

Second Term Quiz Book Planned For Misled Frosh

The Judicial Committee has announced that, "During the past four weeks the Institute investigating the Walker Student Staff Quiz Book. It was the Committee's decision that the interest of the Walker Staff, in producing the booklet, was honorable and definitely in keeping with any rules in existence concerning a publication of this type. It was decided, however, that the two page letter to the freshmen during the summer misrepresented the actual course coverage of the book. The letter advertised that 'all freshman quizzes' would be included in the offer. This concerns 'the big three' only, meaning Chemistry, Physics, and Calculus. However, just the first term's quizzes were included."

"After the letter was brought to their attention, The Walker Staff realized that the letter advertised twice as much as they had originally intended. A voluntary offer was subsequently made on their part to publish a second quiz book covering the past three years of 5.02, 8.02, & 18.02. This book will be published and distributed under the approval of the Freshmen Council. The pamphlet will be given without cost to those freshmen who purchased the first Quiz Book through the mail on or before Registration day of second term."

The announcement was made by Bardwell C. Salmon, Secretary for the Institute Judicial Committee.

Sig Ep Circus Draws 600 To Well-Decorated House

Sigma Phi Epsilon's Circus Party, the fraternity's bi-annual open-bid event, was held last Saturday night with about 600 people attending during the evening.

Highlighting the party were its circus decorations. Outside the house a two story clown and a barker's booth had been built. The clown and barker were brightly illuminated by spotlights to attract people to the party. The brothers took turns acting as carnival barkers, directing students and dates inside.

Inside, the decorations carried out the circus motif. The first floor was lined with wild animal cages filled with paper animals.

On the second floor and staircase the paper circus tent walls were painted with pictures from circus scenes, Mother Goose tales, and Peanuts. One room was done in fluorescent paint and illuminated by an ultraviolet light.

Suspended from the house's skylight down the stairwell was a wild animal cage in which some of the brothers juggled, rode a unicycle, and a gorilla did the twist.

While couples danced to dance band music, an occasional gorilla, lion tamer or giant bunny appeared among the crowd.

Sig Ep President Bruce Smith '61 commented, "We felt the party was quite successful and are looking forward to seeing everyone back in 1963."

MIT Student Foiled By US Government

An MIT graduate student, William A. Bailly, recently refused to be inducted into the Army and was sentenced to one year in a federal prison by Judge Ford of the Federal District Court.

After being classified 1A by his local draft board he reported to the Army Base but refused to submit to induction.

District Attorney O'Connor said Bailly had been getting a \$2700 a year federal grant for research work on a government project.

During the course of the court proceedings, and when questioned afterward by reporters, Bailly refused to give any reason for his actions.

LSC's Cyrus Eaton Predicts 'Age of Reconstruction'

By Rich Wiener '63

In a speech to roughly 400 MIT students and staff last Thursday evening, Cyrus Eaton, the controversial American industrialist, emphasized that the role of today's engineer lies with both the technical and non-technical aspects of the modern world.

Mr. Eaton's speech, "The Engineer as Philosopher and Citizen," was both a series of illustrations of the importance of the role of technology in modern industry and a call to America's engineers and scientists to help find a solution to current political and philosophical questions—particularly the nuclear warfare problem.

Speaking of his youth, Eaton said he was graduated from college as a history and philosophy major and had given little thought to technical fields. He added, "If my thoughts were remote from science, pure and applied, during most of my school days, I can assure you that I have more than made up for the omission in every year of my life since."

He further cited John D. Rockefeller, Thomas Edison, Andrew Carnegie, Harvey Firestone and Henry Ford as industrial giants who gained fame and fortune through the study and application of technical processes.

After establishing the importance of science and technology, Mr. Eaton entreated the scientifically minded to widen their perspectives and pursue successes in other fields, saying, "What I should like to advocate most earnestly is adult or continuing education."



Cyrus Eaton

He particularly encouraged study in philosophy and added "You must strive for the self control and self reliance to maintain tranquility of mind." George Santayana and Bertrand Russell were named as extremely outstanding authors relating science and philosophy.

Eaton further reasoned, with

further training in philosophy, politics and other fields of the humanities, the engineer or scientist will be much better equipped to cope with today's problems.

If the technical man does not take an active role in politics himself, at least he will try to influence people, particularly politicians. Thus, engineers and scientists can perhaps find solutions to the problems of nuclear war and convince others of its harm.

"If we somehow survive the present crisis," he said, "and I fervently hope we will, I believe we will enter upon a new age of reconstruction in religious, scientific, economic and political thought. We have reached a time in history when all of our theories and opinions need to be subjected to the same, searching analysis and scrutiny that the scientists and engineers bring to bear on the concrete problems with which they daily deal."

"Here, I suggest, is the greatest opportunity for those of you who, from your scientific training, are used to dealing with facts rather than myths. Good luck to you in an exciting endeavor."

Following the speech, the first in this year's Lecture Series Committee program, was a question and answer period.

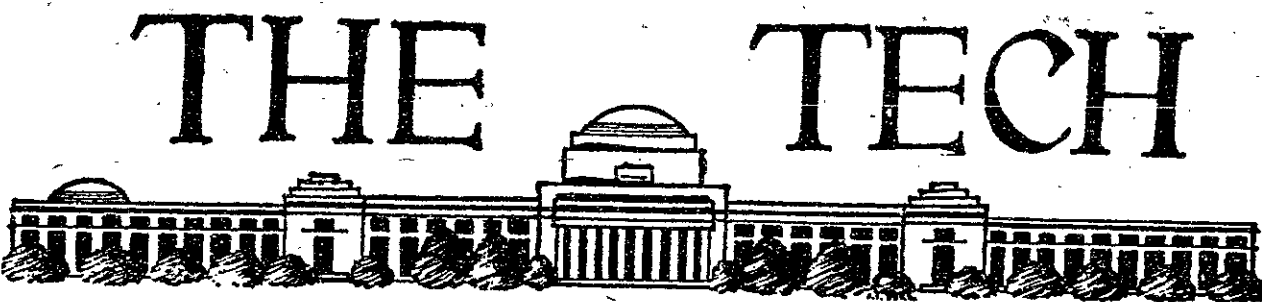
Mr. Eaton said he believed the U. S. must come to realize that Communism and Socialism are here to stay and that all the world cannot be Capitalistic.

We also still need to realize that eastern Europe will remain as it is and not revolt from the Communist camp. Russia, on the other hand, must learn to trust and believe in us. They must come to realize that we will be equitable in international arguments. Then can the two world powers get together amicably and realistically.

He also said that the U. S. press prints slanted stories about Russia and the eastern European nations. In fact, we print the worst we can find about our enemies and many of these stories are not true.

The qualities necessary for success in industry, Mr. Eaton said, are earnestness and diligence. He further urged part-time or summer employment in one's future vocation beginning at age 16.

Eaton concluded by urging students to agitate if they are not happy with present policies or conditions. Demonstrations and petitions by students are effective, and "it is time to speak out and say what is necessary before we all blow ourselves up."



Established At MIT In 1881

Vol. 81, No. 24

Cambridge, Mass., Tuesday, November 21, 1961

5 Cents

C. L. Miller Appointed Civil Engineering Head; Wilbur Now Consultant

Professor Charles L. Miller has been appointed head of the Department of Civil Engineering, effective immediately. Professor Miller succeeds Dr. John B. Wilbur, noted structural engineer who served with distinction as head of the department for over 15 years. Dr. Wilbur continues on a part time basis as Consulting Professor of Engineering. The announcement was made by Gordon S. Brown, Dean of Engineering.

Civil engineering is rapidly emerging as the scene of some of the most exciting and dynamic activity at MIT. National and international recognition of the social and economic significance of the challenging problems of resources development, urban complexes, mobility and environmental control, coupled with totally new structural forms and materials, processes and systems, and technological capabilities for solving these problems provides the basis for a whole new era in civil engineering. Civil engineering at MIT is responding to this challenge with enthusiasm and vigor.

