicate tournament as usual. The eligibility rules are the same as for intercollegiate sports.

Dan Mack is the tournament director. To get information, see him or Russ Pitzer.

Caltech is one of over 100 schools competing. The results are mailed to Geoffrey Mott-Smith, author and contract bridge authority, who scores the hands and determines campus, regional, and national winners. The campus winners' names, both the East-West and North-South pairs, are inscribed on a plaque.

The tournament is sponsored by the Games committee of the Association of College Unions.

Negro Leader Visits Tech; Discusses Racial Conflict



Martin Luther King

Rev. Martin Luther King, Jr., Negro Baptist minister and leader of the protesting Negro groups in last year's Montgomery, Alabama, bus strike, will come to Caltech next Tuesday, Wednesday, and Thursday. King's visit is the second of the current Y Leaders of America Program.

Techmen will have numerous formal and informal opportunities to meet and discuss ideas with this man who has survived White Citizen Council attacks, trivial arrests, brick throwings, and bombings and firmly insists: "We believe in law and order."

According to the latest available information, King's program will begin with a speech "A Great Time to be Alive" to the graduate-faculty luncheon forum, followed by an hour meeting with the ASCIT board, IHC, and Y Student Executive Committee. Tuesday evening he will dine in Ricketts house, and then he will present his introductory address in Dabney Hall, "Facing the Challenge of a New Age."

The next day he will meet with a yet-to-be-chosen humanities class in the morning, take lunch in Fleming House, hold office hours in the Y Lounge from 3 to 5 p.m., and dine at the Athenaeum and speak to faculty, alumni, and Caltech Y friends on "Progress in Race Relations."

A discussion with a student panel, consisting of Dick Kirk and Mike Talcott, to be held in

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Nixon Addresses Caltech

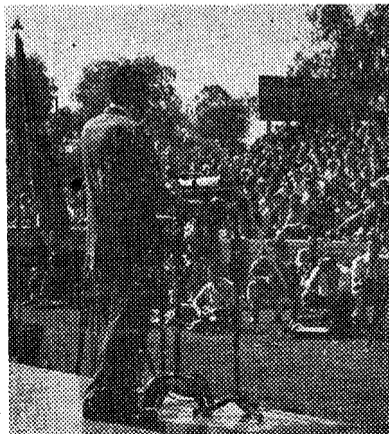
"We live in the most exciting period of the world's history," said Vice President Richard Nixon Monday morning as he urged Caltech students to consider entering national politics.

Speaking before 2000 students, faculty and personnel on the Tournament Park baseball field, Nixon lauded the Caltech humanities program and noted that he "would like to see some young men here consider the 'public service'." "We need people in Congress," he observed, "who understand the scientific field."

Tremendous Contribution

His talk was preceded by a tour of the Jet Propulsion Laboratory, and he praised JPL's contribution to the American space program, saying, "The American people should be made aware of the tremendous contribution made by the engineers and scientists of the Jet Propulsion Laboratory."

Much of the speech was devoted to supporting some of the



Republican administration's plans which are expected to have difficulties in Congress. The Vice President warned against going overboard on defense spending, and urged greater economic support for "newly-developing" countries.

"If we allow our obsession of the military aspects of world conflict to be predominant," said Nixon, "we will lose it." He

pleaded for greater emphasis on "the conflict in the economic sphere, the sphere of propaganda, of diplomatic activity," but noted that we do not want to "buy friends." Rather, he argued, "we want to help them gain 'the ability to be independent.'"

Space Agency

With regard to the nation's possible space agency, Nixon hinted that it would be free of military control, but added that no decision had yet been made. He drew applause with the statement that, "It is important to our foreign policy that this concept be shifted to science for peace rather than science for war."

Nixon's visit was part of his current tour of his home state. He mentioned his attendance at nearby Whittier College, and drew laughs with references to his college days.

The speech was arranged by President Lee A. DuBridge, who introduced the Vice President.

Announcements

MISSING

The bound volume of California Tech issues for the school year 1956-1957 has been missing from the Tech office for several days. Its return would be touchingly appreciated.

TRIP CANCELLED

The EE 4 field trip to the Sturdley Ceil Winding Factory has been cancelled by the Board of Health until such time as their turboalternating grundle can be repaired.

The California Tech

Associated Collegiate Press honor rating: First Class

Editor—Bob Walsh

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Howard Weisberg (Feature), Jim Wilkinson (Sports)

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Editorial

Pasadena Meets Sputnik With Traffic Light Policy

Hardly a day goes by now that the U. S. satellite is up when there isn't something in the **Star News** about how it was made IN PASADENA or about how somebody or other is LAUDING us for this LOCAL PRODUCT and even sometimes how lucky and proud Pasadena is to have such a GREAT INSTITUTION as Caltech all for its very own. And they knew all the time that the LOCAL BOYS would come through.

As a matter of fact, our relationship with the Crown City has been eminently amiable in most fields, mostly since we never come in contact with them in most fields.

One thing that we don't exactly understand, however, is the new traffic light on California Street at the entrance to Tournament Park. Now we know that the city wants to reward us for our noble efforts, and we are truly honored, but, ungrateful as it may seem, there has been talk lately that the new light is actually not even as good as the old one. Could this be an oversight on the part of the City Fathers?

The truth is, the new light takes so long to change after the button is pushed that some people have taken lately to ignoring the whole thing and crossing whenever they feel like it. For example, last Monday, when Nixon talked in Tournament Park, several hundred students and Institute personnel impatiently waited around on one side of the street so long that they finally decided to cross against the light. There ensued a chaotic jumble of pedestrians and cars, using the intersection more or less at random.

Now of course the city could station a full-time policeman to give tickets to all jaywalkers, but we respectfully submit that it would be easier to put the old light back, or better yet to modify the new one so that it changes as soon as the button is pushed, and stays changed for a reasonable length of time. In this case there should be some arrangement such that cars trying to leave the parking lot can trigger the light, since at present the driver has a choice of either getting out of the car and pushing the button or else going against the light.

Every time someone loses two minutes waiting at the intersection, the men in the Kremlin rejoice as still another blow is struck to our national defense effort. We are depending strongly on the loyal citizens of Pasadena to come through in this crisis.

Secretary's Report

FRESHMAN CAMP

The Freshman Camp Committee will have its proposal of a revised Camp ready by the end of this term, reported Godfrey. The Committee, working in conjunction with the Dean's Office and interested faculty members, will propose specific means by which the Camp can carry out the objectives of introducing the Frosh to Caltech and assimilating them into the life here. The proposal, when ratified by the Board, will be submitted, through the Student Faculty Relations Committee, to the Dean of Freshmen.

HONOR POINTS

The Honor Point Committee has found that the present method of deciding on which candidates should be awarded Keys or Certificates is not very adequate. The basis for awarding points needs clarification, and closer contact between the Honor Point Committee and the applicants is desirable. The Committee will suggest improvements in the technique of selection shortly.

ELECTION RALLY

The Election Rally was discussed. The Board was assured that, despite inflationary tendencies, it will be, at least, up to past standards.

Michael Godfrey
ASCIT Secretary

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Letters To The Editor

Editor, the California Tech:

Much of the student reaction to the recent Frosh Dorm proposal has been, hasty and a bit immature. It has been, I think, a reaction against the administration, and not against the plan itself. I would like to do two things: state the problem as it appears to me; and give a few points in favor of the Frosh Dorm system from the student point of view.

The building of new student housing facilities, whether they be three new student houses or one house and two Frosh Dorms, is going to change significantly the character of the student house system. A person who thinks that he wants to keep the system "just as it is" cannot have his way. The proper way to evaluate both systems is to try to predict the kind of student life which would result in each case, and then to choose whichever seems to be the better plan.

Since I entered as a freshman there has been a steady decline in school loyalty. During rotation that year, I was told by two houses, "In matters of politics, athletics, and student activities, we feel that ASCIT, or the college, should be first, and the house should be second." I have been told by several freshmen that no such statement was made during rotation this year.

In addition to strengthening school spirit, the Frosh Dorms

would presumably strengthen class spirit at the expense of house spirit. Is this really bad? Many of the seniors I have talked to wish that they knew more of the members of their class. And if some of the selfishness which appears in IHC meetings were reduced, would this be a loss?

I feel that the greatest advantage of the Freshman Dorm system would be with the strengthening of "house individuality." Doctor Harvey Eagleson, who has watched the houses since their formation, says, "The student houses have lost most of their individuality." One big reason for this loss of individuality has been a change in the policy of assigning freshmen to the houses. Once an attempt was made to assign freshmen to the houses where they would probably fit best. Now the policy is to assign men to the house on a random basis, or even in an attempt to deemphasize any existing house personality. The great majority of the freshmen stay in the house they start in, and this method has proved quite effective.

A Frosh Dorm system would give the freshman a good chance of finding the house which would best suit him. It would pave the way for the strengthening of house personalities and house traditions. But with seven houses, what chance would there be

for individual house characteristics to form?

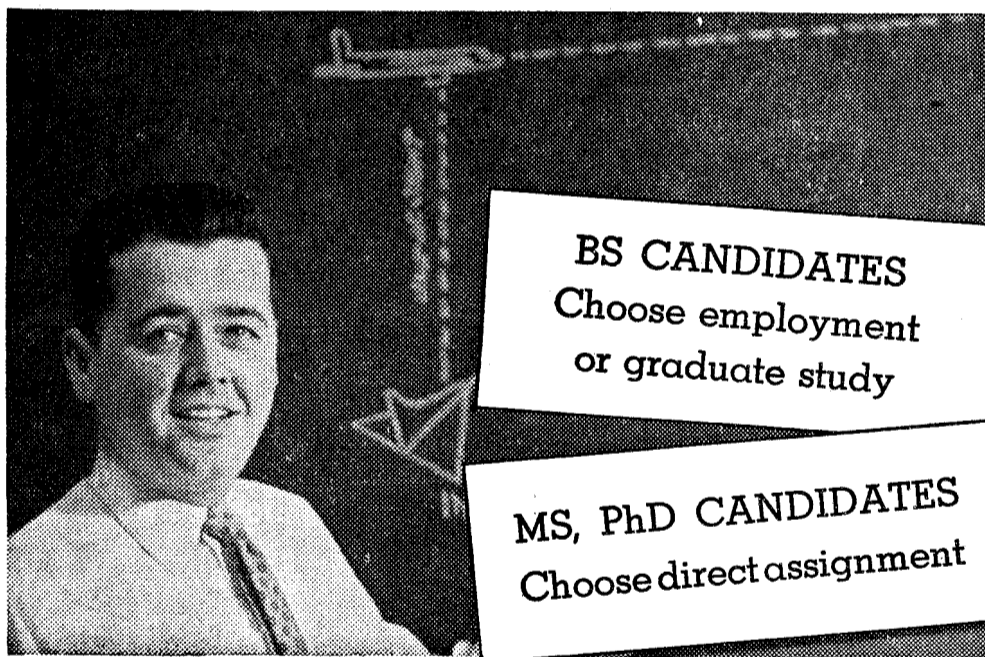
One thing I would insist on would be including the freshmen in the house social programs. This could be done on a rotation basis. The expense of freshman participation could be met by a fee similar to house dues, which would be divided between the five houses.

The academic question alone demands that we give serious consideration to the Freshman Dorm system. One thing is certain: student opinion will exert a heavy influence on the committee which makes the decision. If both systems are carefully and impartially considered by the students, and an attempt is made to choose the plan which is really the best, then nothing more can be done.

Ted Oakberg

Ed. Note: Members of at least one house definitely claim to have stressed "ASCIT first" during rotation. It should also be noted that graduates of other schools often find their class loyalties empty and meaningless, based on a mutual curriculum instead of mutual interests. It is also news to us that the policy of fitting freshmen to houses has been reversed.

The reference to an "academic question" is puzzling. Is it assumed that freshmen will learn more in an exclusively freshman group than in a mixture of all classes?



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Opinion

Polish Diplomat Intrigues Students

by Howard Weisberg

Last Wednesday the Polish delegate to the United Nations was at Caltech for a while and we had a chance to meet him. Mr. Michalowski and his wife were taking advantage of a lull in the UN proceedings to visit California, and they had already visited SC, Berkeley, and several other schools.

He talked before a room packed with faculty members and secretaries in the Athenaeum at the Y Lunch Forum. Afterwards we took him and his wife around the campus and drove them back to their hotel in Los Angeles.

