

# President's Report Says MIT Not University Yet

"Despite the significant and rapid progress MIT has made toward achieving the character of a true university, many deficiencies remain." Dean of Student Affairs Kenneth R. Wadleigh made this comment in the President's Report, issued last week.

Although not distributed to the students, copies of the 589-page report are available free of charge from the Office of Publications, Room 3-333.

These deficiencies and other problems have led to the establishment of a study group by the Faculty Committee on Educational Policy. Under the guidance of Wadleigh, this committee will study the non-curricular aspects of student life, concentrating on four areas:

- 1) The residence system and general environment;
- 2) Admissions, financial aid, academic counselling and academic performance;
- 3) Activities, athletics, and student government;
- 4) Morale, attitude, health, and personal counseling.

All of these areas were considered in the President's Report.

### Need To Improve Housing

Stating that the residential system at MIT has been marked by continued improvement, Vice President of Academic Administration Malcolm Kispert added, however, that there is a "need to increase still further the quality and quantity of both undergraduate and graduate student housing."

### Tutors For East Campus?

Concurring with this opinion, Dean of Residence Frederick G. Fassett, Jr. added several suggestions for such improvement. In particular, he noted that "East Campus is the only residential cen-

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ter not as yet brought into the full tutorial plan." He then stated that if a plan can be found "which will provide for the establishment of a Master, Senior Tutor, and Tutors in the East Campus, a gain of pronounced importance will have been achieved."

The MIT environment also came under consideration in the report. Stratton commented that "as a resident I have ample opportunity to observe at firsthand the influence of our urban setting, the pressure under which our students work, their need for ample facilities for study, for reading, for a better social life, and for simple relaxation."

"The proposed Student Center is in my judgement the most im-

(Please turn to Page 3)

# He Didn't Avoid \$5 Fine



Oh no! Not the line to the Bursar's office!  
—Photo by Joe Baron

# Committee Announces WW Ticket Deadline, Entertainers, Program

Bo Diddley, Si Zentner, and Dick Gregory will perform at Winter Weekend, February 21-23.

Bart Weitz '63, WW Committee Chairman, has announced that tomorrow is the deadline for living groups to file ticket reservations at the WW booth in the Building 10 Lobby. Seven hundred fifty tickets are available at \$12.50 each.

If requests exceed 750, distribution will be in proportion to demand. Tickets not reserved by living groups will be put on open sale Tuesday, February 12, in Building 10.

Bo Diddley will begin the weekend Thursday night, following the MIT basketball game. Diddley's record "Hey, Bo Diddley" has sold more than a million copies.

Si Zentner and his orchestra will provide music for dancing Friday evening in the Armory. The West Coast trombonist won a Grammy Award for the best recording of 1962, "Up The Lazy River."

Saturday night, Dick Gregory will present his satires on Negroes in America. His "From the Back of the Bus" has been presented at Chicago's Playboy Club and San Francisco's hungry i. In addition, The Knights dance band will intersperse Gregory's act with music.

In addition to entertainment scheduled by the WW Committee, Saturday afternoon offers other activities. The Dormitory Council is sponsoring a folk sing with Jackie Washington. It is tentatively scheduled for Baker House Lounge, and Winter Weekend tickets will be honored.

The intermission at the folk sing will be occupied by a demonstration match of tiddlywinks, Tech Newspaper Tiddlywinks vs. Senior House Order of Tiddlywinks Shooters.

Also Saturday afternoon, several fraternities will host IFC-sponsored cocktail parties. WTBS will present a "WW Sampler" with records by Gregory, Zentner, and Diddley tonight from 5:00 to 7:00 pm.

## In Recent Citations

# Professors Win Varied Honors

Recent honors and awards received by the faculty have varied from a citation for advances in physics teaching to a trusteeship from Sarah Lawrence College.

The late Dr. Francis L. Friedman, Professor of Physics, was posthumously awarded the Oersted Medal of the American Association of Physics for "notable contributions to the teaching of physics." Prof. Friedman, who died last August 4, played a principle role in the Physical Science Study Committee, which reshaped

science education in United States schools.

In September, 1960, Friedman was named director of MIT's Science Teaching Center, which is improving science teaching at the college level by using the approach of the PSSC.

Dr. F. Albert Cotton, Professor of Chemistry, was the recipient of the Baekeland Award of the American Chemical Society, consisting of a gold medal and a \$1,000 honorarium. He was cited for fundamental research in inorganic chemistry.

Prof. Cotton is author or co-author of over one hundred technical publications, chiefly devoted to studies of the geometry of coordination compounds and the forces which hold such compounds together. He is especially known for his work on the structures of inorganic compounds of the transition elements.

Dr. Harold L. Hazen and Dr. David A. Huffman, both professors of electrical engineering, were named Fellows of the Institute of Radio Engineers.

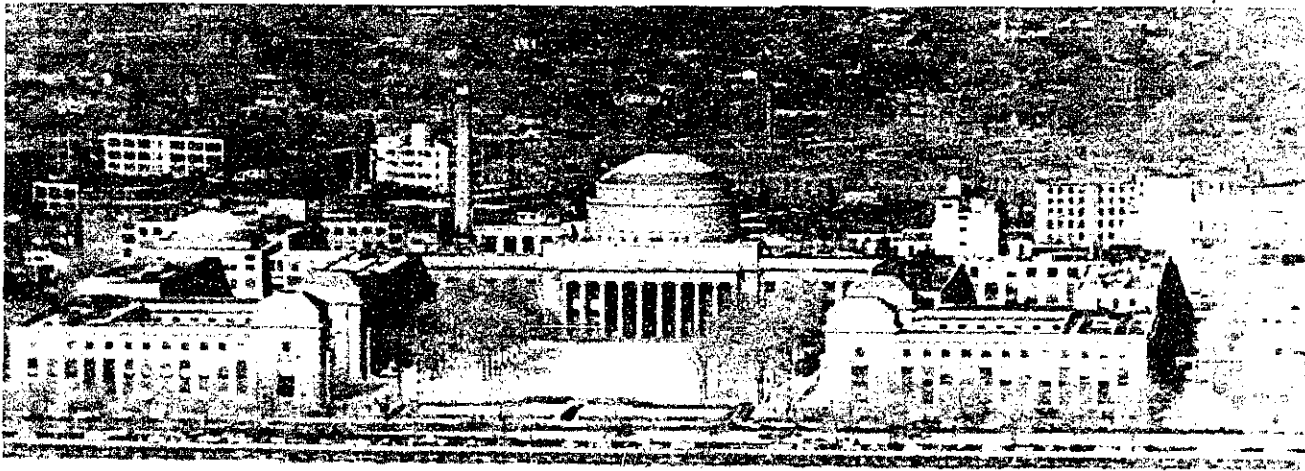
Prof. Hazen was cited for his work in servomechanism theory. Prof. Huffman's citation was for his contributions to switching theory and information theory.

Dr. John Chipman and Dr. Morris Cohen, of the Department of Metallurgy, were elected Fellows of the Metallurgical Society of the American Institute of Mining, Metallurgical, and Petroleum Engineers.

Dr. Chipman recently retired as Head of the Department of Metallurgy, and Dr. Cohen is Professor of Metallurgy.

Dr. Jerrold R. Zacharias, Professor of Physics, was elected to the Sarah Lawrence College Board of Trustees.

Zacharias, whose daughter Johanna is a junior at Sarah Lawrence, will serve until 1969.



# The Tech

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Five Cents

## Police Visit Sr. House With Marden Lecture

### Beer Blast, Leave Without Taking Action

By Jason Fane

Two policemen visited the Senior House Beer Blast Thursday, January 18. They came in response to an anonymous letter in which was enclosed a mimeographed prospectus sent to all Senior House residents.

The officers, one from the Cambridge force and one from the MIT Campus Patrol, arrived at the party about 11:00 pm. After looking in for a minute, they left with Prof. Murray Eden, Senior House faculty adviser, to get more information.

The Cambridge policeman said he had received a note from his sergeant instructing him to investigate and write a report, but to take no other action.

Commenting on the incident, Eden said, "Neither the Cambridge Police nor MIT feels that it can enforce this law." He was referring to the state law which makes it illegal to serve alcoholic beverages to people under 21 years old.

The letter to the police was the second anonymous letter calling their attention to beer drinking on campus. The first, two months ago, prompted the Cambridge police to visit the "VooDoo" offices in Walker Memorial.

## LSC To Show 'Bounty II'

Luis Marden, senior staff photographer and writer for the National Geographic Society, will present a lecture and show a motion picture, "Via the Bounty to Tahiti," tomorrow.

Marden is the first speaker to be presented during the spring term by the Lecture Series Committee. His talk will begin at 5:15 p.m. in Room 10-250.

The motion picture covers the voyage of Bounty II from California to Tahiti for the recent filming of the movie, "Mutiny on the Bounty." Marden sailed on the vessel as a consultant for the movie.

Before leaving MIT, Mr. Marden plans to pick up an underwater camera which his associate, Professor Harold E. Edgerton, has been using for photographic experiments in the MIT swimming pool. He will take the camera to the Pacific island of Tonga for further experimental work.

Additional Lecture Series speakers include: Al Capp, creator of

Li'l Abner, February 14; Democratic Congressman James Roosevelt, member of the House of Representatives from California, March 15; and Dr. Harlow Shapley, astronomer, author and Harvard professor emeritus, April 25.

## Pledges Work On Help Week Projects

This week is Help Week for MIT's 28 fraternities. Throughout the fraternity system, pledges are concluding their pledge training with work on a number of special projects.

These include service work for the general Boston community and improvement of physical facilities in the individual fraternity houses.

Illustrative of these week-long efforts was the work of Alpha Tau Omega Fraternity at the Cambridge Neighborhood House, 79 Moore Street.

Established in 1787, the settlement house is the oldest in the United States. "Although we are an interesting relic, the settlement house has taken much wear and tear," according to Miss Baldwin, Director.

The Cambridge Foundation, a private charitable organization, recently donated \$1500 to the house for physical improvements. In November, ATO contacted Miss Baldwin and offered its services. At the same time, Polaroid Corporation expressed interest in the project.

ATO and Polaroid agreed to pool their efforts. ATO provided 35 workmen while Polaroid supplied skilled laborers on company time to supervise the fraternity men. The unusual nature of this Help Week project was that pledges and brothers worked side by side in renovating the building.



Bob Bruneau '65, Roy Perkinson '63, and Norm Davis '64, members of Alpha Tau Omega Fraternity, prepare for another painting job at the Cambridge Neighborhood House. These brothers worked along with pledges in renovating the three story settlement house. This project, worked on last Thursday, Friday and Saturday, was a part of ATO's Help Week program.  
—Photo by Conrad Grundlehner

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# Prudential Skyscraper Will Permit View Across State

By Tom Maugh

Jovial Bill Patton is the head of the Public Relations Department of the Northeastern Home Office of the Prudential Insurance Company, and, ex officio, the chief guide for the towering Prudential Center. As we approached the Center for the "Grand Tour", he reeled off a string of facts with the air of a priest chanting the strains of an oft-repeated litany.

"Most people have the mistaken impression that we are responsible for all of the demolition work occurring at Copley Square. Actually, the state is doing most of it, tearing down these old buildings to make room for an interchange on the new freeway system. We have only 31 acres here, and most of that is presently being used for some phase of construction."

As we approached the site, the tower soared starkly black against the misted sky. "I have a scoop for you: we previously announced that the outside of the tower would be done in blue. Since then, however, the architects have decided to use panels in three shades of gray. The panels will be accented by aluminum lattice work, like that already installed on the bottom of the building."

## Too High For Boston

Architects we know have previously mentioned to us that many people feel that the Center is too high for Boston, since it overly dominated the normally low-lying skyline. Hence, we posed the question to Mr. Patton. His answer:

"The tower would be tall for any city; with its 52 stories, it is the tallest building in the world outside of Manhattan. The Russians claim that one of the buildings at Moscow University is a few feet higher, but I understand that they measured it from the foundation, rather than from ground level."

As a matter of fact, the building is tall enough that, much like the Empire State Building, it will sway to and fro in the wind. However, I have been assured by the architects that it will not sway enough to disturb the olives in the martinis served in the restaurant."

Donning the required black construction helmets we entered the complex of smaller temporary buildings surrounding the site. Each firm has its own office on the premises. With the assorted clinics, cafeterias, etc., the building tract resembles a small city, with trucks, pipe carriers and other vehicles threading their way through the graveled streets.

## Plaza Covers Highway

"The three large levels you see at the bottom of the building will connect with the surrounding commercial structures and will house parking facilities. When the landscaping is completed, they will all be underground, creating a plaza covering the entire tract. The plaza will be high enough to allow sufficient clearance for the railroad and highway rights-of-way which will go under the plaza."

Entering the building and going to the elevator, we were confronted with a changing electric sign which flashed various slogans, the meanings of which were, essentially, "Safety Pays!". Their safety

efforts have apparently paid off, for there has been only one fatality on the site, and the accident-to-man-hours ratio is quite low.

"Before we go up, I should warn you to brace yourself; if there is a wind blowing, the temperature at the top may be anywhere from 20 to 40 degrees colder than it is here at the bottom. That's one reason the contractor is presently doing as much interior work as possible. Where they are pouring concrete, they'll enclose the entire floor in strong plastic to try to keep a constant temperature. They also use large open-air furnaces called salamanders to provide some heat so the concrete won't freeze, even though chemicals are also added to it prevent it from doing so."

## No Riveting Done

"Incidentally, very little of the con-

crete is being used structurally. The building has a steel framework, and the covering will be the aluminum lattice with plastic panels set in it. Each steel beam, however, is being encased in concrete as a fire-protection measure. You can't take many chances with a building this size.

"If you've noticed before, there hasn't been any riveting done here. All the riveting on the 30,000 tons of structural steel is done at the plants that supply it. At the site they are simply bolted together. It provides a much faster means of construction than conventional methods."

Reaching the top of the building, we found that the mist which had settled that morning obscured most of the view. The building had been "topped" three days previously, so we had risen as far as it would ever be possible to go. (In the

topping ceremony, a large white steel beam, replete with the signatures of various dignitaries, including the governor of Massachusetts and the mayor of Boston, was raised to the highest portion in the building, signifying that the building had reached its final pinnacle.)

## Under The Mist

In an attempt to escape the mist, we descended to the 34th floor to take some pictures. At this stage of construction, the story consisted of a metal floor and little else. Eventually, electrical conduits, plumbing, the floor and the outside walls would be laid. The interior of the floor would be constructed by the firm that had leased it.

From this height we had a good view of the construction. On the south side of the building, we could trace out the beginnings of the two commercial buildings which would enclose the ice-skating rink. Large steel reinforcing rods indicated where the vault of the bank would eventually reside. On the west side, piles were being driven to begin construction of the 29-story Hotel America, the first hotel to be built in Boston in over three decades. Directly north of the hotel will be the City of Boston War Memorial Auditorium, the only building on the site not constructed by Prudential. It will be built and operated by the Boston Auditorium Commission. Other business facilities will be located on this same side of the tower. The eastern portion of the tract, originally planned for apartment houses, will become a landscaped parking area until the company decides how they can best use it.

## View Across The State

After we had been on the floor for a short while, the mist began to move west and Logan Airport suddenly popped into view. The sight was spectacular, and we were still 20 stories below the top. Company officials predict that on a clear day, a spectator on the observation deck will be able to view the Berkshire Mountains, Mt. Monadnock, N. H., and Providence, R. I. To take advantage of this view, a glass-enclosed "sky-room" restaurant has been designed for the 52nd story. (Hence, the service elevator for the restaurant is destined to become the world's largest automatic garbage disposal.) Patrons of the restaurant will be whisked there by four passenger cars rising at a rate of 1,400 feet per minute.

Red aircraft warning lights will be installed on the corners and top roof level of the tower. On a clear night, the beacons at the top of the tower will be visible from an airplane flying at 9,000 feet, at a distance of 130 miles. The name "Prudential", illuminated at night, will appear in large letters at the top of the tower on the east and west sides, thus qualifying the building for the title of the world's largest billboard.

While we were gazing raptly at the view, we were startled by a loud clang from below. One of the workmen had dropped a wrench, which had landed in the base of a partially completed area of the pool. A reflecting pool will surround the tower like a moat, and will be spanned at four points by access bridges.

## Dates For Completion

With our thoughts thus interrupted, and beginning to feel the effects of the wind, small though it was, decided that it was time to take our leave. On the way down, Mr. Patton informed us that the tower would be ready for occupancy by the fall of 1964, the auditorium by the summer of that year, and the hotel by the next year. By that time, Prudential will have expended well over \$100,000,000 on the project, making it, in regard to both money and manpower, the largest current construction project in the United States.

As we finally left, our head swimming with superlatives, Mr. Patton called out to us: "Come back next spring when it's a little warmer and I'll finish showing you around. We're just beginning!"



## Cataloging Falls Behind

# President's Report Cites Library Overcrowding

"The Libraries are working at capacity." Several libraries are overcrowded with either books or people. Only one of the libraries has succeeded in keeping abreast of technical reports. New books are not being catalogued as fast as they come in to the libraries.

This is part of the picture painted by Director of Libraries William N. Locke, in the President's Report, issued last week.

The report notes that in both the Engineering and Science libraries there have been instances when there were no vacant seats.

The Rotch, Dewey, and Music libraries are so crowded that they

can hold no new material. In the case of the Dewey Library, Locke notes that "at no time since it was built has this library been able to hold all the material belonging to it. We have not been farsighted enough in our planning."

Several plans for expansion of the libraries are being considered, according to Locke. In the Science Library, the Map Room could be replaced, and a mezzanine put in as was done on the second floor. In the Music Library, the adjacent shipping and receiving rooms could be taken for expansion. In the Engineering Library, reading

rooms on the sixth and eighth floors under the dome could be built, as well as improving heating, lighting, and ventilation in the already extant upper story areas.

One bright spot in the picture is the Aeronautics and Astronautics Library in Building 33. "It is now the most satisfactory of all our facilities, from the reader's point of view," reports Locke. "Only here have we really succeeded in keeping abreast of the output (of Technical reports)."

Unavailable books continued to be a problem. In the Science Library, the probability of finding a book on reserve is 83 percent; a seven-day book, 70 percent; a 14-day book, only 50 percent. Part of this may result from the fact that 42 percent of 14-day books and 49 percent of seven day books are not returned until overdue.

Book thefts were also a problem: sometimes the borrower signs a false name, and "the circulation desks are so busy at

many times of the day that they fail to ask to see identification."

"The book checkers were severely criticized for failure to do their job. Oddly enough," commented Locke, "this is one of the most difficult positions in the Library to fill. It requires a person mature enough to inspire respect, tactful, firm, conscientious, and proof against boredom."

## Photo Staff To Meet

The photography staff of "The Tech" will meet at 8:00 p.m., Friday, February 8, in "The Tech's" Walker Memorial offices, 50-211.

## News Deadline Set

The Tech's deadline for articles from activities is now 3:00 p.m. Saturday. Articles may be submitted up to 7:00 p.m. Monday, but chances of publication are greatly diminished.

## Map Room To Go?

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## Technical Writing Program To Be Conducted Feb. 14

A program in writing for technical publications will be given for interested students at 8:00 pm February 14 in the Raytheon Company Executive Offices Building in Lexington. The program, sponsored by the Boston Chapter of the Society of Technical Writ-

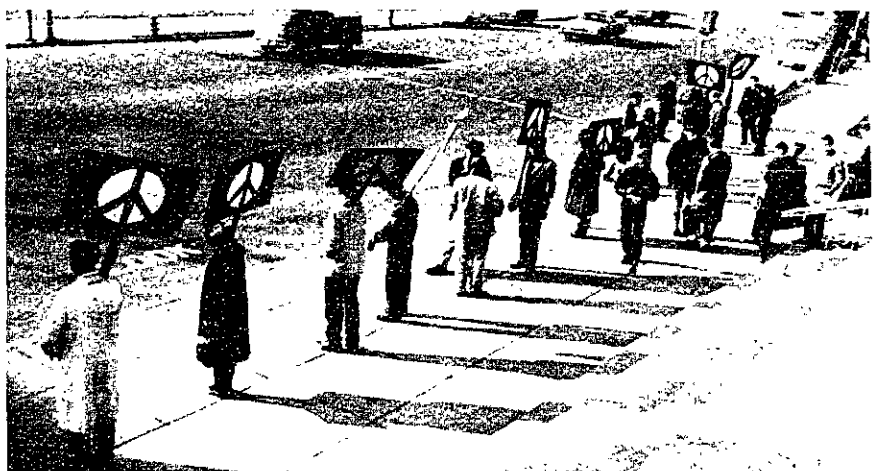
ers and Publishers, is being directed by John M. Sullivan of the MIT Lincoln Laboratories.