Professor Miller, a graduate of the Class of 1951, joined the faculty in 1955 after four years of engineering practice. He pioneered the field of information systems as applied to civil engineering and is a leading authority in the fields of photogrammetry and digital computer methods.

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The Tech will not be published next week. The next issue will be December 6.

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Open Line Continues

InsComm Discusses Union

At a meeting of the Institute Committee, Nov. 16, it was announced that InsComm Open Line will continue to feature discussion about student government and talks with various Deans of the Institute in the coming weeks. Last week Dean Pitre participated in a discussion about student financial aid. A possibility for the future may be a change in program time to facilitate a greater listening audience.

Financial Board announced that in addition to the grant that was recently given Voo Doo, a loan was made. The Voo Doo staff may have to tighten their belts to pay back this loan by the February deadline.

George Wyman reported marginal markups over wholesale prices in the Coop were considerably less than the average markup in Boston's department

stores. Actual figures may be obtained from the Coop's financial report.

The Museum Committee announced there would be an art sale from Dec. 4 through Dec. 22. It will take place in the exhibition room and will mainly include reasonably priced modern works.

The Student Union Committee and the future Student Union building were major discussion topics. Bill Pinkerson reported that a building will definitely be on campus but the time of completion is unknown. An architect will be selected next month. Questions that arose were "What are the goals of a Student Union?" and "How should the needs or desires of the Union be determined?" Interested students may discuss the Student Union with members of the committee or representatives to InsComm.

On-Campus Activities Stressed

NRSA Hosts Visiting Commuters

Eight colleges and universities in the New England area were guests of the MIT Non-Resident Students' Association this weekend, November 17-19, meeting for the second Intercollegiate Commuters' Association Conference.

Representatives of commuter organizations from each of the eight schools arrived Friday to discuss ways in which large numbers of students living off campus today can take part actively in their school's life.

Kenneth R. Wadleigh, Dean of Students, and Dean Frederick G. Fassett, will address the groups. The areas for discussion were scholarships, and participation in campus life, financing of non-resident activities, and the problem of apathy

among non-resident students.

Colleges attending the conference were Brown, Connecticut College for Women, Clark University, Boston University, Pembroke, Simmons, Tufts, and the University of Rhode Island.

The three-day Conference was climaxed by ratification of the Intercollegiate Commuters' Association charter drawn up last April by commuters' associations at Brown, Tufts, and M.I.T.

Oxford Historian Will Lecture Here Twice On Roman Politicians

Professor Roy Lamson has announced that the Department of Humanities is sponsoring two public lectures by Sir Ronald Syme, Camden Professor of Ancient History, Oxford University.

Professor Syme's first lecture on December 12 will deal with "The Myth of Political Salvation," in which he will relate the hidden realities of political events which ended with the triumph of Augustus to the writings of Horace, Livy, and particularly Virgil. His second lecture on December 14, a sequel to the first, is entitled "Roman Political Thinking Under the Early Empire."

The lectures will be held at Kresge Auditorium at 8 p.m. and are open to the public.

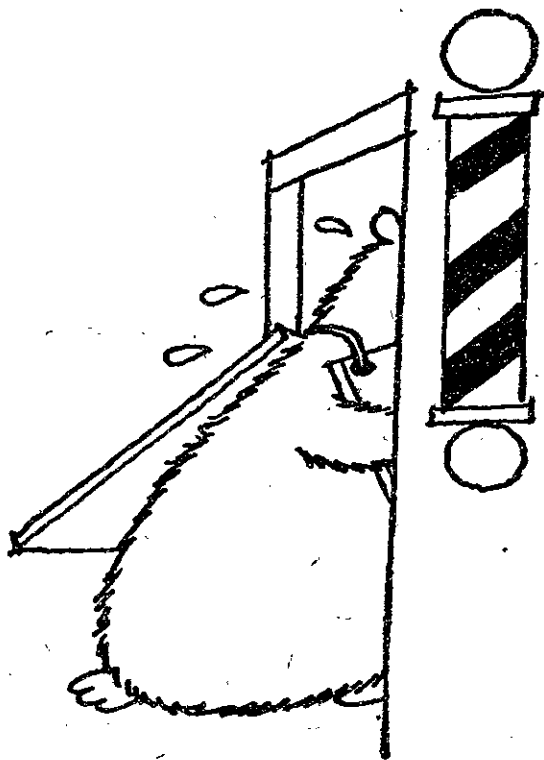
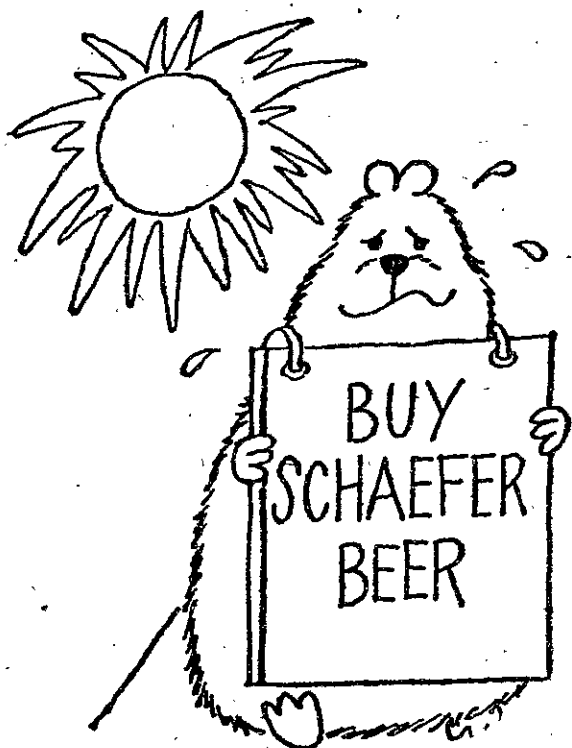
Professor Syme is a native New Zealander, who was educated at Oxford and won the first class honors and classical prizes. From 1929 to 1949 he was a Fellow of Trinity College, Oxford. He has also served as First Secretary in His Majesty's Legation, Belgrade (1940-41) and with the British Embassy in Cairo (1941-42).

Supplement

The "Collegiate Digest" is being included with those copies of this week's *The Tech* distributed on campus. This supplement is used in many other college newspapers. Readers are encouraged to send their comments to *The Tech* so that the supplement's value may be determined.

haskell

the Schaefer bear



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SCHAEFER BREWERIES, NEW YORK AND ALBANY, N.Y., CLEVELAND, OHIO

Calendar of Events

TUESDAY, NOV. 21
DEPARTMENT OF MECHANICAL ENGINEERING.
ENGINEERING PROJECTS LABORATORY COLLOQUIUM.*
 "Dynamic Loads in Spur Gear Teeth." Mr. J. S. Howland.
 Room 3-351, 12:00 noon
COMPUTATION CENTER.*
 Seminar: "Industrial Dynamics: Assimilation of Management Systems." Dr. Edward B. Roberts, School of Industrial Management, MIT.
 Room 26-168, 3:00 p.m.
MIT HILLEL SOCIETY.
 Seminar on Jewish History.
 317 Memorial Drive, 4:00 p.m.
DEPARTMENT OF METALLURGY.*
 Colloquium: "Chemical Bonding and Surface Behavior." Dr. H. C. Gatos, Lincoln Laboratory, MIT.
 Room 6-120, 4:00 p.m.
DEPARTMENT OF NAVAL ARCHITECTURE AND MARINE ENGINEERING.*
 Seminar: "The Navy's Polaris Missile System." Captain W. H. Cross, Bureau of Ships, U.S.N. Coffee in Room 5-311 at 3:30 p.m.
 Room 3-370, 4:00 p.m.
DEPARTMENT OF CHEMISTRY.
PHYSICAL CHEMISTRY COLLOQUIUM.*
 "The Molecular Beams in Chemistry." Mr. Leonard Wharton, Harvard University. Tea in the Hayden Library Lounge (14E-310) at 4:00 p.m.
 Hayden Library Lounge, 4:30 p.m.
MIT HILLEL SOCIETY.*
 Study Group.
 Moss Hall, Walker Memorial, 5:00 p.m.
TECHNOLOGY CATHOLIC CLUB.*
 Theology Lecture Series: "What the Mystical Body Means." Father William Sullivan, C.S.P. Discussion at 4:30 p.m.
 Room 3-133, 5:00 p.m.
PROTESTANT CHRISTIAN ASSOCIATION.*
 Study Groups.
 317 Memorial Drive, 5:00 & 7:30 p.m.