Surprisingly Sincere

Jerzy Michalowski and his wife are impressive, intelligent people. An inexperienced observer can be easily misled by impressions gained in five hours, yet both seemed to be sincere and in a most respectable position intellectually.

Michalowski was educated in Poland and was a university professor of political science until 1939. He spent the following years in a Nazi concentration camp. After the war his career was in the Polish diplomatic service except for a period during the height of the orthodox regime when he was shunted to the ministry of education. About the time of the October uprisings (Polish October), he was promoted to UN delegate.

His wife's profession is journalism. She was in the U.S. during the war, and now she is New York correspondent for several Polish magazines.

Disarmament Proposal

The Ambassador explained in his talk at the Athenaeum that he had come primarily to help make Poland's disarmament proposal known, although there are other obvious benefits to be obtained from such visits. It is Poland's position, he said, that it is essential to remedy the current world situation in which war is so perilously near. The interlocking causes of this situation are the ideological differences, and the arms race. His country feels that the only practical plan of action is to start hacking away at the second problem, bit by bit. Thus they propose, as a first step, that a "de-atomized" zone be set up in Europe. The United States would agree not to have atomic weapons in West Germany, and in turn a similar ban would be imposed on Russia in Poland, East Germany and Czechoslovakia.

He pointed out that where it has been discussed in the US press, this program (the so-called Rapacki Plan) has been criticized for not having provisions for control. But, he said, the Communists are willing now to have such a safeguarding feature in the agreement.

Russ Would Withdraw Troops

Later we asked him why the plan is not expanded to include troop withdrawal. He said that his government was very willing to expand the program, but that the United States is determined not to withdraw its troops from Germany. Asked whether the Russians would agree to such a mutual troop withdrawal, he said he thought they would.

Actually, as it soon became easy to infer, the Poles would be tickled pink to have such an arrangement. An armed Germany they regard, with excellent historical justification, as a menace to Polish security. And although no one came out and said it, it seems clear that another of the motives behind the Rapacki Plan is, eventually, to get the Russian troops off Polish soil. ("Yes there are Russian troops. But they stay off the streets," we were told. "Especially at night.")

Poland is in a tough position, and this position is a matter of geography. If they are to have a realistic foreign policy they must face this fact and figure out a way to live with it, and this is just what they are doing. Removal of Russian troops would not lead to a revolution for most Poles are good socialists (at least those who are talking). But that it would be in the best interests both of the United States and of world peace in general is hard to dispute.

Different Roads to Socialism

Economically, Polish policy is that the ideas of socialism must be modified to suit individual problems of each country. It is senseless for neckties to be made by the government, or for restaurants and tailor shops to be government owned. The ideal agricultural policy would be to have giant farming units ("Typified," he said, "By many of the ones in the United States"), but in a country as technologically backward as Poland, collective farms do not work and the small peasant, dealing individually with the market, is better at present. There is room in the ideal Polish society for a middle class, and the government itself will be composed not of members of the working class but of members of a new intelligentsia.

As many people know, many of our negative feelings and criticisms of the Communists have exact duals in their own feelings. This was brought home while we were in Dabney Hall, showing off the periodical room with its copies of Pravda and other non-western magazines. Michalowski asked if many Tech students are interested in world affairs, and just about then the AROTC detachments marched in on the way to their class. His wife pointed out that if the same scene had occurred in a Polish university in front of western observers it would make "big headlines" in our papers; and it probably would.

Tour Synchrotron

We were given a tour through the synchrotron, and this seemed somewhat to interest Mrs. Michalowski. She was well informed and wanted to know some technical details of its operation in comparison with machines which she had seen in Europe. Her husband was more concerned with who gives the financial support, whether we exchange data with others, and whether it is true that research men here are narrow specialists. (Our guide tried to explain that it isn't true. He also said that he may quit soon to get a better paying job in industry. This prompted Mrs. Michalowski to advise us to keep on telling our government about how much better the Russians treat their scientists, and then we wouldn't have any troubles.)

TEXT OF E. P. C. REPORT

REPORT OF THE EPC ON PHYSICS OPTION AND COURSES

The EPC felt that there were certain facets of the Caltech physics course deserving of special commendation. These are the wide range of elective subjects allowed and available, and the use of such experimental teaching techniques as Physics X.

In the general field of instructional methods, we would make the recommendation that the method of computing periods as are now found in ME 15 and AM 1 be used in physics courses. A computing period of 2 hours could take the place of one class-hour and one homework-hour. The advantages of computing periods lie in the facts that (a) the students learn more quickly and more thoroughly by working problems together in small groups, and (b) the presence of an instructor provides a source of immediate assistance when a blind alley is reached, the preventing of the widespread frustration found in courses where there is quite a large amount of difficult homework necessary. Experience with computing periods in engineering courses has shown them to be extremely valuable, particularly to slower students. They are also well liked by the students. We recommend that this technique be applied particularly to Ph 1; there is an excellent possibility that it would prove valuable in such courses as Ph 2, Ph 106, and Ph 107.

It was the feeling of the committee that a major improvement which is necessary in the physics option is the lessening of the shock which a student meets in his junior year. A large number of physics students are more than dismayed at the general poor grades they receive and the difficulty they find in their junior physics courses; many students find it necessary to transfer to another option. We feel that this shock is caused by the general lack of preparation in the field of applied mathematics. The present sophomore mathematics course does not provide the student with the ability to solve mathematical problems of a physical nature. Mathematical methods are not taught in an orderly manner in Ph 106 and Ph 107 (since the emphasis is on physics), nor is the average junior physicist possessed of the sophistication required to best appreciate these courses. We would recommend the inclusion in the curriculum of a course at the sophomore level for the purpose of providing a better introduction to mathematical physics than is now available in Ma 2; this course would include such introductory material on vector analysis and operations, orthogonal functions and series, differential equations, and boundary conditions leading specifically to the solution of such physical problems as are found in Ph 106 and the boundary-value problems as found in Ph 107. A course of this type which is now available is AM 15 or AM 115; perhaps these could be modified to suit the sophomore level. The committee felt that a course of this type might fit in as an elective third term sophomore year, to be taken concurrently with Ma 2. This course should, in our

view, be a rather difficult course, thus providing some indication to the sophomore as to how he will fare in upperclass physics courses; this would prevent the too widespread disappointment suffered by many would-be physicists who are overpowered by the sudden increase in difficulty between the sophomore and junior levels.

Were a course of this type to be scheduled third term, it would displace the time now given to Ph 20. It was felt by the committee that this contact with modern physics is valuable and stimulating at this level, and if this view were shared by the physics department, it might be possible to retain Ph 20 (while not eliminating any of the first or second quarter electives, such as Ma 5) by substituting it for one of the three "survey" courses, geology, biology, or astronomy. Ph 20 would be closest in subject material to Ay 1, of course.

A discussion of freshman and sophomore laboratories brought out a general dissatisfaction with the experimental work. It was felt that, although it is the nature of students interested in theoretical work to be unhappy with lab work, some of the dissatisfaction was due to a lack of thoughtful and considered supervision. Many men are allowed to pursue unprofitable or too trivial courses of experimentation, while others undertake more than they can handle. In order to prevent this, laboratory instructors must take the care and interest to assist the students in finding suitably interesting and profitable experiments. We do recommend that undergraduate physics students be made familiar with the use of the literature of the field, and we feel that the freshman and sophomore laboratories are an ideal place to foster this familiarity. Some of the laboratory work should involve research in outside texts and references. Were the students more familiar with what has been done experimentally in the field of physics, they might be in a better position to appreciate and profit from the laboratory courses.

As the first of three final specific recommendations we feel that two of the courses now given are not allotted the proper number of units. These are Ph 107 (6 units) and Ph 129 (9 units). We would recommend that Ph 107 be given as a 9-unit course, and that Ph 129 be given 12 units for undergraduates.

We would recommend that the physics department coordinate more fully with elective courses given in other departments. As a specific example, Fourier series is taught almost simultaneously in both Ph 107 and EE 4, and there is considerable needless duplication. Further, there are many valuable texts used in courses in other departments which might prove valuable in the counterpart courses administered by the physics faculty; an example of this is the valuable set of mimeographed notes available to EE 15 students, but not to Ph 107 classes.

Considerable objection was expressed to this committee concerning EE 4. It was felt that the course in motors was particularly objectionable, and that the entire course was far too numerical in nature.

Global News

France and Tunisia accepted the offer of the United States and Britain to mediate the dispute caused by the French bombing of the Tunisian village Sakiet Sidi Youssef, and President Bourguiba of Tunisia immediately eased his previously ordered blockade of French troops and may postpone Tunisia's request to the UN Security Council to investigate an act of aggression by France. France had previously refused negotiation until Tunisia halted threats to troops and civilians and intended to file a counter complaint in the Security Council charging Tunisia with aiding Algerian rebels. Though France's Premier Vail-

lard defended the bombing as a military necessity, Foreign Minister Pineau later admitted that the Paris government knew nothing of the raid.

President Sukarno of Indonesia faced a revolt in the outer islands on returning to Java after a vacation in Asia as a "Revolutionary Council" in Padang, capital of West Sumatra, had already announced a provisional anti-Communist government under a Moslem nationalist hero and started a blockade on oil into Java. President Sukarno cut off almost all communication with Sumatra and ordered the arrest of ten rebels, but though he has almost all the army on Java,

every political party except the Communists demands mediation rather than a civil war.

Previously the Revolutionary Council had issued an immediately rejected ultimatum to Premier Duanda in Jakarta, the Javan capital of Indonesia, demanding a Red free government or the outer islands of Sumatra, Vornea, and the Celebes would revolt.

Iraq and Jordan united into the "Arab Federation" after a conference between King Hussein of Jordan and his cousin King Faisal of Iraq. Both kings will maintain their thrones and sovereignty in their own country, and though Faisal will be chief of the federal state, the cabinet will be equally split and meet half the time in one country and half the time in the other. Neither country is committed by previous foreign treaties of the other, and the United States is worried that Iraq, the only Arab nation in the Baghdad Pact, may resign from the Pact in the interest of unity. Saudi Arabia has also suggested that she might join the Federation if Iraq left the Baghdad Pact.

Straight Answers

This seemed to be the general pattern. Mrs. Michalowski kept up a lively conversation and tried to be as pleasant and entertaining as possible. Her husband kept comparatively quiet; but he always gave straight answers. Despite the fact that some of the questions were not ones designed to be of minimal embarrassment to a representative of the People's Republic of Poland, he always stuck to the point and avoided generalities.

There was one exception. Someone asked, "Why do you think the Russians have allowed reforms in Poland. Why don't they put you down?"

He had struck a nerve. The ambassador winced perceptibly; he glanced at his wife but she was staring out the window. Finally he said, "Well I suppose the Polish people and the Soviet people considered the matter and concluded that this way will be best for all concerned."

Martin Luther King, Jr.: Non-Violent Resistance

"We Must Not Try to Defend Our Position By Methods That Contradict the Aim of Brotherhood"

Across the South, since that December day in 1955 when the Negro bus boycott was established in Montgomery, Alabama, Negro leaders have looked toward this city for advice and counsel on how to gain the desegregation that the U.S. Supreme Court has guaranteed them.

The man whose word they seek is not a judge or a lawyer, or a political strategist or a flaming orator. He is a scholarly 28-year-old Negro Baptist minister, the Rev. Martin Luther King, Jr., who in little more than a year has risen from nowhere to become one of the nation's remarkable leaders of men.

In Montgomery, Negroes are riding side by side with whites on integrated buses for the first time in history. They won this right by court order. But their presence is accepted, however reluctantly, by the majority of Montgomery's white citizens because of Martin King and the way he conducted a year-long boycott of the transit system.

Michael Luther King, Jr., was born in Atlanta, Ga., in 1929 to the Rev. Michael Luther King, pastor of the Ebenezer Baptist in that city. His mother was a school teacher before her marriage. Young "Mike" learned about segregation when he was six years old when a white playmate, the son of a grocer, was prohibited from playing with a

Negro boy. Mrs. King then told Mike about segregation, but she insisted that although this system existed, he should never feel inferior. His father then told him about Martin Luther, the great leader of the Reformation. "From now on, you and I are going to be named Martin Luther King," he said.

From his earliest memory, Martin King has had a strong aversion to violence in all its forms. For months Martin Luther King has unflinchingly faced the possibility of violent death for the sake of avoiding violence.