The Society, with 47 chapters in the US and Canada, maintains writing standards for those in the field of technical communica-

## Prudential Photos

The front page picture of the Institute was taken from the Prudential Tower. Both that picture and the one on this page were taken by Conrad Grundlener.

## Pacifists Demonstrate Against MIT Defense Work



Members of the New England Committee for Nonviolent Action demonstrated against defense projects carried on at the Institute. After passing out their literature, the demonstrators individually departed from 77 Massachusetts Avenue Saturday afternoon, January 19. —Photo by Joseph Baron

## President Stratton:

# 'Need Sweeping Renewal Of Experimental Facilities'

By Joseph Hanlon

"We are faced with the need for a sweeping renewal and development of our experimental facilities," stated President Julius A. Stratton in the President's Report issued last week.

"The laboratory takes on new importance" noted Stratton, for developing the physical insights "that are quite as essential as a high order of mathematical ability."

point of view of the pace of subject presentation, the magnitude and diversity of the student's academic load, and the degree of scheduling flexibility. It will also explore new teaching methods for large enrollment courses, and consider the desirability of allowing greater time for independent study programs.

### Research Important

Much of the President's report is devoted to Research. Stratton cites the rapid expansion in the interdepartmental centers (such as life sciences and materials sciences). This raises certain questions, however. For example, he asks, "Will the centers tend inevitably to develop more highly directed programs and assume as a consequence some of the characteristics of large industrial research organizations?" He adds, however, that there is "a wide awareness among members of the faculty that these dangers are real."

On the other hand, Prof. George R. Harrison, Dean of the School of Science, wrote that "the most noteworthy trend of the past year has probably been the continued increase in cooperative effort among research workers in various scientific disciplines."

### Undergrad Research

Stratton said that he could cite numerous examples "that indicate a growing movement throughout the School of Engineering to couple graduate and undergraduate teaching with research."

This movement has been aided by a grant from the Ford Foundation. The grant was the result of a proposal which cited "the urgent needs to strengthen undergraduate education," according to Dean of Engineering Gordon S. Brown and Assistant Dean William W. Seifert. They also mentioned their "desire to confront undergraduates with some of the subtleties of real engineering by associating them with graduate and faculty research."

### Faculty-Student Contact

"The faculty is dedicated to a close contact with undergraduate students" declared Prof. H. Guyford Stever, head of the Department of Mechanical Engineering, adding that "as the undergraduate enrollment in the department has dropped, the capability of the staff to undertake this close personal contact has increased."

### Enrollment Changes

Enrollment in the School of Science is rising, however. Undergraduate enrollment in Biology has doubled in the past five years, while enrollment in mathematics has tripled during the same period.

Enrollment in Humanities and Social Science is rising also, but the "numbers can stand to be much greater" noted Prof. John E. Burchard, former Dean of that school. He also noted that in such fields as political science, "we now get a higher calibre of man who is creative" rather than many who became "mere technicians."

### Curriculum Studied

Curriculum has come up for closer scrutiny during the past year. The Faculty Committee on Educational Policy has appointed a subcommittee to study the content and teaching of the core curriculum.

Headed by Prof. Jerrold Zacharias, the committee will also review the present structure of undergraduate education from the

### Research Sponsorship

Practically all research at MIT is sponsored by outside organizations. This is because the magnitude of the research program here prohibits MIT from making a major financial contribution.

Prof. Carl F. Floe, Vice President of Research Administration, claimed in the report that the increase in outside support for research has been "highly beneficial" to MIT, but he added that the dependence of MIT on outside sources of support sometimes causes criticism. One criticism concerns the dangers of encroachment on MIT's freedom, particularly in the case of government contract research. Floe claimed, however, that "while some exceptions may be cited, our experience has been that as long as projects are accepted voluntarily by individual faculty members, there is little danger of any significant loss of freedom."

### Teaching Neglected?

Another criticism is that "teaching, particularly undergraduate teaching, is being neglected in favor of research." Floe commented however, that while graduate students benefit directly from sponsored research, undergraduates are being drawn into these programs in increasing numbers. "It is the obligation of the academic administration," concluded Floe, "to see that a neglect of teaching does not occur in any specific area, and we believe that this job is being done effectively."

A second criticism is that MIT is often asked to pay the indirect costs of research or to provide faculty supervision without charge. In particular, government agencies are often prohibited by law from paying all of the indirect costs. MIT has sometimes yielded to pressures to accept such research programs, Floe added, but this "represents a drain on university resources that is becoming increasingly difficult to bear."

## International Student Group Will Honor Italian Students

Students from India will be honored at an informal reception tonight at 8:00 p.m. at the International Student Association Center, 33 Garden Street, Cambridge.

Indian students and those who wish to meet them are invited.

## Admissions Discussed

# Report Notes Housing Needs

(Continued from Page 1)

portant single uncompleted objective of the Second Century Program," he continued. Noting that the Center will "supplement" Walker Memorial, Stratton also remarked that students have in the past reacted favorably to new facilities. He cited the example of Kresge Auditorium, built only eight years ago, where "we have long since passed the limit of our ability to accommodate all those who would like to schedule evening or week-end events."

### Applications Falling

Admissions policies also came under consideration in the report. "The number of completed applications for admission to the freshman class dropped off significantly for the second successive year," reported Director of Admissions Roland B. Greeley. He stated that qualitative factors such as scholastic averages and geographic distribution "are holding up well enough so there is no need for im-

mediate concern" but added that continuance of the present trend for several more years would be "serious."

Greeley particularly noted that more contact must be made with secondary schools because "it seems eminently clear that the general public impression of MIT will not, in itself, produce enough good incoming freshmen."

### Image Questioned

The number of freshmen admitted to MIT who decided to go elsewhere rose to 40% last year, stated Greeley, adding that "some of the preferred colleges have appreciably lower rates of attrition." The increased tuition may be responsible for the increases, he remarked, but continued that "nevertheless, the figures are not reassuring; we must somehow get across to the public a more favorable image of undergraduate education at MIT." Some of the unfavorable impressions of MIT are inaccurate, but some are "founded on truth," commented Greeley. "These may call for correction of the situation at MIT."

### Too Many Theorists?

Prof. George R. Harrison, Dean of the School of Science, also discussed admissions, and concluded that "there is some indication that our admissions policy may be operating to select an undesirably large proportion of theoretically inclined students, with no compensating mechanism to insure the inclusion of those with marked experimental aptitudes."

### More Coeds?

Greeley also noted two other things in the field of admissions. "With the completion of the Women's Dormitory, it appears that we will once again be able to apply precisely the same standards of selection to female as to male applicants." He also remarked that the number of well-qualified students who are unable to come to MIT for financial reasons is "a significant, though fortunately not large, percentage." Financial aid was discussed in other sections also. Of particular concern is the fact that more than 60% of all scholarship money comes from outside the Institute.

### Counseling Shortcomings

"While we have made progress in developing an effective counseling system, there are still many shortcomings," asserted Dean William Speer. "For example, many students do not come to know well a single faculty member. Too frequently, letters of recommendation for many seniors can be phrased only in vague and general terms based solely on grades. We continue to find that the best and the poorest students are most apt to be known by several faculty members."

### Harder To Flunk Out

Speer also noted a radical change in the policy on academic disqualification (flunking out). Students who previously were disqualified are now placed on pro-

bation, and are only disqualified if they are unsuccessful in improving the quality of their work during the following term. Freshmen are no longer disqualified at midyear, and upperclassmen with a terminating below 2.0 are merely placed on probation.

### Infirmity Uses Jumps

The medical department noted a "striking" increase in the patient load last year, it was "taxed to cope with the demand for service" according to Medical Director Albert O. Seeler.

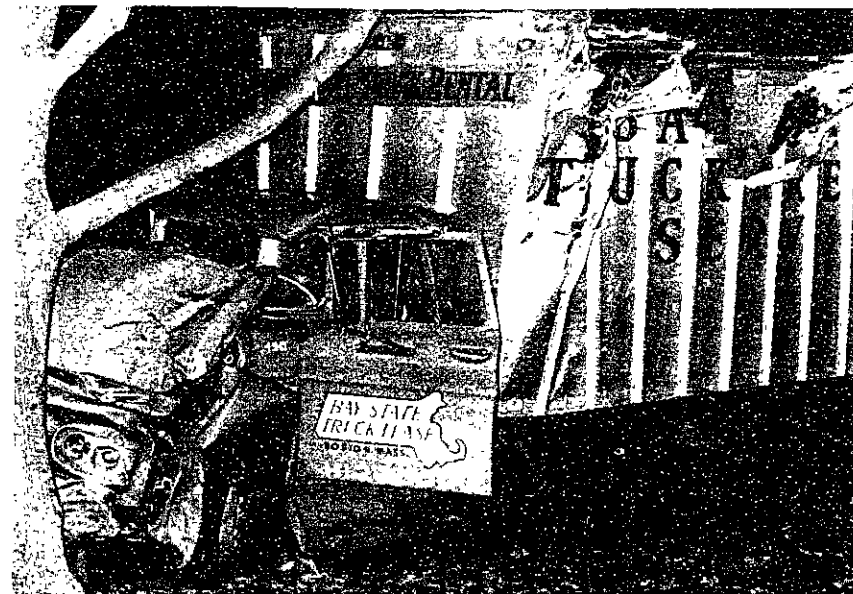
The number of visits to the medical clinics rose to 25% and visits 4,393 to 34,771. "We have no explanation for this increase in activity," reported Seeler, "as there were no major epidemics during the year." Infirmity admission rose from 600 to 690 last year, 92% of whom were students.

Eight percent of the undergraduates and 3.1 percent of graduate students consulted the psychiatric service last year, with an average of 2.1 and 2.4 interviews per student, respectively. Seven students were hospitalized for major psychiatric illnesses during the year.

Other interesting statistics for the year 1961-62 in the report include:

Student Aid		
Percent of undergrads receiving aid:	49.5%	
Application for loans:	1,247	
Loans granted:	961	
Admissions		
Freshmen	1961	1962
Final Applications	3597	3276
Admission Offered	1528	1590
Actual Registrations	893	885
Registrations as per cent of admissions	58.5%	55.7%
Transfers	1961	1962
Final Applications	239	231
Admissions Offered	123	126
Actual Registrations	94	86
Registrations as per cent of admissions	76.4%	68%
Students Given Advance Standing		
Subject	1961	1962
Chemistry	51	51
Mathematics	103	129
Physics	3	8
Freshman Elective	22	24
Placement		
Per cent of undergrads going to grad school:	58%	
Employers recruiting on campus:	457	
Students Interviewed:	1,338	
Wage Offers To Graduates (per month)		
Degree Level	1961	1962
Graduating seniors	\$550	\$582
Masters Candidates	650	650
Doctoral Candidates	850	925

## Truck Collides With Tree



Its roof already sheared off by a low hanging branch, a Bay State rental truck crashed into a tree in front of Baker House, January 21st at 12:15 A.M. Both occupants escaped serious injury but suffered from extensive cuts and bruises. —Photo by Joe Baron

## Debate Society Enters Competitions During Vacations

The MIT Debate Society competed at the University of Miami over Christmas vacation, finishing first in the elimination rounds and third in the tournament.

The team of Glen Books '63 and Bill Morris '64 scored a perfect 6-0 record in the preliminaries, defeating South Carolina, Miami, Georgetown, Tennessee, Wake Forest, and Florida.

They defeated the University of Vermont but lost to Boston College, finishing third in the tournament. Over 30 colleges and universities from all parts of the United States were represented.

During mid-term vacation, Tech debaters competed in the Harvard Invitational Debate Tournament. The team of Madis Sulg '65 and Jim Bohannon '66 finished with a 5-3 record.

They beat St. John's, Kent State, MacMurray, Marymount, and Trinity. They dropped decisions to Kansas State, Cornell, schools from all over the country were represented.

During the first two weeks of the second term the Society will compete at Northwestern and at Dartmouth. This year's debate topic is, "Resolved: That the non-Communist nations of the world should establish an economic community."

## Former Faculty Member Falls 16 Stories To Death

Dr. Frank B. Cuff Jr., a metallurgist and assistant professor at MIT until 1959, died Tuesday, January 15, in a fall from a 16-story building at 89 Broad Street, Boston.

According to police reports, a man unidentified by the police beckoned to Cuff, who was standing on the roof of the building. Cuff then began to run across the roof, and fell to his death.

# THE TECH

Vol. LXXXII No. 30 Feb. 7, 1963

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Unsigned editorials 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.

## Pat on the Back

Circulation up more than 30%. That's how MIT responded to improvements in 'The Tech' last year. But that's not all.

'The Tech' placed third in the American Newspaper Guild's New England College Newspaper Competition. Not bad, considering that the top two papers are published by universities with journalism schools.

One of the deans called us "over-zealous in gathering the news." A newspaper couldn't ask for better praise than that.

We would like to commend the outgoing Board members for this record. Special credit goes to: Tom Brydges who was a capable leader; Allen Womack for his mature editorials; Joseph Hanlon V for his attention getting front pages; and Conrad Grundlehner who had an endless stream of good photos.

This issue marks the beginning of Volume 83. The new Board of THE TECH will try to do the three main jobs of a newspaper: 1—To keep our readers informed through the news and sports columns, 2—To provide articles of service and interest in our Features and Entertainment columns, and 3—To maintain a forum for student opinion through editorials and letters.

As always, we hope that you, our readers, will send letters to the editor. Write early and write often, but keep them short and to the point. All letters must be signed, but names will be withheld upon request. We will publish as many as we can.

## 8257 Protected

Sabin oral polio vaccine (type I) was distributed to the entire MIT community during finals week. The operation was performed effectively and efficiently. Tables were set up in such conspicuous places as Walker Memorial and Buildings 10 and 16. Passers-by had only to sign a card and sip the thimbleful of waterlike vaccine. It was that simple.

Since Boston health officials have warned of a possible polio epidemic this summer, 18 Boston clinics also distributed Sabin vaccine. The Boston program, at 25 cents per person accommodated 25,212 people. A similar program at Harvard cost a dollar per student.

The MIT program, headed by Dr. Samuel Clark, distributed vaccine at no charge to 8,257 students. Type II and type III Sabin vaccine will be distributed later this term. We commend the Medical Department for another job well done.

## Wanted: 200 Beds

As things stand now, MIT expects to have a shortage of about 150 dorm spaces for next September's freshman class. Add transfer students and upperclassmen who would like to live on campus and the shortages rises to more than 200 beds.

A combination of factors is producing the shortage: rising admission standards are reducing the number of flunk-outs, dormitory improvements are reducing the number of students who wish to live off-campus, and more freshmen are accepting MIT admission.

There are two aspects to the problem of housing shortage. The first is the immediate problem: how are we going to house the incoming freshmen in September? Many of them will be living away from home for the first time. They will have enough problems getting used to MIT, and should not have the added burden of finding and making a home.

There are five ways to house new students on campus: build, buy, rent, shift, or squeeze. It is not possible to build more housing by next September. MIT is already negotiating to purchase more living space for undergraduates, and may rent additional apartments if necessary.

Twenty freshmen may be housed in 120 Bay State Road (now Freshmen Women's Dorm), and 33 more may live in the dormitory segment of Bexley Hall. Fraternities are already operating near capacity.

The Administration is very much against any plan that would increase the living density in existing housing. Despite the shortage, they want to raise the standard of housing. They feel that housing is not just a place for students to sleep and study: it is an important part of the undergraduate's environment and educational experience. Moreover, it can play an important part in his social development.

We agree completely and commend the administrator's vision in acting to improve the amenity of housing rather than taking the easy out of packing more students into existing space.

The second aspect of the housing problem is the long run deficiency in quality of student dorms. It will be solved only by building more on-campus living space. Within five years, it appears likely that new dormitory rooms for 200 students will be built. One plan calls for connecting the East Campus parallels; another would build a completely new house on West Campus.

In either case, housing will probably be as spacious as the Senior House three-room suites. In addition, overcrowding in Burton House will be eased, and improvements will be made in other houses.

Financing is one factor that has been delaying work on a new dorm. Vice-President Kispant has said that the Administration's current fund raising efforts are directed at completing the \$66 million Second Century Fund. When this is finished later this year, MIT will try to raise funds to construct additional housing.

Another, and faster, way to finance new dorms is through a Housing and Home Finance Agency Loan. The Married Students Dorm is being paid for this way, and its rents will be roughly competitive with similar apartments elsewhere.

Why is MIT able to use HHFA money to house married students, but not undergraduates? HHFA loans require that a dorm be self-amortizing within 20 years. Married students pay rent 12 months a year; undergraduates are on campus only nine months each year. To make up the difference, average dorm rents would have to be raised about \$65 per term.

One way to overcome this problem is to expand MIT's summer operations so that housing and other facilities will be used the year round. This would greatly increase MIT's efficiency in use of facilities and might ease many of the Institute's financial problems.

Should MIT expand its summer operations?  
 THE TECH will consider this question  
 in a future editorial.

## Letters to The Tech

### Tech Charter Flights Finances Explained

THE EDITOR,

It has been brought to my attention that the office of the Dean of students is skeptical of the Charter Flight operations to Europe in the summer of 1962. To alleviate any doubts, I would like to present an approximate statement of the operations.

Total Revenue .....	\$76,976
Less: To B.O.A.C. for charters .....	64,020
Gross Income .....	\$12,956
Less: Operating Expenses:	
Phone & Answering Service .....	\$ 750
Rent .....	600
Secretarial help .....	1,200
Clerical help .....	600
Advertising, promotion & consulting .....	5,400
Stationary & Supplies .....	800
Typewriters .....	300
Automobile .....	350
Bad Debt expense .....	1,265
Misc. Expenses .....	400
NET INCOME .....	\$ 1,291

V. J. SHAH  
 (For Tech Charter Flights)

## White, New Burton Housemaster, Anticipates Good Student Relations

By George McQuilken

Professor David C. White, of the Electrical Engineering Department, the new Housemaster of Burton House, is an advocate of closer student-faculty understanding. In his own words, he is "basically interested in finding out the needs of the students in order to increase the effectiveness of the educational atmosphere."

White is a graduate of Stanford University, where he received his B.A., M.A., and Ph.D. Having lived in a dormitory as an undergraduate, he should have a feeling for the needs of the students in Burton House. After spending two and a half years at the University of Florida, he came to M.I.T. in 1952.

White's major field is in the energy conservation area, and he has just taken over as editor-in-chief of "Advanced Energy Conservation" quarterly. This past semester he taught 6.06 and 6.031.

He plays golf for recreation, and recently has been working out with the fencing team. (He is one of the team's faculty advisors). White has been a member of the Institute Committee on Educational Policy for three years and through



—Photo by Conrad Grundlehner  
 Prof. David White

## Douglas Replaces Barnett As Humanities Dept. Head



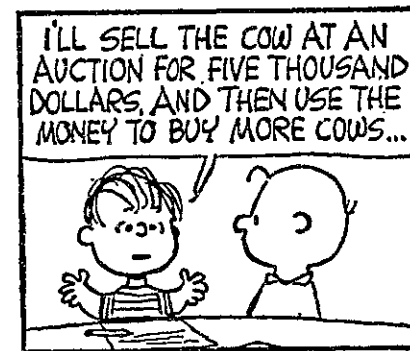
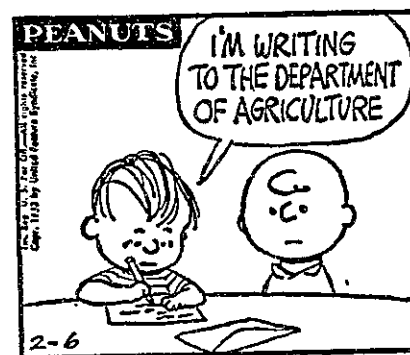
Professor Richard M. Douglas, the new head of the Department of Humanities, who declined to give an interview to THE TECH.—Photo by Conrad Grundlehner.

it has developed an interest in the housemaster system.