WATER POLO CLUB.*
 Meeting. Alumni Pool, 6:30 p.m.
MIT FACULTY PISTOL AND RIFLE CLUB.*
 Match with North Reading.
 Rifle Range, 8:00 p.m.
MIT HILLEL SOCIETY.
 Study group: "Elementary Yiddish." Room 5-203, 8:00 p.m.
WEDNESDAY, NOV. 22
MIT HILLEL SOCIETY.
 Study group: "Towards a Social Philosophy." 317 Memorial Drive, 3:00 p.m.
TECHNOLOGY CATHOLIC CLUB.*
 Meeting.
 Miller Room, 3-070, 5:00 p.m.
SEMINAR SPONSORED BY THE PROTESTANT MINISTRY.*
 Seminar in New Testament Greek. Dr. Goetchius, Episcopal Theological School, 317 Memorial Drive, 7:30 p.m.
LECTURE SERIES COMMITTEE.
 Lecture Series Committee Free Movie. "The Fly."
 Kresge Auditorium, 8:00 p.m.
NOV. 23-26
 Thanksgiving Vacation.
SUNDAY, NOV. 26
PROTESTANT CHRISTIAN ASSOCIATION.
 Breakfast for Protestant Students. West Dining Room, Graduate House, 10:00 a.m.
MONDAY, NOV. 27
APPLIED MATHEMATICS AND MECHANICS COLLOQUIUM.*
 "On Cellular Convection and Heat Transfer." Dr. H. L. Kuo, Department of Meteorology, MIT. Tea in Room 2-290 at 3:30 p.m.
 Room 2-390, 4:00 p.m.
DEPARTMENT OF HUMANITIES.*
 Lecture: "My Death and the Death of Others." Gabriel Marcel, Institut de France. Admission free.
 Hayden Library Lounge, 5:00 p.m.
 (Please turn to page 3)

Placement Interviews

Course numbers eligible listed in parentheses. S.B. or all degree levels unless indicated.

NOVEMBER 21

The Atlantic Refining Co. (5, 6, 10, 12); Dewey & Almy Chemical Division (2, 5, 10, 15); The Kaman Aircraft Corporation (2, 6, 16); Sikorsky Aircraft (2, 6, 16); Westinghouse Electric Corporation (2, 6, 8, 15); Wyandotte Chemical Corporation (10).

NOVEMBER 27

Allis Chalmers (2, 6, 8, 18); E. I. du Pont de Nemours (2, 3, 5, 6, 8, 10, 15).

NOVEMBER 28

Du Pont (2, 3, 5, 6, 8, 10, 15); Edgerton, Germeshausen, and Grier (6, 8); Bell Telephone Laboratories (all engineering and science); Sandia Corp. (2, 6, 16); Sperry Gyroscope (6, 8); Philadelphia Electric (2, 6).

NOVEMBER 29

Du Pont (2, 3, 5, 6, 8, 10, 15); Bell Telephone Labs; Sandia Corp. (2, 6, 16); Western Electric (1, 2, 3, 6, 10, 15); Bell Telephone Operating Companies (1, 2, 6, 8, 15, 18, 21); Sperry Gyroscope (6, 8); RCA labs (2, 3, 6, 8 Ph.D./Sc.D.).

NOVEMBER 30

Du Pont (2, 3, 5, 6, 8, 10, 15); RCA labs (2, 3, 6, 8 Ph.D./Sc.D.); American Machine and Foundry (2, 5, 6, 8, 10); Hazeltine Corp. (6); Hercules Powder (2, 5, 6, 10); Allegany Ballistics Lab. (1, 5, 6, 10, 16); Jersey Production Research (6 Ph.D./Sc.D.); Western Union (2, 6).

DECEMBER 1

Du Pont (2, 3, 5, 6, 8, 10, 15); Hazeltine (6); Avco (2, 3, 5, 6, 8, 16, 18 S.M., Ph.D./Sc.D.); Gulf Oil (2, 3, 5, 6, 8, 10, 12, 18 S.M., Ph.D./Sc.D.); High Voltage Engineering Corp. & Goodrich — High Voltage Astronautics (2, 6, 8).

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Calendar of Events

(Continued from page 2)

MIT HILLEL SOCIETY
Study group: "Judaism and Modern Science."
317 Memorial Drive, 4:00 p.m.
DEPARTMENT OF PHYSICS.
Special lecture: "Modification of Screw Spin Structure Due to Anisotropy Energy in Applied Field." T. Nagamiya, Professor of Physics, Osaka University, Japan.
Room 4-120, 4:00 p.m.
MIT OUTING CLUB.
Meeting.
Walker Memorial Room 306, 5:15 p.m.
MIT HILLEL SOCIETY.
Study group: Gemara class.
317 Memorial Drive, 7:00 p.m.
CHORAL SOCIETY.
Rehearsal.
Kresge Auditorium, 7:30 p.m.
MIT HILLEL SOCIETY.
Study group: "Elementary Hebrew."
Room 5-231, 8:30 p.m.

TUESDAY, NOV. 28
DEPARTMENT OF MECHANICAL ENGINEERING.
ENGINEERING PROJECTS LABORATORY COLLOQUIUM.
"The Semi-Conductor Strain Gage and its Application." Professor S. Y. Lee.
Room 3-351, 12:00 noon.
COMPUTATION CENTER.
Seminar: "An Experimental Time-Sharing System for the IBM 709 Computer." Dr. F. J. Corbato, Associate Director, MIT Computation Center.
Room 24-148, 3:00 p.m.
MIT HILLEL SOCIETY.
Seminar on Jewish History.
317 Memorial Drive, 4:00 p.m.
DEPARTMENT OF METALLURGY.
"The Zero Point of Charge of Solids."

Professor P. L. deBruyn, Department of Metallurgy, MIT.
Room 4-120, 4:00 p.m.
MIT HILLEL SOCIETY.
Study Group.
Morris Hall, Walker Memorial, 5:00 p.m.
PROTESTANT CHRISTIAN ASSOCIATION.
Study Groups.
317 Memorial Drive, 5:00 and 7:30 p.m.
Dinner at 6:00 p.m.
West Dining Room, Graduate House.
TECHNOLOGY CATHOLIC CLUB.
Theology Lecture Series: "Why An Exclusive Church." Father William Sullivan, C.S.P. Discussion at 4:30 p.m.
Room 3-133, 5:00 p.m.

WATER POLO CLUB.
Meeting.
Alumni Pool, 6:30 p.m.
MIT FACULTY PISTOL AND RIFLE CLUB.
Match with Melrose, Team No. 1
Rifle Range, 8:00 p.m.
MIT HILLEL SOCIETY.
Study Group: "Elementary Yiddish."
Room 5-203, 8:00 p.m.

