THE TECH

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Levy Withdraws — Bowman, Kaufman In Race

Secretariat Sets March 13 Election Date

The Elections Division of the Secretariat has announced Tuesday, March 13, as the date for Undergraduate Association President and class officer elections. Nomination petitions will be available beginning today in Litchfield Lounge, Walker Memorial.

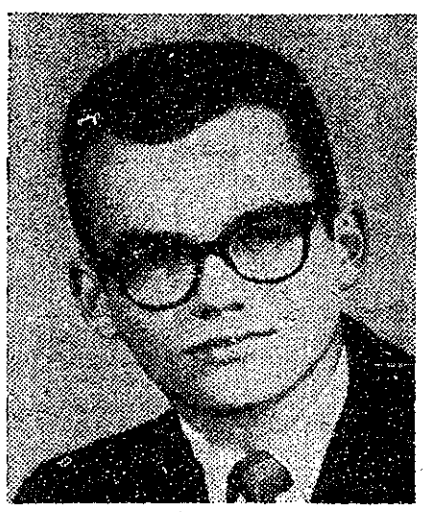
Petitions must be returned, fully executed, by 5 p. m. Friday, March 2, to be valid. Candidates for class officers must secure the signatures of at least ten per cent of their respective classes, UAP candidates must secure the signatures of at least ten per cent of the undergraduate student body.

Two candidates, Woody Bowman and Steve Kaufman (both '63), have declared for the UAP race, from which Frank Levy has withdrawn (see letter page 4). Of the three class elections to be decided on the same day, each has the Presidential candidate thus far: Class of '63, Eliot Bird; Class of '64, Duncan Miller; Class of '65, Marshall Fisher. Statements and pictures of these and new entrants will appear in next week's *The Tech*.

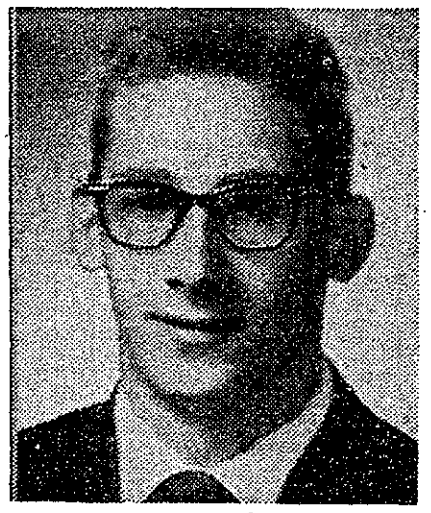
All unusual forms of electioneering must be cleared through the Secretariat. Questions involving the elections should be directed to James Champy, Chairman of the Elections and Constitutions Division of the Secretariat, in Litchfield Lounge.

Freshman Council elections next week will be conducted at each section's first 21.02 class meeting. All members of the freshman class are eligible for election, and interested candidates should be prepared to present their views on the council. Ballots will be counted using the preferential system.

Nominations for the chairmanships of the subcommittees of the Institute Committee will be received at the Inscomm meeting tomorrow, February 15. Interested parties should contact members of Inscomm, and questions concerning the chairmanship elections should be directed to Jerry Katell, chairman of the Secretariat.



Woody Bowman



Steve Kaufman

Seventh Of Series — Dr. Towne Speaks

Provost Townes Details Early Maser Development

By Victor B. Schneider '62

Dr. Charles H. Townes spoke about the development of the maser and about its future role in our technology, before a capacity audience in Kresge Auditorium last Tuesday evening.

The seventh guest speaker in the series of eight Lincoln Decennial Lectures produced by MIT's Lincoln Laboratories, Dr. Townes demonstrated how the maser (acronym for "microwave amplification by stimulated emission of radiation") can be used to amplify and produce oscillations over portions of the spectrum ranging from milliwave radio signals to monochromatic, coherent light signals. Because of the unusual stability of its oscillations, the maser can serve as an astronomer's time standard.

Dr. Townes emphasized the extent to which "scientific knowledge is so fruitfully accumulative." His maser, for example, is a creature of the present scientific age, something which could not have been discovered by an inventor using the facilities of a home workshop. The maser would not have been possible without the great work done in spectroscopy during the 1920's, nor without the present liquid helium technology, the manufacture of synthetic ruby, the discovery of ferrite materials, and a great number of other such accumulative steps.

Calculations On Envelope

The second world war stimulated research into microwaves and microwave communications because of the importance of radar to the war effort. Dr. Townes, working at Bell Telephone Laboratories, became interested in the new field of microwave spectroscopy and in the use of such research as a tool for the study of atoms and molecules. The audience at Kresge Auditorium heard part of the text of a memorandum dating from 1944 in which an engineering researcher spoke of the possibility of using molecules and atoms as circuit elements in high frequency communications equipment.

Such were the beginnings of an idea which came to fruition early one morning in the spring of 1951 while Dr. Townes was attending a conference on milliwave radiation in Washington, D.C. The habits acquired from life with a vigorous family awoke him early, and he went out to watch the azaleas in bloom in Franklin Park while waiting for the restaurants to open. Musing on the problem of obtaining controlled microwave energy from molecules, while the azaleas sat before him, he calculated "on the usual back of an envelope" the power necessary to introduce and sustain oscillations of molecules in a resonant box. His considerations were that, under equilibrium conditions, more molecules in the box would be in a lower (unexcited) state, and hence would not be prone to give off energy in any predictable or controlled fashion. With the addition of high fre-

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Four Serve At Mock UN Session In Montreal; Represent India

Four students from MIT served as representatives at a model United Nations convention in Montreal, Quebec, from Wednesday, February 7, to Saturday, February 10. Frank Osha '62, the UAP, Vijay Shah '62, chairman of the International Program Committee, Adi Godrej '63, the Indian representative on the IPC, and Steven Brams '62, a senior in the political science department, formed the MIT delegation, which represented India.

The conference, cosponsored by the University of Montreal, Sir George Williams University, McGill University, and Loyola College, is an annual event begun four years ago. Seventy colleges and universities from Mexico, the United States, and Canada sent delegations representing 102 of the 104 United Nations members.

The conference was run much like the actual UN, with sessions of the General Assembly, Security Council, and Trusteeship Council. The sessions were conducted in English and French with simultaneous translation for those who could not speak one of the languages.

Problems which have confronted the real UN, such as the financial standing of the UN, the seating of the Chinese Peiping government, and Kashmir problem, and colonialism, were investigated, discussed, and voted upon.

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The next issue of **The Tech** will be published on Tuesday, February 20. News deadline Sunday, 7 p.m.

New Garage To Be Built

Three Construction Projects To Be Completed By Fall

Three of the six major construction projects around the Institute should be completed by the time school opens next semester. No starting date has yet been set for the Student Union.

Construction should start on the new four level parking structure July, 1962. This building will be completed near July, 1963 at a cost of about $1. million. This facility will hold about five hundred cars and will be located by the Metropolitan Storage Warehouse.

The Cenco Building, adjacent to the Institute's main academic campus, will be equipped with graduate and undergraduate laboratories, seminar rooms, observation, testing, and office facilities. Renovation of this center used in the study of behavioral sciences should be completed by late 1962 at a cost of $600,000.

MIT has begun converting the 140,000 square feet of floor space in the former Ward Baking Company Building for use as the National Magnet Laboratory. This $6 million project will involve the development of power facilities to serve the magnet laboratory, magnet research areas, preparation laboratories, assembly areas, and administrative and faculty office space. Work should be completed in September, 1962.

Expansion of the Radiochemistry facilities, relocation of the Physical Plant, and additions to the Institute cyclotron are all expected to be completed by October, 1962.

Construction has already begun on the $5 million Center of Earth Science. This structure, MIT's first tower building, will provide about 120,000 square feet of floor space for use by geologists, geophysicists, meteorologists, and oceanographers. The building is expected to be completed by September, 1963.

Expanded facilities for married and women students should be completed in September, 1963.

Projects under planning are a Life Science Center, Materials Center, boathouse, Nuclear Engineering facilities expansion, communications center, and graduate center. Preliminary planning will begin on an Astronautics center in a few months.

IDC's 'Twisteroo' To Have Atmosphere Of Peppermint Lounge

A "Twisteroo," with the atmosphere of the "Peppermint Lounge," is planned for this Friday by the Informal Dance Committee. It will begin at 8 p.m., in Walker.

Mel Scott's Orchestra will provide a varied program of casual dance music, as well as tunes for twisting.

Admission is $1.25 for men and $.75 for girls. Advance tickets are on sale at the Twisteroo booth in Building 10.

Freshmen May Obtain Quiz Books Until Friday

Friday is deadline for Freshmen to obtain the second term quiz book. It is available to all those who purchased the first term quiz book.

Copies may be obtained in 50-256 between 12:30 and 1:30 p.m.

CORE Founder To Speak Tomorrow In Second Half Of Debate Series

James Farmer, National Director of the Congress of Racial Equality, will speak tomorrow night, February 15, at 8 p.m., in Compton Lecture Hall (26-100). The speech, which will be followed by a question and answer period, is sponsored by the MIT Civil Rights Committee.

Eric Johnston, director of public relations, State of Mississippi. (Photo by Conrad Grundlehner '64)

Mr. Farmer has been a pioneer in developing nonviolent direct-action methods for solving race relation problems. He was one of the founders of CORE, and served as the first National Chairman.

Mr. Farmer led the original CORE Freedom Ride to Jackson, Mississippi, where he spent forty days in various prisons.

Erle Johnston, Public Relations Director of the Mississippi State Sovereignty Commission, gave a talk in Kresge last Wednesday, supporting Mississippi's racial policy. A complete summary of this part of the debate may be found on page five.

Urban Studies Stipends

Joint Center Awards Four Grants

The Joint Center for Urban Studies of MIT and Harvard will award two Doctoral Research Fellowships for the year 1962-63.

The grants have been named in honor of the late Samuel Stouffer, Harvard sociologist. They are open to all graduate students at Harvard and MIT writing a dissertation on urban life. The recipients of these fellowships will receive a stipend of $5,500 for the year, during which time they will be associated with the Joint Center.

The Joint Center will also award two Venezuelan Doctoral Research Fellowships for the academic year 1962-63, open to all graduate students at Harvard and MIT, writing a dissertation on the Orinoco-Caroni region of Southeastern Venezuela the spring of 1961.

The purpose of these Fellowships is to further research in urban and regional studies, whose results will be published by the Harvard and MIT Press.

For more information, contact the Joint Center for Urban Studies, 65 Church Street, Cambridge 38, or call Mr. John R. Sevier, UN 4-8060.

Many Endorsees — 500 From Boston

Peace Walk Gains Support, Problems

By Don Goldstein '65

The Walk in Washington, to occur this Friday and Saturday, is unprecedented in many ways, only one of them being the policy proposal discussed last week in The Tech. From sheer numbers of participants—at least 2500 or 3000 students are now expected—the demonstration will undoubtedly gain both in influence and in headaches. But the myriad problems—transportation, money, appointments, and many others—though they may not be fully resolved until Friday morning, have been and are being capably attacked by the Boston Co-ordinating Committee in this area, and by similar groups in other areas that are sending demonstrators to the nation's capital.

The most crucial problem of all, that of persuading concerned students to act by coming to Washington, breaks down into about three sub-problems, all calling for effective and widespread publicity. First, there was the task of contacting leaders of existing national, regional, and campus organizations already active and committed to the struggle for a meaningful peace with nuclear or total disarmament. Such groups, including Student SANE, the Student Peace Union, and the Fellowship of Reconciliation, cover the entire range of the peace movement (certainly not united in its beliefs or major efforts) from pacifists to those who wish only a limitation of the arms race in which the US would retain its deterrent capability. An appeal for specific action made to all of them would, therefore, have to be fairly general in policy, with the emphasis laid upon the concerns which all the groups have in common.

A preliminary flier sent to these groups in November went a long way toward the achievement of such an appeal. It began, "It is time to stop merely talking about the student peace movement, it is time to do something about it. President Kennedy has told us to ask not what our country can do for us, but rather what we can do for our country. But first we must ask what our country is doing—and it certainly seems that we are on the road to war, that a continued arms race can maintain neither peace nor freedom."

Rallies Publicize Walk

The second problem, certainly at least as important as the notification of peace groups, was the publicization of the Walk on the campus and local level among individuals, both members and non-members of the peace groups.

This essential job was accomplished by means of rallies, meetings, lectures—really, anything that would attract people interested in possible action for peace and disarmament. Harvard's Tocsin held a huge rally during December, MIT's RADP had one featuring speaker Prof. Charles Coryell January 17, and similar meetings were staged at other colleges.

The full publicity apparatus of Turn Toward Peace, SANE, and the many other national groups have been employed in publicizing these meetings and, of course, the Walk itself.

The third sub-problem is a continuing one: that of keeping informed any and all people who indicate an interest in coming on the Walk. If contact is not re-established and maintained with students who show interest, they are likely to forget about the Walk, lose enthusiasm, make other plans, or in some other way drop out of the picture.

California Sends Planeload

At this stage the numbers of students expected from each area is still indefinite. The largest single contribution will be from New England, 8 or 9 hundred, with about 500 coming from the Boston area alone. Another 7 or 8 hundred will come from the midwest, particularly the Chicago area, Ohio schools, Wisconsin and Michigan.

The University of Chicago, which has been very active in the project, will send about three busloads of students. An unfortunate conflict with another demonstration scheduled at the same time will cut down attendance from the New York area, but at least 150 or so are expected.

The Berkeley campus of the University of California, a leader in the peace movement, will send a planeload of students, according to present plans! An integrated busload of peace marchers from Atlanta, Georgia, plan to combine their Walk effort with a "freedom ride" on US Route 40, where they will test restaurants for segregated seating policies.

Student interest, in short, seems to be high, and turnout of more than 3000 would be significant, but in no way surprising to the Walk's leaders. The interest would do little positive good, however, if adequate transportation to Washington were not available, or if the cost were prohibitive for many students.

This problem, involving mainly footwork and phonecalls, has been left to the local coordinating committees. Most of them, including the Boston Commit-

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Coop Management Features Two Parts: One Incorporated, One Not

By Tom Maugh '65
(Part II of Three Parts)

Although last year there were over 43,000 members in the Harvard Co-operative Society, few of them have any idea of the actual way in which it is operated. Since MIT has officially decided to offer the Coop the primary merchandising area in the new Student Union building, it would be in the best interests of the students to learn more about its financial structure.

Two Societies

Actually, there are two different organizations bearing the same name, one incorporated and the other unincorporated. The unincorporated body dates from 1882 and consists of "all persons connected with Harvard University and Radcliffe College, who shall sign this Constitution, and shall pay an annual fee of one dollar."

This branch of the society is governed by a board of directors, consisting of a president, a secretary and eight directors chosen as follows: one from the Faculty of Arts and Sciences (of Harvard, as are all the directors), one from the Graduate School, one from the Law School, one from the Medical School, one from the university at large, and one from the senior, junior and sophomore classes of the college or scientific school.

Members Do Little

Although it is conceivably possible for the members of the society to elect the officers and other directors in their annual October meeting, it is practically impossible, for it would take a tremendously large number of members and few people ever come to the meetings. Instead, the directors are elected by a board of 10 cooperatively chosen stockholders.

Basically, this portion of the society has little function. However, in case the corporation is ever dissolved, all legal and financial responsibility will rest on its shoulders.

Corporation Most Important

By far the most important part of the society is the corporation, which conducts the business. Members of the corporation include "each officer or student or alumnus of Harvard University, the Massachusetts Institute of Technology, Radcliffe College, the Episcopal Theological School, and such other persons or corporations as the directors shall vote."

The corporate body is also run by a board of directors, which includes: the president, the two vice presidents, clerk, treasurer, and general counsel, at least one of which shall be an alumnus of MIT; six directors from the officers of alumni of Harvard and two from MIT; one from the senior class, one from the junior class and one from the sophomore class at Harvard; and one from the senior class and one from the junior class at MIT.

This board manages all the business of the corporation, although it may delegate the routine management of the business to an executive committee of the president and six directors.