White, who is troubled by the "conflict between students and faculty, feels his "first major task is to increase the effectiveness of the house tutor system and the faculty-house contact."

White and his family plan to take up residence in Burton House some time in February. His 11-year-old daughter (almost 12) is looking forward to having 550 brothers.

When asked if he was anticipating any problems, Prof. White replied: "I don't believe in looking for problems. They'll find you. Seriously, the representatives that I've met from Burton House are all nice people, and I don't see that there will be more than one problem, which is simply finding a way to get to know everyone. It's just a lot of people."

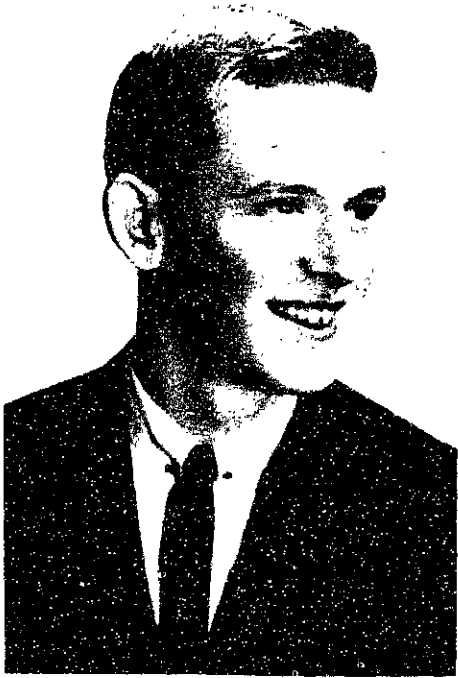


PEANUTS appears daily and Sunday in the Boston Herald.

## These Men Are Your Representatives

### on The Board of Directors of the

**Tech Coop**



Richard A. Carpenter '64  
119 Bay State Road



E. Allen Womack '63  
Box N 403, M.I.T. Dorms

Always, through the years, The Coop has desired to serve the student body as fully and as capably as possible within the scope of its intended purpose. One of the closest and best of its established contacts with students has always been the student directors and The Coop wishes to acknowledge the able assistance of the men who, this year, are serving in this capacity.

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## Stravinsky, Janacek Music To Be Performed Feb. 17

Music by Igor Stravinsky and Leos Janacek will be performed in a concert Sunday February 17 at 8:30 p.m. in Kresge Auditorium.

The program includes the "Concertino for Piano and Chamber Orchestra" by Janacek, the "Duo Concertant for Violin and Piano," the "Serenade En La," and the "Septet" by Stravinsky.

The music will be performed by Gregory Tucker, piano, Nancy Cirillo, violin, Eleftherios Eleftherakis, viola, Mary Johnson, cello, Felix Viscuglia, clarinet, John Miller, bassoon, and Ralph Pottle, horn.

The concert is sponsored by the Department of Humanities and the Baton Society. Tickets are free if obtained in advance at Kresge Auditorium.

## String Music At Jordan Tonight

A concert of "Twentieth-Century Music for Strings" will be presented tonight by the New England Conservatory at Jordan Hall.

The program will consist of "Bachianas Brasileiras No. 1"

by Villa-Lobos, "Suite in E" by Foote, and "Serenade for Tenor, Horn, and Strings" by Britten.

Admission is free and the program begins at 8:30 p.m. The concert will be broadcast over WGBH-FM.

## movie schedule

Wed., Feb. 6 through Tues., Feb. 12 (Unless otherwise stated, the Sunday schedule is the same as the weekday schedule except no movies are shown before 1 p.m.)

ANTOR—"The Longest Day," 8:15; Wed., Sat., Sun., 2:00; Sun., 7:30.  
BEACON HILL—"Term of Trial," 9:35, 11:35, 1:35, 3:35, 5:35, 7:35, 9:35.

BOSTON CINERAMA—"The Wonderful World of the Brothers Grimm," eves., 8:30, mats. Wed., 2:15, Sat. and Sun., 1:30, 5:00.

BRATTLE—"Shoot the Piano Player" plus short on George Grosz, 5:30, 7:30, 9:30, matinee Sat. at 3:30. Starting Sun.: "The Lady with the Dog," 5:30, 7:30, 9:30.

CAPRI—"Boccaccio '70," "Temptation of Dr. Antonio," 10:00, 12:45, 3:30, 6:15, 9:00, Sun., 1:00, 3:45, 6:30, 9:15, "The Job," 10:55, 1:40, 4:25, 7:10, 9:55, Sun., 1:55, 4:40, 7:25, 10:10, "The Raffle," 11:50, 2:35, 5:20, 8:05, 10:50, Sun., 2:50, 5:35, 8:20, 11:05.

EXETER—"Billy Budd," 2:00, 4:15, 6:35, 9:00.

FINE ARTS—"The Cranes are Flying," 5:30, 8:45, mat. Sat., Sun., 2:00; "Kind Hearts and Coronets," 7:00, 10:10, mat. Sat., Sun., 3:45.

GARY—"Lawrence of Arabia" eves., 8:00, mats., Wed., Sat., Sun., 2:00.

HARVARD SQUARE—"Two for the Seesaw," 1:40, 5:25, 9:10, "Guns of Darkness," 3:40 and 7:30, Sun., Mon.-Tues., "Waltz of the Toreadors," 1:50, 5:35, 9:20, "Whistle Down the Wind," 3:45 and 7:30.

KEITH MEMORIAL—"Forty Pounds of Trouble," Mon., Thurs., Sat., 11:12, 2:39, 6:06, 9:33; Fri., 11:21, 2:57, 6:33, 10:09; Sun., 2:42, 6:09, 9:36.

LOEW'S ORPHEUM—starting Feb. 7, "Diamondhead," no times available.

MAYFLOWER—"Two for the Seesaw," 9:46, 12:00, 2:20, 4:30, 6:50, 9:15; Sun., 1:30, 4:00, 6:30, 9:00.

MIT—Friday, "The Crucible," 6:00, 9:00, Kresge Audit.; Saturday, "Oklahoma," 6:00, 9:00, Kresge Audit.

MUSIC HALL—"The Rage of the Lion," 10:15, 12:05, 2:00, 4:00, 5:55, 7:55, 9:50; Sun., 1:40, 3:40, 5:35, 7:30, 9:30.

PARAMOUNT—"Who's Got the Action," 9:20, 12:20, 3:25, 6:30, 9:35; Sun., 1:00, 3:55, 6:55, 9:55; "Where the Truth Lies," 10:55, 2:00, 5:05, 8:00; Sun., 2:30, 5:30, 8:30.

PILGRIM—"Reptileus," 9:45, 12:45, 3:40, 6:40, 9:30; Sun., 1:00, 3:50, 6:40, 9:35; "Devil's Partner," 11:15, 2:15, 5:10, 8:10; Sun., 2:20, 5:10, 8:10.

SAXON—"Mutiny on the Bounty," eves., 8:15, mat. Wed., Sat., Sun., 2:15.

WELLESLEY COMMUNITY PLAYHOUSE—Feb. 6, "Kim," 2:00, 7:45; Feb. 7-9, "Phaedra," eves. 7:45, Sat. mat. 2:00; Feb. 10-12, "Waltz of the Toreadors," "The Titfield Thunderbolt" eves. 7:45.

UPTOWN—"Lover Come Back," 1:20, 5:25, 9:35; Sun., 1:10, 5:15, 9:20; "Come September," 11:20, 3:25, 7:35, Sun., 3:15, 7:20.

## Theatre Schedule

CHARLES PLAYHOUSE—Oh, Dad, Poor Dad, Mamma's Hung You in the Closet and I'm Feelin' So Sad," Feb. 6, 8:00; Tues.-Fri., 8:30; Sat. 5:30, 9:00; Sun. 3:00, 7:30.

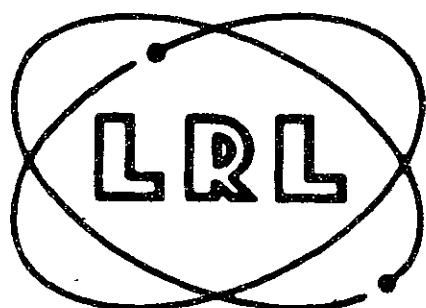
CHARLES CABARET THEATER—"Two by Two," Tues.-Fri., 11:15; Fri.-Sat. 9:00, 11:00, Sun., 10:15.

COLONIAL—through Feb. 11, "Photo Finish," by Peter Ustinov, eves. 8:30, mats. Thurs., 2:15; Sat. 2:30; starting Feb. 12, "Tovarich," eves. 8:30, mats. Thurs., Sat. 2:30.

IMAGE—"One of the Same Kind" and "All That Jazz," two new one-acts, no times available.

LOEB EXPERIMENTAL THEATER—Feb. 7-10, "The Sleeping Beauty," 8:00.

SHUBERT—through Feb. 9, "Lorenzo," 8:30, mats. Wed., Sat., 2:30, Thurs. 2:15; Feb. 11-16, "A Program for Two Players," no times available.



## LAWRENCE RADIATION LABORATORY

The Lawrence Radiation Laboratory is operated by the University of California for the United States Atomic Energy Commission. Current projects are in the areas of nuclear explosives

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Laboratory staff members from the Livermore Laboratory Site will be on campus to interview students in the Physical Sciences and Engineering.

Wednesday, Feb. 13 and Thursday, Feb. 14, 1963

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## Opera 'The Crucible' At Loeb Next Week; Based On Miller Play, Won Pulitzer Prize

The contemporary opera *The Crucible*, winner of the 1962 Pulitzer Prize in Music, will be presented by the New England Conservatory at the Loeb Drama Center in Cambridge February 15 and 16.

The *Crucible* is based on the Arthur Miller play about the seventeenth-century witch trials in Salem, Massachusetts; the music is by Robert Ward and the libretto, by Bernard Stambler. The *Crucible* won also the 1962 New York Music Critics Circle Citation for Opera. This production marks the New England premiere of the opera.

Reserved seats for the evenings

of February 15 and 16 are available at \$2.00 each from Box C, The New England Conservatory, Boston 15, Mass.

The *Crucible* tells the intense story of the suspicion and fear which led the townspeople of Salem to execute as witches many of their neighbors. A general hysteria takes hold of an entire town and turns it against the persons who attempt to save it by calling for a return to common sense. Although the story is set in seventeenth-century New England, it has present-day significance in its examination of suspicion of beliefs and guilt by association.

## movies . . .

### British 'Melodramer' At Beacon Hill

By Charles Foster Ford

At the Cannes Festival last year, "Term of Trial" was given an ambiguous "special award." Ambiguous excellence sums up this picture quite accurately. Sarah Miles and Laurence Olivier do some excellent acting in roles which are poorly written; Simone Signoret does some atrocious acting, in a part that is even worse. The picture is over-long, and full of stretches of interesting yet irrelevant material.

Sir Laurence Olivier is a magnificent actor. Throughout a long, ridiculous story, he presents a genuine, believable human being. The magic of his acting calls all attention from the story itself, and makes the evening bearable. If he ever allowed the audience to think about the plot, the movie would be laughed off the screen.

Olivier plays a sensitive, dedicated teacher whose career was blighted by a prison-term as a conscientious objector. The movie opens with a long definition of his character and that of his wife Anne (Signoret). This exposition is a combination of a British version of "Blackboard Jungle" and a second-rate soap opera.

Then attention focusses on Shir-

**TERM OF TRIAL**, from a novel by James Barlow; Directed by Peter Glenville; at the Beacon Hill.  
Cast includes:  
Graham Weir . . . Laurence Olivier  
Ann Weir . . . Simone Signoret  
Mitchell . . . Terence Stamp  
Shirley Taylor . . . Sarah Miles

ley Taylor (Miles), whose request for special tutoring in English is shown as a play for special attention other than academic. Shirley's sister is a tart, and Shirley seems only a more sophisticated version of the same thing.

Her big play comes on a class trip to Paris, when she engineers an afternoon of sightseeing alone with her tutor. She is still a clever, fifteen-year-old seductress, but Mr. Weir appears to have been built of solid granite.

Here a strange change takes place in Shirley's character. In a midnight confession to a girlfriend, both dialogue and acting project a sincere, tormented love; the coy, superficial tart is suddenly a tormented girl driven by genuine passion. She is driven, as a matter of fact, to Mr. Weir's room, where she offers herself to her "unhappy teacher," and he patiently and tenderly sends her back to her own room, whole.

The result of his night of heroic resistance is, of course, indictment and trial for indecent assault. Shirley's description of the evening is slightly more colored than the events the audience knows actually took place, but despite clever defense, Weir is found guilty and given a suspended sentence.

Here occurs the only genuine moment in the film. Weir, claiming he has been condemned for what he didn't do, launches into an impassioned defense of his entire life and outlook. He indicts society itself for hypocrisy and emptiness. It is one of the most moving speeches ever delivered. It is nearly worth wading through the terrible failures of this film to see it.

But, having wasted much footage beginning the story, the filmmakers feel they must balance it with several anti-climaxes. Weir's head-master suggests that he resign. "I will not have perverts on my staff." He stops his wife from leaving him with this startling confession: "I am guilty. It happened just as she said. She was lying when she changed her story." Obviously, the moral of the story is: Never tell the truth.

It is aggravating to find good details in such a bad film. Sarah Miles does well with both conflicting aspects of her character, and Olivier's acting is magnificent throughout. The picture's good points deserve attention, but only a lot of re-writing and better direction could have made it a good movie. "Ambiguous excellence" describes it perfectly.

### King Tut's Treasures From Cairo Museum Now Shown In Boston

The Tutankhamun treasures will be on exhibition at the Museum of Fine Arts through March 3.

Formerly these objects from King Tutankhamun's tomb have been on exhibition only at the Egyptian Museum of Cairo. Now, to stimulate interest in the efforts to save the Nubian monuments threatened with flooding by the Aswan Dam, the United Arab Republic has allowed a group of 34 objects to tour North and South America.

The group includes rings, amulets, collars of sheet gold, the king's favorite hunting dagger, a miniature coffin, the ceremonial crook and flail of gold and blue glass, libation jars, decorated chests and statuettes of the gods. These were things expected to be of use to the Pharaoh in the afterworld.

A series of free lectures on Egyptian art will be given throughout the exhibition.

Admission is \$1.00. The Museum is open Tuesdays 10-10 p.m., Wednesday through Saturday 10-5 p.m., Sunday, 1:30-5:30. It is closed Mondays.

### BSO Concert

Friday, Feb. 8, 2:15; Saturday, Feb. 9, 8:30; Symphony Hall, Erich Leinsdorf conducting; Dvorak, Symphony No. 7, D minor, Op. 70, Lees Violin Concerto (World premiere-Henryk Szeryng, soloist), Kodaly Suite from the Comic Opera, "Hary Janos."

"A Brilliant Piece of work!" Herald Trib.  
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"The Loneliness of the Long Distance Runner"

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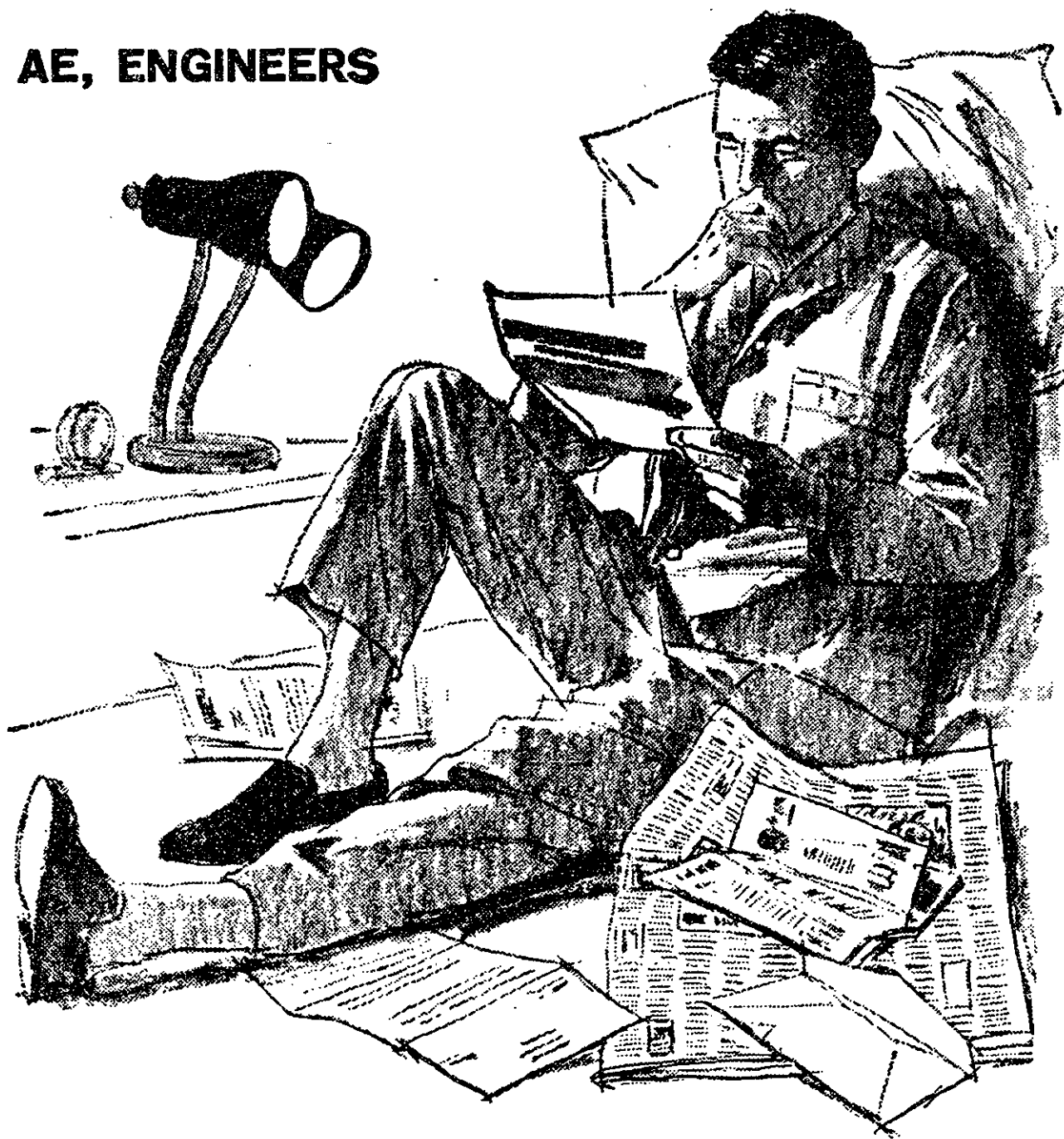
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## Fed up with a profusion of promises?

If the thought has crossed your mind that there's too much of a good thing going around for engineering students lately, we don't blame you. We are making no exaggerated promises. In fact, we are looking to you and to other engineering students for promise to bring to us. There's a switch!

History's second most significant Noah defines promise as, "Ground for hope, expectation, or assurance, often specific, of eventual success." Since we are dedicated to the proposition of complete success in all our endeavors, —and the less "eventual," the better—we are looking for men of promise.

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A Hamilton Standard college personnel representative will be on campus soon. He'll be glad to answer your questions, and to take your application for a position if you decide you like what you've learned about us.

THE DATE: Feb. 19, 20, 1963

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**movies . . .**

**'Joan of The Angels' At Fenway**

By Gilberto Perez-Guillermo

Comparison between "Viridiana" and "Joan of the Angels," the Polish film now showing at the Fenway theatre, would seem inevitable. Both films are concerned with the life of nuns and they both present unconventional treatments of religion. But the similarity exists only on the surface. "Viridiana" was more a mockery than a serious analysis of religion, while "Joan of the Angels" is as serious a film as I remember, an intellectual discussion of religious faith. "Viridiana," skeptical and somewhat cynical as it was, focused its attention on the social consequences of religious practice; "Joan of the Angels" attacks religion on the individual level, censuring the tranquil aimlessness, the lack of personal expression in religious life ("If you cannot be a saint, it's better to be damned"). "Viridiana" was an uneven masterpiece; "Joan of the Angels" is a failure.