LINCOLN DECENNIAL LECTURES.
Second lecture in a series on The Age of Electronics. "Radar." Ivan A. Gettling, President Aerospace Corporation, El Segundo, California. Admission free.
Kresge Auditorium, 8:00 p.m.
DEPARTMENT OF ELECTRICAL ENGINEERING.
SPECIAL LECTURE ON COLOR.
"Measurement of the Physical Content of Color." Dr. Arthur C. Hardy.
Bush Room, 10-105, 10:00 a.m.

WEDNESDAY, NOV. 29
MIT HILLEL SOCIETY.
Study group: "Towards a Social Philosophy."
317 Memorial Drive, 3:00 p.m.
NUCLEAR ENGINEERING DEPARTMENT.
Seminar lecture: "Effects of Void Spaces in D2O Reactor Lattices." Dr. J. L. Grandall, Savannah River Laboratory. All interested persons are welcome.

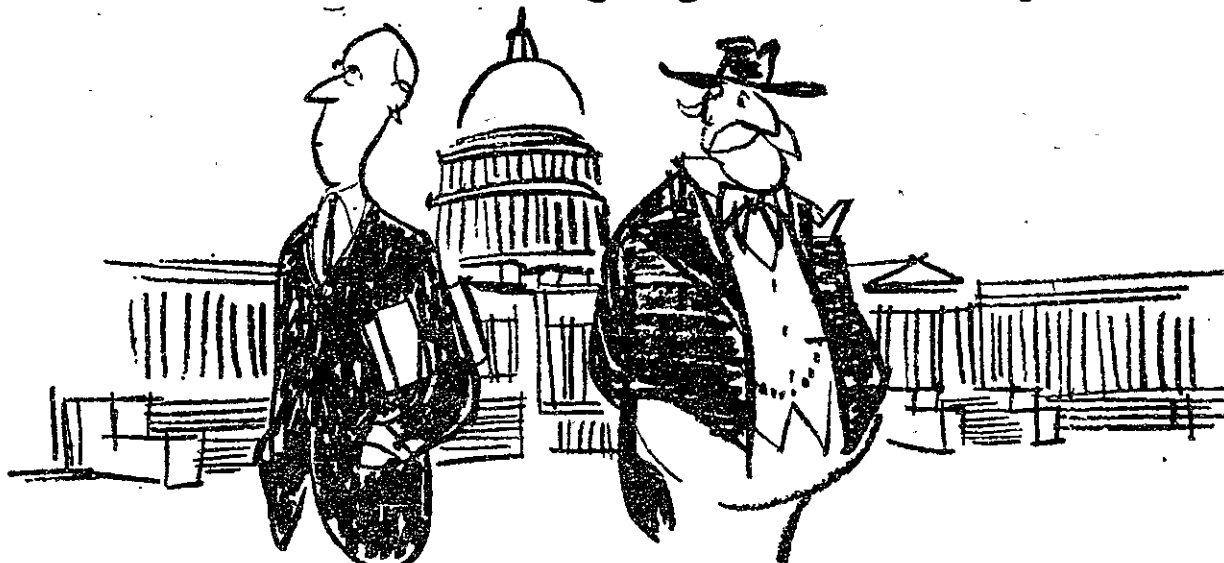
NW-12, 138 Albany Street, 4:00 p.m.
TECHNOLOGY CATHOLIC CLUB.
Meeting.
Miller Room, 3-070, 5:00 p.m.
JAPAN SOCIETY OF BOSTON.
Japanese film series: "Shu To Midori." (Midnight Visitor). Final film in a series of modern Japanese films with English subtitles. Tickets are on sale at the door.
Room 10-250, 7:00 and 9:15 p.m.
SEMINAR SPONSORED BY THE PROTESTANT MINISTRY.
Seminar in New Testament Greek. Dr. Goelchius, Episcopal Theological School, 317 Memorial Drive, 7:30 p.m.
MIT HILLEL SOCIETY.
Lecture: "The Period of the Second Temple and the Mishnah." Rabbi Maurice L. Zigmund, Harvard Hillel.
Bush Room, 10-105, 8:00 p.m.

EXHIBITS*
HAYDEN GALLERY.
"Greece: VI, V, IV Centuries." Photographic murals of ancient Greek sculpture and architecture with amphora, lecythos and bronzes loaned from the Boston Museum of Fine Arts. Displayed through November 22, Monday through Friday, 9:00 a.m. to 5:00 p.m.
PHOTO SERVICE GALLERY.
(211 Massachusetts Avenue).
Photographic salon prints by Victor F. Timme of Chicago, Ill. Exhibit consists of abstracts, landscapes and character studies. Displayed through December 15.
FACULTY CLUB.
Painting by Mr. Juliet Kepes. Early New England pottery collected by Professor F. H. Norton.

MIT ON WBGH-TV, CHANNEL 2
MIT SCIENCE REPORTER.
"The Handyman's Computer." Dr. Bert Little with guest, Bronson Potter, Block Associates, Inc.
Wednesday, November 22, 9:30 p.m. and Sunday, November 26, 4:00 p.m.

Check your opinions against L&M's Campus Opinion Poll #12

① Are there too few or too many intellectuals in high government posts?



☐ Too few

☐ Too many

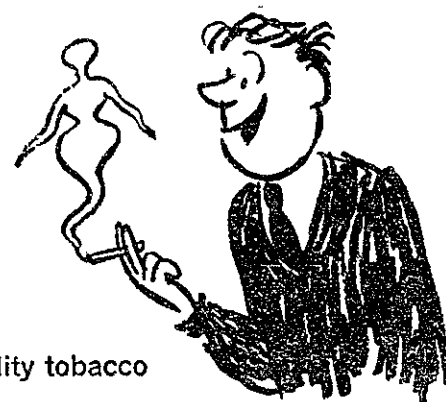
② Is it wrong for a faculty member to date a coed?



☐ YES

☐ NO

③ What gives you the most smoking pleasure in a filter cigarette?



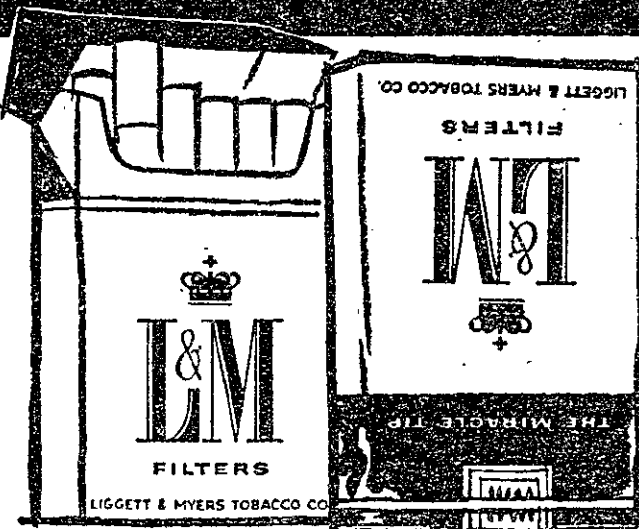
☐ Quality tobacco

☐ Quality filter

☐ Both

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Quality tobacco.....31%	
No.....66%	②
Yes.....34%	
Too many.....20%	①
Too few.....80%	

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The Tech



Vol. LXXXI No. 24 Nov. 21, 1961

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

Deadlines: Advertising, noon Thursday. Entertainment, Features, Letters to the Editor, Photography, Sports, noon Sunday. News, 7 p. m. Monday.

Make-up: Editorial, Sports, Entertainment, Features — Sunday, 1-4 p. m. News — Monday, 7-11 p. m.

Office Hours: Monday, 2-4, 7-11; Tuesday, 11-1; Wednesday, 12-1; Thursday, 10-12; Friday, 2-5; Sunday, 1-5.

Student Union 1

After many years of wrangling and discussion, it is depressing to find that the Institute Committee last week felt itself unable to come to grips with any of the facts concerning the long proposed Student Union. The most recent student government report on the subject was made back in 1958, and yet the members of Inscomm were still debating the merits of the entire project. The current state of affairs speaks ill of both student government and of the communication efforts of the MIT administration.