Stockholders Control Board

The members of the board are chosen by the stockholders. These are 10 men who hold the capital stock of the society, subject to trust provisions and to the terms of the by-laws. The stockholders serve five year terms, and are chosen by the remaining stockholders. The stockholders also have the power to apply to the courts at any time for the dissolution of the society, or to make any changes in the by-laws, "except that no change may be made in this manner which shall alter the relations between this corporation, the Harvard Co-operative Society, and the unincorporated society . . ."

The president, who is charged with the general oversight of the corporation, is also the president of the unincorporated body. The board of directors are responsible for the actual operation of the business, but this task is generally left to the general manager, who is hired by the board.

Students On Board

Although there are five students on the board, in practice they have little power. They are, in essence, liaisons to the board from their respective student bodies. Thus, if any student of MIT has any complaint or suggestion in regard to the Coop, he should see one of our representatives, G. M. Wyman '62 or E. A. Womack '63.

There is no one, true definition of what a cooperative is, so it is hard to say definitely whether or not the society is a co-operative in the strictest sense. However, it is clearly a co-operative in that it freely allows persons in certain groups to belong on the payment of a small fee, and it permits them to buy goods at market prices, on which patronage refunds or dividends are regularly paid once a year. On the other hand, the society is not so strictly a co-operative in that its sales are not for cash only, that the democratic voting feature is held in reserve and is not used in practice, and in that it sells to non-members as well as to members. Thus, it is hard to place the Coop in any one particular class.

Teveth To Speak On Israel

Shabtai Teveth

"Parliamentary Democracy in Israel" is the topic to be discussed by Shabtai Teveth, a noted Israeli journalist and lecturer, tomorrow evening, Thursday, February 15, at 7:30 in the Library Lounge, 14E-310.

Mr. Teveth, an astute observer of the Israeli scene, has written many research articles and several books in the social-political field. He has traveled widely as a reporter in Africa and Europe.

As a native Israeli, however, he is primarily interested in his country's development in the social, political, and economic spheres, and in how her experience can be applied to the growth of the emerging countries of Asia and Africa.

Maser Demonstrated At Lincoln Lecture

(Continued from Page 1)

quency electric energy, it would be possible to maintain a majority of the orbital electrons in an excited state, so as to permit negative absorption, or amplification, of energy at a single frequency.

When Dr. Townes set out with his students to produce this unusual molecular amplifier he was advised by his friends and colleagues that his idea was unworkable and impractical. But Dr. Townes persisted with his characteristic singleness of purpose and succeeded in producing an ammonia-gas operated device in 1954 which could amplify signals at one frequency and could operate as an extraordinarily stable oscillator at that frequency.

Dr. Townes recounted the story of his sabbatical leave in Paris in 1955. Having decided that he needed a fresh approach to make further advances in maser technology, he was looking about for some new endeavors to interest him, when some French associates told him of work that they were doing with paramagnetic germanium materials. Dr. Townes saw that the germanium would permit him to build masers that would be tunable, a considerable improvement over the fixed frequency ammonia prototype.

Following Dr. Townes' suggestion on this subject, Blumbergen at Harvard got the idea for a three energy, level, solid state, paramagnetic maser and produced one in 1956. The next step in the development of the maser occurred in 1958 when Dr. Townes and his colleague, Dr. A. L. Shawlow, showed theoretically that masers can be made to operate in the optical and infrared region, and indicated how to build such devices. The optical maser was made practicable by the use of a synthehtic ruby standing wave chamber (suggested by Kikuchi of the University of Michigan) with specially silvered mirrors at either end, excited by a mercury-vapor lamp mounted concentrically to the ruby rod.

Maser Demonstrated On Stage

Dr. Townes demonstrated a pulsed, light operated maser on the stage, and produced ten-watt-second flashes of monochromatic green light on a screen before the audience. He used this demonstration as a starting point for a discussion of the future of "lasers" in communications network and in the transmission of power across great distances. Because the monochromatic light signals are built up by selective reflections in one direction, from parallel mirrors, the resulting output signal is almost a plane wave. In addition to its properties of coherence, long term stability and ready controllability, its light beam has an angular divergence, given by the ratio of the light wavelength to the laser aperture, that is in the neighborhood of 10exp-40 radians. Not only that but, by using optical systems like those in telescopes, the beam can be collimated to produce even smaller divergences. Thus, when such a beam is focused onto a spot by a magnifying glass, that spot is not much larger across than a wavelength of light, and has a great deal of energy compressed in it.

Measures Speed Of Light

The original maser was so stable that it was used to check the Michelson-Morley experiment, on the speed of light, and the new lasers are being used for even more interesting purposes. For example, lasers can be used to produce harmonics of their beam frequencies by turning them onto non-linear di-electrics like quartz, so as to produce blue light from a beam of red light. Dr. Townes spoke of the possibility of direct measurement of the frequency of a light source by using the non-linear properties of photocells and heterodyne measuring methods with a standard frequency laser. "The next problem," he said casually, "is to find an absolute measure of time."

As Dr. Townes advised the electrical engineers and physicists awed by the huge field of research opened to them, "Why worry if this be electronics; just make the most of it!"

30 Techmen To Attend Washington Peace Walk

About 30 MIT students, members and non-members of the Student Organization for a Rational Approach to Disarmament and Peace, will participate in the Walk in Washington demonstrations this Friday and Saturday. According to Arnold Chalfant, recently elected President of RADP, about 18 of the 30 will be leaving Thursday night by car or bus to take part in Friday's activities. Fifteen are now plannng to see Congressmen personally.

One of the members of the Boston Coordinating Committee, originators of the Walk and principal authors of its policy, is Tech grad student Michael Appleby. Others, including Chalfant, have been involved in the activities of Turn Toward Peace, whose organization in the Boston area precipitated the Boston Committee.

The Tech

Vol. LXXXII No. 2 Feb. 14, 1962

Chairman .... Thomas Brydges '62
Managing Editor .... Joseph Hanlon '63
Business Manager .... Joseph Kirk '64
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Features Editor .... Toby Zidle '63

Office Hours: Monday, 11-12; Tuesday, 11-12, 2-4; Wednesday, 11-12, 2-4; Thursday, 10-11, 2-4; Friday, 11-12, 1-3.

Unsigned editorials appearing in THE TECH constitute the opinion of the newspaper's Board of Directors, and not that of MIT. The newspaper welcomes letters from its readers. Space permitting, such letters will be printed in whole or in part, if deemed by the editor to be of sufficient interest or benefit to the community. Brevity increases the chance of publication. Anonymous letters will not be printed Names will be withheld upon request.

Student Gov. and the UAP

We quote to purpose when we say: "It would be funny were it not so tragic." At the time of this writing only three people have announced their candidacy for the Undergraduate Association Presidency and already one of them has withdrawn.

It is tragic because the student government at MIT deserves a better fate. In a year marked by the decline or fall of student governing bodies on the campuses of several major colleges, Columbia and Brown the most notable, our Institute Committee and associated bodies have managed their affairs reasonably well and have significantly expanded the area of student-administration relations. While we, as always, believe that there is a great deal of room for improvement, we certainly feel they have proved they have definite reasons for existence.

Given such a viable situation, it follows that any person who assumes the office of UAP can hope to accomplish something far more meaningful than that offered by the usual interpretation of student council president. If only because he has a significant amount of power, he can make the job more than a time consuming filler for a graduate school record, if he chooses. That only two people should want the job, is, then, a dangerous reflection on not only a lack of interest but a lack of understanding of what is really being offered.

This is not to say that we encourage every office seeker to run. Clearly we cannot, for the job is far too difficult for many. The UAP's duties are not well defined, the office is completely dominated by its holder. If he wishes to be effective, he must bring to the office not only leadership ability, but new ideas and initiative and a determination to carry through his ideas. He must be ready to utilize to the fullest the abilities of the people who serve under him on the Institute Committee, but to realize that their interests are by nature somewhat parochial, and to include this in his policy making. In the end it is he who must act as the visionary for student government for he is the only person with the overall view. He must be able to attach relative importance to the activities both of himself and his committee, and not to encumber himself with extraneous jobs while important work goes undone. Last of all he must be available; his lines of communication must be set up with care so that the views he represents are the views of his constituents, and not merely of his immediate friends. The person who looks carefully at this list of requisites can see the failures of past UAP's. He should profit by them. We encourage careful consideration of the office by the entire undergraduate population in the hope that it will produce a field of candidates, each of whom is capable of exerting the quality of leadership necessary if the position of the student is to advance in the coming year.

Student Enterprise

The Institute Committee has been spending a great deal of time recently worrying about the problem of student entrepreneurs and entrepreneurs in general operating within the MIT community. This discussion was an outgrowth of the tangle of problems created by the **Technology Student Calendar,** a privately distributed weekly. The Institute Committee, at least in part, seems to exhibit a very hostile attitude toward operations whose purpose is to turn a profit. It is not clear why this attitude exists, but it is a dangerous stand to take and the committee should be very careful to see that it does not prejudice their future discussions. The problem is not straightforward, it involves not only the regulation of those commercial organizations which exist to sell to MIT, but the problems of paid officers in activities and the setting of prices for MIT subsidized events. While in some areas MIT has been a commercial void, there have always been those areas like the distribution of news media in which the competition was keen. Affecting the Institute Committee most directly, though, are those groups whose operations overlap with services performed by student-run activities. It has always been policy to exert whatever control it could whenever it was felt necessary. But now an attempt has been made to find out exactly what the prerogatives of Student Government are in this field and how they can be made more effective.

Before Inscomm can establish the control it wants and needs over these organizations, it must assume a less biased attitude toward the problem. In conflicts of interest between student activities and student enterprise for instance, the Activities Council is valueless, because it invariably represents the opinions of the major student activities, and has enough trouble solving disputes within its own framework. Are we forced, then, to go to the Institute Committee each time something irregular occurs in this line? Harvard's rather drastic solution to the problem probably would not work here. But something needs to be done. There seems to be a need for a committee of students, some of whom represent **both** sides of the question, to make a study and proposal on this matter. The committee should be relatively separated from present student government structures, so that the merits of both sides could be viewed in perspective. If the committee feels that it could function as the controlling organization, then it should do so with relative freedom. Otherwise we fear an endless hassle, which, if not damaging, would at least be unproductive.

LSC, *pro*

To set the record straight, we feel that the much maligned Lecture Series Committee should receive some words of praise for the recently published film series schedules. It seems to us that the quality of both the Entertainment and the Classic Series, especially the former, has improved considerably since the last term. Because this organization is attempting to represent the world of lectures and entertainment to MIT, things of very public domain, it has come under fire several times during the past. We still believe that there is room for improvement, and that the LSC should watch carefully for serious suggestions without developing a persecution complex, but steps are being taken in the right direction, and this is progress to be valued.

Letters To The Tech

Bowman Announces UAP Candidacy

To the Editor:

I wish to announce myself as a candidate for the office of UAP and pledge myself to fulfill the following objectives in the best possible manner:

1. Active leadership of the Institute Committee: The UAP should be a source of ideas, encouragement, organizational know-how, and driving force to the Institute Committee.

2. Liaison with the MIT faculty and administration: As spokesman for the Institute Committee, the UAP must present the new ideas of Inscomm and negotiate in the event of which the students feel are not to their benefit. When he presents new ideas he must be enthusiastic; when he negotiates, he must present as many as possible alternatives as possible to neek compromise. In all cases, he must be realistic, precise, lucid, diplomatic and well-informed.

3. The student body must be kept well informed at all times: *The Tech* has vowed a more interpretation of the music and aggressive policy in this area; I shall cooperate in every way with it, and to supplement this effort, I shall have mailed to every hall chairman and fraternity president copies of the Inscomm minutes and agendas.

I have served as Activities Council chairman, APO president, and president of my fraternity. In these positions I have had an opportunity to test various techniques of organization and leadership and an opportunity to have a great deal of contact with the administration. I would like to bring to the job of UAP my experience to serve the student body.

It is my hope that Institute Committee will become a more efficient unit, with the subcommittees being held more responsible to the main body and the Secretariat given more duties to serve as a means to build more interest in participation in student government activities in underclassmen.

Henry Bowman '63

Levy Withdraws From UAP Race

To the Editor:

In reference to your article of February 7 on the campaign for Undergraduate Association President, I wish to correct one point: I am not now and will not be a candidate for the office.

I appreciate both your efforts to check the story and the reasons for the mistake. There was a long period of time encompassing the second half of last term during which I talked, dressed, and in every other way acted as an announced candidate for the position of UAP. It

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Kibitzer

By Steve Levy '63

The feature of this deal is the importance of using the bidding in selecting an opening lead. Before West carelessly lays down the "safe" king of hearts, he should consider what values his partner must have for the double and what the key point of the hand will be.

In view of the cue bid by North it would seem unlikely that East could be counting on any heart tricks in his double. East must then have a strong holding in at least one of the minors—otherwise he wouldn't have a double. In addition to this partner must hold either top tricks or some length in trumps. Neither North or South have bid Spades at their first chance; they have at most eight trumps between them. Further the bidding tells that South has at least nine cards in clubs and spades and that North has some kind of control in hearts. What do you lead now?

It seems to me that West has two lines of attack. He can try to get a ruff in one of the minor suits and count on East's safe tricks or he can try to start an attack on South's trump holding and thus establish partner's long trumps. The diamond lead turns out to be the best, and is actually fairly safe. For if partner has no top tricks here he must have them in South's clubs and he will always have time to get them. Observe the difference in results between the king of heart opening (this attacks declarer's trump holding, but in the short suit) and the ten of diamonds choice.

With the "safe" heart opening declarer takes the ace, returns to his hand with a club, and ruffs a low heart (if partner overruffs, he shortens his trumps to three allowing declarer to draw trump and cash ten tricks immediately). Now he takes the ace of trumps and leads a low one to his hand, drawing a third round of trump with the queen. Now South can play on his clubs forcing East to set up his last trump or give declarer all the club tricks. So South takes the ace and a ruff in hearts, four trumps and four clubs or three trumps and five clubs making four spades doubled.

NORTH
♠ A 6 4
♥ A
♦ K 8 5 3
♣ Q J 8 7 5

WEST (D)
♠ J 2
♥ KQJ 10 9 5 2
♦ 10 2
♣ 6 4

EAST
♠ 10 9 8 3
♥ 4
♦ A Q J 9 7 6 4
♣ 10

SOUTH
♠ K Q 7 5
♥ 8 7 6 3
♦ —
♣ A K 9 3 2

Bidding:

West	North	East	South
2♥	P	P	3♣
P	3♥	P	3♠
P	4♠	D	All pass

If West opens the ten of diamonds, the defense gains a tempo in the attack of declarer's trumps and eventually set the hand. A more interesting play occurs when the eight and nine of diamonds are exchanged. South covers the ten with dummy's king and ruffs in his hand. Then he draws two rounds of trump, plays a heart to the board and returns a club. The position is this with South having the first five tricks.

NORTH
♠ 4
♥ —
♦ 9 5 3
♣ Q J 8 7

WEST
♠ —
♥ K Q J 10 9 x
♦ x
♣ x

EAST
♠ 10 9
♥ —
♦ Q J x x x x
♣ —

SOUTH
♠ Q
♥ 8 7 6
♦ —
♣ A 9 3 2

South leads a low heart and trumps it in dummy. East has no choice but to overtrump and lead a high diamond. South trumps and leads clubs; East can trump in when he likes and cash a high diamond, but dummy's nine of diamonds is now a stopper and the hand is over. The defense takes only two ruffs and a high diamond.

CRC Presents 'Circus'

Southerner To Kresge

Segregationist Evades CRC Queries

By Tom Maugh '65

From the placards on the tables in the dining halls to the write-up in Preview, from the propaganda sheets and "Young Socialist's" (a left-wing newspaper) being handed out at the door to the carefully constructed questions and lists of facts, last Wednesday's speech by Eric Johnston had the taint of a circus atmosphere in which a large number of the audience had undoubtedly turned out with the hopes of seeing Mr. Johnston thrown to the lions of the Civil Rights Committee.

However, any who bore such hopes were left with their desires unfulfilled as Mr. Johnston, public relations director for the state of Mississippi, became blandly noncommittal on most of the major issues at hand, thus leaving the CRC, which sponsored the speech, little opportunity to embarrass or corner him. By his own admission, Mr. Johnston, was in a tight spot to begin with, defending segregation before a Northern audience, but the consensus of opinion was that he handled himself remarkably well.