The recognition of the cinema as an independent art has come only slowly, and in a good number of cases evaluation of movies is based on literary, philosophical, theatrical or photographic standards. Thus, film masterpieces like Hawks' "Rio Bravo" or "The Big Sleep" are practically unrecognized, while lesser works like Bergman's "The Seventh Seal" or Kurosawa's "Ikiru" are hailed as cinema landmarks. And a mediocre film like "Joan of the Angels," inflated with philosophical pretense, is favorably received by the New York press and is consequently shown here, while a vastly su-

**JOAN OF THE ANGELS:** directed by Jerzy Kawalerowicz; produced by the Kadr Unit of Film Polski; adapted by Tadeusz Kanwicki and Mr. Kawalerowicz from a story by Jaroslav Iwaskiewicz. A Polish film, with English subtitles. At the Fenway theatre, Boston. Running time: 101 minutes.

Cast:  
Mother Joan . . . Lucyna Winnicka  
Father Joseph, Rabbi . . . Mieczyslaw Voit  
Sister Margaret . . . Anna Clepeilewska

perior work like Demy's "Lola" has not had the same luck and Boston audiences have not had a chance to see it. The philosophically oriented moviegoer will speak of the "unexpected depth," the "Kierkegaardian trends" found in "Joan of the Angels." Perhaps the cinema has never so closely resembled a lecture in philosophy, but I see no merit whatsoever in this.

"Joan of the Angels" fails to express its philosophical worries (which seemed nothing exceptional to me) in cinematic terms. It appears slow, generally dull. Two successive shots of a long line of nuns seem too much indeed. In spite of some commendable camera work, it is largely uninspired.

The character of Mother Joan is not developed at all. She is a nun presumably possessed by the devil. Her behaviour, which appears to be mere exhibitionism at first, turns out to be caused by her desire to express her individuality, to stop being an ordinary nun. But this character insight is not achieved cinematically, it is "explained" by her in a long dialogue scene with her confessor, Father Joseph. We are never acquainted with the presumably meaningless life of an ordinary nun or with the psychology behind Mother Joan's behaviour. Too many phrases out of philosophy books are stated by her ("There is no truth in this world") and by other characters ("Can one bring God to a man through the devil?"), but these are never expressed on the screen.

The first scene between Mother Joan and her confessor is effective, interest being kept on her mysterious behaviour. But the mystery is soon dissipated; as a result, the exorcism scenes mostly appear dull. There is no mystic interest, no interest in the superstitious recitations of primitive people (as in Bergman's "Seventh Seal"), since the nuns' behaviour was established as trickery and exhibitionism all too early in the film.

Father Joseph's character is a better portrayal, as he seeks his true self in his first acquaintance with the outer world. But the climax of this inner search is depicted in another long philosophical dialogue — a meeting of the priest with a rabbi representing the priest's own self. Kawalerowicz, the director, seemed too concerned with philosophy to devote some time to cinema.

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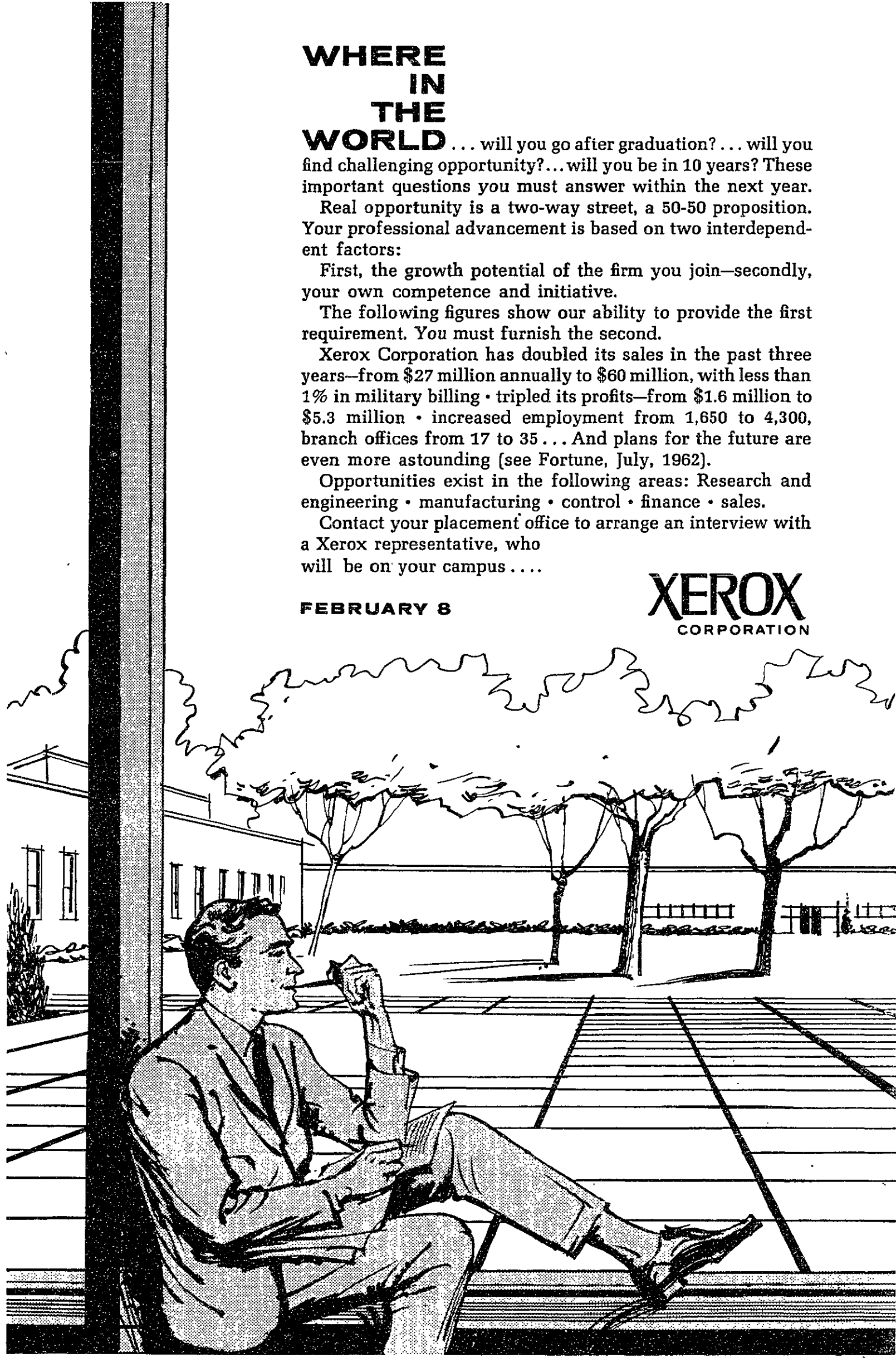
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**Bela Bosozormenyi-Nagy**

**Pianist At BU Tomorrow**

Pianist Bela Bosozormenyi-Nagy will give a recital tomorrow at 8:15 at the Boston University School of Fine and Applied Arts Concert Hall, 855 Commonwealth Ave.

The recital is free and will include "Variations of a Theme by Bach and Chorale," "Grey Clouds," Legend," and "En Mode Hongrois," all by Liszt; Bartok's Sonata "1926"; and

Beethoven's "Variations on a Waltz by Diabelli."

The following week, Dr. Nagy will begin "Colloquium Musicum," a series of six lecture-demonstrations on piano teaching and technique for both amateurs and professionals.

The series is free and will be held Thursday nights at 8:15 p.m. in the Recital Hall, Room 104, School of Fine and Applied Arts.

The dates and subjects of the lectures are:

- Feb. 17: Piano Technique: Old and New
- Feb. 21: Some Aspects of Memory
- Feb. 28: Phrasing
- Apr. 4: Style and Performance
- Apr. 11: Bartok: His Place Today
- Apr. 18: Time Economy in Teaching and Practicing

**HARVARD SQ. UN 4-4580**

"Two for the Seesaw" 1:40, 5:25, 9:10

"Guns of Darkness" 3:40, 7:30

Sun.-Mon.-Tues.

"Waltz of the Toreadors" 1:50, 5:35, 9:20

"Whistle Down the Wind" 3:45, 7:30

**BATTLE SQ. TR 6-4226**

"Shoot the Piano Player" plus short on George Grosz 5:30, 7:30, 9:30

Metinee Saturday at 3:30 Starting Sunday

"The Lady with the Dog" the Russian film from the story by Chekhov 5:30, 7:30, 9:30

**Club Mt. Auburn 47**

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Today — Jim Kweskin, 9 pm - 1 am

Thursday — Rooney, Val and Applin 9 pm - 1 am.

Friday — Charles River Valley Boys 8 pm - 1 am.

Saturday — Robert L. Jones - Mitch Greenhill - Geoff Muldaur, 8 pm - 12 m.

Sunday — Special Appearance: Doc Watson, 9 pm - 1 am.

Monday — Film: My Darling Clementine (Wyatt Earp); Players: Henry Fonda, Walter Brennan, Tim Holt, 9 pm UPA Cartoon: The Oompahs - Special Serial.

Tuesday — Jackie Washington, 9 pm - 1 am.

**THIS WEEK MUSIC**

Twentieth-Century Music for Strings—New England Conservatory, Feb. 6, 8:30, Jordan Hall; "Bachianas Brasileiras No. 1" by Villa-Lobos, "Suite in E" by Foote, "Serenade for Tenor, Horn and Strings" by Britten.

Kathak Dancers—from North India, Feb. 6, 8:30, Kresge Audit.; tickets \$2.00, \$3.00.

BNO—Symphony Hall, Feb. 8, 2:15, Feb. 9, 8:30; Benjamin Lees' Violin Concerto, Henryk Szeryng Soloist, Dvorak's Symphony No. 7, Kodaly's Suite from "Hary Janos".

Hootenanny—Tony Saletan, Jack Elliott and the Greenbriar Boys, Eric von Schmidt, Feb. 9, Jordan Hall, 8:30; tickets \$3.50, \$2.50, \$2.20.

Chorus pro Musica—Feb. 10, 7:00, Old South Church; works by Stravinsky, Schoenberg, Nielsen, Peeters, Webern; free.

E. Power Biggs—Feb. 10, 6:00, Symphony Hall; all-Bach organ program including the Prelude and Fugue in E-flat, "St. Anne", "Deck Thyself, O Soul, with Gladness", "Toccata in F major"; tickets \$1.50.

Juilliard String Quartet—Feb. 10, 3:00, Kresge Audit., including Brahms' F minor quintet, Gregory Tucker, piano soloist; tickets \$2.50.

George Pappa-Stavrou—pianist, Feb. 10, 3:00, Gardner Museum; Ives' Sonata No. 2, with Marion Valsek, flute.

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**Making the Scene**

S	M	T	W	T	F	S
10	11	12	13	14	15	16
17	18	19				

**THEATRE**

"The Sleeping Beauty"—by Charles Hart, Loeb Experimental Theatre, Feb. 7-10, 8:00, free.

LSC Classics Series—"The Crucible", Feb. 9, 8:00, 9:00, Kresge Audit.; Jean Paul Sartre's adaptation of the Arthur Miller play put on film. This drama of the Salem witch trails, set in a replica of 1692 Salem, stars Yves Montand and Simone Signoret. Dance 1951.

MIT Entertainment Series—"Okla-homa", Feb. 9, 6:00, 9:00, Kresge Audit.; Gordon MacRae, Shirley Jones, Gloria Grahame, Gene Nelson. A masterful film adaptation of the stage success by Richard Rodgers and Oscar Hammerstein II containing the entire musical score.

"Tale of Two Ladies"—MIT Civil Rights Comm., Feb. 11, 7:30, Room 10-105, discussion afterward led by Rev. Myron B. Bloy; documentary, free.

Helen Hayes and Maurice Evans—"A Program for two Players", Feb. 11, 16, Schubert Theatre.

Old Master Drawings from Chatsworth—Museum of Fine Arts, through Feb. 17.

Indonesian Art—Loeb Drama Center, through Feb. 7, 10:00-5:00.

Tutankhamun Treasures—Museum of Fine Arts, through March 3; admission \$1.00; open Tues. 10-10, Wed.-Sat. 10-5, Sun. 1:30-5:30, closed Mon.

**EXHIBITS**

New England Conservatory—piano concert, Jordan Hall, 8:30, Feb. 13; Haydn's Sonata in F major, Schubert's Impromptu in B-flat major and Impromptu in F minor, Chopin's Sonata in B-flat minor, Berg's Sonata Opus 1, Copland's Sonata 1941; free.

Erica Morini—violinist, Feb. 13, Sym-

phony Hall, Beethoven's G major Sonata, Tartini's G minor Sonata, Frank's A major Sonata, three Brahms' Hungarian Dances, Tartini-Kreisler's Variations of a Theme of Corelli.

"Faust"—Boston Opera Group, Feb. 15, Donnelly Memorial Theatre.

Rudolf Serkin—Feb. 17, 3:00, Symphony Hall; Beethoven's "Waldstein" Sonata, and Sonata in E major, Schubert's "Wanderer" Fantasy, and two Impromptus.

Berkshire Woodwind Trio—Feb. 17, 3:00 Gardner Museum; works by Haydn, Mozart, Beethoven, Milhaud, Ferroud Music of Stravinsky—presented by MIT Dept. of Humanities and Baton Society, Feb. 17, 8:30, Kresge Audit.; free by ticket only.

MISCELLANEOUS "Children of Darkness"—bitter American comedy, Tufts Arena Theatre, Feb. 14-16, 8:30.

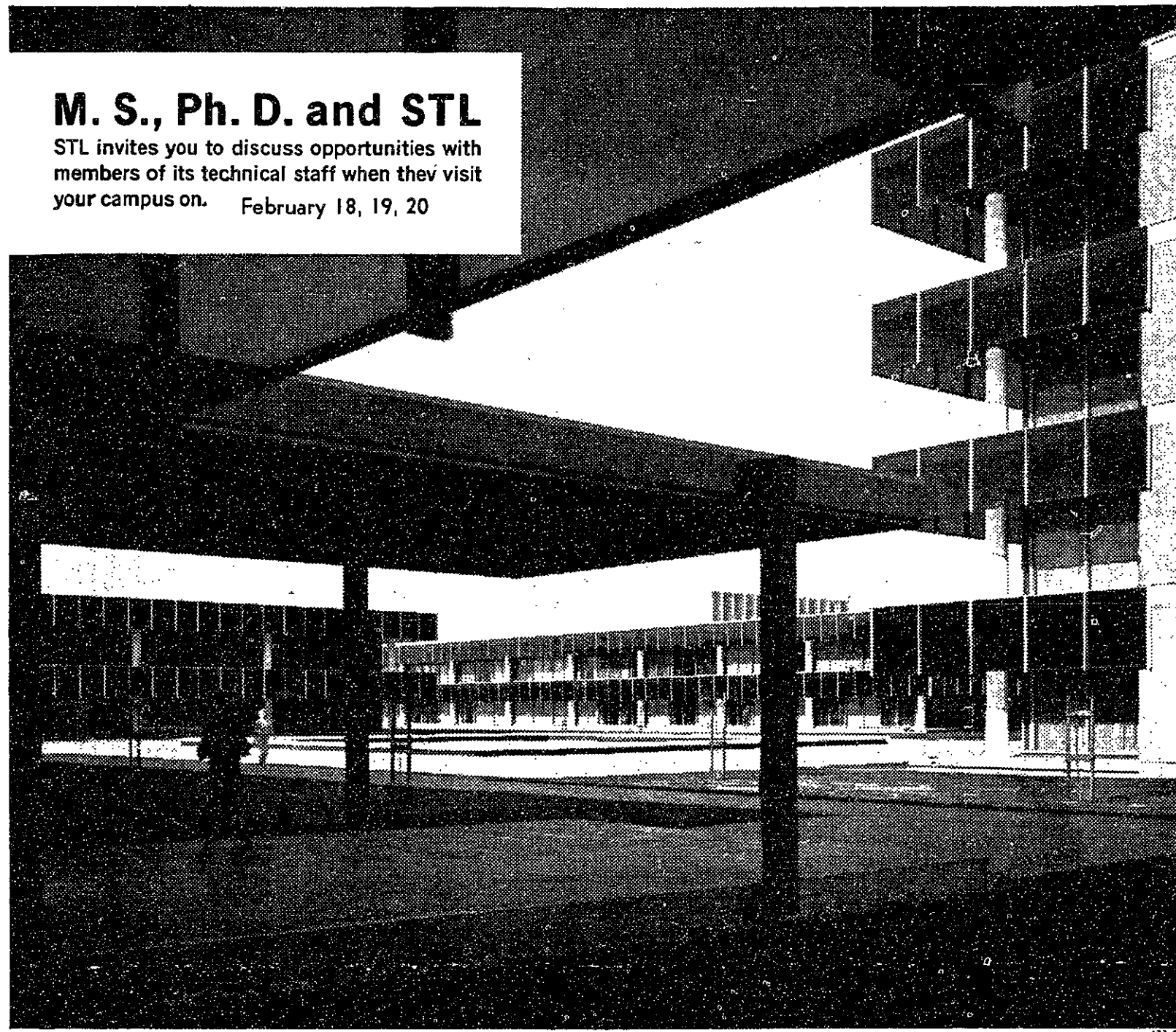
Ice Follies—Feb. 14-24, Boston Garden, Feb. 14-15, 8:00; Feb. 16, 1:59:00; Feb. 17, 2:6:00; Feb. 18, 8:00; Feb. 19, 1:8:00; Feb. 20, 2:8:00.

"The Zoo Story"—by Edward Albee, Feb. 14-16, Loeb Experimental Theatre, 8:00; free.

"The Crucible"—contemporary opera, Loeb Drama Center, Feb. 14-16; 8:30; tickets \$2.00.

H.D.F. Kitto—author of 21.01 text, Feb. 19, Wellesley College.

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**Will Greene's Comedy  
 'The Riot Act' Opens  
 Next Week At Wilbur**

"The Riot Act," a comedy by Will Greene, opens February 13 at the Wilbur Theatre.  
 The play concerns an eccentric matriarch, played by Dorothy Stickney, with three sons, all members of the New York police force. She manipulates the love life of her sons and their fiancées with the help of a close friend, played by Ruth Donnelly.  
 It will run through March 2. Performances are Monday through Saturday at 8:30, Wednesday and Saturday matinees at 2:30.

**Kathaks Dance At Kresge,  
 Tell Of Hindu Myths Tonight**

The Kathak dancers of North India will perform under the sponsorship of the Asia Society of Performing Arts at Kresge Auditorium tonight at 8:30.  
 These ancient, story-telling dances will be given by the Bharatiya Kala Kandra dance company.

**Organ Concert Sun.  
 By E. Power Biggs  
 At Symphony Hall**

E. Power Biggs will present an Organ Concert Sunday at 6 p.m. in Symphony Hall.  
 For this concert Mr. Biggs will play the same program which Mendelssohn played in Leipzig in the summer of 1840 to raise funds for building a memorial to Johann Sebastian Bach.  
 For the recital, Biggs' all-Back program will include the Prelude and Fugue in E-flat, "St. Anne"; Chorale Prelude: "Deck Thyself, O soul, with Gladness"; Prelude and Fugue, in A minor; Passacaglia and Fugue, in C minor; Pastorale in F major; and Toccata in F major.  
 Tickets for the concert will cost \$1.50.

Kathak dances give interpretations of Hindu mythology. They consist of intricate rhythms and patterns accompanied by tinkling ankle bells which can be controlled down to the sound of a single bell.  
 The dances became popular in the courts of Hindu kings and Mogul Emperors. The dance techniques have been handed down from generation to generation within the families of the original dance masters.

Tickets at \$2.00 and \$3.00 are on sale in the lobby of Building 10 and in Kresge Auditorium.

**Anna Russell Brightens  
 Tech's Reading Period**



—Photo by Sanford Libman  
 Anna Russell at her concert given in Kresge Auditorium last January 18th.

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**opera...  
 'Barber' Opera-Haters Delight**

**By Arthur Regan**  
 This past week-end the Boston Opera Group presented a performance of Rossini's "Barber of Seville" that would have delighted the hearts of all opera-haters.  
 The opera itself is pure delight. Written in less than two weeks it's a merry tale about a Spanish

count who manages to outwit his beloved's gold-digging guardian through a series of disguises and with the assistance of Figaro, his former servant, now a barber. The comic situations and the sparkling music offer almost complete proof against failure. But the Boston Opera Group nearly managed to overcome this advantage.