Can Not Retreat

"We Southern Negroes believe that it is essential to defend the right of equality now. From this position we will not and can not retreat. Fortunately, we are increasingly aware that we must not try to defend our position by methods that contradict the aim of brotherhood.

"We in Montgomery believe that the only way to press on is by adopting the philosophy and practice of non-violent resistance. This method permits a struggle to go on with dignity and without the need to retreat. It is a method that can absorb the violence that is inevitable in social change whenever deep-seated prejudices are challenged."

The shabby, overcrowded Negro schools in Atlanta were no match for the keen, probing mind of Martin King; he went through high school in two years, was ready at 15 for Atlanta's Morehouse College, one of the South's Negro colleges. At Morehouse, King worked with the city's Intercollegiate Council, an integrated group, and learned a valuable lesson. "I was ready to resent all the white race," he has said. "As I got to see more of the white people, my resentment was softened, and a spirit of cooperation took its place. But I never felt like

a spectator in the racial problem. I wanted to be involved in the very heart of it."

As a child, King wanted to be a fireman. Then, hoping to treat man's physical ills, he planned to become a doctor. Becoming more deeply engrossed in the problems of his race, he turned his hopes to the law, because, "I could see the part I could play in breaking down the legal barriers to Negroes." At Morehouse, he came to the final resolution.

Intellectual Religion

"I had been brought up in the church and I knew about religion," King says, "but I wondered whether it could serve as a vehicle to modern thinking. I wondered whether religion, with its emotionalism in Negro churches, could be intellectually respectable as well as emotionally satisfying." He decided it could, and that he would become a minister.

King's Morehouse record (major in sociology) won him scholarship offers from three seminaries. King chose Pennsylvania's Crozer Theological Seminary.

For the first time in his life, King found himself in an integrated school; he was one of six Negroes among nearly 100 students at Crozer. Fearful that he

words and works of the great social philosophers: Plato, Aristotle, Rousseau, Locke, Hegel (whose progress-through-pain theories are still prominent in King's thinking).

Above all, he read and reread everything he could find about India's Gandhi. "Even now," says King, "in reading Gandhi's words again I am given inspiration. The spirit of passive resistance came to me from the Bible and the teachings of Jesus. The techniques of execution came from Gandhi."

Extraordinary Student

King's Crozer career was extraordinary. He graduated first in his class, was named the seminary's outstanding student, was president of the student body (the first Negro so honored), and earned a chance to go to Boston University for his Ph.D. While in Boston he also took courses in philosophy at Harvard University.

His Boston interests were not exclusively academic. He had met Coretta Scott, a pretty and talented soprano and a graduate of Antioch College, who was doing graduate work at the New England Conservatory of Music. They were married in June, 1953.

Although he had been ordained a minister in his father's church in 1947, he did not have a parish of his own until called to the Dexter Avenue Baptist Church in September, 1954. He encouraged his parishioners to take an active interest in community problems; he organized a social and political action committee within the church and urged every member to become a registered voter and also a member of the National Association for the Advancement of Colored People.

Get Up and Stand

Martin Luther King suddenly came into national prominence in December, 1955. In the early evening of Thursday, December 1, 1955, a Montgomery City Lines bus rolled through Court Square and headed for its next stop in front of the Empire Theatre. Aboard were 24 Negroes, seated from the rear toward the front, and 12 whites seated from front to back. At the Empire Theatre stop, six whites boarded the bus. The driver, as usual, walked back and asked the foremost Negroes to get up and stand so the whites could sit.

Three Negroes obeyed,—but Mrs. Rosa Parks, a seamstress who had once been a local secretary for the National Association for the Advancement of Colored People, did the unexpected. She refused. Overnight the word reached the various Negro neighborhoods: support Rosa Parks; don't ride the buses Monday! The results were astonishing—the strike was 90% effective.

On the day of the strike, some two dozen Negro ministers decided to push for continuance of the bus boycott. The original demands were mild; Negroes would still be seated from the rear and whites from the front, but on a first-come-first-served basis; Negroes would get courte-

(Continued on page 5)

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Montgomery Bus Boycott Led King to National Prominence

(Continued from page 4)

ous treatment; Negro drivers would be employed for routes through predominantly Negro areas.

Ability Evident

To direct their protests, the Negro ministers decided to form the Montgomery Improvement Association. And for president they elected Rev. Martin Luther King, Jr., a relative newcomer whose ability was evident and whose newness placed him above the old feuds. That night, at a hastily called mass meeting, more than 5,000 Negroes approved the ministers' decisions.

At every turn, King out-generated Montgomery's white officials. Example: Officials went to court to have the M.I.A.'s assets frozen, but King had the funds scattered around in out-of-reach banks that included half a dozen in the North.

The Negroes stood firm, and white complacency turned to fury. Mayor Tacky Gayle ordered a "get-tough" policy. Gayle and his city commissioners made a great show of joining the White Citizens' Council. Police harassment followed: King was arrested for speeding; Negro car pool drivers were hauled into court for trivial violations. Up to 25 profane telephone calls a day came to the King home.

Massive Retaliation

At 9:15 one night two years ago, he was speaking at a mass meeting; Coretta King was talking to a friend in the living room of the parsonage. She heard a thud on the porch and thought it was a brick, nothing unusual around the King home during that period. She and the friend moved to the back room to continue the conversation—and a dynamite bomb went off, filling the vacant living room with a hail of broken glass.

Despite the bombing, King still implored the 50,000 Negroes who had united to boycott the buses to use passive resistance. "We believe in law and order," he told them, "Don't go get your weapons. He who lives by the sword will perish by the sword."

On February 1, 1956, five Montgomery Negro women filed suit in the U.S. District Court asking the courts to declare Alabama's and Montgomery's transporta-

tion laws unconstitutional, asserting that these laws deprived them of their rights, privileges, and immunities under the Fourteenth Amendment to the U. S. Constitution in seeking to compel them to use the facilities under threats and harassment.

On February 22, 24 ministers in Montgomery were arrested, including King. An Alabama circuit judge found that the boycott was illegal and the violators should be fined and jailed. King was sentenced to pay a \$500 fine or serve 140 days in jail. Sentence was suspended pending an appeal by King's attorneys.

Legal Victory

An injunction ending Montgomery's bus segregation was issued by a three-judge Federal Court on June 19, 1956, but was suspended pending appeals. The Supreme Court upheld the ruling on November 12, and refused on December 17 to grant rehearings requested by state and city officials. As a result, the injunction was served on state, city, and bus company officials in Montgomery on December 20, 1956. Following this action, Negroes held mass meetings and called off their boycott of the buses.

When interviewed on February 10, 1957, on the NBC-TV program "The Open Mind," King told interviewer Richard D. Heffner that "The American Negro has acquired a new self-respect and a new sense of dignity, since integration in public schools was made mandatory by the U. S. Supreme Court's decision. He lacks the fear which once characterized his behavior. He once used duplicity as survival technique, but now he has developed an honesty.

"As soon as we pass out of this shock period I believe that whites and Negroes will work together without bitterness. Some Southern whites have a negative attitude, some are giving us silent sympathy, but the trend is toward coming out in the open and standing on the side of integration. . . I think the violence will be temporary. I don't say it will end tomorrow.

"But once that shock is absorbed Southerners will come to the point of seeing that the best thing to do is to sit down and

work out these problems and do it in a very Christian spirit. I think the diehards are coming to realize that the old system is at its dying point. Many, many white persons of good will over all the nation have given us moral support."

Beyond Lawbooks and Writs

Thus, King's leadership extends beyond any single battle: homes and churches were bombed and racial passions rose close to mass violence in Montgomery's year of the boycott, but King reached beyond lawbooks and writs, beyond violence and threats, to win his people and challenge all people—with a spiritual force that aspired even to ending prejudice in man's mind. He struck where an attack was least expected, and where it hurt most: at the South's Christian conscience.

Most of all, Baptist King's impact has been felt by the influential white clergy which could help lead the South through a peaceful and orderly transitional period toward the integration that is inevitable. Explains Baptist Minister Will Campbell, one-time chaplain at the University of Mississippi, now a Southern official of the National Council of Churches: "I know of very few white Southern ministers who aren't troubled and don't have admiration for King.

EDUCATIONAL POLICIES (Continued from page 1)

course, replacing Ph. 20, will effectively make Ph. 106 a four term course, and it is intended to both erase the transition into the junior year and provide the background in applied mathematics now taught in Ph. 106 and Ph. 107.

2. Ph. 106 would become a 9 unit course (from 12), and Ph. 107 would become a 9 unit course (formerly 6).

3. Some material from the present Ph. 20 course would be included in a new Ph. 2c course, eliminating geometrical optics completely.

4. EE 4 would no longer be required, in the hope that the course would improve to the

They've become tortured souls."

Says Baptist Minister William Finlator of Raleigh, N.C.: "King has been working on the guilt conscience of the South. If he can bring us to contrition, that is our hope."

Kingly

King describes himself as "an ambivert—half introvert and half extrovert." He can draw within himself for long, single-minded concentration on his people's problems, and then exert

point that men would take it as an elective.

5. An attempt to improve physics laboratories will be made, following in part the recommendation of the EPC.

Leighton also indicated that the Physics Department is seriously considering the proposal to establish computing periods in physics courses. The committee has not reached a conclusion concerning these computing periods, but wishes to give the matter more thorough consideration.

The text of the EPC recommendation appears on page 3. The EPC is presently discussing problems of the advisor system, a possible freshman advisor system, and the mathematics curriculum.

the force of personality and conviction that makes him a public leader. No radical, he has avoided excesses of radicalism. King is an expert organizer, to the extent that during the bus boycott the hastily assembled Negro car pool under his direction achieved even judicial recognition as a full-fledged transit system. Personally humble, articulate, and of high educational attainment, Martin Luther King, Jr., is, in fact what many a Negro, and indeed, many a white would like to be.

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Personal Interviews ON CAMPUS