"We have our problems in Mississippi, and we have been wrong in the past, but can't every state say the same?" This was essentially the method Mr. Johnston used to mollify and control the audience, along with several totally unrelated anecdotes and pleas of "Please eat more chicken!" (relating to his home town's poultry industry, which can "produce 850,000 chickens per week").

From an objective viewpoint, neither side made many significant points during the discussion. Two of Mr. Johnston's main points appeared to be: after the Civil War Mississippi was governed mostly by the Negro population, and, since they didn't integrate the schools and universities then, but rather established separate schools for the colored, they obviously didn't desire integration; and, regarding the Supreme Court's recent interpretation of the 14th amendment with regard to integration, Mr. Johnston pointed out that the same congress, which had passed the amendment had also established the system of segregated schools in Washington, D. C., thus showing that they must have had a different interpretation of the law.

Also, in answering the question of whether he didn't think that the Supreme Court judges were more capable of judging the matter than the admittedly less literate Southerners, Mr. Johnston pointed out that the Court had five times issued a verdict enabling the states to control their own schools before their reversal of the decision in 1954. Moreover, he found it necessary to repeatedly mention the fact that slave-trading had been begun and carried out by New Englanders. (Actually, although they did begin it, they soon gave up slaves for more profitable cargo, and the slave traffic was carried on largely by the Southerners and the English).

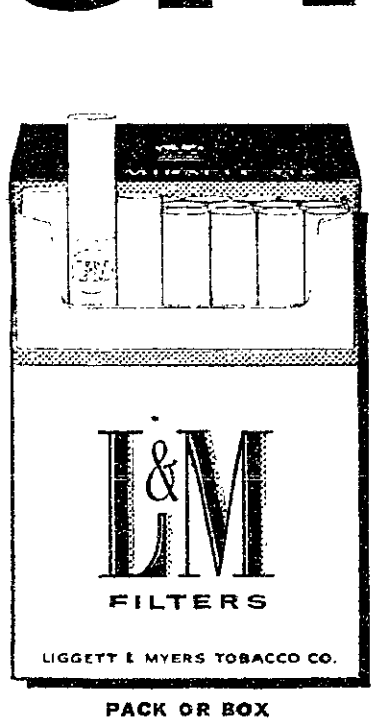
The CRC's main points in the questions they proferred involving the voting rights of the southern negroes, Mr. Johnston's idean on equality of race, and what will happen when (and if) total integration is eventually forced in Mississippi. Mr. Johnston, however, skillfully managed to evade the points, evidently not caring to tread on dangerous grounds. Thus, the Committee actually won their point, although they were not able to press it.

The lecture brought varied reactions around the campus. One senior pointed out the fact that since Mr. Johnston had no philosophical doctrine to base his arguments on, he had to support his beliefs by the customs of his state. Since his audience had a different set of customs his arguments were ineffective in convincing them.

Others in the audience (which filled nearly two-thirds of Kresge) seemed to consider everything the speaker said completely wrong and vociferously objected to many of his statements, thus showing not only lack of openmindedness, but also of good manners.

Tomorrow night, James Larmer, the national director of the Congress of Racial Equality is scheduled to give a rebuttal, speaking on a non-violent approach to the problems of race relations. Since there is little Mardi Gras atmosphere attendant to his speech, we doubt if it will have a very large attendance. However, you may look for a review of it in next week's paper, in addition to a summation of the two antiethical viewpoints.

SPRITE WINNERS!



PACK OR BOX

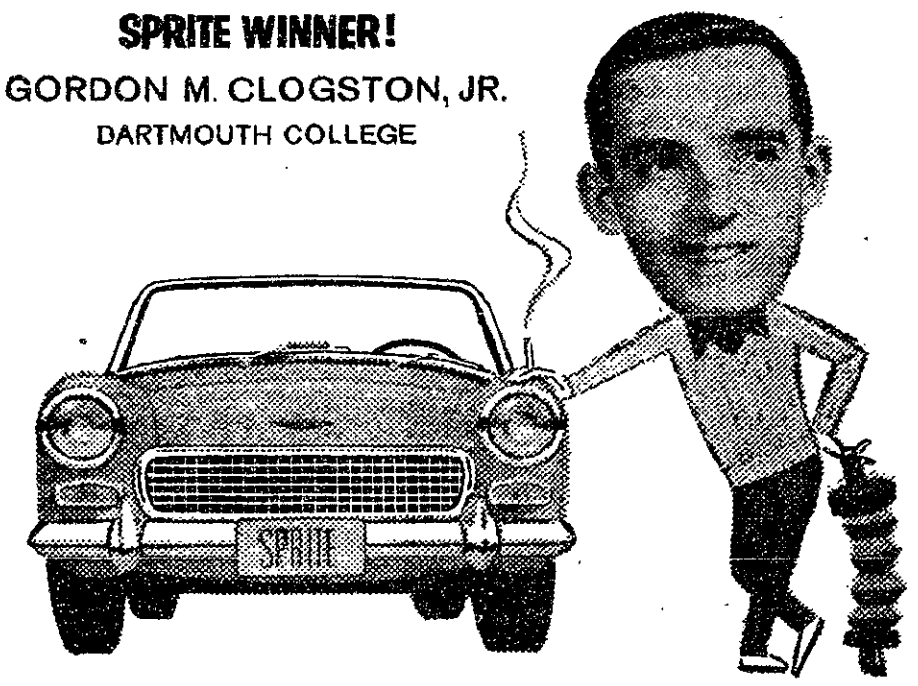
IN THE FALL

Grand Prix

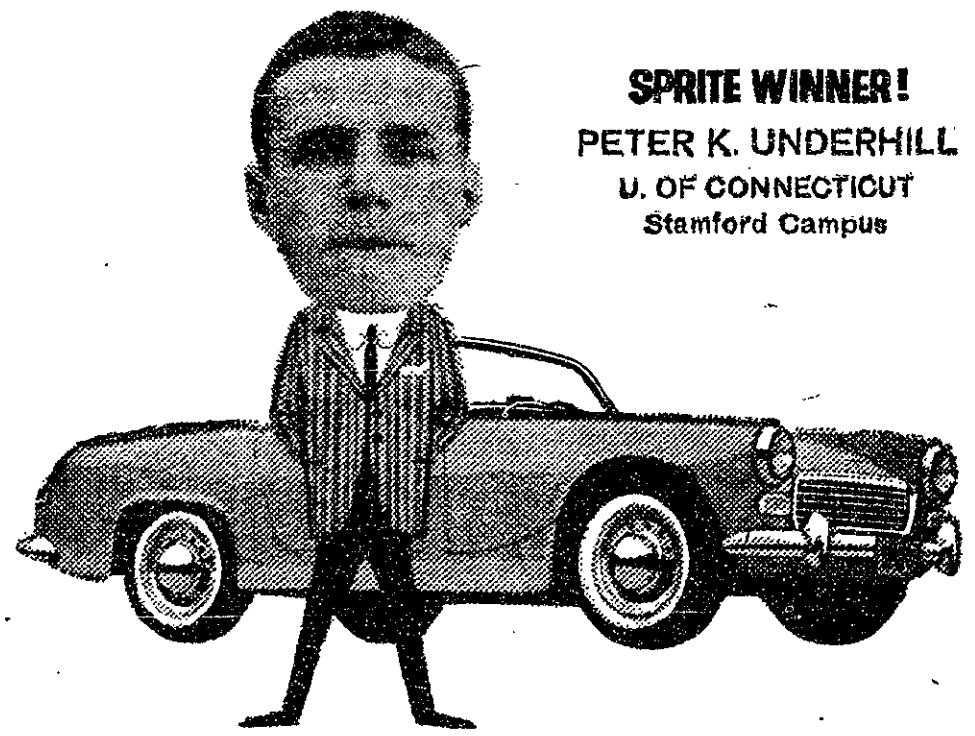
CONTEST FOR NEW ENGLAND COLLEGES ONLY

REGULAR OR KING

SPRITE WINNER!
GORDON M. CLOGSTON, JR.
DARTMOUTH COLLEGE

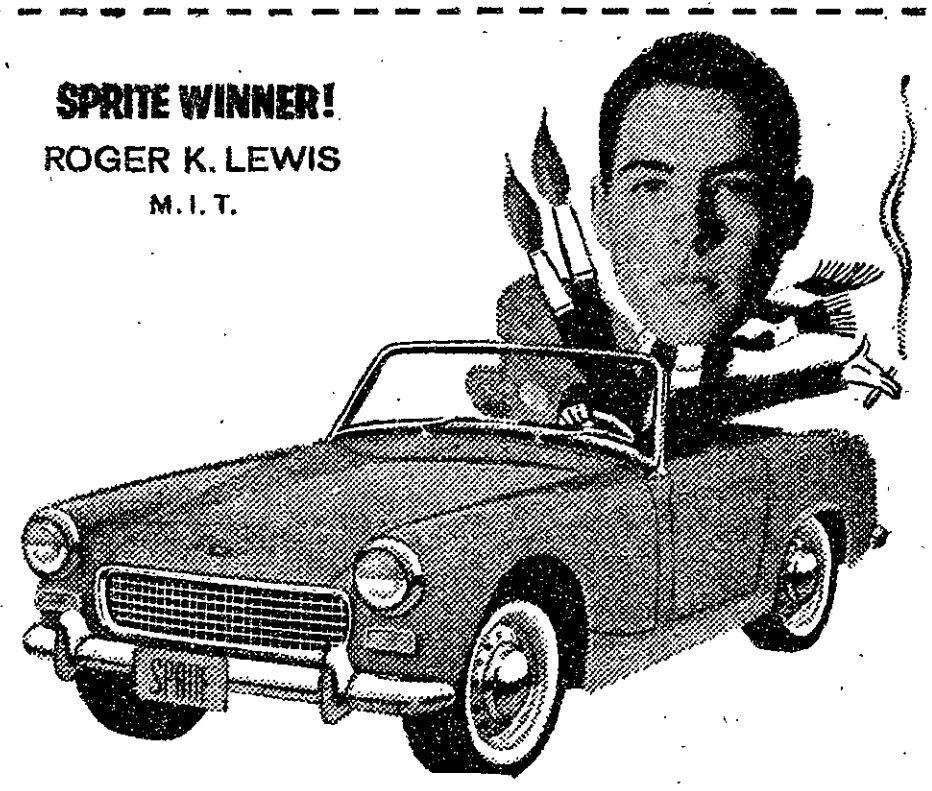


SPRITE WINNER!
PETER K. UNDERHILL
U. OF CONNECTICUT
Stamford Campus



SPRITE WINNER!
ALEXANDER D. WASHBURN
AMHERST COLLEGE

SPRITE WINNER!
ROGER K. LEWIS
M. I. T.



4 MORE SPRITES TO GO!

SPRING CONTEST NOW UNDERWAY—ENTER NOW! ENTER OFTEN!

Two Tech Graduates In Peace Corp; Now In Columbia, Tanganyika

Peter Franklin, '57 and Ronald Atwater, '60, two students who did their undergraduate work at MIT, are participating in Peace Corps projects.

Franklin, of New York City, was an assistant engineer in missile development with the Sperry Gyroscope Co. He is now on a project in Tanganyika.

Atwater, of Los Angeles, worked as construction engineer in Illinois. He speaks Spanish fluently, has traveled in Latin America, and is now with a project in Colombia.

By Toby Zidle '63

College World Caltech Modifies Take-Home Labs; In Competition With Burtonites

Try as we might, we seem unable to get away from taking articles from **The California Tech** (Caltech). Our one consolation is that they periodically reprint editorials from **The Tech.** A particular column, "Brewins", written by "Beak", seems to come up with a majority of reprintable stories. Beak has reported on the Caltech version of the MIT take-home labs.

"Pass the Butter"

"Reports trickle to Beak on escapade of unnamed House over disgraceful outside-class experimentation. Latest indications show that approximately 500 slices of good (?) bread, fresh from Saga staler, were coated with the high-priced spread and released from a height, subject only to laws of gravity. Purpose of experiment was to determine the truth of old adage (invented by Beak in 1933) that bread subjected to treatment described above will tend to contact surface over which it is released with coated face. No quantitative results are available."

The following story from "Brewins" is reprinted without editorial comment, except that the title is Beak's.

"Never Trust a Cop"

"Tech Ossifer Fig has learned to his dismay that one should remain alert when in company of Pasadena Protectors. Our brave Brooklyn lieutenant was idely conversing with boys in blue, who were guarding money in Cuthbertson on registration day, when he suddenly found that his own handcuffs were firmly fastened one end to his left wrist, the other to his belt. His outcries were silenced when it was pointed out that he was out of uniform. Closer inspection reveals that the badge of Fig has disappeared. Beak left before already blue-tinged air became darker."

Examination of a "Brewins" column in another **California Tech** discloses an item rather pertinent to MIT. Here again title and parenthetical comments are Beak's. The form letter is but a well-modified version of "MIT Form RU-4-69-2" which appeared in "The Button House Reflector."

"We Get Letters . . ."

"Through Drubney House's sources, Beak finds that one Miss Cheryl Smith, of 2664 S. W. 42nd St., Oklahoma City, Oklahoma, sent a letter to (ugh!) MIT asking for a pencil pal. She said '...all the poor boys at MIT are so desperate for a girl to write to... I would certainly like to volunteer my services ... for mutual gain as well as personal profit...'

"MIT (ugh!) reaction was soon followed by reactions at Harvahd, Columbia, Yale, Dartmouth, Princeton, Brandeis, Cornell, Stanford... Proposed form letter is to be sent to abovementioned wench, in manner of other colleges. Sources reveal that form letters may be available in Houses shortly. Beak advises that it would be best not to try and wait, however. Note that Cheryl's hair is brown. Letter form is at right.

"Dearest ——,

"Ah, what a lovely name. I knew when I first heard it that you must truly be an angel. But how can you sacrifice yourself to the heartless automatons of MIT when at the California Institute of Technology there are lost souls like myself—wandering, wandering, wandering.

Oh, my dear ——, my very being aches for you: to see you, to hear you, to ripple my longing fingers through your soft —— hair, to kiss your lovely, tender, wine-red lips. I cannot eat; I cannot sleep; I cannot do math problems; I lie awake and cry your name into the unsympathetic night.

"Oh, ——, my far-away love, if only you were here with me, to hold my hand and perhaps ... yes, perhaps to say you love me as I love you, I know I could stop drinking. Oh, please, please, my perfect love, send me your picture, I will cherish it, guard it, treasure it, even paste it in my Handbook of Chemistry and Physics.

"Oh, if only you would, Then —then I know I could find some small bit of true happiness.

"Your infinite lover,
———— House
California Institute
of Technology
Pasadena, California"

Well, Burton men and others who wrote to Cheryl, it looks as if you'll have some competition.

Walkers Hold Rally ***Kennedy Visit Likely***

FBI Investigates, Gives Walk Clean Bill of Health

(Continued from Page 2)

tee, will rely mainly on chartered buses whose cost is within the means of most (e.g., the round trip from Boston will cost $15), and can be subsidized from general funds in the cases of students without the money.

Officials To Be Visited

Getting students to and from Washington is important, but what they do while there is, naturally, the whole point of the Walk in Washington. Only a fraction of the participants will be coming for the activities on Friday, February 16, which include visits to Congressmen, picketing of the White House and Russian embassy, and a small rally in the afternoon at which student leaders will speak.

Other prominent Washington groups which will be contacted either Friday or Saturday are the offices of the National Association of Manufacturers and national civic groups, many foreign embassies, top officials in the State Department and the US Arms Control and Disarmament Agency, and, hopefully, President Kennedy himself or his top advisers.

Appointments with Congressmen and other officials have been made by the Boston Coordinating Committee, which wrote to all Senators and Representatives during last December, and by the Washington committee.

Although few Congressmen gave definite appointments on the first try, most expressed willingness to see Walk representatives providing they had time available and were contacted a few days beforehand. Several of them refused outright to see anyone from the Walk, a symptom of the attitude which the Walk will attempt to combat.