Visually, the opera was a great success. The scenery by Raymond Sovey was a joy to behold—particularly the interior set for the last two acts in which the lack of depth on the stage of the Donnelly Memorial Theatre was overcome by constructing the interior of a two-story house. This, in effect, gave the singers two stages on which to perform.

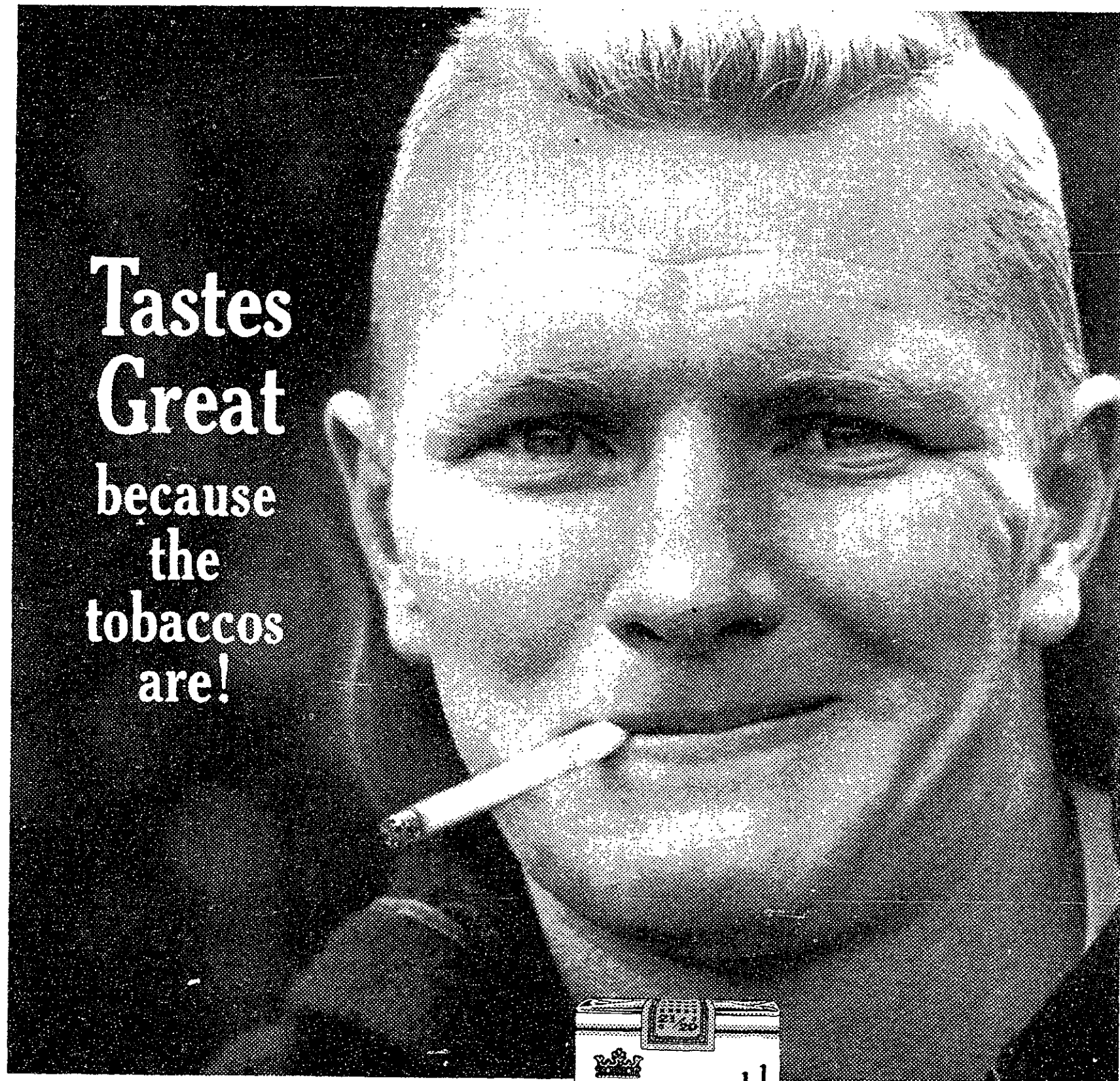
Unfortunately, there was more to this "Barber" than its visual aspect. The orchestra was made up of members of Boston's leading symphony orchestra, and they did as well as they could under the direction of Osbourne McConathy who seemed to take pleasure in substituting for the gaiety of Rossini's score a cloddish precision (when he wasn't trying to catch up with the singers who were ahead of him most of the evening).

This brings us to the main problem of the performance — the singers, all members or former members of the Metropolitan Opera. Rossini's music calls for brilliant tone and an agile technique. But none of the principal singers demonstrated such abilities. The finales to the last two acts which should spin like whirling lights were produced with very low amperage.

The soprano, Mattiwilda Dobbs, almost made the evening worth while. Her great aria, "Una voce poco fa," was performed with considerable brilliance. But her voice is quite small, and all too often one could scarcely hear her.

Miss Dobbs could not possibly have been successful since she had to share the stage with two of the worst-mannered singers this reviewer has ever encountered. The favorite pose of the baritone, Enzo Sordello, was to stretch out his arms and bellow over-long notes conducive less to pleasure than to head-aches. In one of his duets with the tenor he held his notes so long that the tenor didn't have time to sing his own part.

The Boston Opera Group has done much better in the past.



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**THE BARBER OF SEVILLE**, by Gioachino Rossini. Presented by the Opera Group of Boston; in Italian. Directed by Sarah Caldwell; sets and lighting and costumes by Raymond Sovey. At the Donnelly Memorial Theatre for two performances Feb. 1 and Feb. 3.  
 The Principals  
 Count Almaviva... Dino Formichini  
 Figaro... Enzo Sordello  
 Dr. Bartolo... Donald Gramm  
 Rosina... Mattiwilda Dobbs  
 The Opera Group will present Godard's "Faust" (in French). Feb. 15 and 23.

# A Guide To Harvard Square's Fifteen Bookstores

By Charles Foster Ford

Not all books are available at the Tech Coop, but nearly any book can be found in one of Harvard Square's 15 bookstores. This guide lists the bookstores and their specialties.

## Textbooks

Only four of the stores sell textbooks; they are: (1) Harvard Coop Textbook Annex, (2) Barnes & Noble, (3) Phillips Book Store, (4) Harvard Bookstore. (See Map.)

They all sell and buy textbooks, new and used, all year round, though their busiest time is at the beginning of each semester.

The Textbook Annex of the Harvard Coop is probably the most likely to stock books used at MIT. The Coop is the largest and most complete bookstore in the square. However, during the "textbook rush" season, textbooks are arranged by Harvard course number. Students from any college but Harvard must have the help of salesmen to find their books. Unfortunately, Coop sales people

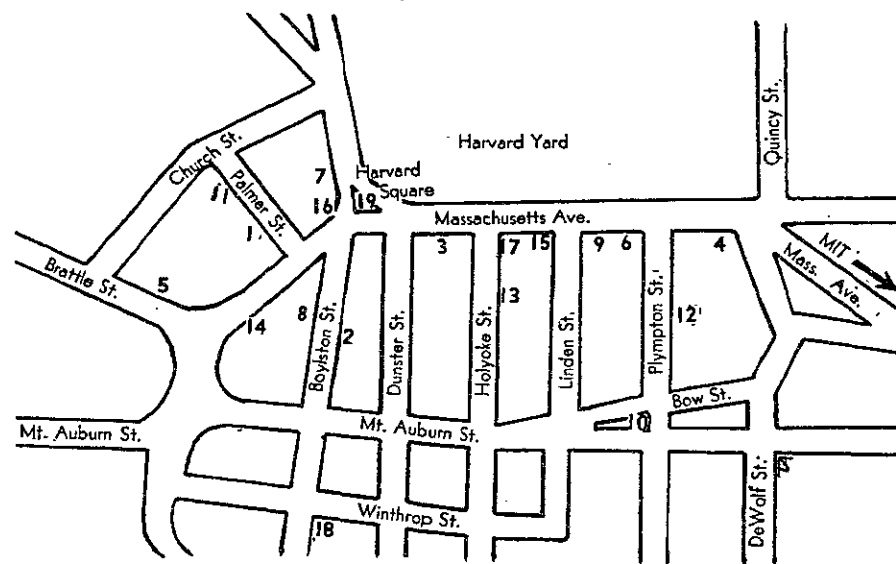
differ widely in their memories, their familiarity with books, their knowledge of advanced sciences, and even their familiarity with the store they work in. It pays to try several, if you can find them.

Barnes & Noble, on Boylston Street, is one branch of a big store in downtown New York. They have a good general textbook department in the rear of the store, and the manager maintains a useful selection of technical books. Since the Cambridge store has easy access to the large warehouses in New York, special orders for used textbooks can often be filled in less than one week.

Phillips Book Store has been selling textbooks for 45 years. During the "normal" periods of the year, their specialty is "good" new books in all fields. Their selection of advanced technical books is excellent, as are their art books and books for children.

Harvard Bookstore (not to be confused with the Harvard Coop) is probably the best general bookstore in Harvard Square. What it lacks in size and neatness it makes up in knowledge and awareness of the book trade. A large table of "bargain books," fine for browsing, is a permanent feature of the store. In slack times, their cellar stock-room is open to customers; this dusty maze is often a gold-mine. The Harvard Bookstore is open until 10 p.m., six nights a week. During the textbook rush, both Phillips and Barnes & Noble ask customers to write out their requests on special forms; at Harvard Bookstore books must be asked for; only at the Coop is any self-serv-

## Bookstore Locations



- |                               |                              |
|-------------------------------|------------------------------|
| 1 Harvard Coop—Textbook Annex | 10 Starr Book Shop           |
| 2 Barnes & Noble              | 11 Cantabrigia               |
| 3 Phillips Book Store         | 12 Grolier Bookshop          |
| 4 Harvard Bookstore           | 13 Thomas More               |
| 5 The Paperback Booksmith     | 14 The Bookshelf             |
| 6 Schoenhof's                 | 15 Felix's Newsstand         |
| 7 Harvard Coop (main store)   | 16 Harvard Square Newsstand  |
| 8 The Mandrake                | 17 Harvard Smoke Shop        |
| 9 Pangloss                    | 18 College Pharmacy          |
|                               | 19 Sheldon Cohen's Newsstand |

ice system attempted during this period.

## Trade Books

But Harvard Square's bookstores are not limited to textbooks. Many stores (including the four already mentioned) carry paperbacks and other "trade books" (all books other than text-editions).

The Paperback Booksmith, opposite the Brattle Theatre, is the newest bookstore in the square. They stock hardly any hardbound books and none of the "text-edition" paperbacks, but try to be as

complete as possible in the field of paperbacks generally. Books can be ordered there from warehouses or local distributors, and such orders are filled in 3 days. "Dedicated to The Art of Browsing," they turn on good f.m. music, and leave customers alone. Open till midnight, 6 nights a week.

Schoenhof's book store specializes in foreign language books, most of them imported directly. For books in languages other than French, German & Spanish,

(Please turn to Page 11)

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**TECH COOP**

## Harvard Square Bookstore Guide

MIT Science Reporter

# Meteors Believed Source Of Tektites

(Continued from Page 10)

By James Velleux

Schoenhof's is often the only place to look. They have an excellent art book department, print department and framing service, well worth investigating.

In the **Harvard Coop** (main building) are the trade-books and paperback - books departments. There are wide selections in all categories: new fiction and non-fiction, remainders (marked-down new books), children's books, art and humor. The Coop's trade paperbacks are separated by publisher, and then shelved alphabetically by title; this system is cumbersome, and puzzles even their salesmen.

**The Mandrake** is the only bookstore in town which will order books from England as easily as from America. Their selections in criticism, psychology, sociology, and poetry are excellent. They also sell prints, and sculpture-reproductions.

### Second Hand Books

Two bookstores in the square deal exclusively in second-hand books, other than textbooks. **Pangloss** is the joy of the specialized collector; they know valuable books there, and make an effort to get them. However, their prices often reflect the excellence of their service. **The Starr Book Shop**, which shares the Lampon Building, is another book-lover's haunt. The look and smell of well-aged books is an acquired taste, but one well satisfied in these stores.

### Specialty Stores

Other shops deal in only one specialty. On the second floor over the Coop Textbook Annex, the **Cantabrigia** deals in books on anthropology, and folk-song materials both in books and on records.

The **Grolier Bookshop** deals in poetry, literary journals and magazines, and other esoteric oddments; it's the best place to look for Edward Gorey's cartoon books, or the avant-garde and/or beat poets.

The **Thomas More** bookstore specializes in books for and about enlightened modern religion; Sartre and Sallinger are as well represented there as Tillich and Merton.

The only rental-library in Harvard Square is maintained by **The Bookshelf**, one of several branches in the Boston Area. Their new books seem chosen mostly for an elderly female audience.

### Newsstands

In addition to these bookstores, newsstands in Harvard Square maintain sizable stocks of paperbacks. The largest of these is **Felix's Newsstand**, on Mass. Ave. A wide selection of mysteries and other light-reading, all in the "inexpensive" (75c and below) paperback lines, is worth investigation. Many titles for sale at Felix's are available nowhere else. The **Harvard Square Newsstand**, the **Harvard Smoke Shop**, and the **College Pharmacy** (see map) also sell paperbacks in respectable quantities.

**Sheldon Cohen's Newsstand**, in the center of Harvard Square, sells foreign language newspapers and magazines, in addition to home-town newspapers from almost any city in the United States.

### Need A Job?

One final word may be said about employment possibilities. All four textbook stores hire a lot of part-time help during the rush-periods. Especially during September, they are willing to take people who can work only a few days a week, or even for a few hours per day. They prefer to hire college students because they have a knowledge, of both books and courses, which can be useful. It would be best to apply for work a week or two in advance of registration-dates. More permanent work is again most likely to be found at the textbook stores, and the best possible reference is to have worked well for a store during one of the textbook-rushes.

Last Thursday night found Channel 2's "MIT Science Reporter" at the Harvard University Museum, with guest Professor William H. Pinson Jr., Geology, explaining "The Mystery of Tektites." This glass-like substance, found in various parts of the world, is believed to have originated in outer space.

While examining several tektite specimens before the TV cameras, Pinson stated that the glass is formed from the fusing of meteorite material as it encounters the earth's atmosphere traveling at a rate faster than escape velocity (7.1 miles per second). As the meteorite strikes the ground, the impact causes it to explode, and pieces of tektite are dispersed in all directions.

The explosion results in a crater which far exceeds the original dimensions of the meteorite. The famed crater in Arizona, for example, was certainly not created by a meteorite  $\frac{3}{4}$  of a mile in diameter. Neither was a crater in Germany, which measures 20 miles across, gouged by a meteor of that diameter.

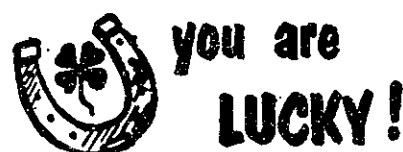
The scattered tektites are con-

centrated in three major areas: the Pacific, the continental United States, and Czechoslovakia. Each group of tektites can be distinguished from the other by its own characteristics. The Pacific samples are similar in that they exhibit chemical homogeneity, indicating that they all originated from a single source. The localization of the three groups also suggests that they came from a nearby planet and did not have time to disperse by the time they reached the earth.

Further evidence that this strange material did not originate on our planet is found in its percentage of water composition. Measurements reveal that the amount of water in tektites is much lower than that in volcanic, man-made, or A-bomb glass. But one might argue that any object from outer space should have induced radioactivity from cosmic rays. This type of radiation, however, has a rather short half-life, and the tektites, which reveal no such induced radioactivity, must be more than 50,000 years old. In fact, they are dated at millions of years old, and

the interval between large-scale meteorite collisions is 10-15 million years.

Assuming that tektite do come from outer space, they have a few important practical applications. Their composition can tell us much about the materials to be found on other planets. And their rounded, often conical, shapes may provide the best design for rocket nose cones which must pass through the earth's atmosphere at high speeds and still remain intact.



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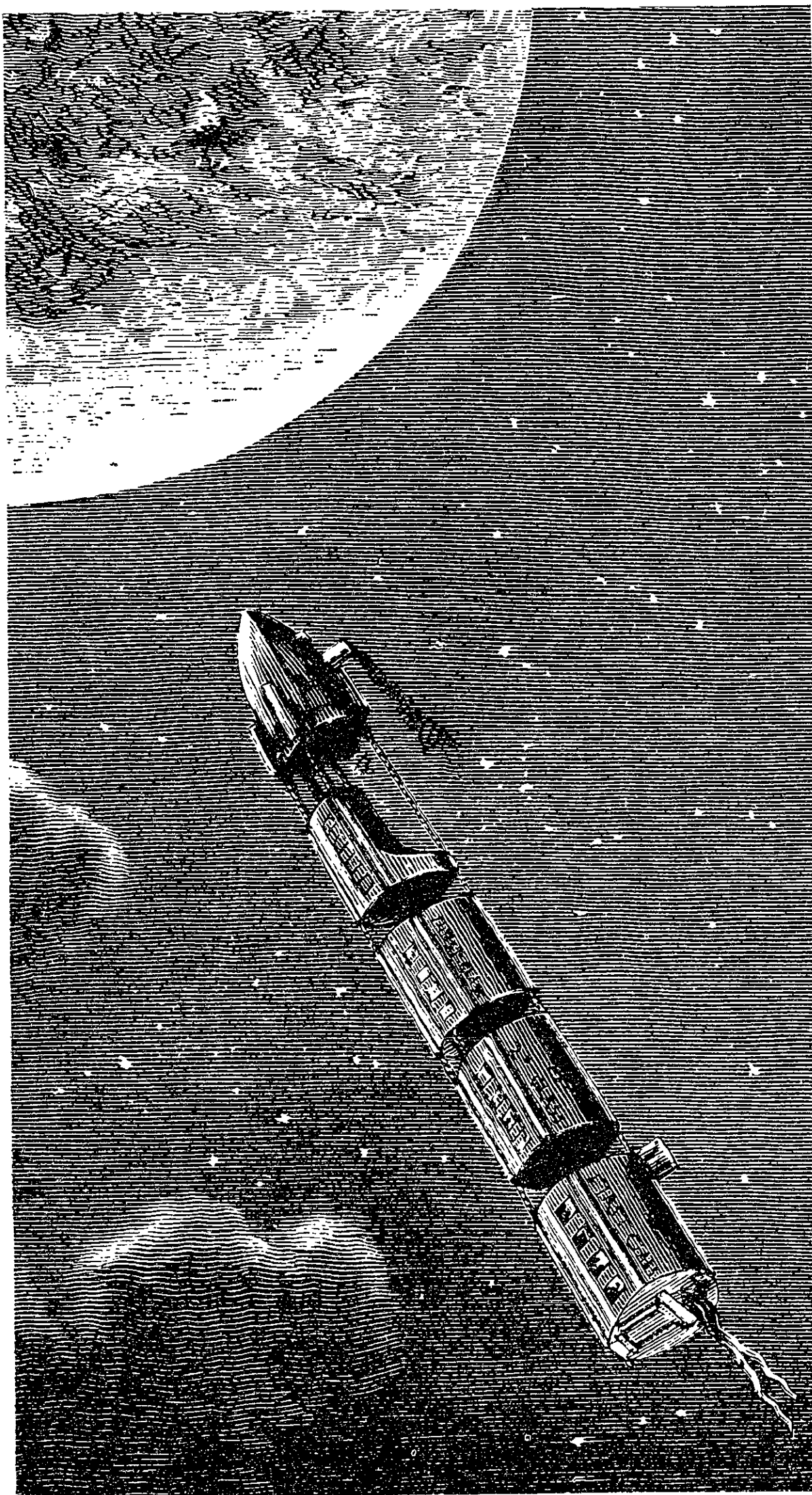
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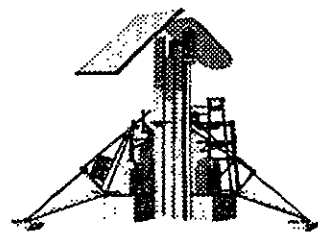


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## Parking Problems?