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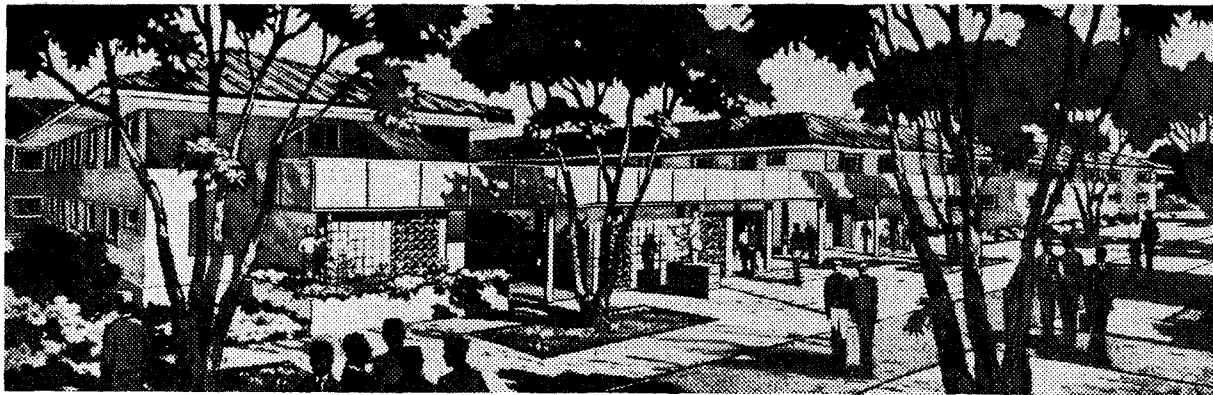
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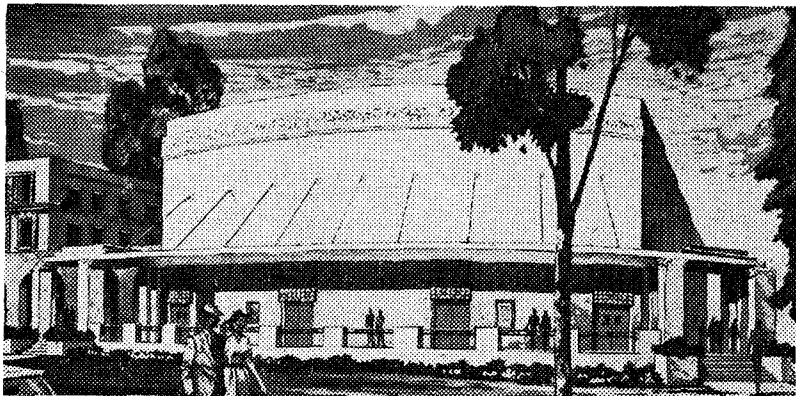
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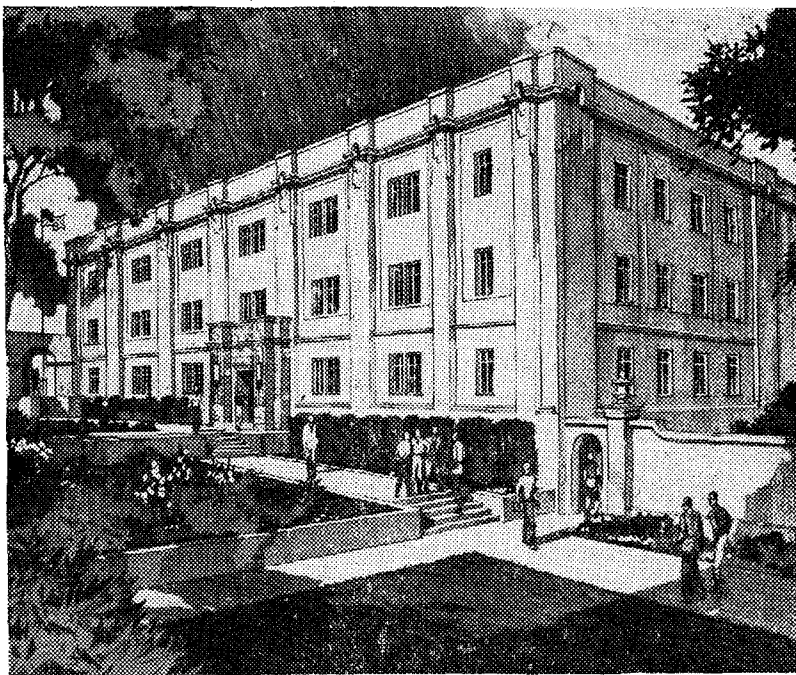
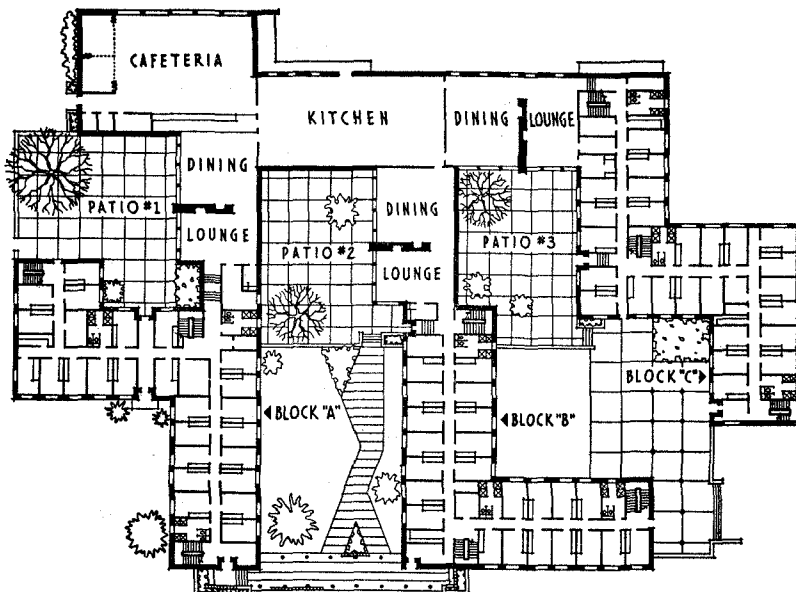
UPPER LEFT—View from Olive Walk of the three new student houses.



LOWER LEFT—Caltech's new auditorium will seat 1200 and include an interdenominational chapel.

LOWER RIGHT — Math-physics building will house math department and include new accelerator and low temperature equipment.

UPPER RIGHT—Floor plan of the three new Student Houses. The cafeteria will replace the Greasy.



PLANNERS INCLUDE HOUSES, LIBRARY IN \$16 MILLION PLANS

by Cleve Moler

Three new student houses are included in the plans for campus expansion announced this afternoon by President Lee A. DuBridge. The \$16,100,000 Caltech Development Campaign will raise funds to construct badly needed technical facilities in addition to the houses, library and other new buildings.

The new houses, which will extend the benefits of house life to at least 75 per cent of the students, will cost an estimated \$1,860,000. They will be built across the Olive Walk from the existing houses and will be architecturally similar. Grouped around open courtyards, the three buildings will have individual lounges and dining rooms, but will share a kitchen, a game room, and a laundry. The kitchen will also serve the new, \$140,000 Campus Coffee Shop.

Student Union

A Student Activities Center, which will be built where the present coffee shop now stands, is included in the plans. Costing an estimated \$350,000, the Union will provide offices for such student activities as ASCIT, The California Tech, The Big T, and the Y. It will also include an enlarged bookstore, a 24-hour snack bar, and a lounge for off-campus students.

Housing and social facilities for at least 200 unmarried graduate students will be included in the new Graduate Center, to be built north of San Pasqual street. The present grad dorms were built in 1908 and house only 70 of Tech's 270 unmarried graduate students. The Center will include four buildings and cost \$1,400,000.

Biggest single project in the expansion program will be the new engineering building, also north of San Pasqual. It will

allow for expanded work in civil, electrical and mechanical engineering. Also included in the \$3,000,000 cost will be substantial additions to Guggenheim.

The new Mathematics and Physics Building will serve primarily as headquarters for the math department. In addition the two basement floors will house a new electrostatic accelerator and low temperature physics equipment. Costing \$1,100,000, it will be built on the site of the High Voltage Lab.

Two more laboratories are included in the program, a \$900,000 biology building between Church and Kerckhoff and a \$100,000 plant research addition to Earhart.

Caltech is probably the only major scientific educational institution that has no central library. A \$2,400,000 home for the Institute's 100,000 volumes will be included in the new buildings. To be built in the Quad between Gates-Crellin and Bridge, the library will also include micro-film storage, reading rooms, a rare-book library and music rooms. The bookstacks will be open to all readers.

New Auditorium

Culbertson Hall will be replaced by a new auditorium under the program. The \$850,000 structure will have a main hall seating about 1,200 people, lecture, conference and musical rooms and an interdenominational chapel.

New facilities for the physical plant department will also be built north of San Pasqual. The shops, offices and garages will cost \$600,000. Appropriation of the necessary land for the expansion will cost \$900,000 and bring the building total to \$13,600,000.

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

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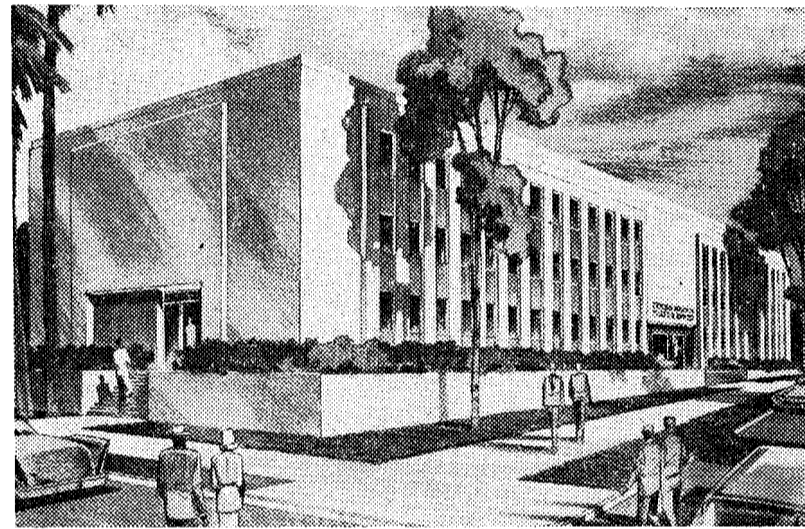
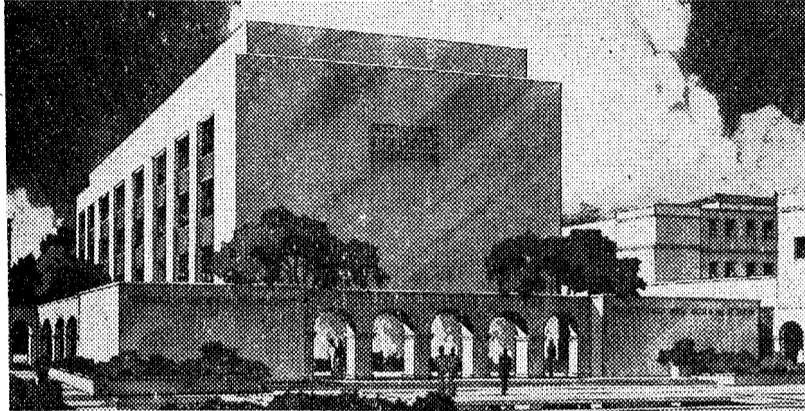
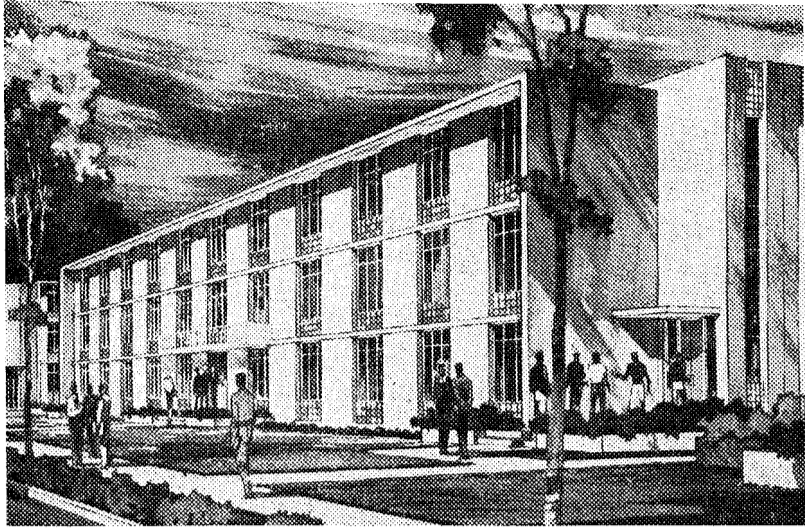
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TOP—One of the four new graduate houses.
MIDDLE—Proposed Central Library.
BOTTOM—Proposed engineering building.

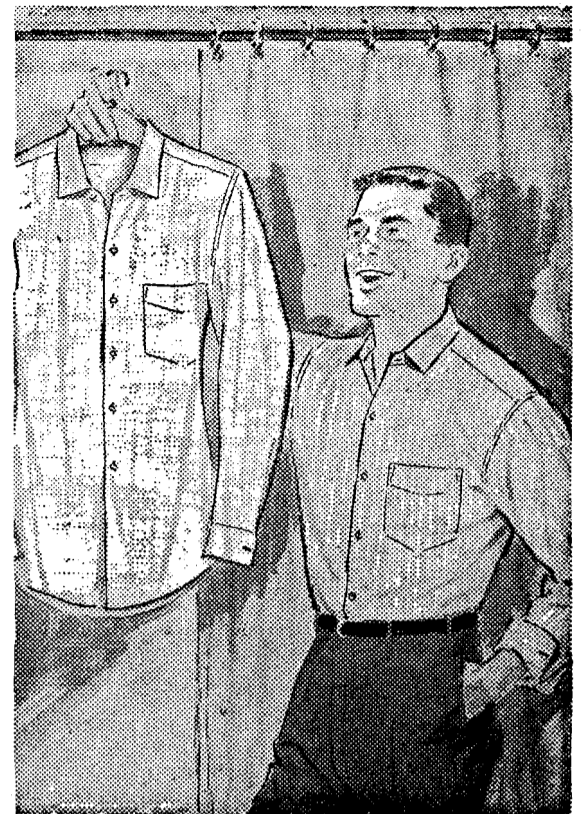
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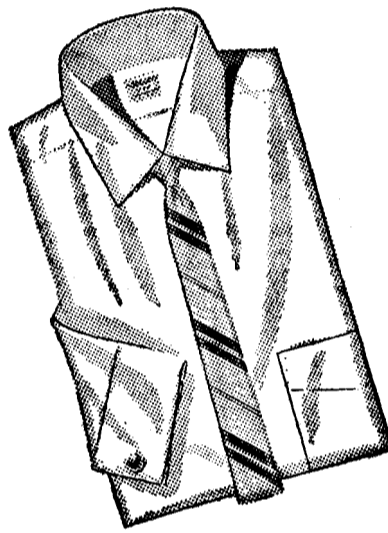
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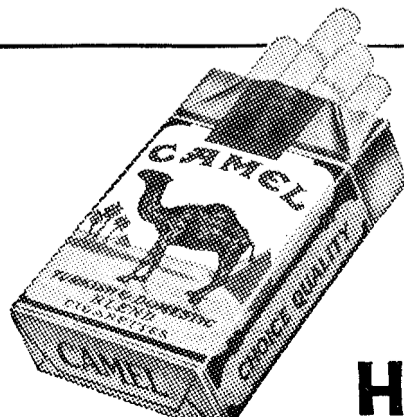
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Jazz

Stan Kenton - - Contemporary Concepts

By Lloyd Kamins

Capitol T666 featuring: Stan Kenton, piano; Bobby Clark, Ed Letty, Sam Noto, Al Porcino, Stu Williamson, trumpets; Don Davidson, Charlie Mariano, Lennie Niehaus, Bill Perkins, Dave Van Kriedt, saxophones; Gus Chappell, Bob Fitzpatrick, Carl Fontana, Don Kelly, Kent Larsen, trombones; Ralph Blaze, guitar; Max Bennett bass; Mel Lewis, drums.