Saturday Features March

Most of the Walk in Washington participants will depart Friday evening in time to arrive for the mass demonstrations during the day Saturday. These will include large-scale picketing at the White House, the "walk" itself through the streets of Washington (which has been approved by the city police provided there is no rioting), and a large rally to follow the walk in the afternoon.

Norman Thomas and Emil Mazey will be the principal speakers, augmented perhaps by Martin Luther King, Leo Szillard, and/or Hans Bethe. In addition, the Walk student leaders will address the rally and hope to have a prominent Congressman present.

Adults have actively participated in the Walk from its beginning, largely by obtaining much - needed financial and moral support. Transportation, phone calls, printing costs, and so forth have added up to push the Walk budget toward the five-figure mark, necessitating appeals to sympathetic faculty members and other sponsors of the adult peace movement.

Students at the University of Chicago have raised money for transportation themselves by selling cookies and apples around their campus. In many areas students sympathizing but unable to come to Washington have generously donated their money and time during the past weeks.

Sympathizers See Volpe

Moral support for the Walk is being sought in two main forms: endorsements and sympathy demonstrations. Prominent endorsees so far have included Eleanor Roosevelt, Seymur Melman, Jules Feiffer, James R. Newman, David Reisman, Hudson Hoagland, and Norman Cousins. Editorial support has been obtained from **The New York Post**, and coverage of the demonstration is expected in **Reporter, Nation,** and possibly other magazines.

Sympathy demonstrations, a vital part of the Walk project, have been staged for Friday in Boston by Voice of Women and Turn Toward Peace, in Berkeley by a large group of students and adults, and by several large labor unions. The Boston demonstration will involve picketing before the State House, visits by leaders with Gov. Volpe, and the wearing of special blue armbands by participants in support of the students.

Obviously, the Walk in Washington will face strong opposition from many quarters and the danger of being labelled as subversive. One incident of this nature has already occurred, but the peace walk emerged from it with a clean bill of health.

A University of Maryland Dean of Women became alarmed when one of her charges started organizing a contingent for the Walk. She notified the FBI, but the results of a brief investigation showed no Communist influence in the movement; the Walk has laughingly advertised itself since then as "the first and only Grade A, Government-approved and FBI-inspected peace march."

Positive Function

Now, as the last-minute problems of the Walk in Washington begin to dissolve in the face of sheer will-power, the all-important question arises: "Just what will the Walk accomplish?"

The hopes of most participants are high but all realize the problem to be so large and so complex that any action, however impressive, can only be a small first step. Commented one of the Boston Committee members, "The direct effects of the Walk may be nil, but it still serves a positive function in bringing concerned people together in action, and by enlarging public awareness of the present danger."

The effects of the demonstration, major and minor, will be analyzed next week in *The Tech*, and this series will conclude with a discussion of possible follow-up activities to be planned by Walk participants and sympathizers at MIT and other colleges across the nation.

Letters:

(Continued from Page 4)

has only been during the last two weeks that I have realized that above all else, the UAP is expected to give to his office vast amounts of time; far more time than I feel I can realistically offer.

I wish to sincerely apologize for the confusion which my indecision has caused and thank you for the unsolicited publicity. It felt very nice.

Frank Levy '63

Muni, Wayne Star

'Last Angry Man' At LSC

"The Last Angry Man," a moving drama of a doctor's life, will be shown at the Lecture Series Committee's entertainment film series this week. The film stars Paul Muni, David Wayne, Betsy Palmer, Luther Adler, and Joanna Moore, and is possibly the best drama of this term's series.

Dr. Samuel Abelman (Paul Muni) has been slaving away for forty-five years as a family doctor to poor families and hoodlums in tenement Brooklyn. A chance newspaper item about Muni's late night treatment of a badly beaten girl attracts the attention of David Wayne, a harried TV executive looking for a subject for a series to be sponsored by a big drug company.

Muni at first refuses to be glorified on TV, but is finally persuaded by his lifelong friend (Luther Adler), and Wayne sets up plans for a live show from the doctor's house. Complications arise a short time before the show goes on the air, when the doctor is called to attend a young Negro who is involved with the police.

The film will be shown in room 10-250 Saturday night at 5:15, 7:30, and 9:45.

music . . .

'The Social Beaver Suite' Is Highlight Of Concert

By Tom Maugh '65

The MIT Symphony Orchestra, the MIT Concert Band, the MIT String Orchestra, and the MIT Brass Choir performed last Friday, February 9, 1962, at 8:30 in Kresge Auditorium. They were conducted by John Corley and Andrew Kazdin.

Although the four MIT musical groups did a creditable job in last Friday night's concert, there seemed to be something lacking in their performance. However, part of this was perhaps due to their choice of music rather than to their playing.

The high spot of the evening was the Concert Band's renditions of Peter Mennin's "Canzona" and Andrew Kazdin's "Suite from 'The Social Beaver.'" The latter piece, from a motion picture produced at MIT in 1956, appeared to be the only one where the students had any degree of inspiration in their playing, which could well be partially due to the lack of attendance at the concert (only about a third of the auditorium was filled).

The other bright moment occurred with the String Orchestra's version of "Eine Kleine Nachtmusik." The group, which was seated in the alcove of Kresge, seemed very well practiced, and did a good job.

The Concert Band gave a passable performance of Robert Russell Bennett's "Rose Variations," in which Kenneth Rahn '62 gave a cornet solo. Although Mr. Rahn is obviously a very good musician, the solo part would be long and difficult for even a professional musician, and Mr. Rahn's lip noticeably gave out toward the end. However, he is to be commended for his attempt.

The Symphony Orchestra attempted to perform Dvorak's "Symphony in G major, No. 4." However, their small size (only about forty people played) did not enable them to give a full interpretation to the music and much detracted from its original charm and freshness. However, the fact that they had only played the piece twice before the concert should be taken into account before any final judgement is made.

The Brass Choir made a valiant attempt to translate for the audience three songs, one of which even the members of the Choir admitted they were not fond of. Two of the pieces, the work of Gabrieli, a 16 Century Italian composer, required the separation of the group into two and three separate groups. Most renditions of the works use only one or two instruments in part of the sections; the choir's use of around six in each section seemed to overpower the work, taking away from its beauty and richness.

On the whole, the groups showed great promise, but little fulfillment. We would venture to predict that their Spring Concert, April 7, will be well worth attending, and should show a very good group at its height.

WTBS Program Schedule

Wednesday

7:30 am Rise and Shine
8:45 Sign Off
5:05 pm Evening Interlude
6:00 Swingin' Easy
7:05 Centennial Series: Convocation
9:05 Music of the Modern Masters
12:05 am Jazz at Midnight
1:00 Sign Off
News: 8, 5, 7, 9, and 12.

Thursday

7:30 am Rise and Shine
8:45 Sign Off
5:05 pm Evening Interlude
6:00 Swingin' Easy
7:05 Folk Music
8:40 Limelight Review
9:05 Departures in Music
12:05 am Jazz at Midnight
1:00 Sign Off
News: 8, 5, 7, 9, and 12.

Friday

7:30 am Rise and Shine
8:45 Sign Off
5:05 pm Evening Interlude
6:00 Jazz Special
8:00 Folk Music
9:05 Night Owl
2:00 am Sign Off
News: 8, 5, 9, and 11:30.

Saturday

3:00 pm Rock and Roll Memory Time
5:05 Jazz Spotlight
7:05 Music of the Keyboard
8:10 Basketball MIT vs. Middlebury
10:30 Night Owl
2:00 am Sign Off
News: 5, 7, 9, and 11:30.

Sunday

2:00 pm Sunday Theatre
5:05 Sunday Serenade
7:00 Folk Music
8:00 The Pre-Classics
9:05 Classroom Concert
12:00 am Jazz at Midnight
1:00 Sign off
News: 5 and 9.

Monday

7:30 am Rise and Shine
8:45 Sign off
5:05 pm Evening Interlude
6:00 Swingin' Easy
7:05 Fiesta
8:00 Inscomm Open Line
9:05 The Baroque Era
1205 am Jazz at Midnight
1:00 Sign Off
News: 8, 5, 7, 9, and 12.

Tuesday

7:30 am Rise and Shine
8:45 Sign Off
5:05 pm Evening Interlude

Contemporary American Sculpture By David Smith In Hayden Exhibit

An exhibition of 25 contemporary American sculptures by David Smith will be on view at the Hayden Gallery through Feb. 27.

A pioneer in welded iron and steel constructions as early as 1933, Mr. Smith differs from most contemporary sculptors in his almost exclusive use of hard metals.

It has been observed that his complete oeuvre proposes its own new sign and symbol language. It is mechanical order authored by one artist, derived from and often humorously referring to our 20th century industrial world.

Smith has elaborated on many plastic themes by creating series of sculptures which span his personal perceptions and feelings. He has stated his belief that "are is not a planned logical occurrence," but springs from individual intuition.

His work has the fascination of its factory materials; critics have suggested that it is like finding art in a blacksmith's shop or a junkyard, and wondering how such blunt and elementally tough materials can in one instance look so proud and refined.

Smith had his first one-man show in 1938, and has since exhibited widely here and abroad. He received a Guggenheim Fellowship in 1950-51, renewed in 1951-52. A one-man exhibition of his work was shown in the XXIX Venice Biennale in 1958. He is at present represented by a one-man exhibition at the Carnegie International Exposition in Pittsburgh.

Entertainment-wise

Brubeck Quartet To Appear At Kresge

By Tom Maugh '65

Dave Brubeck will appear in Kresge Auditorium Friday, March 16, as a guest of the MIT Choral Society. This promises to be a very exciting evening, so you should get your tickets now, for they're selling fast. They may be reserved by calling the Kresge box office.

* * *

Don't forget! Della Reese, famous gospel and blues singer will be appearing this Saturday at 8:30 at the Donnelly Memorial Theater. Tickets for the concert, which also features the Meditation Singers and Mercer Ellington, are priced from $1.75 up.

* * *

Also in town next Saturday night, but appearing at Jordan Hall, will be Sabicas, considered by many people as the world's greatest flamenco guitarist. Tickets for the concert, which begins at 8:30, are $2.20 and up.

* * *

Wednesday evening, March 7, the Philadelphia Orchestra will appear at Symphony Hall. Eugene Ormandy will lead the band in a concert of the works of Brahms, Beethoven, Berg, and Hindemith.

* * *

The twenty-sixth annual edition of Shipstad and Johnston's Ice Follies are currently appearing in the Boston Garden. Friday, February 23, you can get a special combination of a performance of the Follies plus a Boston Celtics game, a combination which should include something for everyone. Tickets for the event are from $2 to $5.

* * *

The barren Wasteland, commonly known as television, has little in store for us this week. However, tomorrow night at 9, CBS will feature "Eisenhower on the Presidency." On the show, former President Eisenhower will talk about global and domestic problems, past, present, and future. It should prove interesting.

* * *

Sunday, February 18, Ralph Votapek, renowned pianist, will give a concert at the Isabella Stewart Gardner Museum. Mr. Votapek has been a soloist with several leading orchestras—including, the Chicago Symphony, the St. Louis Symphony, the Boston Pops, and the Television Orchestra of Paris. His concert, which is free to the public, will feature the works of Bach, Debussy, Franck, and Schumann.

* * *

This week's LSC, classic film series movie will be "He Who Must Die," the story of a shy, stuttering shepherd who is chosen to play Christ in the local Passion play of a Turkish-dominated Greek village. The film, which will be the only one in the classic series to be shown in Kresge Auditorium, stars Pierre Vaneck and Melina Mercouri. General Admission will be 75 cents.

* * *

Jack Manning, director of the Helen Hayes Equity Group in New York City, will direct Shakespeare's "Twelfth Night" at the Boston University Theater, February 22-24. This will be this season's third production for the group, which regularly brings established directors to the university to aid student casts and crews from the School of Fine and Applied Arts. It should, if past performances are any indication, be a very good show.

* * *

Erroll Garner, famed jazz pianist, will appear at Symphony Hall in a concert performance this Friday night. He will be accompanied by Edward Calhoun on the bass fiddle, and by Kelly Martin on drums. Tickets for the concert, which begins at 8:30, are priced from $2.50 up.

* * *

The Gallery Mount Auburn 47 is currently showing an exhibition of painting by the New England artist, Robert Cendella. In addition, the gallery, which is located at 47 Mt. Auburn Street in Cambridge, has a varied program of folk music, chamber music, and films throughout the week. It would be an interesting place to investigate if you are at all interested.

* * *

New films coming to Boston this week include: "The Three Stooges Meet Hercules," with Vicki Trickett; "Loss of Innocence;" "The Joker," a French comedy; and "The Singer, Not the Song," a drama dealing with the conflict between faith and militant disbelief.

Movie Schedule

ASTOR — "El Cid" Matinee Wed., Sat., & Sun. at 2 p.m. Evenings at 8:15, except Sun. at 7:30.
BEACON HILL — "One-Two-Three" 1:30, 3:30, 5:30, 7:30, 9:30.
BOSTON — "Cinerama—South Seas Adventure" Eves. at 8:30, except Sun. at 7:30. Matinees Wed., Sat., Sun. & Holidays at 2:30 p.m.
BATTLE — "L'Avventura." Week days at 4:30, 7:00, 9:30; Sat. & Sun. at 2, 4:30, 7:00, 9:30.
CAPRI — "Majority of One" 2:10, 4:34, 7:02, 9:30.
EXETER — "La Belle Americaine" 2:00, 3:45, 5:40, 7:30, 9:20; News & Cartoon 3:35, 5:25, 7:20, 9:10.
FENWAY — "The Mark" 12:55, 3:07, 5:17, 7:21, 9:28.
FINE ARTS — "Ballad of a Soldier" 5:30, 8:45; "The Fate of a Man" 7, 10.
GARY — "West Side Story" Every evening at 8:30 p.m. Matinees Wed., Sun., & Holidays at 2:30 p.m.
HARVARD SQUARE — "A Day at the Races" 1:40, 5:30, 9:20; "Meet Me in St. Louis" 3:25, 7:20.
KEITH MEMORIAL — "Flower Drum Song" 1:05, 3:50, 6:30, 9:15.
KENMORE — "A View From the Bridge" 1:15, 3:25, 5:30, 7:40, 9:45; Short Films 1:05, 3:10, 5:20, 7:25, 9:35.
LOEWS ORPHEUM — "Sergeants 3" 2:45, 6:05, 9:30; "Deadly Duo" 1:25, 4:45, 8.
PARAMOUNT — "Singer, Not the Song" 10:45, 2:15, 5:45, 9:15; "Unstoppable Man" 9:30, 1, 4:30, 8.
SAXON — "Judgment at Nuremberg." Every evening at 8:30, except Sunday at 8 p.m. Matinees Wed., Sat., & Sun. at 2:30 p.m. Released through United Artists, directed and produced by Stanley Kramer. It stars: Spencer Tracy, Burt Lancaster, Richard Widmak, Marlne Dietrich, Maximilian Schell, Judy Garland, and Montgomery Clift.
STATE — "Bad Girls of Burlesque" 9:30, 11:31, 1:44, 4, 6:15, 8:30; "This is My Body" 10:15, 12:25, 2:30, 4:50, 7:10, 9:25; "The Immoral Mr. Teas" 10:30, 12:40, 3, 5:10, 7:30, 9:40.

Theatre Schedule

CHARLES — "The Fantastics" Tues.-Fri. 8:30; Sat. 5:30, 9; Sun. 3, 7:30.
COLONIAL — "La Plume de ma Tante" Matinees Wed., Sat. at 2:30; Eves. at 8:30; No show Sunday.
SHUBERT — "The Music Man" Evenings at 8:30; Matinees Wed. & Sat. at 2:30.

CRC Slates Fund Drive

The MIT Civil Rights Committee will have a fund drive to raise money for the Student Non-Violent Coordinating Committee, next Monday, Tuesday, and Wednesday, February 19, 20, and 21.

There will be a booth in Building 10 selling $1 buttons, showing an "integrated" handshake.

movies . . .