Copies of the latest edition of "Where to Park in Downtown Boston" are available free on re-

quest from "The Tech." Published by the Greater Boston Chamber of Commerce, this map gives locations and capacities of all parking lots and garages in downtown Boston.

Persons wishing a copy of this pamphlet should send a self-addressed, stamped (only if off campus) envelope to The Tech, 50-211, MIT.

## CRC To Present Films About Race Relations

The MIT Civil Rights Committee will present a series of six films on race relations each Monday evening at 7:30 in the Bush Room (10-150.) The films are free and open to the public. Each will be followed by refreshments and a discussion led by a member of the faculty.

"Tale of Two Ladies", which will begin the series on February 11, traces the history of the Negro protest against racial discrimination. The discussion following the film will be led by Rev. Myron B. Bloy, Jr., Episcopal Chaplain.

The first five films are adapted from a television series written and narrated by Thomas Pettigrew, Professor of Social Psychology at Harvard University.

## Rines To Speak On Inventions

Robert H. Rines, Department of Electrical Engineering, will lecture on the economic and legal incentives and obstacles affecting inventions in the engineering field.

The lecture is titled "Why Create?" and will be presented in the Bush Room, 10-105, at 4:00 p.m. Monday, February 11. Open to the public, it is sponsored by the MIT Student Branch of the Institute of Electrical and Electronics Engineers.

## More Than 300 Attend Int. Photon Conference Hosted By MIT Jan. 26-30

The International Conference on Photon Interactions in the BEV-energy Range was hosted by MIT January 26-30.

More than 300 American and foreign physicists attended the five-day affair, co-sponsored by the Atomic Energy Commission, the Office of Naval Research, the National Science Foundation, and the International Union for Pure and Applied Physics.

The physicists first heard discussions of progress in quantum electrodynamics and related fields. They then plunged into lectures on Regge pole theory, dispersion theory, production techniques for photons and mesons, and detection of the virtually massless photons. They concluded with a tour of the facilities of the 6 billion-electron-volt Cambridge Electron Accelerator, a joint MIT-Harvard project.

Among the prominent physicists attending were Prof. Hans Bethe of Cornell, Dr. Maurice Goldhaber of Brookhaven National Labs, Dr. Wolfgang Panofsky, director of the two-mile-long linear accelerator being built at Stanford, and MIT's Dr. Victor Weisskopf, director-general of CERN, the pan-European nuclear research establishment.

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# Quist Tracks Missing Chief Red Thundercloud

ton, Mass, a suburb of Worcester. The reservation, ordinarily a one family affair inhabited by Narragansett Indians (who are always welcome) was having its annual Pow Wow, doing the ancient dances which had been passed down to them from a group of professional entertainers who were there to help attract tourists. Chief Thundercloud was one of these entertainers, and, amazingly enough, claimed to be able to speak Catawba.

"I knew that at least one word he said was authentic," noted Matthews, "but I also knew he couldn't really speak Catawba. Because, of course, Catawba is a dead language." Only it turned out the Chief really could.

### Vanishes In Buick

But then Professor Matthews found out why the Indians are called vanishing Americans. The Chief drove off in his Buick, with his wife and two sons, leaving

behind only a mailing address in New York City.

Letters sent to this address met with no response, so the professor was faced with a dilemma — should he consider the lost language lost for good, or should he saddle his automobile and ride the Pow Wow trail tracking Chief Red Thundercloud.

Well, Professor Matthews hadn't done any field work since 1956, and wasn't anxious to resume now. Using his sharp wits, which had been honed by dealing with Techmen for almost seven years,

he decided to tell his story to the "Boston Herald." Arlene Grimes wrote a column poking fun at the professor who lost the lost language and ended it by saying:

"Where Indian go, white man follow. This Summer Prof. Matthews will take up the Pow Wow trail in pursuit of Chief Red Thundercloud."

Her sarcasm was unfounded, but it saved the day. The professor saw the article, winced, and sat back and waited. Sure enough, Thundercloud read the

paper and sent a letter to Matthews giving him the Chief's new address in New York.

Now Professor Matthews is busy trying to raise funds from the University of Pennsylvania to go to New York to study the Catawba language. He has to learn the language from some one who speaks it because the Indians left no written language. He hopes to make tapes and also to acquire a vocabulary of phonetically spelled words.

### Link To Migration

The primary reason for acquir-

ing a knowledge of Indian language is to study their structure. Professor Matthews is looking for general principles in the evolution of Siouan language. He adheres to the "Stammbaum" theory, which in this case means that all of the dozen modern Siouan languages originated from a basic form that Prof. Matthews estimates was in use about 3000 years ago. To prove this he must demonstrate connections between the different dialects.

For this reason the Catawba language is important. Professor Matthews hopes it will help him to establish a connection between the Siouan spoken in Virginia and that spoken in Biloxi, Mississippi. This could be a major step in the study of the Sioux migration.

At the Mitre Corporation Professor Matthews is helping to develop a computer that will respond to complicated oral questions. This is basically a problem in linguistics — the machine must be able to interpret the question and decide what information is needed before it can begin its computing chores.

## Course 16 To Receive New Building

The four-story Hood Building at Massachusetts Avenue and Albany Street has been bought by MIT and is being demolished to make way for a new educational facility.

Present plans call for the new building to be a one-story structure containing laboratories and classrooms for the Department of Aeronautics and Astronautics. The site is next door to the 68 Albany Street headquarters of the Department's Instrumentation Laboratory.

The Hood building, built in the early 1900's, served for many years as an ice cream plant. The federal government acquired the building in 1946,

and it was used by MIT scientists for government-sponsored research until 1952.

A private firm took over in 1952 and the firm occupied the building until 1958. The building has been vacant since then and was acquired by the General Services Administration for disposition when it was declared surplus to government needs.

The GSA turned the building over to the Department of Health, Education and Welfare which, in turn, decided the property to MIT with the proviso that the property be used for educational purposes. MIT is paying for the demolition.

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## Graduate House To Serve Beer Every Thursday, 8:30-12:00 p.m.

Graduate House will begin serving beer in the Buttery every Thursday, 8:30 to 12:00 pm, beginning February 7.

Only graduate students and their guests will be permitted to enter; and all must be 21 or over in accordance with regulations of the Massachusetts Alcohol Commission, which granted the license.

Questionable patrons will be expected to show two identifications verifying age and graduate status. The Cambridge Police will make intermittent visits.

Several brands of beer will be

available in 12-oz. bottles for 30 cents a bottle. Various sandwiches and snacks will also be served.

The Graduate House Executive Committee has formulated the plans for this bar and has waited 10 years for the administration to agree to pay \$350 for the license.

An outside professional bartender will be hired to serve the beer. The Graduate House Cafeteria management will take care of buying and storing the beer, and will handle management problems.

If the plan is successful, the Grad House Committee hopes to extend the service to other days.

## N.E. Conservatory To Present Concert

The New England Conservatory will present a piano concert in Jordan Hall, February 13, at 8:30.

The works will be Haydn's "Sonata in F major," Schubert's "Impromptu in B-flat Major," and "Impromptu in F minor"; Chopin's "Sonata in B-flat minor," Berg's "Sonata, Opus 1," and Copland's "Sonata 1941."

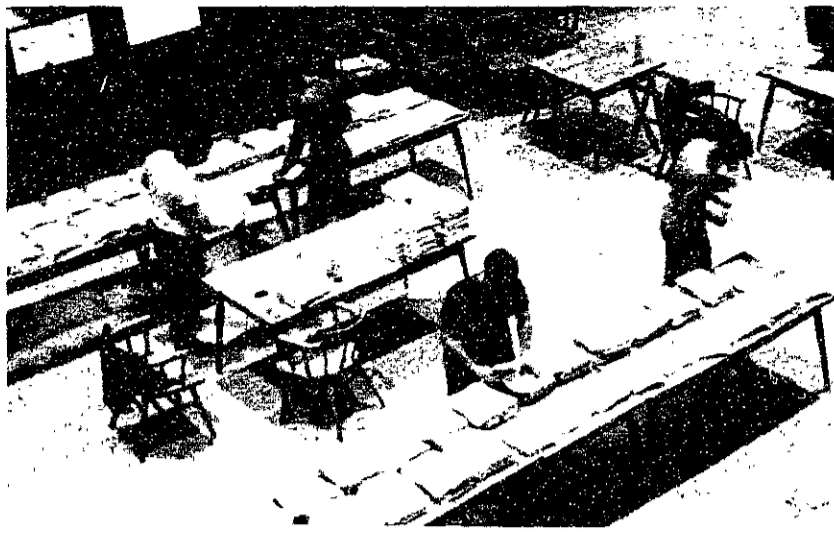
There will be no admission charge.

## Friedman Lectureship Established with \$100,000 Grant

A grant of \$100,000 from the Oppenheimer-Friedman Foundation of New York City to MIT will be used to establish a lectureship in memory of the late Francis L. Friedman, professor of physics at MIT.

The lectureship, named the Francis L. Friedman Lectureship in Physics, will permit distin-

## Walkerites Assemble Book



Members of the Walker staff assembling Quiz Books during the interim for sale to freshmen on Registration Day.

—Photo by Conrad Grundlehner

guished physicists from the United States and abroad to offer lectures at MIT.

Friedman, who died last August at the age of 43, played a leading role in the establishment of MIT's Science Teaching Center and was its first director. He was also the chief scientist of the Physical Science Study Committee.

Friedman's major research in cosmic ray shower theory was concerned with the interaction of high energy particles in the atmosphere. He also made important contributions to the theory of "stripping reactions," an important nuclear process involving the separation of neutrons from deuterium nuclei.

## New Way To Teach Physics Explained

MIT is spearheading a drive to evolve a new pattern for teaching college physics.

Dr. Nathaniel H. Frank, former head of the Department of Physics and a member of MIT's Science Teaching Center, outlined three basic ideas behind the new approach. Speaking at the 129th annual meeting of the American Association for the Advancement of Science December 29, Prof. Frank made these points:

1. Any really significant change in teaching college-level physics must be closely geared to the new physics of the 20th century.

2. Research in modernization of college physics teaching must be on the same large scale as the most advanced research into contemporary physics itself.

3. Any significant change in the structure of teaching physics must break entirely from traditional forms.

Frank emphasized that the new physics, based on quantum physics, relativity, and modern statistical physics, constitutes a modern revolution of even greater impact than Newtonian physics.

He pointed out that many problems in the new Physics cannot even be expressed in the terminology of traditional physics.

The Teaching Center, which was established in 1960 under the directorship of the late Dr. Francis L. Friedman, Professor of Physics who died last August, has placed heavy emphasis on giving students a thorough understanding of the experimental evidence on which modern physics is based. In line with this emphasis, the Center has been recording film demonstrations of experiments that are too expensive or complex to be brought into the student laboratory.

## 280 Receive Jan. Degrees 85 Doctorates Awarded

280 students received 289 degrees from MIT in January.

Awarded were 85 doctorates, 15 engineering degrees, 119 master's degrees, and 70 bachelor's degrees. Students receiving degrees came from 33 states and 29 foreign countries.

## WHAT'S NEW IN THE FEBRUARY ATLANTIC?

"How Not to Teach Teachers": The training of American teachers is "unwieldy, slow-witted, bureaucratic... a failure," says James D. Koerner in this incisive, critical analysis.

ALSO

J. B. Priestly: Reminiscences about the author's service in World War I

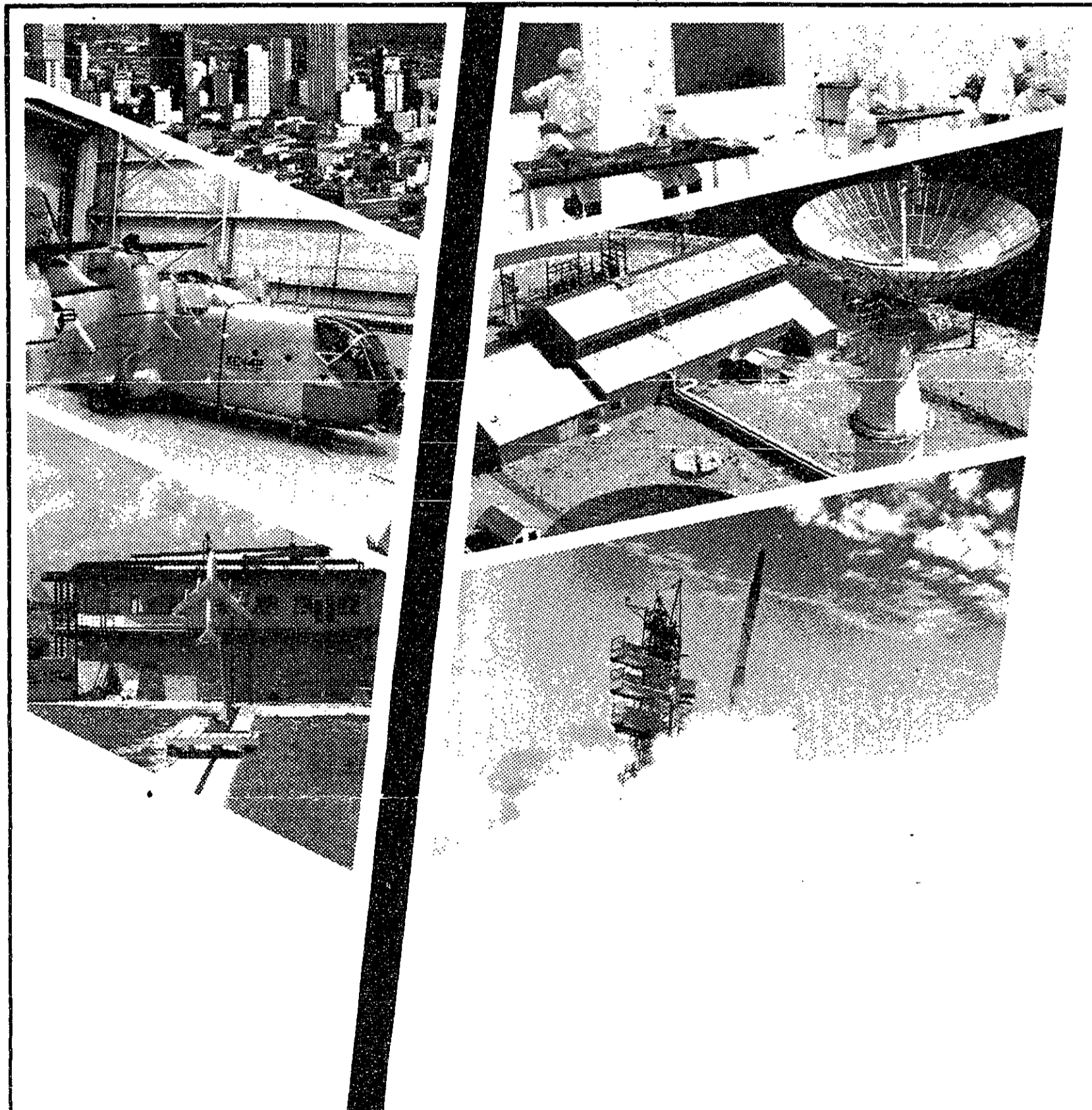
"Lampedusa in Sicily": An Atlantic Extra by Archibald Colquhoun

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CAMPUS INTERVIEWS

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**College World****Finals End and Registration Starts; Russians 'Correct' Newton's Laws**

Now that finals are over, you might be interested in some of the quizzes given at other schools. The Texan reports that the following ten-minute quiz was given to a class in accounting at the University of Texas. Students were urged to read through all the questions beforehand. No figures on class average were reported.

1. Write your name, last name first, in the top right-hand corner.
  2. Underline your first name.
  3. Draw a circle around your last name.
  4. Put stars around the circle.
  5. Draw a vertical line in the middle of the page.
  6. Draw a man to the right of the line wearing a derby.
  7. Draw a giraffe half as large as the man to the left of the line.
  8. This is the mid-point of the quiz; when you have reached this point stand up and say "here."
- And finally at the end of the quiz:
16. Work only problems 1 and 2.

**How To Be Sharp**

After taking your accounting final, you may now proceed to a pre-registration meeting at the University of New Hampshire. The purpose of the meeting is to determine whether there is

enough student interest in a proposed new course to warrant its being given. To be offered without academic credit, the new course is entitled "How to be Sharp," or "Sophistication in the Boondocks."

The instructor offering the course, Mr. Arthur Bleich, guaranteed that the course "could make any girl or guy 100 percent more datable." He explained, "We are upset: we feel that if UNH students were placed in a sophisticated situation, they would not be able to hold their own. This is not a joke. Many students have expressed a concerned interest."

The core of the proposed course will be the discussion of problems that arise in sophisticated heterosexual relationships. Representatives from such fields as modeling and clothing designing would be invited as guest speakers.

A unique feature of the course will be to orient men to the problems of women, and women to those of men.

Mr. Bleich stated that many girls do not know when to offer assistance to men, and some men do not know when to accept it. There are also somewhat more unusual situations that may arise which demand reasonable and not highly emotional reactions.

Mr. Bleich outlined some of these problems: "What ought you do when your date gets drunk?"

"How ought you react when shocked or insulted?"

"What ought you do when your date leaves you?"

Mr. Bleich emphasized that the success of the course would depend upon student interest.

**First Day Of Classes**

Registration day has passed and you may now go to your first day of classes at the University of Missouri. You find that your Twentieth Century Literature class has been assigned to meet in Room 11 of the Arts and Science Building. You arrive at Room 11 and notice, alas, that it is a women's rest room.

Moving the class to another room, the instructor comments, "It's a very small ladies' room and there are 15 students in the course."

**Newton's Laws "Corrected"**

Turning to the international scene, a Soviet scientist claimed in January that he has discovered a new law of physics which "corrects" the laws of Newton. The scientist is Yevgeny Alexandrov, head of the research laboratory in the Moscow Mining Institute.

The newspaper *Pravda* said that Soviet authorities have decided the discovery is so important that Alexandrov's name will appear alongside that of Newton in all Soviet textbooks and manuals.

Details were kept secret, but the newspaper said practical applications of the discovery will prolong the life of machinery which has an "impact nature."

"Up to now," said *Pravda*, "mechanisms and machines of an impact nature quickly went out of commission. Now their life will not only be extended immeasurably, but also their power will increase many times over. . . . The law of Alexandrov will find the broadest application in many branches of the national economy."

"Innumerable examples can be given," said the newspaper, but it did not give any.

**Nigerian Students Riot**

What started as a student protest over poor food ended as a full-scale riot against both the food and "oppressive regulations" at the University of Nigeria.

The demonstration began during a lunch hour, with students refusing to eat the food they were served. It soon mushroomed as students began scattering utensils and smashing university property.