Much of the discussion last Thursday night centered around the fundamental idea of what a union should be, and what it should do. Clearly, we are no closer to a solution than five years ago. If Inscomm does think that after all these years it needs to discuss fundamental principles, then it should do so and instruct its committee to do so, instead of engaging in so much futile armwaving. The Inscomm committee charged with the Union currently has a chairman who apparently does not consider it worthwhile attending Inscomm meetings, and does not consider it to come within his province to discuss much more than activity space allotments. If Inscomm is unhappy with this situation, it should change it.

The administration is also guilty of not making clear its own objectives regarding the Union, and of failing to inform the student body of progress on the project. The Union is part of the Second Century Fund, but as yet, no funds have been made specifically available for construction. The architect is in the process of drawing up plans for the building, but has had little contact with students on the question of what they want.

The Student Union is a project, which if it ever comes to full fruition, could have a profound effect on the MIT campus life, but the lack of communication between students and administration has been remarkable. It is known that consideration has been given to constructing a separate commercial building, instead of the original plan of incorporating a number of stores directly in the Union. There has been talk of putting some activities in the Union, and leaving others out, or of putting all activities in. And so forth. But very little of this has been made clear to the students, and much misunderstanding about the Union arises out of sheer ignorance.

Technical Education At MIT

By Professors J. H. Horlock
 and W. S. Owen, U. of Liverpool
 Denies Scientists'
 Rights On Moral Decisions

The following article was printed early this past summer in the Manchester, England newspaper The Guardian. We think it is of interest to our readers to see how others look upon MIT, and we are re-printing the article with the permission of the authors.

In the numerous discussions in Parliament, the press, and elsewhere about the expansion of technical education the Massachusetts Institute of Technology has featured prominently, usually as a model to be emulated, occasionally as a focus of adverse criticism. There can be no doubt about the magnitude of the contribution which MIT has made to the impressive technical achievements in the United States in the postwar years. This was recognised by the world-wide attention given to their recent centenary celebrations cul-

minating in the speech by the Prime Minister.

We consider that the essential nature of MIT and the basic reasons for its pre-eminent position are not understood in this country. Compared with other institutions in the United States and even with some universities in this country the number of students is not large nor are the buildings and physical facilities particularly impressive. In our opinion the unique position enjoyed by MIT stems from two related policies: an emphasis on large-scale significant research and a constant endeavour to develop the teaching of technical subjects in such a way to ensure that their graduates have an outlook which is considerably in advance of current practice.

It can be argued that the most impressive thing about research at MIT is its quantity and that in some areas at least its quality is no better than that found in the work being done by small groups scattered throughout British universities. We do not disagree with this. The major difference in the two countries lies in the urgency with which the work is pursued. Most of the technological research in British universities is initiated by an individual member of the staff who then has to seek whatever financial support he can find inside or outside the university.

While this happens also to a limited extent at MIT, most of the research is concerned with providing the basic engineering science needed to solve urgent and important technical problems and is carried out in response to requests from government or industrial agencies concerned with novel and advanced engineering problems. At MIT the research worker is participating directly in one of the most advanced and exciting engineering developments.

This constant awareness of the real problems which have to be solved before the next advance can be made is reflected in the teaching, at both the undergraduate and postgraduate level, in the Institute. In the last 30 years, not only the content but also the arrangements and inter-relation of the courses have undergone several radical revisions as a result of constant critical examination of their relevance to modern needs. The most recent and perhaps the most far-reaching of these reforms is now being put into operation.

In his four-year undergraduate course, the MIT engineering student spends much of his first two years in physics, and chemistry that is equivalent to that achieved by a British student in his third year in the sixth form or first year in a university. In his third and fourth years he overhauls his British counterpart, and if he stays on to read graduate courses attains a level of training beyond that offered in most British universities.

In recent years more of the students entering the Institute to read the common science and engineering courses of the first two years have subsequently entered the science schools, physics, and chemistry.

This trend towards science in place of engineering probably reflects the public image of the scientist and the engineer in the United States. As a member of the MIT faculty put it, "if the rocket goes up it is a triumph for science, but if the rocket fails, it is the engineering which is at fault." There is a similar attitude towards engineering in this country, and there is some evidence that student registrations in British universities are following a pattern similar to that at MIT.

The effect of the drop in engineering registrations on engineering education at MIT has been startling. A minority of the engineering faculty has emphasised that the engineer must make things, he must be a practical man. However, the majority believes that an engineer must have a basic scientific education and it is this course that is being followed.

For example, less emphasis is placed on practical heat engine cycles, more on statistical mechanics, less on practical metallurgy than on the physical science of materials, less on electrical machines and more on electromagnetic theory. Other technical institutes in America have been thinking along parallel lines, and there is little doubt that the new MIT philosophy will spread. It is associated with a very impressive project, initiated by MIT, to improve the teaching of basic science in the American high schools.

In this country there has scarcely been a ripple on the complacent waters of technical education. Many engineers claim that they already teach engineering science, although a glance at the new MIT syllabi would throw some doubt on this opinion. Others consider if there is anything wrong with the present system, which is aimed principally at the man who will become a design and development engineer, it is that not enough emphasis is placed on industrial engineering, production engineering, and work study.

If this country is to share in the rapidly de-

(Please turn to page 5)

Letters To The Tech

TO THE EDITOR:

Your editorial of Nov. 8 seems to leave the impression that you deem it proper and moral for the scientist in the employ of government to judge the decisions of that government's political leaders, particularly in the area of weapons creation and design. You further suggest that the scientist should implement this judgment by agreement or refusal to apply his creativity and ability toward the ends requested of him by his government. It was not clear to me whether you were suggesting a work boycott when a specific request of a moral government seems immoral to the scientist, or whether you intended to affirm the right of the scientist, or any citizen, to refuse to accede to an immoral request of an immoral government. If the latter, I can only agree; if the former, I suggest your position is wholly untenable and indeed tantamount to an endorsement of anarchy.

Let us assume that the government is a moral one, is duly constituted by the electorate, reflects the wishes of the majority within a democratic framework and is accepted by the citizenry as its arbiter of justice and defender of the national security. I contend then, that (1) it is the function of the political leaders of such a government to determine the national interest and estimate the needs of the national security, (2) it is the function of the scientific community in the

employ of such a government to supply the technology required to meet the needs of this pre-determined national security, and (3) it is the function of the military establishment to take the action necessary to insure this pre-determined national security.

If one suggests that it is the scientist's duty to judge for himself the morality of a given project on which he is asked to work, one might just as logically argue that it is the right of the military leader to assume the prerogatives of the political leader — and we would be forced to accept as proper the efforts in this direction of, for instance, Maj. Gen. Edwin A. Walker.

As technology increases in logarithmic proportions, the problem of communication between scientist and layman becomes ever more acute. By his very training, the scientist is a member of a select elite of initiates into realms incomprehensible to outsiders. Technical training, however, does not endow one with a superior moral judgment and certainly does not equip one to make or enforce decisions which are entirely within the province of the policy-making representatives of the people.

Of course, one could not deny the right of the individual to follow the dictates of his conscience, as one would approve the right of the pacifist to decline certain military service. The scientist too, who finds nu-

(Please turn to page 5)

Kibitzer

By Elwyn R. Berlekamp '62

Today's hand was originally played at a tournament in Chicago by Harry S. Elliott, MIT '61. He sent it to me showing only the North-South hands and the following initial conditions: West's opening lead of the club king was overtaken by East's ace and a low club returned to West's ten. West then led a low club on which dummy pitched a small spade and East ruffed with the deuce of diamonds. East then led the queen of spades. "How should South play from this point," asks Mr. Elliott, "in order to have the best chances of making the contract?"