Schell, Tracy Star In 'Judgment'

By Tom Maugh '65

The trial of Ernst Janning and his fellow Nazi judges, perhaps one of the most significant trials of the 20th century, is the subject of "Judgment at Nuremberg" which opened last night at the Saxon Theater. It is a moving and dramatic story which features some of the best acting I have seen in a long while.

Spencer Tracy gives what is probably his greatest performance as Judge Dan Haywood, a small town Maine jurist chosen to preside over the war trial of four Nazi jurists. Judge Haywood was forced to cope with not only his own conscience in choosing what was right in the case, but also psychological pressures which were applied to him because of the situation in Germany at the time (Berlin had been blockaded).

However, Maximilian Schell stole the show in the role of the young German defense attorney trying to save not only the life of the German jurists but the reputation and dignity of post-war Germany. He well deserved the award he got from the New York film critics, and is a sure bet for an Osoar.

Although there were too many great or good performances to appraise them all, I feel I should mention that of Montgomery Clift in the relatively small but very difficult role of an itinerant baker's helper who had been sterilized at the order of Janning. His pathetic pleas during the trial led one nearly to tears, and were so convincing that I am afraid that, henceforth, I shall always consider him as a mental case.

Others who were included in the cast were Burt Lancaster, Richard Widmark, Marlene Dietrich and Judy Garland. Each filled his role well and gave an excellent performance.

The music for the picture was written by Ernest Gold who won an Academy Award for the soundtrack of "Exodus." Although most of the songs featured German lyrics, they were still very excellent and very moving. Also of particular significance was the camerawork which was used by Director Stanley Kramer. The unusual effects he created, such as revolving the camera around the subject so that all the audience would be shown, tended to create a feeling of vertigo which added greatly to the film.

An interesting sidelight to the film is the fact that when it made its world premiere in West Berlin, an arrangement such as that used at the United Nations enabled the audience to follow the dialogue in French, German, Spanish and Italian.

Although "Judgment at Nuremberg" will probably be beat out of an Oscar by some spectacular, it is, in my book, by far the best picture of the year. If you have any interest at all in history, drama, philosophy, or just people in general, and you miss this picture, you will be missing a once-in-a-lifetime opportunity to see true greatness.

3 Pre-Broadway Tryouts

7 Plays To Open In Area

"You Never Can Tell," the farce by George Bernard Shaw, is one of several plays scheduled to reach the Boston area within the next few weeks. It will open at the Charles Playhouse Thursday, Feb. 22. The play, the fourth production of the season, will star Richard Nicholls, George Turner, Mary Harrington and Norman Bowler.

"Isle of Children," a new play by Robert L. Joseph, will open at the Wilbur Theater Monday, Feb. 26. The pre-Broadway production will star Patty Duke and Noel Willman.

"I Can Get It for You Wholesale," based on the book by Jerome Weidman, will open at the Colonial Theater Tuesday, Feb. 27 for two and one-half weeks before going on Broadway. The musical comedy will star Lillian Roth, Harold Lang and Bambi Linn.

"A Thousand Clowns," a new comedy by Herb Gardner, creator of the cartoon Nebbishes, will open Thursday, March 15 at the Wilbur Theater. The show, which is directed by Michael Howard, will star Jason Richards Jr. in the pre-Broadway trial.

"Carnival," the musical based on the film "Lili," will begin at the Colonial Theater Monday, March 19 as the last show in their Theater Guild Series. The musical, which stars Susan Watson, Jo Anne Worley and Jonathon Lucas, will be directed by Gower Champion.

The first production in English of Max Frisch's "The Chinese Wall," an ironic farce set in ancient China, will be given by Tufts University at the Tufts Arena Theater March 16-17 and 22-24.

"Peace Decorum," a play about American aid to a South Seas island inhabited solely by women, will be the 114th production of "America's oldest theatrical organization" at the Hasty Pudding Institute, Cambridge, from March 21-31.

On Campus with Max Shulman

(Author of "Rally Round The Flag, Boys", "The Many Loves of Dobie Gillis", etc.)

THE MANY LOVES OF THORWALD DOCKSTADER

When Thorwald Dockstader—sophomore, epicure, and sportsman—first took up smoking, he did not simply choose the first brand of cigarettes that came to hand. He did what any sophomore, epicure, and sportsman would do: he sampled several brands until he found the very best—a mild, rich, flavorful smoke—an endless source of comfort and satisfaction—a smoke that never palled, never failed to please—a smoke that age could not wither nor custom stale—a filter cigarette with an unfiltered taste—Marlboro, of course!

Similarly, when Thorwald took up girls, he did not simply select the first one who came along. He sampled. First he dated an English literature major named Elizabeth Barrett Schwartz, a wisp of a girl with large, luminous eyes and a soul that shimmered with a pale, unearthly beauty. Trippingly, trippingly, she walked with Thorwald upon the beach and sat with him behind a windward dune and listened to a conch shell and sighed sweetly and took out a little gold pencil and a little morocco notebook and wrote a little poem:

I will lie upon the shore,
I will be a dreamer,
I will feel the sea once more,
Pounding on my femur.

Thorwald's second date was with a physical education major

He did not simply select the first one who came along...

named Peaches Glendower, a broth of a girl with a ready smile and a size 18 neck. She took Thorwald down to the cinder track where they did 100 laps to open the pores. Then they played four games of squash, six sets of tennis, 36 holes of golf, nine innings of one o'cat, six chukkers of lacrosse, and a mile and a quarter of leapfrog. Then they went ten rounds with eight ounce gloves and had heaping bowls of whey and exchanged a firm handshake and went home to their respective whirlpool baths.

Thorwald's final date was with a golden-haired, creamy-browed, green-eyed, red-lipped, full-calved girl named Totsi Sigafoos. Totsi was not majoring in anything. As she often said, "Gee whillikers, what's college for anyhow—to fill your head full of icky old facts, or to discover the shining essence that is YOU?"

Totsi started the evening with Thorwald at a luxurious restaurant where she consumed her own weight in Cornish rock hen. From there they went to a deluxe movie palace where Totsi had popcorn with butter. Then she had a bag of chocolate covered raisins—also with butter. Then they went to a costly ballroom and did the Twist till dawn, tipping the band every eight bars. Then they went to a Chinese restaurant where Totsi, unable to translate the menu, solved her problem by ordering one of everything. Then Thorwald took her to the women's dorm, boosted her in the window, and went downtown to wait for the employment office to open.

While waiting, Thorwald thought over all of his girls and came to a sensible decision. "I think," he said to himself, "that I will stick with Marlboros. I am not rich enough for girls."

* * *

Boston Tea Party

Tech Show To Debut 22nd

"Tempest In A Teaport," the 1962 Tech Show, will make its debut Thursday, Feb. 22 in Kresge Auditorium. Produced by Michael Platt '63 and directed by Richard Hornby '62, the two act musical relates the story of the Boston Tea Party in a version in which "history has been drastically mutilated."

The play, based on an idea by Jean Pierre Frankenhuis, was written by Hornby and Stan Michalik '63. The music was supplied by Tom Shackman and Brad Barnes, while Shackman and Michalik wrote the lyrics.

The show, which has been in rehearsal since Intersession, features three people from last year's show—John Ryan, Marshall Flam, '63 and Pete Anderson '62.

Also featured in the show will be Mimi Shore from Leslie and Gail Greene. The rest of the 25 member cast will be composed of MIT men and girls from Leslie, BU, Simmons and Emerson.

The show will be given Feb. 22-24 and March 2-3.

Drama Shop To Offer Strinberg's 'Miss Julie'; Chekhov's 'Marriage Proposal' Friday Night

"Miss Julie", by August Strindberg, and "The Marriage Proposal", by Anton Chekhov will be presented by Dramashop Friday as this term's first evening of one act plays.

"Miss Julie", which will be directed by Jean Pierre Frankenhuis, will star Ruth Brand, of the Charles Playhouse, in the title role. Miss Brand is a veteran performer with the Dramashop, having appeared in several of their productions. "The Marriage Proposal" will be directed by Steven Lorch.

The plays will begin at 8:30 in the Kresge Little Theater, and are open to the public. There will be a coffee-hour and critique after the plays.

Placement Interviews

FEBRUARY 14

DuPont (2, 3, 5, 6, 8, 10, 15-B,M); Sinclair Research (10-B,M); Space Technology Laboratories (6, 8; 2, 10, 16-M, D); General Dynamics/Electronics (2, 6-B); Procter and Gamble, Plant Management (1, 2, 3, 5, 6, 8, 10, 14, 15, 18, 20, 21-B,M); Procter and Gamble, Overseas (all engineering, 5, 15, 20-B,M); Shell Chemical (2, 5, 6, 10-B,M); Shell Oil, Manufacturing (2, 5, 10-B,M); Allegheny Ludlum Steel (2, 3, 6, 15-B); Dow Chemical (2, 3, 5, 10-B,M); Eastman Kodak (2, 5, 6, 8, 10, 15, 18-B,M); Ebasco Services (2,6-B); General Precision (6); New England Electric (1; 2, 6, 15, 22-B,M); Pfaudler Permutit (5, 10-B,M; 3, 5, 8-M,D); Pittsburgh Plate Glass (6-B,M; 2, 5, 8, 10); Pratt and Whitney Aircraft (2, 3, 6, 8, 10, 16, 22); Texas Instruments, Apparatus Division (2, 7, 8, 15); Texas Instruments, Metals and Controls (2, 3, 6, 8); Texaco, Refining Department (1, 2, 10-B,M); Texaco, Research and Technical Department (2, 6, 10; 5, 8, 12, 18-M,D); Radio Corporation of America (2, 6, 8, 16-B,M); RCA Laboratories (6, 8-B,M).

FEBRUARY 15

DuPont (2, 3, 5, 6, 8, 10, 15-B,M); Procter and Gamble, Industrial Engineering Division (1, 2, 6, 10, 14, 15, 18, 21-B,M); Procter and Gamble, Advertising (14, 15, 21-B,M); Dow Chemical (2, 3, 5, 10-B,M); Eastman Kodak (2, 5, 6, 8, 10, 15, 18-B,M); Pratt and Whitney (2, 3, 6, 8, 10, 16, 22); Texas Instruments, Apparatus (2, 6, 8, 15); Texas Instruments, Metals and Controls (2, 3, 6, 8); Texas Instruments, Central Research and Engineering (2, 3, 5, 6, 8, 18-M,D); Texas Instruments, Geosciences Division (6, 8, 12; 18-M,D); Consolidated Edison of New York (1, 2, 6, 10-B); Equitable Life Assurance (18-B); General Radio (6, 8); M. W. Kellogg (1, 2, 10); Esso Research and Humble Oil (2, 6, 10-B); Lockheed-California (1, 2, 6, 8, 16, 18); Pennsalt Chemical (2, 5, 10, 15); Raybestos (2, 5, 10, 15-B); Thompson Ramo Wooldridge, Tapco Group (2, 3, 5, 6, 8, 10, 16, 18); Standard Oil of California (2, 6, 10-B,M; 18); Union Carbide Plastics (1, 2, 5, 6, 8, 10, 15-B,M); Whirlpool (2, 6, 15-B, M); Whirlpool, Research (5, 6, 7, 8, 10, 20-M,D).

FEBRUARY 16

DuPont (2, 3, 5, 6, 8, 10, 15-B,M); Eastman Kodak (2, 5, 6, 8, 10, 15, 18-B,M); M. W. Kellogg (1, 2, 10); Lockheed-California (1, 2, 6, 8, 16, 18); Standard Oil of California (2, 6, 10-B,M; 18); American Can (2, 5, 10-B); Anaconda Wire and Cable (2, 6, 10, 15-B, M); Bell Helicopter (2, 6, 8, 16); Beloit Iron Works (15-M; 2, 6, 8); Burroughs (2, 6, 8, 18; 5-D); Continental Oil - 2, 10-B,M); Dewey and Almy Chemical (2, 15-B,M; 5, 10); Diamond Alkali (2, 15-B, M; 5, 10); Gibbs and Cox (1, 2, 6, 13, 22-B,M); Mitre Corporation (6-B,M; 8, 18-M,D); Pillsbury (10, 15-B); 5, 20-M,D); National Starch and Chemical (10-B,M; 5); Polaroid (2, 6, 10-B,M; 5); Stewart-Warner (2, 6, 10, 15-B,M); Wymann-Gordon (2, 3, 15-B,M); United States Steel, Production and Staff (all engineering); U. S. Steel, Comptroller (15, 18-B,M); U.S. Steel, Commercial Research (15 and all engineering, B,M); U.S. Army Ordnance Missile Command (2, 6, 16; 5, 8, 18-M,D); Coast and Geodetic Survey (1, 2, 6, 18-B); U.S Army Ordnance Corps (1, 2, 3, 5, 6, 8, 10, 15, 16, 18, 19).

FEBRUARY 19

Boeing Company (1, 2, 6, 8, 15, 18); Chemstrand (2, 10); Colgate-Palmolive (2, 10, 15); Douglas Aircraft (2, 6, 16; 8, 10, 18-M,D); Dow Corning (5, 8; 1, 2, 6, 10-B,M); Fairchild Stratos (6, 8-B,M); General Foods (6-B; 2, 15-B,M; 5, 10, 20); General Motors (2, 3, 5, 6, 8, 18); Goodyear Tire and Rubber (2-B; 15-B,M; 5, 10); Goodyear Aircraft (16-B,M; 2-M; 8, 18-M,D; 6); Goodyear Atomic (2, 3, 5, 6, 8, 10, 18); Hamilton Standard (2, 6, 8, 15, 18-B,M); Hughes Aircraft (2, 6, 8, 16; 18-D); Kimberly-Clark (2-B; 15-B,M; 5, 10); Lever Brothers (10); Linde Company (2, 3, 5, 6, 8, 10-B,M); Lockheed Missiles and Space (1, 2, 5, 6, 8, 15, 16, 18); Universal-Cyclops Steel (3-B).

FEBRUARY 20

Boeing (1, 2, 6, 8, 15, 16, 18); Chemstrand (2, 10); Douglas Aircraft (2, 6, 16; 8, 10, 18-M,D); General Motors (2, 3, 5, 6, 8, 18); Goodyear Tire and Rubber (2-B; 15-B,M; 5,10); Goodyear Aircraft (16-B,M; 2-M; 8, 18-M,D; 6); Goodyear Atomic (2, 3, 5, 6, 8, 10, 18); Hamilton Standard (2, 6, 8, 15, 18-B,M); Hughes Aircraft (2, 6, 8, 16; 18-D); Linde (2, 3, 5, 6, 8, 10-B,M); Lockheed Missiles and Space (1, 2, 5, 6, 8, 15, 16, 18); Barnes Engineering (6, 8-B, M); Eli Lilly (2, 10-B; 15-M); Mead Corporation (2, 15-B; 10-B,M); Microwave Associates (5, 6, 8); Sun Oil (5, 8, 10; 14, 15-M); Electro-Mechanical Research (2, 6); Sun Chemical (5, 8, 14, 15, 21-B,M); Inland Steel (all engineering, 15-B; D-3).

FEBRUARY 21

Boeing (1, 2, 6, 8, 15, 16, 18); Douglas Aircraft (2, 6, 16; 8, 10, 18-M,D); General Motors (2, 3, 5, 6, 8, 18); Goodyear Tire and Rubber (2-B; 15-B,M; 5, 10); Goodyear International (14, 15-B,M); Hughes Aircraft (2, 6, 8, 16; 18-D); Air Products and Chemicals (2, 10; 5-D); General Motors, Allison Division (2, 6, 8, 10, 22-M,D); American Electric Power Service (2, 6-B); Cummins Engine (6, 16-B; 2, 15-B,M); Daystrom (6, 8-B,M); Digital Equipment Corporation (6-B); Inland Steel (all engineering, 15-B; 3-D); Koppers (5, 6, 10-B; 2-B,M); Standard Oil of Ohio (2, 5, 6, 0, 18-B,M; 15-M); State Mutual Life Assurance (14, 15, 18-B,M); Toledo Scale (2, 6-B); Battelle Memorial Institute (2, 3, 5, 6, 8, 10).