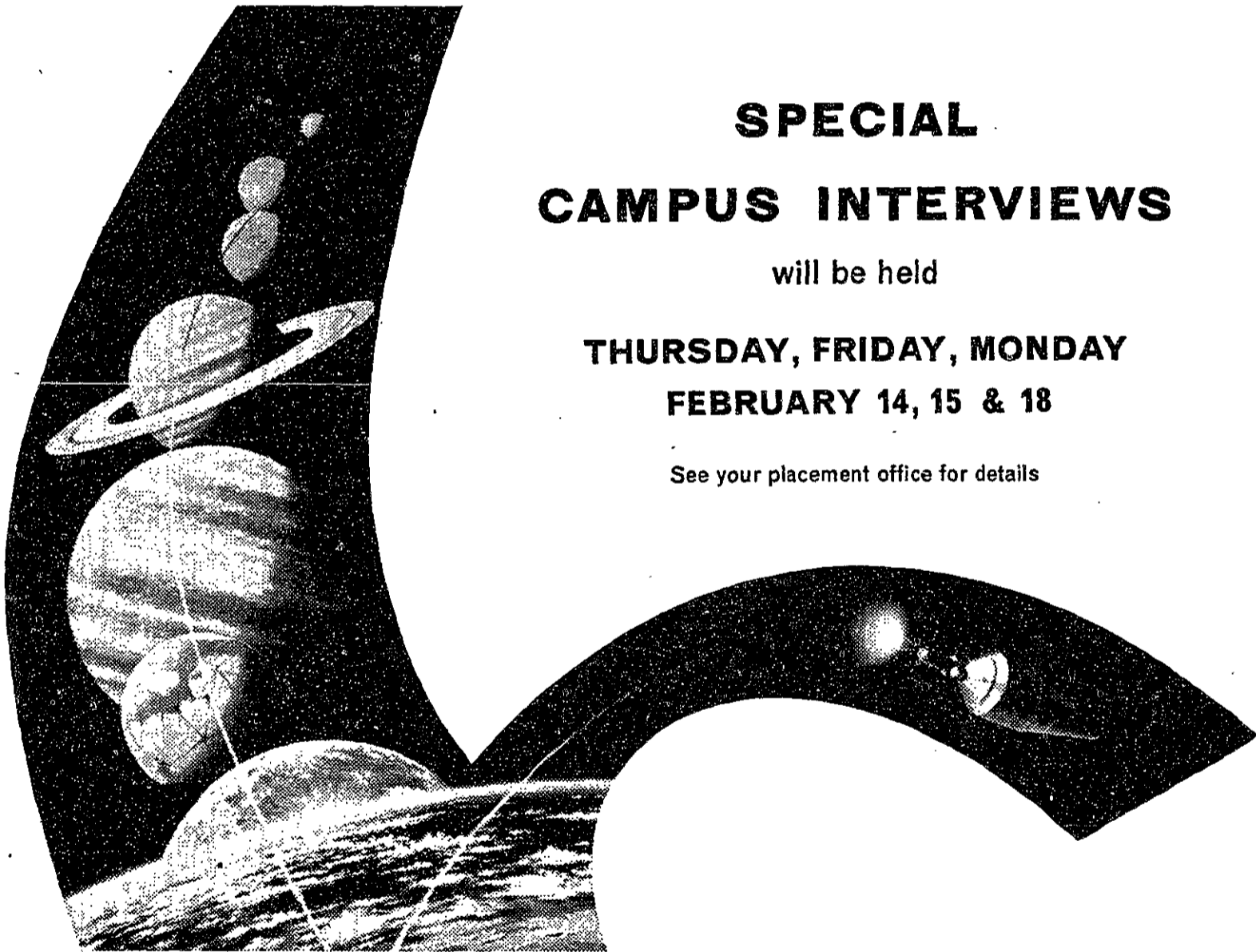
Reports from the university said two cars belonging to university officials were heavily damaged. A police riot squad finally restored order.

The students demanded better food and immediate repeal of what they consider to be severe

(Please turn to Page 16)

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## Stark Studies Wise Bird's Brain; Owl Stimulates Computer Circuits

Exploration of nature's computer center, the brain, and its relation to modern electric computer systems is the current project of Dr. Lawrence Stark, M.D., Research Associate in the Department of Biology.

Experimenting with a small owl, Dr. Stark has correlated stimuli to learning. The learning process is the heart of the computer, and the basic problem in development of better systems is the wiring of learning units. Strangely enough, the brain of the owl undergoes processes during such simple functions as light detection which are similar to the laying of electrical circuitry. By a study of the owl's conditioned reflexes, a knowledge

of computer circuit potential is gained.

The work done by Dr. Stark is typical of MIT in that it is not confined to a single limited field. Biology, electrical engineering, psychology, and medicine all find applications in such work.

The new science of cybernetics, which hopes to relate computer processes with the complicated functioning of the human brain, is the outcome of such research as Dr. Stark's. His findings indicate that basic instinctive reactions can be controlled as computer programming, and that perhaps the process of learning can be used to control animals and even human beings, to some extent.

## College World

### Cries The Corps: 'We Want Peace'

(Continued from Page 15)

restrictions on their freedom of movement. University regulations forbid students' having visitors in their rooms and force dormitory doors to close at 6 p.m.

The university apparently did not agree with the demands, for it expelled the entire undergraduate student body.

#### The Peace Corps

When one thinks of students on the international scene, one often thinks of the Peace Corps. A recent issue of its newspaper *Peace Corps Volunteer*, had a column of excerpts from application forms and letters of reference received by the Peace Corps Division of Selection. Among them were these:

From an application form: "First, I thought you had to be an English major to teach English; then I learned different."

From another application, "I'm quite prolific, but haven't developed any particular skill in anything."

Answering the question "What do you hope to accomplish by serving in the Peace Corps?" "Peace."

"Primary skills:" "I don't remember."

After listing references on the application form: "These are the people whom I feel know me best. If you would like another list of people who do not know me as well, but are in more important positions, please let me know."

In a letter of reference for a garbage collector: "He seems to be down in the dumps some of the time."

These excerpts are from other letters of reference:

"And when he was in the mental hospital with T.B. . . ."

"We feel we have known him

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## CAMPUS INTERVIEWS

WED. & THURS., FEB. 13, 14

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## Compass Seminar

### Harvard's Huguenin Discusses Jovian Radiation

By Clare Fetrow

The model of the source of Jovian radiation was the topic of the Compass Seminar, January 15. Mr. G. Richard Huguenin, of the Harvard Observatory, demonstrated how the present model was derived.

While looking for the black-body-radiation spectrum of Jupiter in order to correlate it with the infrared studies showing a temperature of 135 degrees K, radio astronomers were surprised to see that the spectrum indicated increasingly higher temperatures with increasing wavelength. This phenomenon extended well beyond 10,000 degrees.

Thus non-thermal radiation sources were discovered. This spectrum varied from day to day and an analysis showed that a

period of about 27 days predominated. Curiously, this is the rotation period of the sun, and the sun was determined to be a major influence.

Correlations with sun-spot intensity proved positive. In spite of the problem that Jupiter is exposed to a different face of the sun than the Earth, the relative longevity of the sun spots permitted a positive correlation to be made. There was a catch, of course; an un-hypothesized time lapse of several days had to be inserted between a certain solar activity and the results showing up in the Jovian radio radiation. The size of this lag is now the subject of speculation and study since it probably relates to the transit time of the particles the sun emits.

The early discovery of the polarization of the radiation was not immediately understood. Faraday rotation was blamed at first. The atmospheric contribution is very small. What the gas in the ecliptic plane could contribute is unknown.

The discovery of the size of the source indicated a radiation belt

and this immediately explained the polarization of the radiation, and the relation to the sun.

The 960-Mc. radiation has 33 percent polarization and the 2840-Mc. radiation is 20 percent polarized.

The radiation can be divided into three constituents: (1) thermal radiation; (2) polarized, non-thermal, non-solar correlated, (3) non-thermal solar correlated, Van Allen synchrotron radiation. The second constituent is the subject of further investigations to determine its origin. Speculations include ionospheric radiation, or a possible inner radiation belt, like the first but relatively shielded, from solar disturbances.

In the short discussion following the lecture the radiation of Saturn was mentioned. There appears to be a radiation belt surrounding Saturn which indicated an orientation of the magnetic axis to the axis or rotation of about 110 degrees. The non-thermal radiation has a polarization of 60 percent.

**New Film Series:** Judy Holliday & William Holden and for the Egg Heads Mr. Magoo "Captain's Outrageous," 75c donation includes refreshments. Sunday, Feb. 10, at 8:00 P.M. The Community Church Art Center, 565 Boylston St., Copley Square

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## Bryn Mawr Offers Trip To France For Study Of Language, Culture

Bryn Mawr College will conduct a summer institute for study in southern France for the second successive year.

The course is offered by resident faculty members who during the academic year teach in colleges and universities both in the United States and Europe. Dr. Michel Guggenheim of the Department of French at Bryn Mawr is director of the summer program.

## Chato Probes Brain With Cool Tool

By Susan Hemley  
Dr. John Chato, Assistant Professor of Mechanical Engineering, together with surgeons at Massachusetts General Hospital, has developed a refrigerated surgical probe that has been used successfully in neurosurgery.

Recently the engineering problems connected with the use of refrigerant in surgery have been solved, and the long-recognized potential of this method of anesthesia has been partially realized. Chato sees the true refrigerated probe as

having the greatest worth, although refrigerated systems using liquid nitrogen have been tried. Assisted by several of his students, Chato is continuing research on the probe.

The Chato probe consists of a needle containing a cooling chamber, and a device controlling flow of refrigerant (freon 12) from an inlet to the chamber. It is used as an exploratory device to locate specific areas in the brain responsible for certain symptoms. The cooling acts as a reversible anes-

thetic, enabling the surgeon to tell whether or not the critical location has been reached by seeing whether or not the symptom persists. When he locates the area responsible for the symptom, the surgeon can destroy the nerve by radio-frequency or freezing.

The probe has so far been valuable in the treatment of Parkinsonism and cerebral palsy, and may be used in the future in neurosurgery outside the brain and in several other areas of surgery.

## Comedy By Mayer Opens At Tufts Arena

"Children of Darkness," a bitter American comedy by Edwin Mayer will be presented by the Tufts Arena Theater, February 14 through 16 at 8:30.

Directed by Donald Mullin, the cast includes television actor John Peakes, who is doing graduate work at the Tufts University Drama Department.

Reservations can be made by calling SO 6-9662.

## Member Of Corporation Dies January 21

Francis J. Chesterman '05, a life member of the Corporation of MIT, died January 21.

Chesterman, a former president of the Bell Telephone Company of Pennsylvania, had long been active in alumni affairs. He had served as vice-president and president of the Alumni Association, and was a term member of the Corporation from 1931 to 1936. He was made a life member in 1938, and remained active until his death.

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- Supersonic transport aircraft studies.
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- Aircraft environmental systems utilizing Freon and air cycle refrigeration.
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- Aircraft gas turbines for onboard auxiliary power, helicopter prime power, ground support applications for aircraft and tactical missile units.
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## Prof. Dennis Hails PDP-1 As Versatile, Flexible Machine

A new computer designed with greater flexibility for students and researchers is being tested by M.I.T. computation study groups. Speaking January 15 at a seminar sponsored by Course VI, Professor J.B. Dennis labeled the PDP-1 computer as a general purpose machine developed to meet the various requirements of several active programs simultaneously.

The PDP-1 is a binary computer with a large core memory for fast and efficient multiple computation. Fifty per cent of the use of the

system is in program development and new methods for solving problems. Other applications include data processing and simulation of models of physical systems. The programmer may also specify new parameters for a system and obtain immediately the new characteristics of the system.

Professor Dennis stated that the needs of a computer are best met by a large console facility for full access to the machine. The computer itself should interact with the human scientific environment as

well as laboratory equipment. According to Dennis, presently manufactured computers haven't been designed for interaction with human beings. Present machines cannot switch rapidly between performances of a large number of tasks.

The versatile PDP-1 is equipped with input and output typewriters as well as a paper punch tape to read in the data. A protected section of the core memory, the executive routine, buffers the information between the typewriter and

the punch, controls the users' sequence of active programs, and keeps them from conflicting. The rest of the core is the users' area.

The PDP-1 can also be equipped with a cathode ray tube point display.

### Dramashop Tryouts Tonight

Tryouts for the next set of Dramashop one act plays will be held tonight, starting at 7:30 p.m. The plays will be performed Thursday evening February 21.

## ACADEMIA ESPANOLA

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## Individual Wires Detected At 2000 Miles In Air Force Charged-Satellite Experiment

A small scale satellite experiment has added to knowledge of the electrical properties of the space environment. The experiment showed that the effect of charge drag on small satellites is much less than had previously been estimated.

The satellites used in this Air Force experiment are six pieces of wire, each seventeen-thousandths of an inch in diameter and about thirteen inches long. All six, together, weigh only 2 grams, or about one-fourteenth of an ounce. They were placed in a near-polar, near-circular orbit at an altitude of about 2000 miles.

At a radar frequency of about 440 megacycles per second, where the wavelength is twice the length of each of the wires, the resonant properties of the small wires enhance their reflectivity to such an extent that they can be detected individually by special radar-computer integration techniques.

Any satellite in orbit is subject to a bombardment of charged particles and to the flux of sunlight. As a result, the satellite attains a net positive or negative electric charge that interacts with the plasma environment in space to exert a mechanical drag on the orbital motion of the satellite. Charge drag will not have any significant effect on the orbits of large satellites. It will influence the orbits of long, thin cylinders, but predictions of this effect have had an uncertainty spanning about four orders of magnitude because of the limited

knowledge of actual conditions in space.

The six small wires were launched by the Air Force early last year with a larger parent satellite and placed in orbit by means of a spinning dispenser that was designed, built, and tested at the MIT's Lincoln Laboratory, which is conducting the tests.

Measurements were made with the tracking radar at the RCA facility at Moorestown, New Jersey. The transit time was measured as each wire passed through the beam of the radar, over a period of about two months.

No systematic change in mean altitude is discernable in the results, which indicate that the rate of decrease in mean altitude was certainly less than a thousand feet per year.

A full report on the experiment will be published in the Journal of Geophysical Research.

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Consult your Placement Officer for further information about our visit to your campus - and be sure to review the General Foods brochure... you'll find it most interesting.

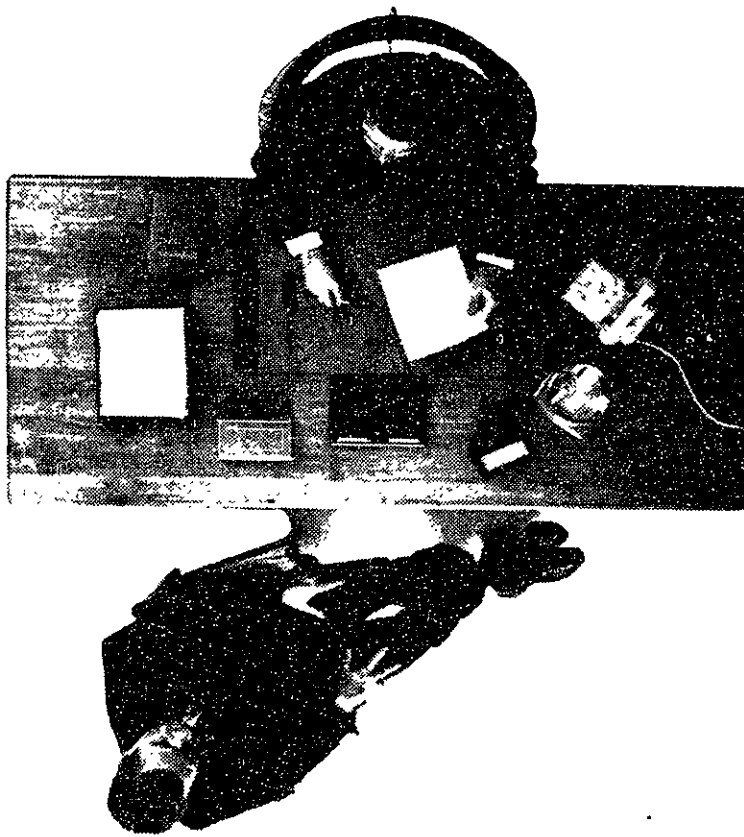


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## Bell System Team Interviews Wednesday, Thursday February 13, 14

THE BELL SYSTEM

American Telephone and Telegraph Co.  
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The Bell System team will consider all qualified applicants for employment without regard to race, creed, color, or national origin.

## MIT Foremen, Supervisors Learn Employee Management In Course

Sixty foremen and supervisors of MIT employees are taking a course called "Principles of Supervisory Management."

The course, which is being offered by the Office of Personnel Relations, is intended to improve the general function of the supervisors. It is co-ordinated by John Carley, Supervisor of Training and Information, who with his predecessor, Harold Dreyer, began the program in Lincoln Labs in 1954.

Last year the program was expanded to include three sections: Prof. Paul Pigors of MIT's School of Industrial Management teaches one at MIT and one at Lincoln Labs; and Northeastern University Prof. Herman V. LaMark teaches another at MIT.

There are twelve 90-minute classes, one a week, in each section. About 20 people are enrolled in each of the three sections, including a dozen women.

Pigors uses the "incident-process" method of instruction; while LaMark concentrates on the general, theoretical approach to management.

In Pigors' approach, the supervisors are presented with actual cases which arise in everyday

work, and are asked to comment on what action they would take.

For example, if an employee arrives on the job in an inebriated condition, what should the foreman do? Or if someone reports a theft, should the supervisor confront the prime suspect with the evidence?

Course material in the class instructed by Prof. LaMark covers the supervisor's authority and responsibilities, job policy, the "give-and-take" in communication, the training of workers, interviewing, and some psychology, including discussion of complaints and grievances among workers.

After participating in one of these groups, the supervisor can establish better working relations with his subordinates. Since the managers sometimes work with the people they direct as well as supervise, such understanding is beneficial.

The more than 60 people taking the course include security guards, research groups, physical plant and administration staff. Each oversees the work of 2-18 employees.

The Institute provides the classes free of charge.

## Hewes On Committee

# Registrars Define Educational Terms

A growing problem for today's educators is how to define a university, a full-time student, a scholarship, a course and a degree. Many of the disagreements among various spokesmen and critics of higher education arise because they speak the same words, but mean different things.

The problem seems to be on its way to correction. A dictionary has been prepared for college administrators. The "Handbook of Data and Definitions in Higher Education" has been published by a joint committee of registrars and other administrators of universities, colleges and junior colleges, and representatives of educational associations and the U. S. Office of Education.

The committee, sponsored by the American Association of Collegiate Registrars and Admissions Officers, was headed by James K. Hitt, director of admissions and registrar of the University of Kansas. Included on the committee was Robert E. Hewes, registrar at MIT.

The heart of the handbook is a 100-page glossary of terms ranging from "academic" to "year

level, student." The book's purpose is to identify and list the fundamental elements of data in higher education, to define and explain them, to encourage colleges to collect them regularly and systematically, and to make the data valid, consistent, and accurate.

In a preface and four preliminary sections on finances and facilities, students, aids and awards, and higher adult education, a case is documented for the systematic accumulation, evaluation, and use of factual data. The "Glossary" establishes a common language for the fact-finding process. The handbook also includes brief explanations of some specific uses for the data in implementing the external and internal objectives of institutions.

Here are some of the committee's definitions: **UNIVERSITY.** An institution of higher education which gives considerable stress to graduate instruction, which confers advanced degrees as well as bachelor's degrees in a variety of fields of the liberal arts and sciences, and which has at least two degree-granting professional schools that are not exclusively technological.

**STUDENT, FULL-TIME.** One who at the undergraduate level is carrying at least 75 per cent of a normal student-hour load. The normal student-hour load, in turn, is defined by the formula: number of credit hours required for graduation, divided by the number of semesters or terms normally taken for graduation (exclusive of summer sessions).

**SCHOLARSHIP.** In financial aid terms, a gift of money to a student, ordinarily for support of undergraduate study. It is granted in recognition of academic distinction and usually requires that the recipient be in need of financial assistance. When the term is used in connection with graduate study, it ordinarily applies to awards covering part or all of tuition only. Larger awards are called fellowships.

**COURSE.** Organized subject matter in which instruction is offered within a given period of time and for which credit toward graduation or certification is usually given.

**DEGREE.** Title bestowed as official recognition for the completion of a curriculum, or for a certain attachment. The first is an earned degree; the latter an honorary degree.

The meaning of the sentence "he is a full-time student with a scholarship taking courses toward a degree at the university" now should be less debatable, unless, of course, he actually is a "part-time student" with a "grant-in-aid" taking a "telecourse" from a "diploma mill."

## AA Takes Over Athletic Clubs

Campus athletic clubs, previously under the administration of the Activities Council, have recently been reorganized under the Athletic Association. At the last meeting of the A.A., the following were recognized as active athletic clubs:

- Class A
  - Nautical Association
  - Rugby Club
  - Water Polo Club
- Class B
  - Rifle and Pistol Club
  - Judo Club
  - Table Tennis Club
  - Weightlifting Club
  - Swim Club
  - Grapplers' Club
  - Boat Club

Several new clubs, including Archery, Bicycle, Cricket, Soccer, Boxing, and Ski Clubs are being formed. These clubs need participants, and anyone interested should contact Club Vice-President Steve Brostoff at LA 7-8667, or at the A.A. office.

The Athletic Association is attempting to build a strong club program as an important supplement to varsity and intramural athletics. For this reason a Club Council has been formed, and all Techman interested in club athletics are invited to attend its first meeting at 7 p.m., Tues., Feb. 12, in the Conference Room of the Dupont Athletic Center.