Such questions always involve quite a bit of study because of the large number of possible distributions and defenses. But they are the very situations that declarers run into at bridge tables and therefore, of all types of academic bridge problems they are of the greatest practical value.

The solution to this one is for South to throw the jack from his hand under the spade queen and duck the trick in dummy, unless West should happen to add the king to the trick. If East's queen wins, his next lead is won in dummy and trumps are extracted, first by the ace and then the queen. The trump finesse must be refused, because if it loses West will return another club for East to overruff dummy for the setting trick. If the finesse is not taken, however, South's contract is safe against almost any adverse distribution.

One opponent or the other will probably win the second trump lead with his king but now the club ruff is impossible. The partner of the holder of the diamond king is now void of trump and need not be feared. The opponent who is on lead is unable to cross over to his partner's hand, thanks to the clever jamming of communications caused by South's refusal to ace the queen of spades.

The particular East-West distribution shown above is printed here not because it is very likely or the one that act-

NORTH			
♦	A 10 8 7 2		
♥	A Q		
♦	7 6 5 4		
♣	7 5		
WEST		EAST	
♦	K 9 6	♦	Q 5 4
♥	9 8 7 5 4 3	♥	J 10 6
♦		♦	K 9 8 3 2
♣	K Q 10 6	♣	A 3
SOUTH			
	♦ J 3		
	♥ K 2		
	♦ A Q J 10		
	♣ J 9 8 4 2		
East-West vulnerable			
Bidding:			
South	West	North	East
1♦	P	1♠	P
1NT	P	2♦	All Pass
Opening lead: ♠K			

ually occurred, but because it shows the extreme situation against which South is able to bring in the contract by carefully thought out play. In particular, it demonstrates why the correct procedure is to throw the spade jack under the queen rather than the little spade, which also works in almost all cases but not in this one.

After the first four tricks are played as given in the original problem, East presumably shifts to a heart which is won by dummy's queen. A small trump to the ace brings the bad news that West is out, but South continues drawing trumps. East wins the king and leads back another heart. South wins and finishes extracting trumps, after which he is able to run the spade suit and make the contract.

Had he failed to unload the jack under the queen, the spade suit would be blocked at the end and poor South would be doomed to failure.

Any reader of this column who is interested in becoming its author should please make himself known. I shall graduate from this post at the end of this semester and The Tech is interested in finding a successor to continue The "Kibitzer." Anyone interested in the position is urged to see or write me.

MIT Education

(Continued from page 4)

veloping new technologies there is an urgent need in industry for the engineering scientist, and he must be trained in engineering departments of the universities. However, even if at some future date some students are trained in engineering science, the need for practical design engineers will remain. We can also expect to see engineering graduates playing a greater part in production engineering, as works managers and perhaps as workshop superintendents or foremen. In planning our new bigger university

engineering schools it should be possible to provide three streams:

1. Engineering scientists ranging over a wide field of applied science;
2. Engineers trained in design and development; and
3. "Industrial" engineers with some training in production engineering, industrial administration, and work study.

We are not suggesting that we should attempt to copy the MIT pattern. We do consider that the present educational experiments at MIT should be carefully examined and that these examples should encourage a more adventurous outlook in our own planning.

Exams?

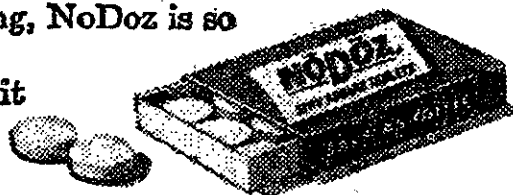
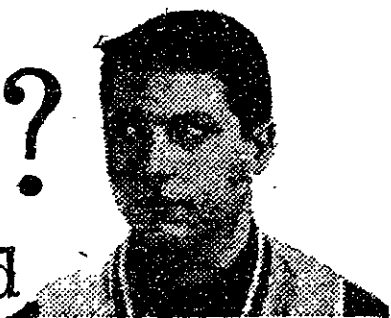
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Letters:

(Continued from Page 4)

clear weapons immoral, is justified in seeking employment in a non-defense industry. However, the scientist who chooses to work on governmental projects must recognize that his area of competence is limited to technical decisions, not moral or political decisions.

Gail D. Menzel
(Mrs. Thomas C. Menzel)

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Hunt For Elusive Omegas Subject Of VIII Colloquium

By Tom Sheahan '62

In Physics, theories are generally made to fit experimental facts. It seems unusual when an experiment is done to improve an existing theory, but such was the work described by Professor Louis Osborne of the Physics Department's Synchrotron Group in his colloquium "On the Trail of the Omega", given last Thursday at 4:00 in 26-100.

In his informal and often humorous talk, Professor Osborne described what he and other workers, both at MIT and elsewhere, have accomplished in seeking a new fundamental particle (the Omega). This particle would improve the symmetry of existing particle-patterns, leading to a generalization of several theoretical predictions.

Lambda, Sigma Xi
"Omega"?, Pi, K

The trail began several years ago when a type of "inverted pyramid" relationship was noticed, in which one Lambda-meson was followed by three sigma-mesons, and in turn four X-mesons. A similar relationship existed between three Pi-Mesons and four K-Mesons, but no single particle below the Pi-mesons had been found. This hypothetical particle was named the Omega-meson, and a systematic search was begun.

Various clues were used to establish the properties of the missing particle: proton-deuteron interactions showed a mysterious "bump" in the intensity of counts at a certain angle; the charge distribution of neutrons showed some unexpected effects; and a rare interaction

of fundamental particles could best be explained by hypothesizing a particle with certain properties. Putting these together, the spin, rest mass, and other characteristic quantities were found; knowing these permitted the experimenters to devise a way to detect the Omega.

Cross-section Not Detected

In particle physics, "detecting" a particle often consists of no more than determining the scattering cross-section of it. An experiment at Cal-Tech last May found nothing and in doing so proved the cross-section less than the resolving power of the apparatus. The number was so small as to seem physically unreasonable, so the MIT group tried a new approach to the problem.