FEBRUARY 23

Boeing (1, 2, 6, 8, 15, 16, 18); Standard Oil of Ohio (2, 5, 6, 10, 18-B,M; 15-M); Amperex Electronic (2, 3, 6, 8, 10-B); B-I-F Industries (2, 6, 10-B,M); C. F. Braun (10); Brooklyn Union Gas (1, 2, 6, 10, 14, 15, 18-B); Consolidation Coal (2-B,M; 5, 10); Great Lakes Steel (6, 10, 15-B; 2, 3,-B,M); Hazeltine Corporation (6); Mutual Benefit Life Insurance (18-B,M); Owens-Corning Fiberglas (3, 4, 6, 17- B; 2, 5, 10, 15-B,M); Pearsall Chemical (10-B); Scovill Manufacturing (2, 3, 10-B); Timken Roller Bearing (2, 3, 15-B).

Summer Job Interviews

The following companies have specifically indicated they will interview summer job candidates on the dates given. In most cases the courses eligible are not limited strictly to those listed; rather, the listings are to be taken as a general indication of those areas in which the company is interested. Juniors and above are eligible unless otherwise noted. Many companies not in this list will interview summer candidates if their schedules are not completely filled with permanent work candidates. For further information, check at the Student Placement Bureau, 1-173, on the day before the company is interviewing.

FEBRUARY 14

E. I. duPont de Nemours (2, 3, 5, 6, 8, 10, 15); Dow Chemical (2, 3, 5, 10); Texaco (1, 2, 10); Radio Corporation of America (2, 6, 8, 16); RCA Laboratories (6, 8; advanced degree candidates only).

FEBRUARY 15

Du Pont (2, 3, 5, 6, 8, 10, 15); Dow Chemical (2, 3, 5, 10); Texas Instruments, Geosciences Division (6, 8, 12, 18; advanced degree candidates only); Equitable Life Insurance Society (18; sophomores and above); M. W. Kellogg (1, 2, 10); Esso Research and Engineering and Humble Oil (2, 6, 10); Pennsalt Chemicals (2, 5, 10, 15); Thompson Ramo Wooldridge, Tapco Group (2, 3, 5, 6, 8, 10, 16, 18); Union Carbide Plastics (1, 2, 5, 6, 8, 10, 15); Whirlpool Research Laboratories (5, 6, 8, 10, 20; advanced degree candidates only).

FEBRUARY 16

Du Pont (2, 3, 5, 6, 8, 10, 15); Eastman Kodak (2, 5, 6, 8, 10, 15, 18); M. W. Kellogg (1, 2, 10); American Can (2, 5, 10); Bell Helicopter (2, 6, 8, 16); Beloit Iron Works (2, 6, 8, 15); Diamond Alkali (2, 5, 10, 15); Gibbs & Cox (sophomore and above in 2 and 6 for draftsmen); Mitre Corporation (6; advanced degree candidates in 8, 18); National Starch and Chemical (5, 10); Wyman-Gordon (2, 3, 15); U.S. Army Ordnance Missile Command (2, 5, 6, 8, 16, 18; advanced degree candidates only).

FEBRUARY 19

Boeing (1, 2, 6, 8, 15, 16, 18); Chemstrand (2, 10); Dow Corning (1, 2, 5, 6, 8, 10); General Foods (2, 5, 6, 10, 15, 20); General Motors (2, 3, 5, 6, 8, 18); Hamilton Standard (2, 6, 8, 15, 18).

FEBRUARY 20

Boeing (1, 2, 6, 8, 15, 16, 18); Chemstrand (2, 10); General Motors (2, 3, 5, 6, 8, 18); Hamilton Standard (2, 6, 8, 15, 18); Eli Lilly (2, 10); Sun Oil (5, 8, 10, 14, 15); Electro-Mechanical Research (2, 6).

FEBRUARY 21

Boeing (1, 2, 6, 8, 15, 16, 18); General Motors (2, 3, 5, 6, 8, 18); General Motors, Allison Division (2, 6, 8, 10, 22; seniors and above); Digital Equipment Corporation (6); Standard Oil of Ohio (2, 5, 6, 10, 15, 18); State Mutual Life Insurance (14, 15, 18; sophomores and above); Toledo Scale (2, 6).

FEBRUARY 23

Boeing (1, 2, 6, 8, 15, 16, 18); Standard Oil of Ohio (2, 5, 6, 10, 15, 18); Amperex Electronic (2, 3, 5, 6, 8, 10, 18); B-I-F Industries (2, 6, 10); Consolidation Coal (2, 5, 10); Mutual Benefit Life Insurance (18; sophomores and above); Timken Roller Bearing (2, 3, 15; Ohio residents).

Thermite Reaction, Cake And Ice Cream Highlight Institute Tour

After a long day of walking through Institute corridors and viewing several demonstrations, the boys of the Boys' Club return to home base (fifth floor of East Campus, east parallel) for their afternoon treat — ice cream and cake.

— Photo by Curtiss Wiler '63

By Thomas F. Arnold '64

At the invitation of some of the residents of the fifth floor in the east parallel of East Campus, 30 10-year-old boys from Boston toured MIT last Saturday. The boys, all members of the Boys' Clubs of Boston, Inc., were given a first-hand look at the Institute by the East Campusites and then returned to the dormitory for the high point of the day—an ice cream party.

After spending some time on one of the parallel roofs throwing snow to the ground, the boys went to room 10-250 where they saw Professor Edwin Lee Gamble perform the demonstration of the thermite reaction. The demonstration, carried out in pitch darkness, brought a loud, spontaneous round of applause from the boys who then gathered around him to ask questions in a manner reminiscent of 5.01 lectures.

Copper and Iron Bars Neck

From 10-250 the boys went to see the scale ship models in Building 5, but the trip was too long to take without some entertainment, so Elroy Miller '65, one of the East Campusites sponsoring the tour, rode the distance (except for the stairs) on his unicycle. After seeing the ships the group went to the tensile strength testing laboratory in room 1-106 where Elroy Miller and another East Campus resident demonstrated a machine that could pull apart bars and crush steel blocks. First, copper and iron bars were stretched until broken, and the phenomenon of "necking," a constriction in the bar just before it breaks, was shown. Then a steel block was placed in the machine and the machine's full capacity of 200,000 pounds was exerted on the block in an attempt to crush it. The boys carried off the block, now about half its original height and bulging at the center.

Because the building up of these forces takes some minutes in which there is nothing exciting to see, and because no 10-year-old can be kept still for more than 30 seconds, a few of the boys decided to operate some of the machines themselves. The only thing that could conveniently be pushed, pulled or turned, however, were some chains hanging from the ceiling; so, before anyone knew it, sliding overhead beams were moving across the room.

The visitors gather around to watch their East Campus host type out their names on paper tape with the TX-O Flexo-writer.

— Photo by Curtiss Wiler '63

Mixers Draw Attention

As much attention as the planned items on the tour were getting, the *The Tech* vending machines almost outdid them. While walking through the halls, many of the visitors stopped to gaze at the machines and ask what they were about. The bulletin boards also seemed to attract a lot of attention, for some were reading about mixers while others were checking the For Sale signs.

Next on the itinerary was a visit to the TX-O and PDP-1 computers. The names of the boys were punched out on paper tape and the technique of drawing pictures on the machine's scope was shown. On the TX-O, tic-tac-toe was played and, when the machine won, it printed on the scope, "better luck next time. Want more?" When the machine's opponent managed to draw, the machine printed "We are stuck. Want more?" Unfortunately, a mouse-and-maze game didn't work quite so well. The operator was to draw a maze on the scope, with a piece of cheese in the middle. The TX-O then had to try to find a way for a mouse to get to the cheese. The first time it was tried, the machine said there was no way out of the maze and that the operator should fix this. However, there was a way out that the machine missed. The operator then decided to use the maze on which the TX-O had previously been tested. After some time, the mouse managed to get to the cheese, circled it and ate it. The operator then explained that once the TX-O had found the path it would remember it and get to the cheese very quickly the next time. The mouse did get to the cheese and ate it very quickly this time, but it did so by going through three of the walls of the maze drawn on the machine's scope.

At TBS, 5 Equals 15

The Boys' Club youngsters then went to the ship model towing tank where they saw the production of water waves and some research on why the Texas Towers collapsed. After this came a visit to the WTBS studio where the boys were to be admitted into the control rooms about four or five at a time, because WTBS was on the air then. Naturally, they went in in two groups of about 15 each.

After the tours were over, everybody went up to the fifth floor in East Campus for some ice cream and cake. There they invaded the rooms of John Reed '64 and a few other noble-hearted East Campus men.

Earth Science Construction Proceeds Slowly

By Richard Garber '62

Construction of the Green Center of Earth Science is proceeding slowly, and temporarily quietly. To date, the construction site has been excavated to a depth of about ten feet. The East Campus steam tunnel has been removed, wih East Campus now getting its steam via Walker; but an electric power line to East Campus exposed by the excavation is now held firm by temporary wooden piles, so that electric service will not be interrupted.

Four test piles were driven during finals period, and the results of tests on two of them are still being awaited. The test consists of a static loading of one hundred tons, applied for a week. The two piles which already have been tested have had acceptable settlements.

With just a few thousandths of an inch settlement under twice the design load, the building is expected to stand firmly. Since the piles went under test, construction has been confined to installing utilities and unloading piles.

A well point system has also been installed to lower the water table of the excavation site for the foundation work.

CALENDAR of EVENTS

*Open to the public

Wednesday, February 14

OPERATIONS RESEARCH CENTER.*
Seminar: "The Construction of Reliable Computers from Unreliable Components." Professor Dean Arden, Department of Electrical Engineering, MIT.
Room 8-205, 2:00 p.m.

INDOOR TRACK.*
AAU Meet.
Rockwell Cage, 7:00 p.m.

TECHNOLOGY CATHOLIC CLUB.
Altar Boy Classes. Learning how to serve Mass.
MIT Chapel, 7:30 p.m.

MIT HILLEL SOCIETY.*
Israeli Dancing. Admission 50c.
Walker Memorial, Room 201, 8:30 p.m.

ORGAN RECITAL.*
Donald McDonald, First Congregational Church, Montclair, N.J. Tickets: $2.00.
Kresge Auditorium, 8:30 p.m.

Thursday, February 15

MIT HILLEL SOCIETY.
Study group: "Basic Concepts of Judaism."
317 Memorial Drive, 4:00 p.m.

DEPARTMENT OF PHYSICS.*
Colloquium: "u-Capture in Hydrogen." Dr. Roger H. Hildebrandt, University of Chicago. Tea in the John Picker Kolker Room (26-414) at 3:30 p.m.
Room 26-100, 4:00 p.m.

DEPARTMENT OF MATHEMATICS, BRANDEIS-HARVARD-MIT MATHEMATICS COLLOQUIUM.*
"Integral Currents in Kahler Manifolds." Professor Herbert Federer, Brown University. Tea in Foyer of Golding Auditorium at 4:00 p.m.
Golding Auditorium, Brandeis University, 4:30 p.m.

MIT-HARVARD BIOCHEMISTRY SEMINAR.*
"Synthetic Polynucleotides and the Genetic Code." Dr. Severo Ochoa, Department of Biochemistry, New York University School of Medicine, New York.
Mallinckrodt Laboratory, MB-9, Harvard University, 5:00 p.m.

DEPARTMENT OF MILITARY, NAVAL, AND AIR SCIENCE.*
World War II film series: "The Famous Third Army." Sponsored by the Jay Zeamer Squadron and the Pershing Rifles. Admission free.
Vannevar Bush Room, 5:00 p.m.

PROTESTANT CHRISTIAN ASSOCIATION.
Discussion group: "Contemporary Fiction." Mr. Bloy. Call extension 2326 for time.
317 Memorial Drive

TECHNOLOGY CATHOLIC CLUB.*
"Theology of the Sacraments." Father Francis Sweeney, CSP.
Room 7-108, 5:00 p.m.

UNITARIAN-UNIVERSALIST MINISTRY.
Open seminar in existential thought. "The Relevance of God."
317 Memorial Drive, 6:30 p.m.

WATER POLO CLUB.*
Meeting.
Alumni Pool, 6:30 p.m.

TECHNOLOGY CATHOLIC CLUB.
Altar Boy Classes. Learning how to serve Mass
MIT Chapel, 7:30 p.m.

GRADUATE CHRISTIAN DISCUSSION GROUP.*
"Faith: Personal-Intellectual." Dr. Walter R. Thorson, Assistant Professor of Chemistry, MIT.
Macomber Room, Graduate House, 7:00 p.m.

DEPARTMENT OF CHEMISTRY HARVARD-MIT PHYSICAL CHEMISTRY COLLOQUIUM.*
"Corresponding State Treatment of Kinetic Data: Solvent Effects." Dr. Harry Frisch, Bell Telephone Laboratories, Murray Hall, New Jersey.
Room 6-120, 8:00 p.m.

MIT CIVIL RIGHTS COMMITTEE.*
Debate on Racial Equality—Part II: Lecture, "The Case for Integration." Mr. James Farmer, National Director of CORE (Congress of Racial Equality). A question period will follow.
Compton Lecture Hall, 26-100, 8:00 p.m.

Friday, February 16

RESEARCH LABORATORY OF ELECTRONICS.*
Colloquium: "Cerrillo's Perceptual Field Hypothesis." Walter H. Pitts, Lecturer, Department of Electrical Engineering, MIT and Jerome Y. Lettvin, Associate Professor of Biology, MIT.
Room 26-100, 3:00 p.m.

DEPARTMENT OF MECHANICAL ENGINEERING.
Seminar: "An Experimental Study of the Rotation of a Flexible Disk Next to a Parallel Plane—A Problem in Elasticity and Fluid Dynamics." Mr. Ivan Pelech, Laboratory for Electronics, Inc., Boston. Coffee in the Miller Room (3-070) at 3:00 p.m.
Room 3-270, 3:30 p.m.

TECHNOLOGY CATHOLIC CLUB.*
Philosophy Lecture Series: "Being, Essence, and Existence." Father William Wallace, OP.
Room 3-133, 5:00 p.m.

LECTURE SERIES COMMITTEE.
Classic film series: "He Who Must Die." Admission by subscription ticket only.
Kresge Auditorium, 6:30 and 9:00 p.m.

MIT DRAMASHOP.*
An evening of one-act plays. "Miss Julie" by August Strindberg and "The Marriage Proposal" by Anton Chekhov. Critique and coffee hour following the performances. Admission free.
Little Theatre, Kresge Auditorium, 8:30 p.m.

Saturday, February 17

MIT HILLEL SOCIETY.
Discussion group: "The Torah Portion of the Week."
317 Memorial Drive, 2:30 p.m.

LECTURE SERIES COMMITTEE.*
Entertainment film series: "The Last Angry Man." Admission 30c.
Room 10-250, 5:15, 7:30 and 9:45 p.m.

Sunday, February 18

PROTESTANT CHRISTIAN ASSOCIATION.
Breakfast for Protestant Students.
West Dining Room, Graduate House, 10:00 a.m.

Monday, February 19

APPLIED MATHEMATICS AND MECHANICS COLLOQUIUM.*
"Dislocation: A New Concept in Continuum Mechanics." Professor Ekkehart Kroner, Stuttgart Institute of Technology and Visiting Professor, Mathematics Dept., MIT. Tea in Room 2-290 at 3:30 p.m.
Room 2-390, 4:00 p.m.

TECHNOLOGY DAMES.
Talk. Dr. M. Bulin, "Methods of Childbirth."
Hayden Library Lounge, 8:00 p.m.

DEPARTMENT OF CIVIL ENGINEERING.
Hydromechanics seminar: "Multiple Purpose Water Resources Development." Mr. Arthur Mitchell, Assistant Chief, Project Investigations Division, Bureau of Reclamation, Denver, Colorado.
Room 48-208, 4:00 p.m.

MIT OUTING CLUB.*
Meeting.
Walker Memorial, Room 306, 5:15 p.m.

CHORAL SOCIETY.
Rehearsal.
Kresge Auditorium, 7:30 p.m.

SEMINAR SPONSORED BY THE PROTESTANT MINISTRY.
Graduate Seminar. "Live, Live, Live." Mr. Russell.
317 Memorial Drive, 10:00 p.m.