This album is unquestionably one of Kenton's best. Although it could conceivably be called commercial, in that nothing pre-tentious or controversial is attempted, the album is simply the end result of over a decade of work. Kenton has passed the stage of controversy, and has essentially settled down to the task of perfecting his innovations.

Accent on Arrangements

The band has relatively few soloists of the first rank, and the accent is primarily on arrangements, either for their own sake or as driving frameworks for the horn up front. Bill Holman did all of these scores, with the exception of the Gerry Mulligan original, *Limelight*. Nothing is atonal or particularly raucous, and the result is a very pleasing and even a relaxing Kenton album, in sharp contrast to his *City of Glass* album. Don't misunderstand me, however; this is straight Kenton, no holds barred. Everything is climactic, as far as dynamics go, and it all swings.

The scores are impressive in their scope and in their execution. Here are the most difficult and most complex arrangements in use, and they are performed with complete precision and exactness, coupled with a driving pulse that is the band's trademark. The ensemble work is beyond reproach at all times, and the sections sound as one man. To be sure, almost everything is in successive degrees of forte, but there is still enough dynamic range within the stentorian Kenton crew to allay uniformity.

Bill Perkins walks off with the honors for this set. His rendition of *Yesterdays* is destined to be a jazz classic. Working with the stimulating format of Holman's superb score, Perkins extracts every bit of beauty inherent in the harmonic construction of the song. With his pure, Getz-like tone, and his flowing ideas, Perkins establishes himself as one of the most prominent tenor men of the day.

Stomping at the Savoy receives an unusual treatment. The rhythmic structure of the song is totally changed—for the better. Like oo man, a swinger! Niehaus flits across the changes of *Cherokee* at a backbreaking tempo, and Charlie Mariano takes a soaring solo on *Stella*, but nothing of worth is said in either case. Similarly, there are many nice trumpet solo passages that are perfectly adequate and are well woven into the framework of the song, but have little value in themselves. Perk is the only soloist who really wails,

and the band revolves about him.

The Kenton band, with approximately this personnel, is currently holding forth at the *Rendezvous Ballroom in Balboa*. In at least one man's opinion, there isn't a better dance band in captivity. The flood of sound issuing from the Kenton bandstand provides an indescribable sensation. Kenton must be seen in person for full appreciation of the band.

Indian Dance

Scurvey House had their traditional Indian dance last weekend. Several big men on campus wanted to come but all to no avail. They did have an uninvited Frenchman and his date who spent the evening making snide remarks about how unrealistic it was. This didn't bother them nearly as much as the fractured French that he used on the waiters. The only thing they could reply was "Huh, do you want orange or grape?"

Cops

One Maryann was induced by his date to buy a bottle of saspirelli for her younger brother age 15. Younger brother immediately went out and got in one of those headline smashing teenage riots. The cops trolled up and asked this young man where he obtained said saspirelli. "Why I got it from Maryann up at Caltwitch" quoth our young squealer. The cops immediately stormed over wanting a pound of flesh. Alas the poor cops got no satisfaction, the case was dismissed and Maryann is a much happier and wiser man.

Grumbled Grumbled

Ugly Ed found Lyod Kamins car in his private parking space. Doing what came naturally he pushed it out on the street. Where upon person or persons unknown came along and stole it.



Research Engineer Robert A. Thorpe, like many other engineers, mathematicians and physicists, came to IBM directly from college. Here he describes how he put his E. E. degree to work in the exciting new area of computer technology.

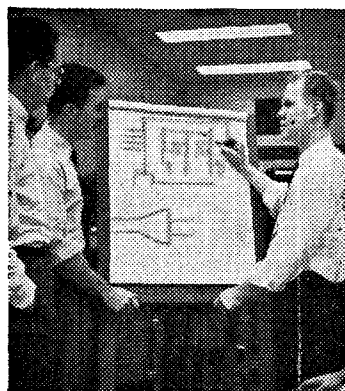
What's it like to be with IBM?

"I joined IBM for two reasons," Robert Thorpe recalls. "First, the tremendous company growth obviously offered every chance for advancement. Second, the area of work was exactly what I was looking for—transistors and their application to computer systems."

In June, 1955, Bob Thorpe decided to enter the IBM training program, where he studied the corporate structure, its Divisions and products. He received technical training in computer logic, programming, and components such as transistors, cores and tapes. By September, half his time was being devoted to an actual project; by the following March, he was on that project full time. "Our job was to transistorize six servo-amplifiers for the airborne bombing-navigational system," he recalls, "and we completed the project in April."

In Research (as in all of IBM), he works in a small group. "Our team consists of three E. E.'s and a technician. We start with an analysis of the over-all system and its components. Then we use modern design techniques involving the latest devices to implement the system." His group splits up occasionally to investigate special phases of a project but reunites in frequent sessions to coordinate their research activities.

Promoted to Associate Engineer



The "small-group" approach to research

In August, 1956, he was promoted to Associate Engineer. At that time he had been working on a design and development project for a D. C. sweep-restoring system for transistorized airborne radar data presentation. He worked on this project until it was completed in May, 1957.

Bob Thorpe was next assigned to the Circuit Logic Department. Here, he was concerned with research in new areas of computer technology—for example, magnetic logic and semi-conductor circuit components and systems which operate in "real time."

Recently, a "Process Control Technology Group" has been organized within the Circuit Logic Department. "Our primary function in this group," Bob Thorpe says, "is to study sampled-data systems for application to industrial process control. This work is theoretical and involves mathematical studies of representative systems and processes."

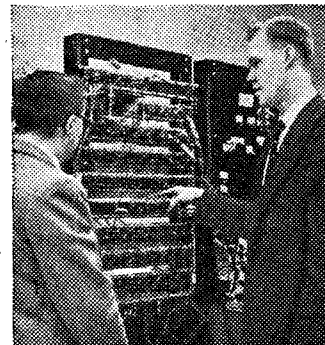
What does the future hold?

Bob Thorpe plans to continue in systems work and to develop "a more sophisticated approach to the analysis and synthesis of sampled-data control systems."

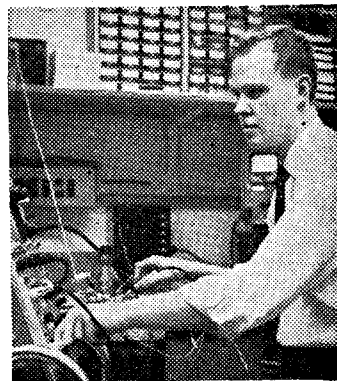
As his career develops, he can advance to still more challenging projects of a scientific nature or he can assume managerial responsibilities combining administrative and scientific talents.

Either way, the future is open. IBM Research is expanding enormously at the present time. A new Research Center is being constructed in Westchester County, N. Y., which will be the world headquarters for all IBM research centers in this country and Europe.

The fact that he is so much on his own, Bob Thorpe says, is what he likes best about IBM. "There's no 'over-the-shoulder' supervision. You schedule your own program and set your own pace."



New area of computer technology



Testing amplifier performance

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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CANDIDATES' STATEMENTS

President

MICHAEL GODFREY

Briefly, I would like to state a four point program concerning the Presidency of our Student Corporation.

1. Organize and coordinate a dynamic group effort in ASCIT operations.
2. Review in advance each major ExComm or BOD topic in order to guide intelligent discussion.
3. Inform the students of Corporation policies and activities through a California Tech "President's column."
4. Effectively promote student interests through established contacts with the faculty and administration.

As Secretary to the BOD and BOC I have gained the training necessary to the effective and vigorous execution of the duties of the President.

BILL McCLURE

To further a cliché, presidents must possess certain qualities to fulfill their offices.

The first two of these are well known: meeting people gracefully and organizing efficiently.

A third necessity is that of time. Any candidate must be willing to give, and must have, time to do the job.

Even more important than time is the contact of the candidate with the students. Since a president must primarily represent student opinion he must be in touch with the student body throughout his term.

Believing I possess the above qualities, I ask only that you vote for me if you agree.

DON OWINGS

What is important to you are my beliefs, for it is these which will condition my actions as president. First, I believe that any action of importance could be considered as long as possible to obtain the maximum thought upon the subject. Secondly, I feel that the Executive Committee should be used to the fullest to insure its success, and finally, with the increasing use of the president as a representative of the students, I feel he should be in the closest possible contact with the students. ASCIT President is a big responsibility, but one I want to accept.

Vice

President

RUSS PITZER

Concerning Vice-President, the ASCIT By-Laws state "His primary responsibility shall be to insure the continuance of the Honor System as a vital force among the students." The experience of being on the BOC really impressed me with the amount of responsibility the Honor System imposes.

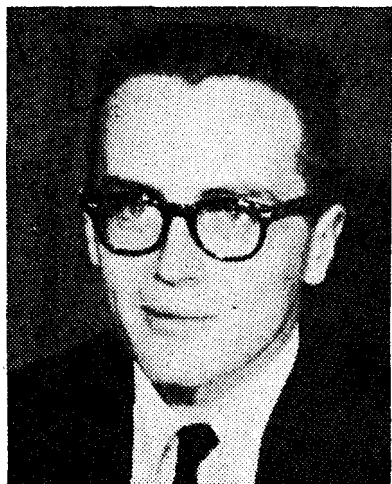
As a member of the BOC last year, I am quite interested in the change made by the recent amendment. It is that the Vice-President will be more concerned with the general responsibilities of ASCIT.

I think I could do a good job as Vice-President; I hope you agree with me.

JIM WILKINSON

The Vice-President's major concern will still be the BOC, whose importance cannot be minimized. Though secrecy is mandatory in individual cases, matters of policy deserve more general student body attention;

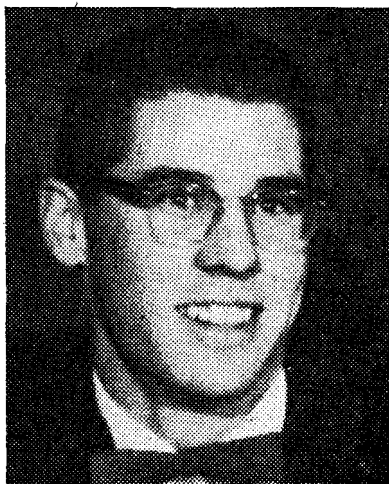
The Candidates For Corporation President



Michael Godfrey



Bill McClure



Don Owings

the system demands constant revitalizing and positive, dynamic leadership.

The Executive Committee is a new concept — a body whose main jobs are long-range thinking and decisions on matters of policy. To work, its members must have initiative, must not hesitate to express their opinions, and must not settle back "to watch." As a sponsor of the petition which led to this improvement, I sincerely hope its potential will be realized.

Secretary

KEITH BROWN

Next year's ASCIT secretary is going to face the problem of reviving the recently somewhat diminished communication between the interests of the student body and the actions of their government, particularly in relation to the interpretations of the new Executive Committee.