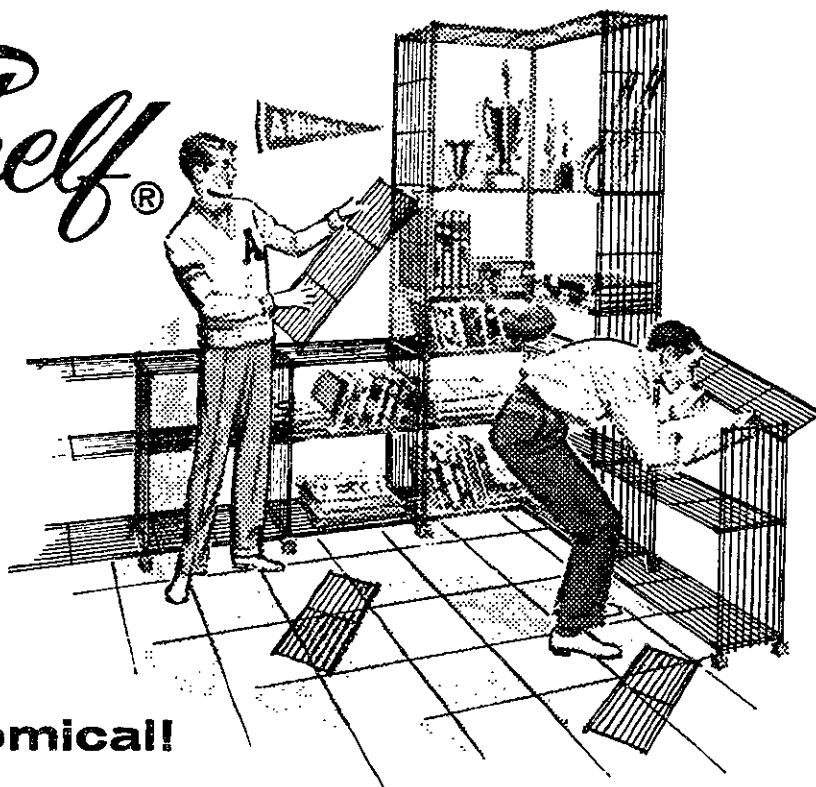
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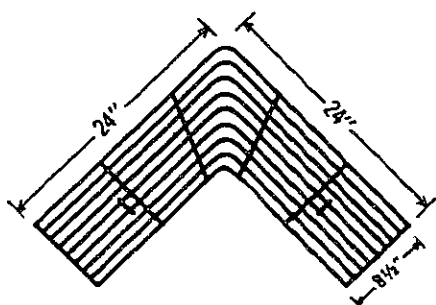
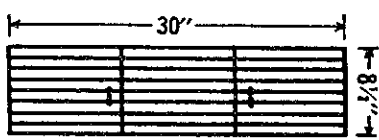
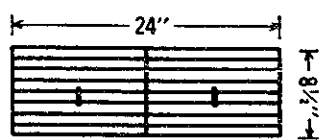
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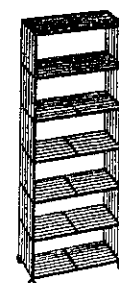
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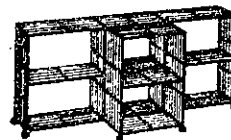
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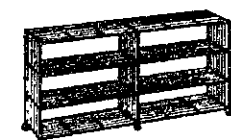
**Tech Coop**



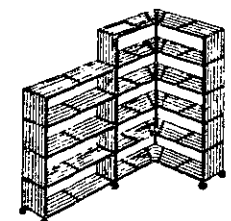
Vertical Bookcase  
Consists of 7-20" Panels,  
4-30" Panels, 4 Wood  
Bases. Assembled Size  
60" H x 22" L.



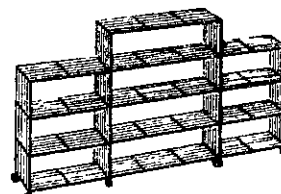
Television and  
Phono Unit/Bookcase  
Consists of 6-30"  
Panels, 6-24" Panels,  
6-20" Panels, 8 Bases.  
Assembled Size  
30" H x 72" L.



Horizontal Bookcase  
Consists of 11-30" Panels,  
6 Wood Bases. Assembled  
Size 30" H x 63" L.



Corner Step-down Wall  
Case or Room Divider  
Consists of 4-20" Panels,  
5-24" Panels, 2-30"  
Panels, 6 Corner Panels,  
7 Wood Bases. Assembled  
Size 50" H x 50" L  
x 25" L.



Room Divider/Bookcase  
Consists of 4-20" Panels,  
8-24" Panels, 7-30"  
Panels, 8 Wood Bases.  
Assembled Size  
40" H x 82" L.

## Tech Trackmen Overcome Tufts, 68-45

The MIT cindermen defeated Tufts University Jan. 16 by a score of 68-45. The Techmen registered some very good performances both in this meet and in an informal meet with Amherst and Worcester Polytechnic Institute last Saturday.

### Tervalon Wins Twice

Jim Reinhardt '65 fought for a second place in the 50-yard dash against Amherst. Sophs Al Tervalon and Terry Dorschner took first and second in both the 45-yard high hurdles, and the 45-yard low hurdles.

### McMillin Takes Mile

Mike Parker '65 placed second in the 600-yard dash. Co-captain Tom Goddard '63 and Dick Mc-

Millin '65 finished first and third in the mile run, with a winning time of 4:43. Goddard came back to take second in the 1000-yard run, while Mike Oliver '65 ran a strong third. McMillin returned to run his best two-mile race, winning in 10:32.5, while Chuck Sigwart '64 stayed with him for a second place.

The engineers also scored several victories in the field events. Bill Remsen '64 took first in the 16 lb. shot put with a toss of 46' 8". Terry Dorschner '65 took third in the high jump. Dave Carrier '65 and co-captain Roger Hinrichs '63 teamed up to take first and second in the broad jump.

Dave's winning jump was 20' 8". Ken Morash '65 cleared 12 feet to win the pole vault.

### Tech Wins Relays

The meet with Amherst and WPI was an informal affair, and no score was kept. Terry Dorschner and Ken Morash took second and third in the high hurdles and came back for a first and third in the low hurdles. Mike Parker '65 finished third in the 50-yard dash. In an open 400-yard run, Forrest Green '63 won in 54.9 while Dick McMorrow placed fourth. Chuck Sigwart placed fourth in the half-mile run.

## Participation Cited

## Athletics Studied In Report

Approximately two-thirds of all MIT students participated in 9 coeds, taking courses in fencing, swimming, and tennis. With respect to intramurals, Smith noted that "the new rule excluding varsity athletes from intramurals during the same season as their varsity sport has resulted in increased opportunities for many students who might otherwise be displaced by varsity athletes." A record number of teams (80) are competing in 15 intramural sports, the report noted, in addition to the teams in 18 varsity sports. In all, Stratton added, the program "has developed in a highly successful manner."

sis, noted Smith. This included 3,347 students participated in the physical education program during the 1961-62 year, noted Director of Athletics Ross H. Smith, in the report. The most popular of the 19 activities offered were sailing, swimming, tennis, physical development, ice skating, and judo, attracting 64% of the registrants.

An additional 382 students participated in the physical education program on a non-credit ba-

## Riflemen Win Twice; Downed Four Times; Pistolmen Also Topped

During intersession, the rifle and pistol teams took their annual southern trip, firing against the strongest collegiate shooting teams in the East. The rifle team posted a 2-4 record, while the pistol team, handicapped by the absence of top gun Bill McFarland, was defeated in all four of its matches.

The scores fired by Navy, Army, City College of New York, Maryland, Merchant Marine, and Canisius of Buffalo, were, respectively, 1444 — 1436 — 1426 — 1422 1412 — and 1355, while MIT fired 1422 — 1425 — 1415 — 1399 — 1425 and 1425, to win over Merchant Marine and Canisius, while losing four times.

### Ludeman Leads Riflemen

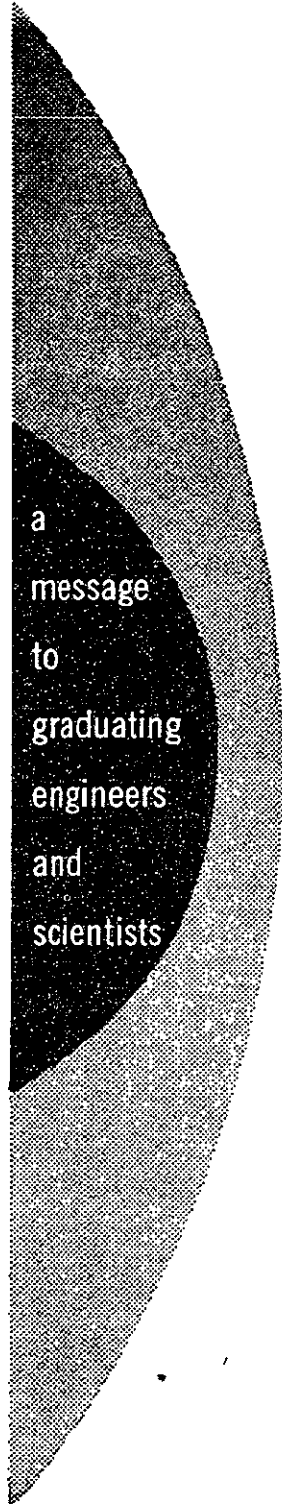
Dick Ludeman, captain of the team, had a pair of 290's, and an average of 286 to make him high man for the trip.

He was given strong support by Jim Downward, '65, 284 — Bruce Peterson, '63, 283 — Joe Boling, '64, 282 — and Dave Hamada — 281. Joe Boling had the high individual score for the trip with a 291. Backing up the high five were Jerry Skinner, '63, George Olah, '64, Karl Frederick, '65, and Zach Abrahms, '65.

### Pistol Team Lacks Experience

The pistol team, having a full squad for the first time in several years, is composed mostly of shooters in their first year of competition. While the 1200 to 1250 scores fired by the team are substantially below the 1350 to 1400 scores fired by the service academies, the team is improving rapidly and the prospects for the future appear bright.

Outstanding in the contests against Villanova, Merchant Marine, Army, and Navy, were Dave Root, Bob Vogler, Steve Schmelzer, and Scott Graham, all Sophomores with two years of varsity competition ahead. Following closely, and adding depth to the team were Peter Rupp, '63, Tom English, '63, R. B. Melton, '64, Cal Culver, '63, John Sevnair, '65, Tom Hallam, '65, and Dick Sramek, '65.



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## MIT Gets DuPont Foundation Grants

MIT has received over \$300,000 in grants from the DuPont Company and the Woodrow Wilson Fellowship Foundation.

The DuPont Company, in its annual program of aid to education, awarded \$1,780,000 to colleges and universities throughout the nation. MIT received \$281,400 from DuPont, more than all other New England schools combined. The purpose of the DuPont program is to strengthen the teaching of science and related subjects to aid fundamental research by universities, and to finance facilities for education or research in science and engineering. The Woodrow Wilson Fellowship Foundation earmarks its funds to help students beyond their first year of graduate study to complete their doctorates. MIT received a grant of \$30,000.



**On Campus** with  
Max Shulman

(Author of "I Was a Teen-age Dwarf", "The Many Loves of Dobie Gillis", etc.)

### CALPURNIA, HERE I COME

Now, as the college year approaches its mid-point, one fact emerges clearly: you are all going to flunk everything.

There are two things you can do about it. First, you can marry money. (I don't mean you marry the money *itself*: I mean you marry a *person* who has money. Weddings between people and currency have not been legal anywhere in the United States since the Smoot-Hawley Act. Marlboro Cigarettes, on the other hand, are legal everywhere and are, indeed, smoked with great pleasure and enthusiasm in all fifty states of the Union. I bring up Marlboro Cigarettes because this column is sponsored by the makers of Marlboro, and they are inclined to brood if I omit to mention their product.)

But I digress. I was saying you can marry money but, of course, you will not because you are a high-minded, clean-living, pure-hearted, freckle-faced American kid. Therefore, to keep from flunking, you must try the second method: you must learn how to take lecture notes.

According to a recent survey, 123.6% of American undergraduates do not know the proper way to take lecture notes. To illustrate this shocking statistic, let us suppose you are taking a course in history. Let us further suppose the lecturer is lecturing on the ruling houses of England. You listen intently. You write diligently in your notebook, making a topic outline as you have been taught. Like this:

- I. House of Plantagenet.
- II. House of Lancaster.
- III. House of York.

Then you stop. You put aside your pen. You blink back a tear, for you cannot go on. Oh, yes, you know very well that the next ruling house is the House of Tudor. The trouble is you don't know the Roman numeral that comes after III.



(It may, incidentally, be of some historical interest to point out that Americans are not the only people who don't know Roman numerals. The Romans didn't know them themselves. I suppose they could tell you how much V or X were or like that, but when it came to real cuties like LXI or MMC, they just flung away their styluses and went downtown to have a bath and take in a circus and maybe stab Caesar a few times.

(You may wonder why Rome stuck with these ridiculous numerals when the Arabs had such a nice, simple system. Well sir, the fact is that the Emperor Vespasian tried like crazy to buy the Arabic numerals from Suleiman the Magnificent, but Suleiman wouldn't do business—not even when Vespasian raised his bid to 100,000 gold piastres, plus he offered to throw in the Colosseum, the Appian Way, and Charlton Heston.

(So Rome stuck with Roman numerals—to its sorrow, as it turned out. One day in the Forum, Cicero and Pliny got to arguing about how much is CDL times MVIX. Well sir, pretty soon everyone in town came around to join the hassle. In all the excitement, nobody remembered to lock the north gate and—wham!—before you could say *pecca fortiter*, in rushed the Goths, the Visigoths, and the Green Bay Packers!)

Well sir, that's the way the empire crumbles, and I digress. Let's get back to lecture notes. Let's also say a word about Marlboro Cigarettes. The makers would be so pleased! And is it not fitting that we should please these honest tobacconists—these fine men, fond of square dancing, water sports, protein, and tattoos—these tireless perfectionists who spend all of their days trying to please us—searching everywhere for the best of all possible tobaccos, aging them with patience, blending them with tender, loving care? Marlbors are available in soft pack and flip top box. You will find XX cigarettes in each package.

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Marlborum amo, Tom Marlborum amat, Dick Marlborum amat, Harry Marlborum amat, June Marlborum amat, Joan Marlborum amat, Jean Marlborum amat, Jane Marlborum amat, quique Marlborum amant—et Marlborum quoque amabitis.

## Tech Icemen Tie Lehigh, Drop Three

Three defeats and one tie in the past two weeks dropped the varsity hockey team's record to two wins, five losses, and one tie. The Tech icemen were defeated by Army at home, and on their inter-session trip the sextet lost to Rutgers and Pennsylvania, and tied Lehigh.

### Army Scores Shutout

A powerful United States Military Academy squad shut out the Techmen by 8-0 Jan. 25 on the MIT rink. The Army six scored 5 goals in the first period and 3 in the second. MIT goalie Joe Kirk, '64, accumulated 60 saves.

The first contest played on the team's midterm trek was a 1-1

tie with Lehigh. The single MIT goal was scored in the third period by Sophomore Don Wismer with an assist by Jim Holcroft '63.

### Vachon Tallies Three

In the February 1 contest with Rutgers, the Tech icemen were handed a 10-5 defeat. Of the five goals scored by MIT, two were scored by Tony Weikel '63, one alone and one with an assist by defenseman Bob Pilon '65. The remaining three goals were all registered in the first period by captain Billy Vachon '63, and comprised the first "hat trick" of his career.

### Techmen Lose To Penn

A hard-shooting squad of University of Pennsylvania skaters

defeated MIT, 13-3 Feb. 2. The Penn onslaught consisted of two goals in the first period, six in the second, and five in the third. Kirk, however, was successful at stopping 53 shots. Don Wismer assisted in all three of the Tech tallies, aiding Vachon twice and Weikel once.

The icers next meet the University of Massachusetts on Wednesday, Feb. 13, on the MIT rink.

### UN Intern Program Open

Students interested in international affairs have an opportunity to attend the United Nations Intern Program, to be held at UN Headquarters August 5 to August 30, 1963.

Men and women between 20 and 25 are eligible to apply for this program in 7-133 by Friday, February 8. The applicants must be able to pay their own room and board in New York. Notification of selection will be given by the UN not later than March 15.

## Meet Cornell Friday

### Fencers Lose 3 On Trip

The Fencing Team was defeated by Newark College of Engineering (Thursday), Columbia University (Friday), and New York University (Saturday) during the inter-session week. Columbia and NYU are ranked among the top teams in the nation. The next competition is against Cornell here, next Friday at 7:00 p.m.

### Newark Barely Edges Tech

Newark edged M.I.T. by 14 to 13. The individual weapons' scores were 5 to 4 in foil and 5 to 4 in epee, both in favor of Newark, and 5 to 4 in sabre, in favor of M.I.T. Tech's Dave Snow, epee, handily won all three of his bouts; Art Best, sabre, also won three. Barry Rosof, foil, lost his first two, but then won. Ralph Zimmerman, foil, lost his first bout but won his next two.

Columbia defeated M.I.T. 32 to 4,

the individual weapons' scores being 8 to 1 in foil, 8 to 1 in sabre, 7 to 2 in epee. Tech's Dave Juncker, epee, won the 17th and 28th bouts, 4 to 5 and 1 to 5. Steve Reznick, sabre, and Norm Cohler, foil, took the only other two bouts.

### Miller, Juncker Win

N.Y.U. defeated M.I.T. 20 to 7; 8 to 1 in foil, 8 to 1 in sabre, and 4 to 5 (in favor of M.I.T.) in epee. The epee team's victory is creditable to Captain Steve Miller, who won two of three bouts, and Dave Juncker, who won two of two bouts. Dave Snow took one bout 3 to 5 and lost two bouts, 5 to 3 and 5 to 4. Barry Rosof fought N.Y.U.'s undefeated Checkes to a 4 to 4, but lost in the last touch. Al Weil took the only sabre bout with a 4 to 5 score.

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**About us.** The J. Walter Thompson Company was formed 99 years ago. It has for many years been the largest advertising firm; its stock is owned by more than five hundred active staff members.

We help over 500 companies in the United States and abroad sell thousands of products and services to hundreds of millions of people. Last year alone, we were responsible for the advertising investment of over one-third of a billion dollars.

There are 6,800 people working with Thompson around the world. Our backgrounds range far and wide. And so do our assignments: writing, art, market research, media buying, TV and radio, styling, marketing and merchandising, music and the theatre, engineering, accounting and statistical analysis, international business, and the social sciences are only part of the list.

In our experience, superior individuals from every graduate and undergraduate educational discipline find successful careers in a major agency such as the Thompson Company. Staff members in our New York Office alone represent nearly 300 colleges and universities here and abroad.

**Your career with us.** You may be surprised to learn that while an advertising company must have artistically creative people, it depends just as much on people who are imaginative and inventive in other ways.

Our business is selling. Communicating through the written and spoken word is *how* we sell. You must possess the ability to speak and write well so your ideas may be shared and understood.

We are looking for the kind of men who wish and are able to assume substantial responsibility early in their business lives. To such men we offer a remarkable chance to grow and develop—one seldom found in any firm.

Previous advertising experience is not required. Basically, our interest is in the nature of a person, and not in his specialized knowledge and abilities.

We offer you no standard starting salary, no cut-and-dried training program. Beginning salaries are individually considered and compare favorably to those of other national firms. We help you tailor your own development program, based on *your* interests, *your* abilities, *your* goals. Your program will differ from other men's programs just as you differ from other men.

When you join us you will work side by side with experienced advertising men. Your growth will be based on your own initiative, your own development. There are no age or seniority requirements to limit the responsibility you can earn.

We encourage you to follow your curiosity into *all* phases of advertising, because we want you to become a well-rounded practitioner as rapidly as possible. Experienced advertising men are eager to coach you individually in your efforts to develop your capabilities. Additionally, you are free to delve into every nook and cranny of advertising through our annual series of twenty professional seminars, workshops and classes. You learn from men who are experts in their fields.

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*If you wish to be a candidate, you must be in a position to join us by June 1, 1964. You may obtain further information at the placement office. Please consult with them regarding the possibility of a personal interview. We will be on campus February 20.*

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