Tuesday, February 20

DEPARTMENT OF MECHANICAL ENGINEERING. ENGINEERING PROJECTS LABORATORY COLLOQUIUM.*
"Forced Convection Boiling Heat Transfer." Mr. Arthur Bergles.
Room 3-351, 12:00 noon

TECHNOLOGY CATHOLIC CLUB.*
Seminar for Unbelievers. Father William Sullivan, C.S.P.
Room 7-108, 12:00 noon

DEPARTMENT OF NUTRITION, FOOD SCIENCE AND TECHNOLOGY.*
Graduate seminar: "Vitamin A Acid." Professor John E. Dowling, Harvard University.
Room 16-310, 3:00 p.m.

COMPUTATION CENTER.*
Tour of the Computation Center with demonstration of the IBM 7090 Computer.
Room 26-168, 4:00 p.m.

DEPARTMENT OF GEOLOGY AND GEOPHYSICS.*
Earth Sciences Colloquium: "Problems of Caribbean Geology." Professor Ely Mencher, Associate Professor of Geology, MIT.
Room 4-231, 4:00 p.m.

DEPARTMENT OF MILITARY, NAVAL, AND AIR SCIENCE.*
World War II film series: "True Glory." Sponsored by the Jay Zeamer Squadron and the Pershing Rifles. Admission free.
Vannevar Bush Room, 4:00 p.m.

DEPARTMENT OF NAVAL ARCHITECTURE AND MARINE ENGINEERING.*
Seminar. "Engineering Aspects of the Mohole Project." Mr. Willard Bascom, Director, Mohole Project, National Academy of Sciences, Washington, D.C. Coffee in Room 5-311 at 3:30 p.m.
Room 3-370, 4:00 p.m.

HUMANITIES DEPARTMENT.*
New Art Bassoon Quartet with Donna Klimoski, mezzo-soprano in a program of Baroque, Renaissance, and Contemporary music. Admission free.
Hayden Memorial Music Library, 5:00 p.m.

SEMINAR SPONSORED BY THE PROTESTANT MINISTRY.
Study group: "Protestantism in America." Mr. Roelofs. Open to students of all nations.
317 Memorial Drive, 5:00 p.m.

TECHNOLOGY CATHOLIC CLUB.*
Meeting: "The Church and Civil Rights." Father John J. O'Brien, St. John's Seminary.
Vannevar Bush Room, 5:00 p.m.

PROTESTANT CHRISTIAN ASSOCIATION.
Study Groups.
317 Memorial Drive, 5:00 & 7:00 p.m.
Dinner.
West Dining Room Graduate House, 6:00 p.m.

DEPARTMENT OF AERONAUTICS AND ASTRONAUTICS.
Dinner-meeting for Juniors.
Endicott House, 6:00 p.m.

SEMINAR SPONSORED BY THE PROTESTANT MINISTRY.
Graduate Seminar. Dinner-meeting. "Spirit of Protestantism." Mr. Holtzapple.
Room 5, Faculty Club, 6:15 p.m.

WATER POLO CLUB.*
Meeting.
Alumni Pool, 6:30 p.m.

Wednesday, February 21

OPERATIONS RESEARCH CENTER.*
Seminar: "The Project Mercury Real-Time Decision Making System." Dr. Saul I. Gass, Manager, Project Mercury, IBM Federal Systems Division, Bethesda, Maryland.
Room 8-205, 2:00 p.m.

PROTESTANT MINISTRY AT MIT.
Coffee hour for Faculty.
"That They May Be One: Significant Events in the World Council of Churches Assembly." The Venerable John Burgess, formerly Episcopalian Chaplain of Howard University and Canon of the Washington Cathedral.
Emma Rogers Room, 10-340, 3:00 p.m.

NUCLEAR ENGINEERING DEPARTMENT.
Seminar lecture: "The Comparative Anatomy of Gas-Cooled Reactors." Dr. R. A. Charpie, Manager, Advanced Developments, Union Carbide Corporation. All interested persons are invited.
Room 222, 138 Albany St., 4:00 p.m.

(Please turn to Page 19)

Grad House Favored

IM Hockey Playoffs Tight

The intramural hockey playoffs are well on their way, with Graduate House favored to win the title again this year. Other major contenders are Theta Delta Chi, Sigma Alpha Epsilon, and Phi Gamma Delta.

Grad House' front line of Silver, Butman, and Parker is certainly the best scoring unit in the history of intramural hockey here at MIT; they are backed up by a second line of better-than-average intramural players and a very sound defense. In their first two playoff games, Grad House drubbed East Campus 8-0 and Delta Psi 6-1.

Theta Delta Chi, led by seniors Dick Conant and Mike Robb, had trouble finding its scoring range in their first game of the playoffs; they squeaked by Lambda Chi Alpha, 1-0, in a sudden-death overtime last Sunday. Last night Theta Delta Chi took on Grad House in a major encounter in the double-elimination playoffs.

Tom Hastings '61 and Norm Dorf '62 provide the punch for Phi Gamma Delta, who nipped Sigma Phi Epsilon 2-1 in their second game, after polishing off Baker House a week ago. The Fijis concentrate on a strong defense, hoping for occasional breakaways, but have had trouble hitting the net lately.

Mickey Haney '62, perennial superstar of Sigma Alpha Epsilon, has been aided this year by the brilliant goal-tending of Joe Kirk '64, and improved play all around. After opening with a 7-0 romp over Chi Phi, SAE barely downed Theta Chi 2-1 last Sunday. SAE played the Fijis last night; the winner of this contest meets the winner of the Grad-TDC battle next Sunday at 7:30.

The first-round losers' consolation bracket saw Tau Epsilon Phi forfeit its second straight playoff game to Senior House, and East Campus forfeit to NRSA. Thursday night Sigma Chi faces Baker House, and Burton House plays Chi Phi.

MIT Squash Team Blasts Trinity Squad 8-1

The MIT squash team topped Trinity 8-1 Saturday afternoon for its first major win in two seasons. Last year Trinity beat MIT 7-2.

Captain Monroe Labourisse '62, playing top man, defeated Trinity's Pope 15-12, 15-13, 15-12. Mills, Trinity's regular number one man, had gone to the National Open Tournament in Buffalo. All of the other MIT victories were also in three straight games. Joe Strutt '62 gave up the fewest points, winning at seventh 15-10, 15-8, 15-7.

Bill Mihaltse '62, usually the most consistent MIT player in intercollegiate competition, had a bad day and lost to Steinmuller '62 in five erratic games.

Friday night MIT lost 8-1 to Princeton, which is ranked in the top three or four teams in the country. Zug, Princeton's top man and perhaps second in intercollegiate rankings, had also gone to the Nationals. Thomas Guillermox '64, playing six, had the only official victory against Princeton. Bob Blumberg '64 won an unofficial match in tenth position.

McFarland Wins Match

Pistol Second in NEGPC

Six members of the Varsity Pistol Team and Coach Robert Durland competed January 27 with an estimated 125 other shooters in the New England Gallery Pistol Championships, at the Mystic Valley Gun Club in Malden. Bill McFarland '62 won four trophies in the Expert Class with a score of 843, placing first in the Aggregate, fourth in Timed Fire, first in Rapid Fire, and third in the Gallery Course. Manager Tom Isaacs '62 also fired in the Expert Class, taking third place in Rapid Fire and fourth in the Gallery Course. The MIT team entry consisting of the three lettermen McFarland, Isaacs, and John Gibbons '62 and Coach Durland, took first place in the Expert Class with a score of 1101, placing second only to the Coast Guard Master Team in the entire field of competition.

On the following Tuesday the Pistol Team joined the Rifle and Swimming Teams in the annual Southern Trip, and on the same afternoon soundly defeated Rutgers, 1326 to 1276. Sophomore Bob Brooks came through with a 269 in this match, his highest score to date. Also counting among the MIT high five were Tom Isaacs, Bill McFarland, John Gibbons, and Ross Melton '64.

Despite this encouraging start, however, the team lost the next two matches of the trip. Wednesday MIT turned in a score of 1297 against Navy's 1402, and the following day bowed to Villanova, 1324 to 1313.

After a night in Philadelphia, the team continued the return north and Friday afternoon faced the Merchant Marine Academy at King's Point, New York. MIT won the match by a narrow margin of five points, 1319 to 1314. The last day of the trip, MIT faced the undefeated Army Team at West Point, losing 1412 to 1301.

The team arrived home at 1 a. m. Sunday morning, and during the following week fired postal matches against Arlington State, Ohio State, and Oglethorpe University. And in the GBPL match Tuesday night, MIT defeated the top ranking Hanscom Field team, 1099 to 1077.

Friday afternoon, February 9, the full squad of eight men left Cambridge for the Coast Guard Academy in New London, Connecticut, to compete with six other teams in the Intercollegiate Pistol Sectionals. The competition included two teams each from MIT, West Point, and Coast Guard, and one team each from the Merchant Marine Academy and the University of Massachusetts.

The results of this match, in combination with the other sectional matches fired throughout the country, determine to a large extent the members of the 1962 First and Second All American Pistol Teams. Last year MIT had two men, Bill McFarland and John Gibbons, on the Second Team. Last year also, Bill McFarland ranked sixth in the nation in the individual competition, and the MIT team entry ranked fifth in the nation.

This season, the competition was considerably stronger than last year, and the pressure on the individual shooters was intense. Under such heavy pressure few of the top shooters performed as well as they might have, and the expected record breaking scores from West Point and Coast Guard never materialized. It was a dark day for MIT, as Bill McFarland turned in the only respectable scores on the team.

The first Army team won the match with a score of 1112, followed by Coast Guard #1, 1107; Coast Guard #2, 1079; West Point #2, 1065; University of Massachusetts, 1045; MIT #1, 1033; Merchant Marine Academy, 1014; MIT #2, 916.

Icers Tromp Wesleyan, 7-3; Holy Cross Here On Friday

By Tom Sheahen '62

Brilliant playmaking by Capt. John Rupert '62, combined with the sharpshooting of Mike Denny '63, gave the Tech icemen their fifth straight win over Wesleyan, 7-3, last Saturday night. Tonight the team travels to Amherst, Mass., to meet the University of Massachusetts. Friday, Holy Cross comes to MIT and, Saturday, Worcester Polytechnic Institute will be here. Both games are at 7:00.

In last Saturday's game, Rupert set up five goals and scored a sixth; Denny hammered in four goals on passes from Rupert. Steve Levy '62 scored two and assisted on two more during the game.

Denny opened the scoring after two minutes of the first period after some fast passwork in front of the Wesleyan net. Wesleyan got it back four minutes later as Rick Adams took a pass from John Farr and blasted a hard shot into the upper left corner of the MIT net.

Wesleyan moved ahead a minute later as Brack Carr tipped in a rebound from in front of the net. But Tech came back strong and regained the lead on two Rupert to Denny combinations, within 47 seconds of each other, before the halfway mark. The first period progressed quietly until the final minute of play when Wesleyan's Chuck Dauchy tied the score 3-3 with a quick blast from the left of the MIT net.

After this initial scare (MIT usually beats Wesleyan), Tech returned to the ice for the second period and took a commanding lead. After five scoreless minutes, Rupert and Denny again broke away, sweeping in on an unprotected goaltender; Denny tipped in a pass from Rupert. Two minutes later Levy scored on a similar breakaway, Rupert again assisting.

The third period opened with defenseman Fran Berlandi '62 passing the puck to Levy, who scored after only 33 seconds. Seven minutes later a slap shot by Ted Cohn '63 rebounded to Levy, who faked out the goalie and passed to Rupert for the tally, bringing the score to 7-3. After this the teams played evenly and scorelessly for the rest of the game.

MIT	3	2	2	7
Wesleyan	3	0	0	3

First period goals: MIT, Denny (Rupert, Levy), 2:06; Denny (Rupert, Berlandi), 8:31; Denny (Rupert), 9:18. WESLEYAN, Adams (Farr), 6:17; Carr (Shick), 7:25; Dauchy (Dougherty, Shick), 19:29. Penalties: MIT, Cohn (charging), 0:43; McMillan (tripping), 8:54; Levy off(ensive zone checking), 11:12; Salmon (tripping), 12:19. WESLEYAN, Adams (tripping), 11:01.

Second period goals: MIT, Denny (Rupert), 5:46; Levy (Rupert), 7:17. Penalties: MIT, Holcroft (slashing), 8:08; WESLEYAN, Dougherty (hooking), 11:12.

Third period goals: MIT, Levy (Berlandi), 0:33; Rupert (Levy, Cohn), 7:43. Penalties: WESLEYAN, Pomeroy (tripping), 6:00; Ewart (charging), 10:36.

Goaltenders' saves:

McIlroy (W)	4	5	5	14
Shanfield (MIT)	8	4	4	16

Smith Fires 2nd 290

Sharpshooters Take Two

MIT's rifle team was victorious this past week in a pair of triangular matches against local colleges.

An afternoon match was held Friday with Boston College and Boston University at Boston College. Captain Steve Smith '62 led the team with his second 290 of the season. Smith's 290 was backed up by Dick Ludeman '63, 287; Terry Foster '63, 286; Al Gleim '62, 282; and Bruce Peterson '63, 282. The team score was 1427, two points below this season's high score. Boston University placed second with a 1401, while Boston College shot a 1392.

On Saturday, MIT shot against Northeastern and Providence College at Northeastern. MIT again fired a 1427 to defeat Northeastern with a 1412, and Providence with a 1402. Walter Draper of Northeastern shot a 294, but the team lacked the depth to come up with a winning score. MIT's high five were Gleim, 287; Smith, 286; Peterson, 285; Ludeman, 285; and Joe Wyatt, '62, 284.

Grapplers Crush U. of Mass. 25-5; Evans, Sloat Continue Streaks

The MIT Wrestling Team last Saturday, played host to the University of Massachusetts. The Engineers showed strength and experience in all weight classes, as they crushed the opposition by a score of 25-5. MIT's sole loss came in the 130-pound class, when Don Topkis, '64, failed to make the required maximum weight in his class.

Kim Sloat, MIT star grappler, scores take down on Ted Rice of University of Massachusetts. Sloat won by a decision for his 4th straight victory.

Jim Evans, '63, extended his winning streak to eight in a row by pinning his opponent in the fifth minute of the match. Evans is in the 147-pound weight class.

Kim Sloat, '64, Tech heavyweight star, continued his streak to four in a row by defeating Ted Rice on a decision.

Terry Chatwin, '63, pinned his man in six minutes in the 134-pound class, while Armand Gabrielan, '63, team captain Greg Brown, '62, Tom Garrity, '63, and Paul Olmstead, '62, won by decisions in the 127, 167, and 177-pound classes respectively.

The Engineers face Wesleyan tonight at the opponent's home gym. Saturday, the grapplers will play host to Dartmouth at 3:30 p.m. in Rockwell Cage. The Freshmen will also meet these schools at this time.

Take 6 of 11 Events ***Ising Smashes Record***

Tech Swimmers Swamp Trinity, 58-37

By Ronald Davies '63

MIT's swimming team downed Trinity last Saturday for another victory. The Techmen took six of eleven events, winning by the margin of 58-37. Outstanding performances were turned in by Tim Sloat '63, winning the 200-yard backstroke event in 2:22.0, and by Lauren Sompayrac '63, who came from behind to win the 200-yard breaststroke in 2:34.0.

In the opening event MIT stepped off to a quick lead by capturing the 400-yard medley relay. The team of Sloat Sompayrac, Ron Matlin '63, and Wayne Matson '64 breezed home in the time of 4:08.7 to win this event by five yards.

The Engineers again showed their superiority in the 220-yard freestyle. Captain Jed Engler took an early lead and remained in front over the entire distance.

Tech's natators dropped the 50-yard freestyle but came back with a pair of victories in the 200-yard individual medley and diving events. Tom Isng '62, holder of the MIT varsity record in this event, swam to an easy victory in the 200; while Bill Bails '64 took first place in diving.

Trinity was victorious in the 100 yard freestyle butterfly and the 100 yard freestyle despite the strong performances of Ron Matlin and Wayne Matson.

The Engineers' last two victories came in the 200-yard backstroke and 200-yard breaststroke. Tech swimmers placed first and second in each of these events.