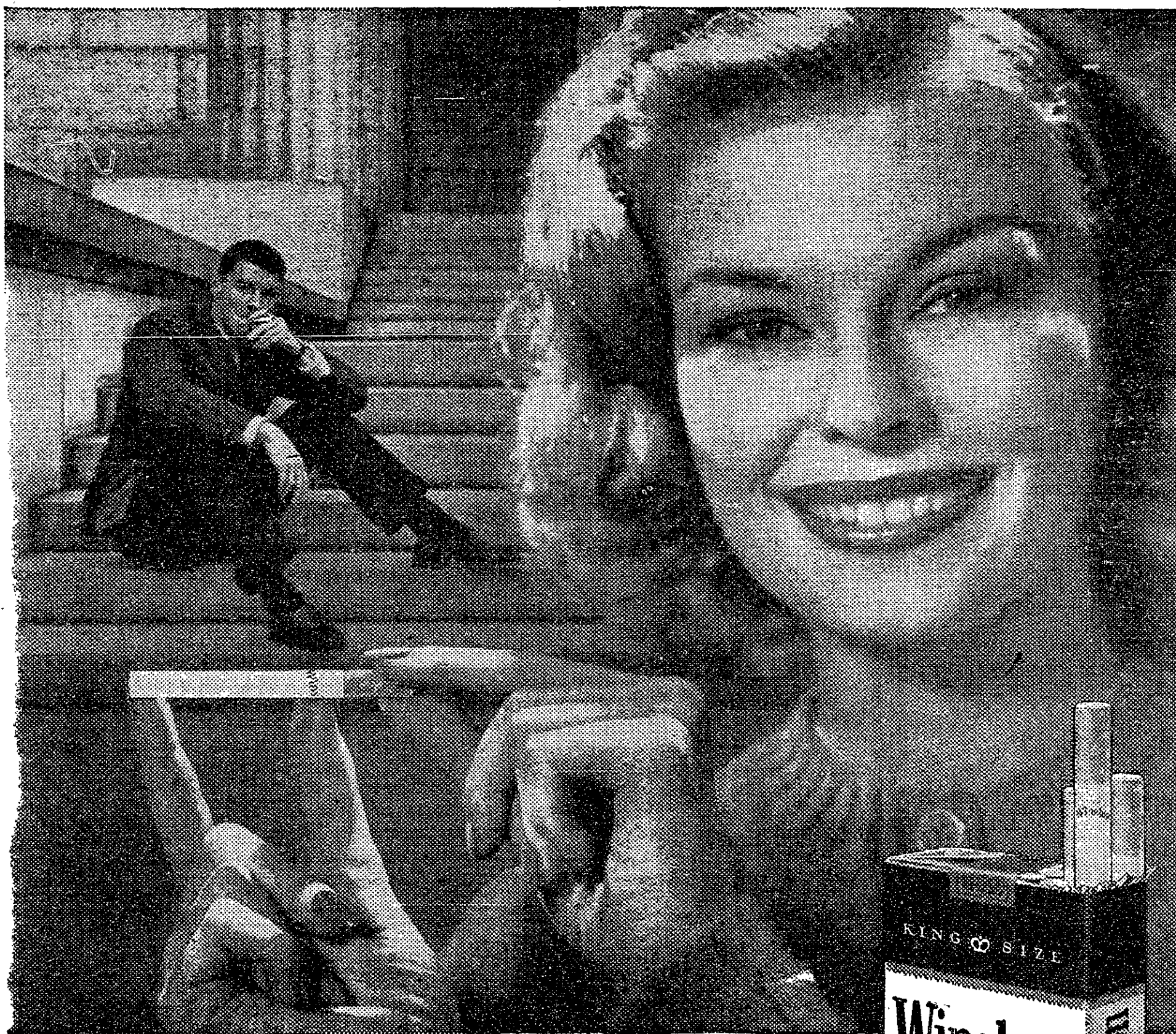
The physical process of the experiment involved an interaction between protons and gamma rays in which pi-mesons are emitted; various parameters were adjusted to detect the Omega-mesons. The actual runs were made with the linear accelerator at Cornell University, which had a beam strong enough to give a fair number of counts, according to predictions. Unfortunately, despite a variety of conditions, no counts, and hence no Omegas, were detected.

Bubble-Chamber Success

Professor Osborne described more successful results which had been achieved at Berkeley by their bubble-chamber group. They identified a new particle as the Omega, although it did not have exactly the same properties as originally thought.

In the last few weeks, further work around the country has verified other predictions relating to the Omega. The most recent work at Cal-Tech explained the original "bump" which was useful in earlier work; surprisingly, in doing this another bump occurred, which is as yet unexplained.

Professor Osborne remarked that he will be watching this new bump grow, and closed with the thought that high-energy particle physics is rich in results, but by no means simple.



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Harpsichordist Appears At Jordan

Sylvia Marlow, harpsichordist and recording artist, will give a recital in Jordan Hall, December 4, at 8:30 p.m. The recital will be a performance of the "Goldberg Variations" by Johann Sebastian Bach.

Miss Marlow has been soloist with the Boston Symphony and harpsichordist with the Boston Society of Ancient Instruments, a group whose performing members included some of the most distinguished members of the Boston Symphony. Since her last performance in Boston, ten years ago, Miss Marlowe has performed internationally with major orchestras, in recitals, on recordings, and on radio and television.



Sunday Evening NOVEMBER 26 at 8 o'clock

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Entertainment-wise

Robert Weaver At Ford Hall Forum

Dr. Robert C. Weaver, the Administrator of the United States Housing and Home Finance Agency, will speak on the "Urban Frontier" this Sunday night at Jordan Hall (30 Gainsboro St.).

The lecture, which begins at 8 p.m., is part of the Ford Hall Forum series, which has recently attracted many Tech students. Upcoming lecturers in the series are: Robert Frost, James R. Hoffa, Ayn Rand, Max Lerner, and Ambassador Herve Alphand of France. Admission is a nominal 50 cents.

The award-winning "Hiroshima... Mon Amour" is currently showing at the Brattle Theater. Hailed by many as "the most moving, emotional film in many years" and as "the greatest of the post-war epics," the film would be well worth an expedition to Brattle Square.

For those of you who love to join "of-the-month" clubs, Boston offers a relatively new one, the Show of the Month Club. For a mere \$5, you may purchase a membership for two people, which entitles you to buy tickets to many of Boston's top plays (over 40% of them at a discount).

If you go to plays with any reasonable frequency, this might be a good thing to help you save some money, and to insure you seats. For more information, contact the Show of the Month Club, 49 Portland St., Boston 42.

Allen Drury's Pulitzer Prize-winning novel, "Advise and Consent," is coming to Boston in the guise of the hit Broadway play of the same name. Starring Farley Granger and Chester Morris, the play is based on scandalous (?) Washington politics.

"Advise" makes its Boston debut December 4 at the Wilbur Theater. Mail orders for tickets are being taken now.

For football fans with access to a TV set, Thursday will be a red-letter day. After the annual Thanksgiving parades cov-

erage, viewers will be treated to several games. Among them are: Buffalo at New York in the American Football League, the Green Bay Packers versus the Detroit Lions in the National Football League, and the NCAA game of Texas at Texas A & M. Happy viewing!

The first public showing of Soviet films of the space flights of Yuri Gagarin and Gherman Titov will be this Friday night on "Crossing the Threshold." The documentary program, aired on Channel 4 from 9 to 10:30 will be the first in a three-part series, "Threshold," produced by NBC news.

The film had previously been scheduled for three other public showings, but all have been canceled, for one reason or another. It will be well worth your while to look in on this.

Sunday, Jan Smeterlin, a noted pianist, will present a concert of Beethoven and Chopin at the Isabella Stewart Gardner Museum. The free concert, which begins at 3, will be held in the museum hall, located at 280 The Fenway.

The following Sunday, E. Power Biggs on the organ, and Daniel Pinkham on the harpsichord, will present six concer-

tos for two keyboard instruments by Antonio Soler.

The Boston Handel and Haydn Society will present four performances of Handel's "Messiah" this year at Symphony Hall. The first performance of the classic, which will be conducted by Dr. Edward Gilday, will be Sunday evening, Dec. 3, at 8.

Soloists for the series will be: Alice Farnsworth Boffetti, soprano; Rosalind Hupp, contralto; Edward Munro, tenor; and Howard Kahl, base. Tickets are on sale at the box office.

If you happen to have some spare time over the Thanksgiving vacation, you might take a sojourn to the Boston Public Library. Currently on exhibition there are: books and pictures on the sciences from the collections in the library; photographs of the manners, customs, and industries of the people of Pakistan, a gift of the Pakistani government; an exhibit on Ignace Jan Paderewski, in cooperation with the Shape of the Book, a selection of rare books and manuscripts, representing a range of writing materials, calligraphic and printing styles, illustrations, and bindings.

Tom Maugh '65

Hugh O'Brian—Back to TV

It is extremely difficult to do a stage version of a memoir; and when the action is spread over 20 years and two countries, the problems are compounded. Samuel Taylor has been unable to solve all of these problems, and so "First Love", his adaptation of Romain Gary's memoir, has fallen short of its mark. The play is composed of short scenes from Gary's early life. Many of the vignettes are humorous or poignant, but because too much factual and connective material has to be filled in, they do not combine to make a theatrical whole.

The play is as much about Gary's mother, Nina Kacew, as about Gary. His mother was a Russian refugee who believed that her son would be champion at anything that he tried — that he would be a great author and a great athlete and a great diplomat. Her other obsession was with France. She believed that the French could do no wrong. She taught Romain that the French had never lost a war and that a Frenchman had discovered America. Living first in Poland and later in France, Nina's belief in her son's genius and in France led them into many strange incidents.