To meet this, I have developed a three-point program consisting of extensive personal contacts and interviews, clear minutes with summaries of the longer

(such as the Glee Club tour and an increased social program.) If reelected I will continue to vote for a liberal policy.

TOM JOVIN

Our ASCIT Board, saddled with inadequate organization, is increasingly drifting out of touch with the student body. An attempt has been made to revamp the by-laws, but what has been accomplished? Redistribution of duties within the Board, creation of a new planning, executive committee and, unfortunately, acquirement of greater complexity. Personally, I am not seeking the position of ASCIT Secretary; I have yet to meet a person who enjoys taking minutes. Instead, give me the chance to work on a Board which will do less talking, take more action, and give us something to vote for, not in spite of.

Treasurer

JERRY ARENSON

The formation of an Executive Committee by the Student Body was a step in the right direction. However, for the Executive Committee to function effectively, its members must be mature individuals having both the abilities and background enabling them to decide and discuss intelligently the policies with which the committee will be concerned.

As class president and treasurer, I feel I have gained the necessary experience to enable me to handle efficiently the fiscal duties of the ASCIT Treasurer and to help form a competent Executive Committee which will function as a melting pot of student opinion on basic policies.

ARTHUR RUBIN

Recent creation of the executive committee definitely emphasizes the treasurer's role as much more than the time consuming, if not too difficult task of bookkeeping. Work on a very similar job at Purdue has given me confidence that I can perform the routine treasurer duties competently and efficiently, allowing more time for more important responsibilities, namely, alert, thoughtful action on the Executive Board and the BOD. Being new on campus does present the problem of unfamiliarity, but I have an advantage in bringing fresh ideas and outlook. In campaigning and explaining my "fresh ideas," I hope to get your views.

DAVID SINGMASTER

I feel that I am the best qualified candidate for the office of ASCIT Treasurer. As experience I cite the following:

Assistant Treasurer of my High School General Organization which had a yearly budget

of \$25,000, approximately twice that of ASCIT. My duties included keeping books, in a manner similar to those of ASCIT, making monthly and quarterly reports and reconciling bank statements.

"Capitalist" of Ricketts House, involving businesses grossing \$2,500 yearly, considerably more than a class budget.

I feel that I have had probably more experience than any student in the handling of money matters on a large scale.

Business

Manager

FRANK GREENMAN

High — possibly highest — among the duties of the Business Manager is being a contributing member of the BOD, exhibiting maturity and responsibility one might gain and develop from serving, as I have, on the BOC. I believe I possess such maturity and responsibility as Business Manager requires. I feel I can bring more publicity for ASCIT events, both through the News

If I am elected I will make a sincere effort to see that student affairs are given the outside publicity which they deserve and have not received.

Athletic Manager

TONY LEONARD

In these next few lines, I will simply try to convince you that I would do the better job as next year's athletic manager.

My athletic and political background consists of three years' participation on the football and track teams and a year's service on a house executive committee as athletic manager.

This, plus my awareness of the various problems an ASCIT athletic manager faces, gained through discussions with Russ Pitzer and other board members, and my tremendous interest in other, non-athletic student affairs, I believe, makes me the logical choice for the future athletic manager.

WESLEY SHANKS

Since I have been freshman and sophomore athletic manager and out for sports year-round, I have learned a lot about athletics here. But the real requirement is a willingness to put in the work expected of an ASCIT athletic manager. Although this phrase "willingness to work" will probably be used by every candidate, I am absolutely sincere in saying that I have this desire not only to serve you as athletic manager but also as a member of the BOD.

I would appreciate your vote only if you think I can do the job you would like to see done.

Activities

Chairman

DOUG SHAKEL

Recent California Tech and Engineering and Science articles have pulled at least 60 percent of possible campaign material out from under most candidates. But there's always the voter.

Most campus activities are either loosely organized or self-sufficient to the verge of independence. The Activities Chairman should set the former on firmer ground and act as liaison between the latter and the BOD. Activities bearing the adjective "ASCIT" should be more closely connected with ASCIT.

In addition, a sufficient number of good assemblies should be presented and the cheerleading situation should be completely overhauled.

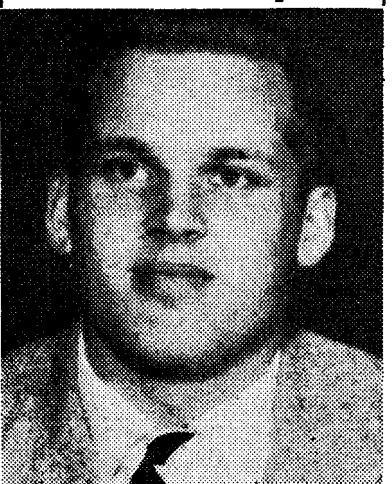
Those are my first thoughts. Fire at will!

BOB THOMPSON

The office of Activities Chairman is a new one created recently by amendments to ASCIT By-laws. As I see it, the new Activities Chairman should be not only the coordinator of the present ASCIT activities but should strive further to create new activities on campus and increase the caliber of existing ones, particularly the Thursday morning assemblies. I believe there is much need for improvement and extension of ASCIT activities in organization and in content within the confines of the available budget. This office is now unbounded by precedents; it will become what the man elected makes it.

(Continued on page 10)

For Veep



Russ Pitzer

discussions, and wider distribution of minutes around campus and to individuals. If I am elected, I hope that my broad contact with campus interests will help me to carry out this program conscientiously and effectively.

BRAD EFRON

The position of ASCIT Secretary is not primarily secretarial. True, he must do an effective job of recording and presenting the ideas of the BOD, but more important, he himself is expected to contribute to these ideas. As first assistant to the President and now a member of the Executive Committee, his opinions are of key importance in shaping Corporation policy.

During this past year on the BOD, I have generally voted to support projects that would expand student body activities

For Veep



Jim Wilkinson

Bureau and, directly, through the newspapers, equal to that publicity which other colleges enjoy. The job of coordinating publications I feel I can handle efficiently, establishing some on a more stable basis.

DAVID SPENCER

The ASCIT Business Manager will be instrumental to the success of the ASCIT Executive Committee. It will be his responsibility to relieve Senior members of the Board of time consuming duties, and to be effective, he should be experienced in ASCIT affairs. I have shown my interest in student affairs by activities such as writing for the California Tech, editing the Y's Beaver, working with the Educational Policies Committee, and managing varsity sports.

STATEMENTS

(Continued from page 9)

Social Chairman

FRANK CHILDS

ASCIT Social Chairman is not another name for First Representative. It is the new office whose main duty is to provide the student body with a complete social program. The Board of Directors, no longer concerned with long range policy, now aids the Social Chairman in this duty. I feel this is ideal, since my aim is the continued expansion of the social program. The student body deserves a program that is truly ASCIT size. I ask the chance to show my competence.

KEN DINWIDDIE

The hard part of being Social Chairman isn't the work, it's the sweat. The Social Chairman must direct and coordinate the efforts of all those involved in preparation of a social event. He must integrate the innumerable factors which differentiate a "swingin'" social event from a mediocre one. The only teacher of how to cope with the complexity involved is experience gained on the job. As Social Chairman of Blacker for the past year, I

have gained just such experience. I sincerely hope that I may utilize my experience to provide ASCIT with a truly great social program.

Rep-At-Large

PAT HENRY

The position of Representative-at-Large now entails the conduction of the Blood Drive and the Consolidated Charities Drive along with the former duties of the Second Representative. This job demands someone who is capable of accepting responsibility and tackling a great deal of hard work. A further requisite is that the man have the time, the energy, and above all, the desire to serve the student body and represent the freshman and sophomore classes.

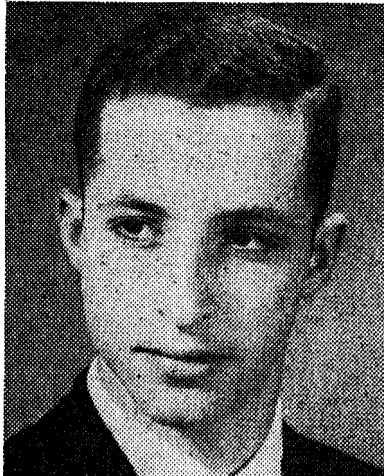
I feel that I can adequately fulfill the necessary qualifications and I hope that you will support me if I satisfy your own personal requirements.

GARY IHLER

Perhaps the easiest way to begin is to introduce myself. I'm Gary Ihler; I'm running for Representative at Large.

I'm interested in campus problems and I think I can do a good job in representing the students. I have several ideas for expand-

Editor



Mike Milder

ing the job, including seeing the merchants of the area, soliciting discounts for Techmen, and cooperating with the other officers in details and sidelines of their programs; if elected I am willing to work hard to see that a conscientious job is done on these.

SID LEIBOVICH

The new duties of the Representative-at-Large will call for a person who has not only the interest and determination to do a good job, but also the time to see that the job is done. I believe that I qualify in these respects.

In the past two terms, I have served as Frosh class president, member of the BOC, and member of the ASCIT Educational Policies Committee. The ideas and experience gained in these positions will, I believe, enable me to contribute to BOD proceedings, and will help to make me a useful representative of the student body.

TOM TISCH

As Representative at Large, there are three things I want. The first is to do my work well and help the other officers in order to make the Board of Directors operate more smoothly. Secondly, I would like to represent actively, using ideas that come from everyone, to better the school. Most important, I support a program of moderate action based on the new concept of the BOD — that it is primarily a day-to-day governing body. I hope that I may have the privilege of serving you in this way.

I will very much appreciate your vote next Thursday.

California Tech Editor

MIKE MILDER

The California Tech has established a background of technical competence that, can be maintained and improved.

But a reorganized and revitalized ASCIT, together with Caltech's rapidly increasing prominence, presents a real challenge to the Tech in its role as major representative of the student body, as source of information on campus activities, and as medium for expression of student opinion.

With some dedication and hard work, the Tech can achieve top stature among college newspapers.

MARTIN LUTHER KING

(Continued from page 1)

Dabney Hall will highlight the morning of the final day of the visit. King will eat lunch in Blacker House, then hold office hours again in the Y from 3 to 5.

His Thursday dinner will be in Dabney House. Following is a meeting with the Y Student Cabinet at the Y residence.

King declared as a youth that he wanted to "be involved in the heart" of the racial problem and he chose the ministry as the profession through which to act because he had been educated in the church and he found religion "intellectually respectable as well as emotionally satisfying."

As President of the Montgomery Improvement Association, King led the year-long boycott that culminated in a court injunction granting Negroes the right to ride side-by-side with whites. He adamantly announces: "We Southern Negroes believe that it is essential to defend the right of equality now. From this position we will not and cannot retreat."

He is optimistic about the future of his race: "I think the diehards are coming to realize that the old system is at its dying point," yet he urges that the struggle continue with "dignity" and lack of violence.

Secretary Of BOC

BILL BAUER

As a member of the BOC, the secretary takes part in its deliberations and, although he does not vote, he assists the other representatives in reaching decisions. As an officer he must perform the usual secretarial functions, as well as assist the vice-president in acting as liaison between the Board and the deans.

I feel that my past experience as a representative on the Board as well as on student committees, such as Leaders of America, and as assistant editor of the Big T, will help me to perform these duties.