Previous to the victory against Trinity, the swimming team broke even at 1-1-1 on a road trip during intercession. The victory came against Fordham College in New York City. The tie, the first in the last three years for the Techmen, was with New York University. And the loss came at the hands of the University of Pennsylvania in Philadelphia.

The highlight of the trip was the record-breaking effort of Tom Ising in the individual medley. Ising lowered the school record to 2:18.0.

The Tech swimming team meets Amherst this evening at the Alumni Pool. Saturday afternoon, the squad plays host to Adelphi College. Race time is 2 p. m.

Freshmen natators enter their sixth meet of the current campaign Saturday, February 17, against the cadets of West Point.

Swordsmen Fall 22-5 To Unbeaten Columbia; Meet Harvard Tonight

MIT's swordsmen met Columbia last Friday at Dupont and were topped by the New York school, 22-5. Columbia, having recently beaten NYU, is currently considered by coaches to be the top collegiate fencing team in the United States. The Techmen were hampered in the match by the recent loss of two of their top swordsmen, Bob Levis and Robert Mason.

In saber competition, Steve Reznek '63 showed excellent control of his point and straight attack, and Art Best '64 displayed much improvement in his attacks.

Dave Jancker '63 fenced well in epee as did Steve Miller '64.

In the foil, Barry Rosof fenced a strong match, but Ralph Zimmerman '64, a constant winner, had an off day.

The team meets Harvard tonight at Dupont.

9.01 Introduction To Sports

Tennis

Cary Salsberg '65

Tennis is an important part of the M.I.T. athletic program. This basic outline will help anyone who is not acquainted with it, but wishes to learn about it.

Three forms of tennis are most often played, singles, doubles, and mixed doubles. Singles requires one player on each side; doubles, two players; and mixed doubles, a man and woman on each side.

The large number of tennis courts on campus makes a detailed description of them fruitless, but I will mention the names of a few of the most important parts. The two squares adjacent to the net are called the service boxes, the lines parallel to the net are called the endlines, and the lines perpendicular to the net are called the sidelines. There are two pair of sidelines, the inner pair are the boundaries for singles play, and the outer pair are the boundaries for doubles play.

To begin play in a tennis match, one person must be designated as the server. He takes a position behind one endline, to the right of the court's center, and attempts to place the ball into the left service box on his opponent's side of the court. The ball must land in the box without hitting any other part of the court. The service is also good if it lands on the lines of the service box. The server is allowed two attempts to place his service into his opponent's box. If he fails, he loses the point, and moves to the left side of the endline where he must place the ball in his opponent's right service box. The server continues to alternate service boxes after each point throughout a game.

If the server succeeds in making a good service, his opponent must return the ball after only one bounce to the server's side. Hereafter the ball may be hit on the fly or after one bounce, and it must be returned to the opposite court.

A point is gained in tennis when the server fails to return the ball so that it bounces only on the opposite side of the court. Other less common means for a point to be gained are: an opponent hits the net when he attempts to hit the ball; an opponent hits the ball before it has crossed the net; an opponent hits the ball twice; and an opponent catches the ball or is hit by the ball in or out of bounds.

To the beginner and the spectator the most trying part of tennis is the scoring system. It is much more complicated than most other sports, but it lends to the excitement and value of the tennis match.

One game is won when a player wins four points. The first gives a score of five or fifteen; the second, thirty; the third, forty; and the fourth, fifty. The complications arise because a player must win by at least two points. When the score of forty-forty is reached, numbers are discarded, and the score is said to be deuce.

From this point to the game's end, deuce and add are the terms used to score. "Deuce" means an even score and the term "add," short for advantage, indicates that one player has won one more point than his opponent and needs only one point to win the game. If he loses the next point, the score becomes deuce again.

After a game is won the service is changed, and after each odd game the players change their sides of the court.

A player who wins six games, wins set. Again, a player must win a set by at least two games. Thus, if the score is tied at five games, the set may be won by scores of 7-5, 8-6, 9-7, 10-8, etc.

Most tennis matches consist of winning at least two of three or three of five sets. It is not difficult to see how this complicated scoring system leads to very long, strongly contested tennis matches.

Calendar of Events

(Continued from Page 16)

DEPARTMENT OF BIOLOGY.*
Seminar: "Methods For Looking at a Nervous System." Dr. Jerome Y. Lettvin, MIT.
Tea in Room 16-711 at 4:00 p.m.
Room 16-310, 4:30 p.m.
MIT HILLEL SOCIETY.
Lecture on Jewish History. "The Significance of the Spanish Period." Rabbi Pollack.
317 Memorial Drive, 7:30 p.m.
MIT HILLEL SOCIETY.*
Israeli Dancing. Admission 50c.
Walker Memorial, Room 201, 8:30 p.m.

Thursday, February 22

Holiday, Washington's birthday.

MIT ON WGBH-TV, CHANNEL 2

MIT SCIENCE REPORTER
"Hardware for the Blind." Host: John Fitch with guests, John Dupress, Director of Technical Research, American Foundation for the Blind, New York, Dr. Robert W. Mann, and Dr. Thomas B. Sheridan of the Department of Mechanical Engineering, MIT.
Wednesday, February 14, 9:30 p.m. and Sunday, February 18, 6:30 p.m.

EXHIBITS*

HAYDEN GALLERY.
David Smith Sculptures and reliefs. Displayed from February 10 through February 27. Gallery hours: Monday through Friday, 10:00 a.m. to 5:00 p.m. Saturday and Sunday, 1:00 p.m. to 5:00 p.m.
GRAPHIC ARTS GALLERY
(211 Massachusetts Avenue).
Photographic salon prints by Nelson L. Murphy, APSA, Washington, Pa. The exhibit includes snow scenes, marines, landscapes, and still life. Displayed through February 28.
FACULTY CLUB.
Prints by Patricia de Gogorza.
Japanese prints on loan from MIT Staff Members.

Skiers Sweep B Championship, Slalom; Now In Class A

In the four event EISA B-Championship, sponsored by Colby College Friday and Saturday, February 9 and 10, MIT skiers scored impressive victories, and managed to win the combined meet far ahead of second-place Colby

The Alpine events were held Friday at Sugarloaf Mountain, Kingfield, Maine. Henrik Wessel, '64, continued his performance from last weekend by winning the 52 gate, one mile downhill course followed by team mates Roberto Peccei, '62, second; Peter Goldstern, '62, fourth; Giorgio Emo, '62, fifth; and Bent Aasnaes, '64, seventh. MIT had all its five skiers within the first seven places, and held a solid lead over the other teams from the first event on.

The slalom was held Friday afternoon on a 45-gate course set by the former Austrian National Champion ('58 and '59) Uli Peterskovsky. In spite of the high quality course and difficult snow conditions, the Tech skiers managed to place all their five men in the six top spots. The event was won by Roberto Peccei after two excellent runs, where he proved his abilities as an outstanding skier on soft powder snow, as well as on pure ice. Henrik Wessel followed in second place, Giorgio Emo placed third, Peter Goldstern fourth, and Bent Aasnaes sixth. The Tech skiers increased their lead and got 99.8 out of 100 possible.

In the Nordic events, Saturday at Farmington, Maine, MIT again showed its supremacy by winning a dramatic Cross Country race by more than six minutes. Bent Aasnaes won the seven mile race by a margin of more than four minutes over second place Rogers from Colby. A victory such as this is extremely rare, and is even more unbelievable when we consider that Aasnaes reported to the Start with a severe cold. Wessel, who won the last Cross Country meet for MIT, had a dramatic experience right after his start. In passing a bumpy part of the course, suddenly his left ski broke off right behind the boot. There was no time to turn around and get a new ski so he continued, on one and a half skis three miles to the half-way station where Roberto Peccei was waiting with reserve equipment. In spite of this unfortunate experience, he placed third, followed by team mates Bjorn Qvale, '62, and Giorgio Emo in the fifth and sixth positions.

The Jumping was held in the afternoon on a 90-foot jump at Framingham Ski Area. Each competitor had three jumps, with the two best counting. Aasnaes again turned in a phenomenal performance, soaring an amazing 90 feet to capture another first place for Tech. Wessel, Emo, and Stieglitz, '64, placed fifth, seventh, and eighth respectively.

Nordic Combined was won by Bent Aasnaes on first, followed by Wessel on fourth, and Emo fifth. The Alpine Combined was completely dominated by Tech, which took the first four places with Peccei, Wessel, Emo and Goldstern in that order. Best in all four events was Henrik Wessel, closely followed by Bent Aasnaes. Rogers, from Colby, placed third.

MIT will, from now on, join the EISA A-League and compete against Dartmouth, Middlebury, and other top colleges in the East.

After a great victory in Maine, our skiers traveled to Mt. Sunapee, N. H., where they competed in the N.E.C. giant slalom race, Sunday. The skiers proved that their conquest in Maine was no accident by taking all of the five top positions and placing all their men within the ten first places.

Bent Aasnaes, '64, led the MIT squad to victory, closely followed by Henrik Wessel, '64, in a 42 gate course set by MIT coach William Hayes. Following were Giorgio Emo, '62 at third, Roberto Peccei, '62 fourth, Peter Goldstern fifth, and Martin Stieglitz, tenth.

Sunday's competition was won by MIT with a full minute's lead on second-placing Amherst. All together, more than eighty competitors from eight different colleges took part in the competition. Difficult snow conditions taxed the ingenuity of the course setter who, nevertheless, did an excellent job.

How They Did

Basketball:
MIT 80, Lowell Tech 60
Fencing:
Columbia 22, MIT 5
Hockey:
MIT 7, Wesleyan 3
Pistol:
MIT 1326, Rutgers 1276
Navy 1402, MIT 1297
Villanova 1324, MIT 1313
MIT 1319, Merchant Marine 1314
Army 1412, MIT 1301
Rifle:
MIT 1427, BU 1401, BC 1392
Skiing:
First in EISA-B championships
First in NEC giant slalom
Squash:
MIT 8, Trinity 1
Swimming:
MIT 58, Trinity 37
Wrestling:
MIT 25, UMass 5

Koch Hits For 33

Cagers Near Mark

Tech Five Smash Lowell In 8th Straight Victory

By J. M. Blew

Saturday night MIT's varsity basketball team won its eighth straight, crushing Lowell Tech 80-60. The win placed the Cagers at 10-4 with 6 games remaining. A win in the next game at Bowdoin Wednesday night would tie the MIT school records for both consecutive games won (9) and total season wins (11, last year).

Saturday's game, played on Lowell Tech's small court, was a rough and hotly-contested affair. This being Lowell Tech's biggest game, the team was high and the crowd noisy. Tech jumped out to a 17-10 margin in the first half as Jeff Paarz '63 led the scorers. Lowell's big men became effective under the boards for a time as the home team closed in on MIT. Their tactics got them in foul trouble, however, having three each in the first half. MIT held a slim 30-29 lead at halftime.

Lowell scored first in the second half and briefly held the lead 31-30 for the only time in the game. Jeff Paarz and Dave Koch then went on a wild scoring spree that netted the Engineers 50 points in the second half, despite subs playing the final 5 minutes. Lowell's pivot men were helpless against Kock's devastating drives and found their shots blocked many times by Koch and Bill Eagleson, '64. Technology's backcourt featured Paarz with 21 from long range, Chuck Gamble, '62, with 8, and Kent Groninger, '63, with 6. Lowell was led by Pete Byra, 5'10" guard, who had 24 counters, 18 in the second half.

The Engineers will next appear at Rockwell Cage this Saturday night against Middlebury. Game time is 8:15 with a Freshman game preceding.

MIT vs. Lowell Tech

MIT	fg	ft	pf	pt	LOWELL	fg	ft	pf	pt
Paarz	9	3	3	21	Lepore	4	2	3	10
Smith	1	0	0	2	Koch	1	0	5	2
Wyman	0	1	1	1	Beresford	0	0	3	0
Koch	12	9	3	33	Uzdavinis	4	1	4	9
Eagleson	3	0	3	6	Longevin	0	0	1	0
Gamble	3	2	4	8	Rabeni	5	1	3	11
Bray	0	1	0	1	Pappadpoulos	1	0	1	2
Groninger	3	0	2	6	Byra	8	8	3	24
Dreiss	0	2	0	2	Knibbs	1	0	1	2
Totals	31	18	16	80	Totals	24	12	24	60

John Thomas Breaks Cage Record At GBC Meet

By Howard Ellis '65

MIT was host last Friday and Saturday to six local schools at the Greater Boston College Track Meet. Highlights of the record-wrecking event were the unexpected wide margin of victory of Harvard's Crimson and the dual victories of Olympian John Thomas in the high jump and high hurdles. The only MIT victory came through the efforts of Gary Lukas '64 in the pole vault. Lukis jumped 12 feet and tied for first place along with three other cindermen.

Olympian John Thomas gets off to fast start in high hurdles in which he took a first place.

— Photo by Curt Wiler '63

Harvard displayed great depth and ability in both track and field events. The Crimson point total of 58 was well above the marks of Boston College, 39; Boston University, 36; Northeastern, 35; Tufts, 20½; MIT, 3½; and Brandeis, 3.

Boston University's John Thomas fell well short of his past performances, but still managed to place first and break the Rockwell Cage record with a jump of 6' 8¾". Thomas also was first in the high hurdles (5.8).

A number of other Tech cindermen did well in their heats but failed to place in the finals. Henry Dewey '63 was first in his heat in the 600 yard run and finished sixth in the finals. Len Parsens '64 was also in the 600 but failed to qualify. Steve Banks '62 placed sixth out of a field of 12 in the finals of the one mile run, while teammate Chuck Sigwart '64 was eighth out of 12 in the two mile finals.

The frosh one mile medley relay team of Roy Wittenbach, Ken Monash, Terry Dorschner and Mike Oliver defeated Tufts in an unofficial race.

Competing in field events, Jerry Dassel '64 and Bill Harper '64 failed to qualify in the 35 pound weight event. Bill Remsen '64 also failed to place in the 16 pound shot.

This two day meet saw the toppling of seven cage records and the equaling of two others. The fast Tech cinders provided an opportunity for a number of good races. Larry Freeman, a student at Boston College, cemented his claim as the area's premier collegiate miler with a torrid 4:17.6 effort that clipped plenty off his own cage record of 4:30.8.

Boston University's John Thomas broke the high jump record, while his teammate Art Freeman, reigning BAA 1,000 yard king, uncorked a blistering kick to break the cage record with a time of 2:20.4.

Boston University's John Thomas goves over at 6' 8¼" for first place and meet cage record.

— Photo by Allen Rosenberg '63

On Deck

WEDNESDAY, FEBRUARY 14
Basketball (V & F) — Bowdoin, Away
Varsity Fencing (V) — Harvard, Dupont, 7:00 p.m.
Varsity Hockey (V) — Massachusetts, Away
Freshman Hockey — Lawrence Academy, home rink, 4:00 p.m.
Wrestling (V & F) — Wesleyan, Away
Squash (F) — Middlesex School, Away
Swimming (V) — Amherst, Home, 8:00 p.m.
Track — A.A.U. Meet, Home

THURSDAY, FEBRUARY 15
Hockey (F) — Middlesex School, Away, 3:30 p.m.

SATURDAY, FEBRUARY 17
Swimming (F) — Army, Away
Swimming (V) — Adelphi, Home, 2:00 p.m.
Basketball (V) — Middlebury, Dupont, 8:15 p.m.
Basketball (F) — New Prep, Dupont, 6:30 p.m.
Fencing (V) — Holy Cross, Dupont, 3:30 p.m.
Fencing (F) — Harvard, Dupont, 2:00 p.m.
Hockey (V) — W.P.I., home rink, 7:00 p.m.
Pistol — Coast Guard Invitational Match, Away
Wrestling (V & F) — Dartmouth, Rockwell Cage, 3:30
Track (V & F) — Bates, Away

TUESDAY, FEBRUARY 20
Swimming (V & F) — Tufts, Away
Basketball (V & F) — W.P.I., Dupont, 8:15 & 6:30 p.m.

AAU Judo Sectionals Meet At Cage Sunday, Feb. 18th

Beginning at 9 a.m. this Sunday, Rockwell Cage will be the site of the AAU Judo Sectionals sponsored by the MIT Judo Club and the Somerville YMCA.

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