REAL ITALIAN ATMOSPHERE

ORIGINAL

Little Tony's

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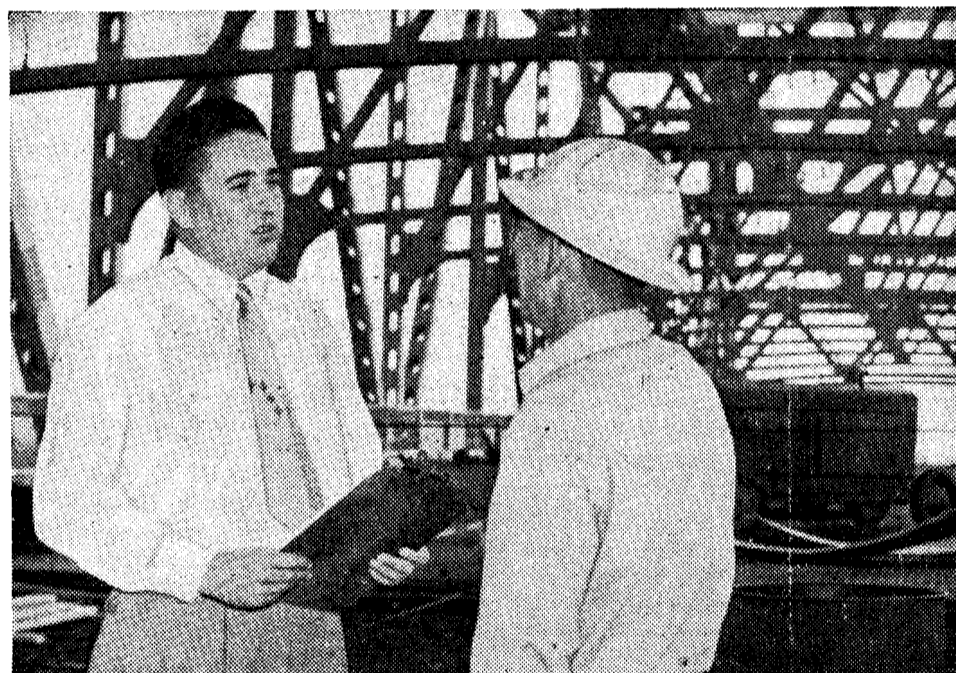
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Pizza Spaghetti Cocktails

New . . . Parking in Rear

A Campus-to-Career Case History



Bill Rhode (left) at the site of New Orleans' new Claiborne Street Industrial Canal Bridge.

"Problems keep life interesting for a telephone engineer"

"I've taken part in all kinds of engineering projects during the five years I've been with the telephone company," says Bill Rhode, M.E., Tulane, '52. "Each project brings special problems to solve.

"Take a couple of recent jobs I did as examples. One was to plan and oversee the relocation of telephone facilities near a new drawbridge. The job included designs for attaching telephone cable to the finished bridge and for providing service to the bridge-tender's office and the locks.

"The other job was completely dif-

ferent. I was asked to make an experimental installation of some newly developed line concentrator equipment. After selecting the test location, I engineered facilities for the remote concentrator unit, and trunk plant to the central office.

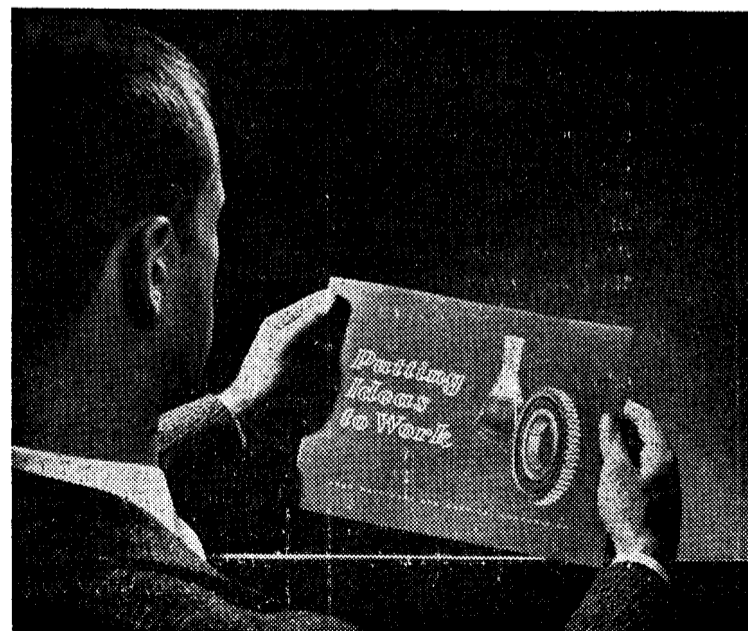
"Another thing about these jobs — they're a result of the growth of the telephone business. Not only do problems like these keep life interesting for a telephone engineer, but they mean that careers are full of opportunities to show what you can do and get ahead."

Wilmer J. Rhode is with Southern Bell Telephone and Telegraph Company. He is one of many young men who are finding interesting and rewarding careers with the Bell Telephone Companies. Ask your placement officer for information about the careers these companies offer.



BELL TELEPHONE COMPANIES

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.

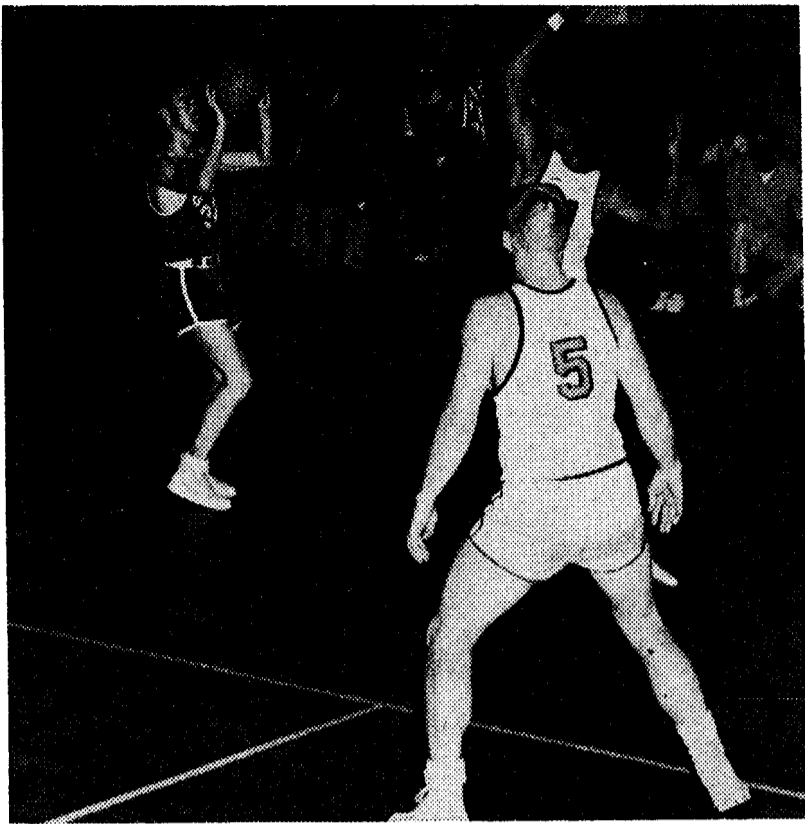
Fullerton J. C. Meets CIT in Alumni Pool

Tech's varsity swimmers, undefeated in two starts, face Fullerton J. C.'s powerful natators this Friday at 4:00 in the Alumni Pool. Fullerton handily overpowered the Beavers during water-polo season, and will be out to repeat in the racing aspects. It stacks up as a very close meet with lots of exciting races in store.

Tech is rapidly rounding into form as demonstrated in the Santa Monica meet last Friday. Owings, Rees, Smoak, Blandford, and Brown all garnered points individually and powered the Beavers to victories in both relay events. Pete Born hung up a first in the 50 freestyle. Final score was Tech 47, S. M. 39.

The results:

- 400 medley — Tech (Smoak, Owings Blandford, Rees) 5:15.9.
- 220 free — A. Oversier (SM) R. Oversier (SM), Thatcher (T) 2:32.2.
- 50 free — Born (T), Raylings (SM), Asmus (T) 24.6.
- Diving — Barkley (SM), Rony (T), DeWeese (SM).
- 200 butterfly — Kaiser (SM), Blandford (T), Sartoris (SM) 2:39.3.
- 100 free — Brown (T), Rawlings (SM), Suskin (SM) 58.2.
- 200 back — Smoak (T), Kaiser (SM), Saunders (SM) 2:43.9.
- 440 free — Rees (T), A. Oversier (SM), R. Oversier (SM) 5:17.9.
- 200 breast — Owings (T), Shute (SM), Shetrone (SM) 2:39.
- Freestyle relay—Tech (Blandford, Smoak, Brown, Rees) 3:51.7.



John Stene hit for two on this play. Oxy won anyway 72-67.

Poets, UCR Here to End Hoop Season; Tech Five Spilled by Pomona, Cal Poly

Caltech's basketball teams wind up the season this weekend, meeting powerful Whittier and weak UCR on the home court. Whittier invades the Scott Brown Gym on Friday with Riverside playing the season finale on the following night; frosh teams play at 6:30, the varsities at 8:00.

Whittier moved into a tie for the league lead and, having once beaten the co-leaders, Redlands, are threatening to run away with all the honors. SCC standings as of 2-16-58:

Team	W	L	PCT.
Redlands	4	1	.800
Whittier	4	1	.800
Pom.-Clar.	4	2	.667
Occidental	2	3	.400
Caltech	0	7	.000

The Poets, paced by Bill Harmon, the SCC's third best scorer, and by John Ogle, second in SCC rebounds, will be heavy favorites to repeat an earlier win over the Beavers. Tech will be looking for the upset. They'll hustle and fight all the way and just might catch Whittier dozing.

On Saturday the situation will be reversed. UCR has shown little prowess throughout the season, and, while improved, must go all out to reverse an earlier defeat at the hands of Tech's casabamen.

Track Team Hosts PCC

Coach Bert LaBrucherie's thin-clads face their first opponents this Saturday at 2:00. The trackmen of Pasadena College will face them in TP.

Prospects for the varsity do not promise to be stupendous. However, Tech could have its best season in several years if injuries do not return to Ed Krehbiel, Dick Van Kirk or Tony Leonard, who will backbone the squad. However, the weight events do not promise well.

Opinion

AS I SEE IT

by Dick Van Kirk

This is the final week of the basketball season, and I'd like to take the opportunity to put in a plug for the varsity basketball coach, Gene Rock, who's done a magnificent job in his first season as head coach at the Institute. What I admire about the man, aside from his wonderful insight into the way his team should play the game, is the tact and polish with which he handles the men on the squad. One mark of a good coach is the attitude which the second and third stringers on the squad take toward the man who keeps them on the bench: the coach.

On this year's squad I have not heard one remark about the coach's mishandling of players and misjudging of talent. The chief reason for this is that Coach Rock has done such a good job in handling his players and estimating their talent and potential. He's admired and respected by all of his players, no mean task on a large squad like Caltech's.

I just hope he doesn't get grabbed up by some larger school before he has a chance to help quite a few more Caltech students learn not only about basketball, but also about intangibles like sportsmanship, confidence, perseverance, cooperation and poise. One mark of a good coach is the attitude which the second and third stringers on the squad take toward the man who keeps them on the bench: the coach.

I give a heartfelt thank you on behalf of all the team members for a job well done and add that I envy the underclassmen who will have the opportunity to play for him next season. It sounds trite and corny, but sometimes only trite and corny phrases contain the words to describe a person's attitudes.

Thanks again, coach.

Netmen Tech Tennismen In Doubles Win

Caltech's Varsity tennis team moved to PCC for a doubles match last Thursday, emerging with a 3-1 victory. The scores: Cormia-Walsh (CIT) def. Barnes-Hagstrom (PCC) 8-6, 6-4; Tokheim-Warrener (CIT) def. Kref-Fry (PCC) 8-6, 2-6, 6-3; Alvarez-Brown (PCC) def. Butterfield-Morris (CIT) 6-3, 3-6, 6-3; Reynolds-Frasier (CIT) def. Schwicker-Williams (PCC) 10-8, 8-6.

With a double victory over PCC the varsity tennis team heads for this Saturday's important league match with Oxy.

Frosh tennis gets a running start this week with two matches scheduled, one against South Pasadena High and another against Oxy Saturday. Though the team hasn't looked really good as yet, the season will bring a fair share of victories.

Beaver Nine Opens 1958 Season; Pitchers Hold Key

Coach Ed Preisler's varsity baseball team will swing into the heaviest schedule in recent years this Saturday, Feb. 27, when they meet Cal Poly in a double-header on the Bronco's diamond. The murderous 34-game schedule will include the annual four-day road trip to San Diego during spring vacation.

Preview '58

The outlook is rather uncertain for the Beavers, who lost several lettermen through graduation. The seven doubleheaders will require at least two frontline pitchers, and preferably three. At the moment there are several candidates for these positions, with the leading contenders being John Walsh, Tony Howell. Others who will supply the competition are newcomer John Price, transfer Marty Kaplan, and Sam Trotter, up from last year's frosh team. If all these men get plenty of work in the next few weeks much of the

anxiety about this season will be relieved.

Catching will be a defensive strong spot with indestructible Bill Kern hoping to play every game. If the need arises Dave Blakemore can be called upon to fill in.

The Infield

A herd of hustling infielders has shown an able bit of defensive play. Those who demonstrate ability to hit will probably cinch a starting berth. Returning shortstop Fred Newman will add experience and that needed batting power. At third base Blakemore and Dave Teal will struggle for top spot.

Second base sees Dave Leeson with the edge over Tom Jovin. Haunting both however is Dennis Kuli, a regular last season, but presently ineligible. On first base Bob Schenter rates the nod over Lance Wallace, who led the frosh last year with a .419 batting average.

The Outfield

A very good defensive outfield will be a Beaver trademark this season. Dale Parkhurst, sidelined by an injury last year, will patrol left, while Chuck Stone is the most probable starting right fielder. In center will be Wes Shanks or dark-horse Bob Emmerling.

Summarizing, the team's success depends on the mound. If Price finds the control for his fast ball, Walsh forsakes the tennis courts, or Kaplan, Trotter and Howell improve substantially, Caltech can look forward to a championship season.

to the Broncos 1. Newman was high point man for the contest with 27.

As of Feb. 17, here are Tech's leading scorers:

Name	FG	FTA	FTM	TP
F. Newman	117	69	47	281
B. Emmerling	60	29	18	138
G. Converse	48	54	31	127
J. Stene	49	39	26	124
S. Nelson	39	56	44	122

Ricketts Grabs IH Trophy Lead With Track Win; Two Records Fall

The Interhouse Track meet provided one of the closest and keenest competitions seen this year in Interhouse. The race was undecided up to the next to last event, the 120 lows. Then Ricketts took first and second to win.

The field events were held Thursday because of the Caltech-Scripps conference Saturday. In the pole vault John Weaver (R) won first, handily setting a new meet record at 11'5 1/4" and just missing 12'. Tony Howell (D) outvaulted Dick Herlein (F) for second.

The high jump saw a tie for first at 5'8" between Bob Jewett (F) and John Price (R). Tom Gunckel set a new meet record of 20'2 3/4" in the broad ump, just 2 1/2 feet short of Dick Van Kirk's school record.

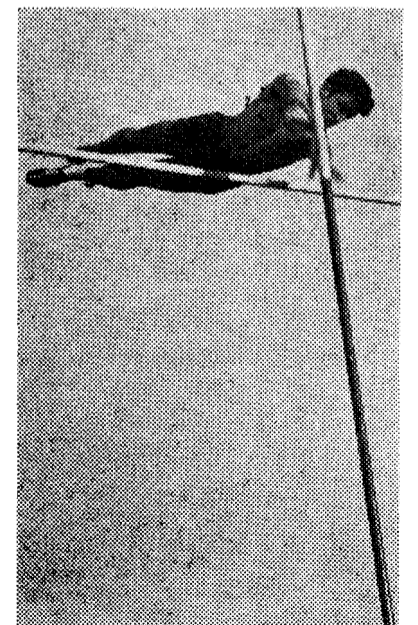
Russ Pitzer (D) got off a throw of 38'4", his best of the season, narrowly taking the shot put. Freshman Doug Stewart (R) lost by an inch and a quarter to place second. In the discus, however, Doug took first from Russ by a few feet. The javelin was won by John Stevens (F).

The results at the end of the day: D. 22-1/3; R. 20; F. 19; B. 4-2/3; T. O.

Friday started off with the 1320, which was won by Mike Ruecker (R) in a fair time of 3:39.7. Throop club then won its first points when Steve Ahrens captured the 330. In the 100, Dick Herlein won by a breast from John Weaver. Frank Childs (R) won the 70 highs from Tony Howell.

In the 660, Neil deGaston (D) won first as Mike Ruecker slowed at the finish. Dabney also placed a fourth and Fleming third. Herlein again took first from Weaver in the 220 with a time of 23 flat. Lee Hood (B) took third and Ahrens won Throop's other point. Score: D 35-1/3, F 38, R 42.

Ricketts then sewed up the meet by placing one-two in the 120 lows. John Price outran Ed Krehbiel, running on the side, for a new record of 13.9. Childs placed second, just ahead of Howell. In the relay, Fleming won, beating the varsity team by a yard. Final score: R 53; F 43; D 40-1/3; B 11-2/3; T 6.



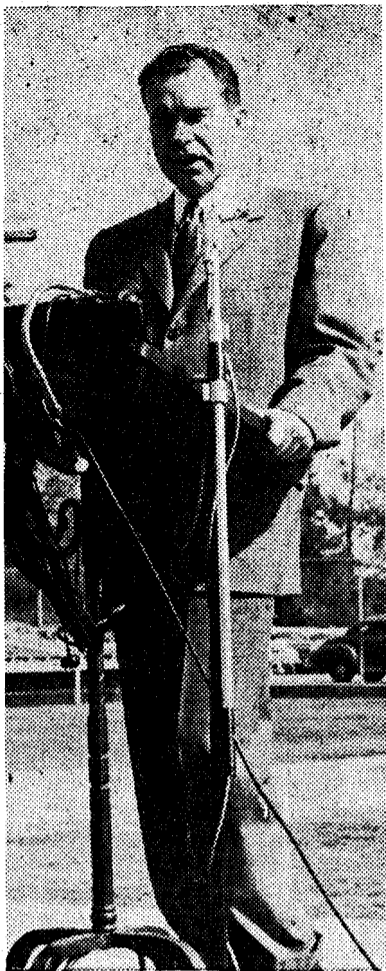
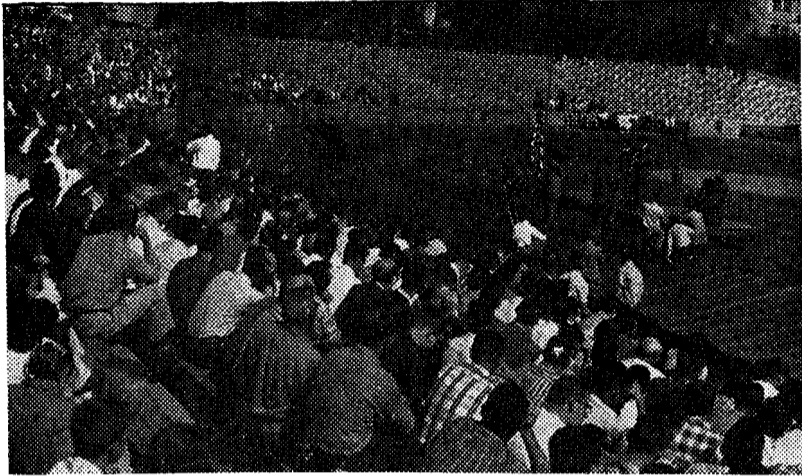
John Weaver goes up and over the bar at 11' 5" to set new IH track record.

I H Standings

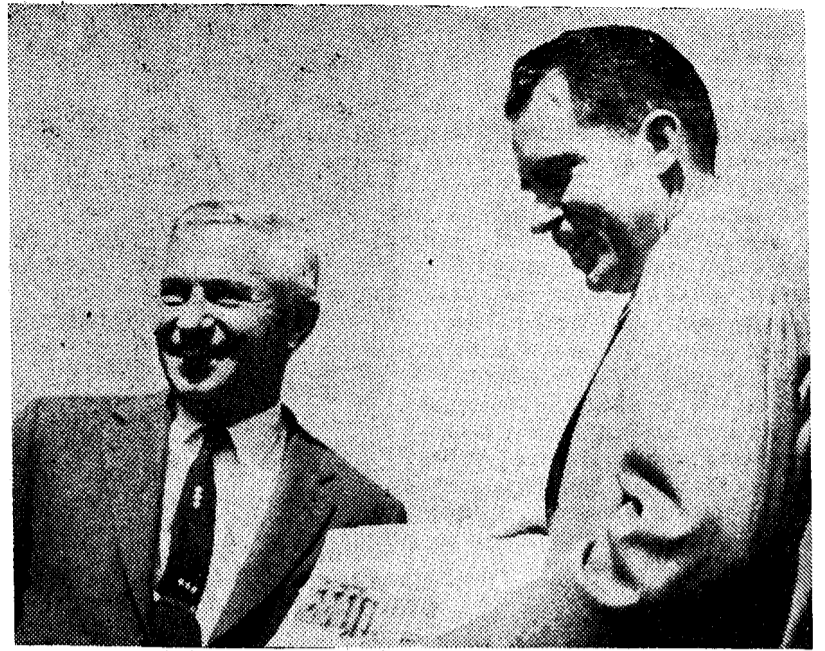
Ricketts	76 1/2
Blacker	55
Fleming	52
Dabney	52
Throop	44 1/2



Above: Vice President Richard Nixon grins at off-campus admirer as Tech's own Lt. A. G. Newton casts watchful glance. Below: Capacity crowd gathers in bleachers for Nixon's address.



Nixon stands to deliver address to Caltech community (see story P. 1).



Institute President Lee A. DuBridge chats with Nixon.

Top Music, Top Setting Mark Big Winter Formal

Annual ASCIT Event Features Nelson Riddle

The popular 18-piece orchestra of Nelson Riddle and the luxurious Crystal Ballroom of the Beverly Hills Hotel will blend for the entertainment of dancing couples next Friday, February 28, as the ASCIT presents the heralded Winter Formal.

Arrangements made by entrepreneur Tony Iorillo call for the music to begin at 9:00 and end at 1:00. Refreshments will be provided for the expected throng of formally attired couples, as a good portion of Caltech is expected.

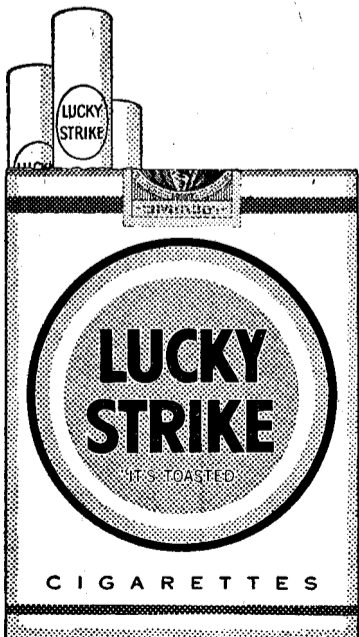
Dress will be formal: midnight blue tuxedos for men and formal gowns for their dates. Iorillo has made special arrangements with Dedrick's Tux Shop, 230 S. Lake Ave., for a low rate to Techmen. Bouquets for the affair are available at a special price from Jonkers Flower Shop. All those attending will be expected to be in formal dress, in order to be in keeping with the tenor of the dance.

Tickets are available from Tony Iorillo and Brad Efron at a cost of \$2.00 per couple. All graduate students are cordially invited to attend; they are requested to contact Iorillo for tickets.

Sticklers!



25TH-CENTURY SPACESHIPS? They may have wall-to-wall gravity, wide-screen radar and pine-scented oxygen. But one thing's sure—they'll be loaded with Luckies! After all, what on earth (or off) tastes better than a Lucky? So when man makes his splash in the Big Dipper, Luckies will be a *Stellar Seller!* (It's universal knowledge that you can't beat fine, light, good-tasting tobacco that's toasted to taste even better.) But don't put off till the 25th century what you can do today. Try Luckies right now!



STUDENTS! MAKE \$25

Do you like to shirk work? Here's some easy money—start Stickling! We'll pay \$25 for every Stickler we print—and for hundreds more that never get used. Sticklers are simple riddles with two-word rhyming answers. Both words must have the same number of syllables. (Don't do drawings.) Send your Sticklers with your name, address, college and class to Happy-Joe-Lucky, Box 67A, Mount Vernon, N. Y.

WHAT IS A BOX FOR STORING FIVE-DOLLAR BILLS?

RICHARD BARTOLOMEI, HOPSTRA *Fin Tin*

WHAT IS A SEASONAL MUSICIAN?

BENTON BASSETT, SUMMER DRUMMER PRINCETON *Summer Drummer*

WHAT IS A CROOKED GAMBLING BOAT?

BETTE BROWN, U. OF CINCINNATI *Gyp Ship*

WHAT IS A MAN WHO FIXES TRAFFIC SIGNALS?

ROGER COURTNEY, SACRAMENTO STATE *Blinker Tinker*

WHAT IS A FAIR-WEATHER FRIEND?

MICHAEL BURKE, JR., PENN. STATE *Phony Crony*

WHAT IS AN ARGUMENT BETWEEN DONKEYS?

PAUL HARRINGTON, PROVIDENCE COLL. *Bray Fray*

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