Hugh O'Brien (T.V.'s Wyatt Earp) plays Romain. He is on stage at all times and sometimes attempts to change his life as it is being played before him—one wishes that he could.

FIRST LOVE, by Samuel Taylor, based on the memoir, "Promise At Dawn" by Romain Gary. Directed by Alfred Lunt. Scenery and lighting by Donald Oenslager. Costumes by Theoni V. Aldredge. Pre-broadway engagement at the Colonial Theatre through Nov. 26.

THE CAST
Romain Hugh O'Brian
Romain as a boy Claude Gersene
Nina Kacew Elizabeth Bergner
The Grand Duke Boris Marshakov
Romain as an Adolescent Rex Thompson
Rene Bouchard Tim O'Connor
Ivan Malekine Sander Sabo
The King of Sweden Reynolds Evans
Also, Bert Conway, Peter Gumeny, Randy Garfield, Peter De Vise, Brendan Fay, Dale Johnson, Sasha von Scherler, Dan Keyes, Chet London, and Guy Arbury.

As for O'Brien, he would do best to return to TV Westerns. Claude Gersene does an outstanding job as Romain as a small boy. Broadway will see more of this young man.

The real highlight of the evening is the acting of Elizabeth Bergner, as Nina Kacew, Romain's mother. Her expert portrayal made this unusual character come alive.

The scenery and lighting by Donald Oenslager only tend to make the show more disconnected. His use of small painted backdrops for each scene is an unwise choice. More elaborate three dimensional sets might help unify the production.

Nevertheless, the main fault lies with Samuel Taylor. He has attempted to show too many small incidents. Fewer incidents considered in more detail would have given greater insight into the characters and would have made a more unified play.

—Joe Hanlon '63

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World Premier Of Opera At Kresge



Audiences in Kresge Auditorium last Friday and Saturday nights enjoyed performances of "Command Performance", an opera commissioned for the observance of Vassar College's Centennial. These performances, together with two the previous week-end at Vassar, marked the world premiere of the opera starring Blanche Thebom and Ezio Flagello. — photo by Sanford Libman '65

music

Fine Concert Given By MIT Band

"The Last Twenty" music from the last twenty years was the theme of the program presented by the MIT Concert Band on Saturday evening, November 11, at Kresge Auditorium. Under the capable baton of John Corley, the band performed six works written since 1941 and turned in a performance of generally high calibre. Working with players whose primary fields of interest are quite far removed from music, the band played through much of the concert in a manner that would have done many a conservatory band proud.

The program opened with the "Essay for Band" by William J. Maloof. Although perhaps a trifle overcautious at the start, the band launched itself into the vigorous allegro section with verve, displaying its vastly-improved clarinet section and an excellent percussion group. The "Ballad for Band" by Morton Gould suffered somewhat from intonation difficulties throughout the band, and seemed to lack the crispness of the Maloof performance.

The Persichetti "Divertimento

for Band" opened at a bright tempo with the band together, and the woodwinds once more impressive. This piece provided places for all the sections to shine. The flutes and piccolo began to go somewhat flat, however, taking the edge off an otherwise fine performance. After intermission, though, the intonation became suddenly excellent and the band turned in an extremely proficient performance of Milhand's "Suite Francaise." The saxophone section was outstanding throughout this work, and the trumpet and clarinet sections equally distinguished themselves.

The "Rhapsody for Band" by Johnson was read capably in its premier performance but seemed to lack enthusiasm. The

composer, who is a senior at the University of Washington, provided a composition of more than passing interest, using occasional jazz-like motives and rhythmic intricacies. The final selection was the "Invention on Two American Folk Tunes" by MIT graduate student Andrew Kazdin. The band treated this number as an old friend, as well it might, and the performance went extremely well. This year's band you have to hear to believe; not only is it larger than those of previous years, the level of proficiency is amazingly high. With more new music being written for the concert band, interest in these concerts should increase markedly.

—David L. Morse '59

After Homeless Year

Poet's Theater Slates 12 Season

The Poet's Theater, after a homeless year, is getting under way its 12th consecutive season in new quarters at 1286 Massachusetts Ave., Harvard Square.

In the past, Poet's Theater has sponsored premieres of such important authors as Archibald MacLeish, Ionesco, and Beckett, but its principal contribution to theater at large has been its program of giving young writers and directors a chance to come face to face with an audience.

Major productions this year will include *The Square*, by Marguerite Duras, author of the award winning *Hiroshima Mon Amour*; a new treatment of the Philoctetes legend by Oscar Mandel entitled *The Island*;

and a rewrite of a workshop project of last year, *The Yellow Loves*, by Howard Sackler.

In contrast to major productions, there will be workshop performances in the new 49-seat theater, using only token scenery and costumes. These productions, which have been called "scripts on the way to becoming plays," include *The Calm* by Ted Hughes on Nov. 24 and 25 and *The Jar* by Don Finkel, Dec. 8 and 9. After each workshop, there will be coffee and discussion.

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Mon Amour"

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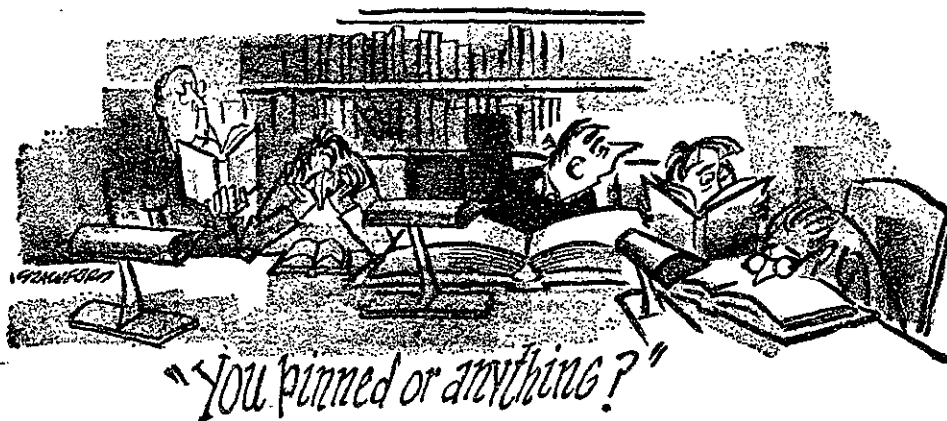
But it's not too late. Right now, this very minute, before you weaken, lift up your head and forward march to the place you have been avoiding ever since school began. I refer, of course, to the library.

Now here you are at the library. That wasn't so bad, was it? Of course not! Go inside. What do you see? A sign that says "NO SMOKING." Go outside. Light a Marlboro. Smoke. Go back inside.

Because now you are ready. Now your trembling resolution is rigid. Now your pulsing psyche is serene. You have been calmed by mild Marlboro. You have been soothed by that fine selectrate filter, by that fine full flavor that dotes and pampers and caresses, that lifts the fallen, repairs the shattered, straightens the bent, unravels the knotted, rights the askew, and fastens the unbuttoned.

In the center of the library you see the main circulation desk. Look in the card catalogue for the number of the book you want, write the number on a slip, and hand it to the efficient and obliging young lady at the desk. The efficient and obliging young lady then gives the slip to an efficient and obliging page boy who trots briskly back into the stacks, curls up on a limp leather encyclopedia, and sleeps for an hour or two. Then, puffy but refreshed, he returns your slip to the efficient and obliging young lady at the desk, who tells you one of three things: a) "Your book is out." b) "Your book is at the bindery." c) "Your book is on reserve."

Having learned that the circulation desk hasn't the least intention of ever parting with a book, let us now go into the periodical room. Here we spend hours sifting through an imposing array of magazines—magazines from all the far corners of the earth, magazines of every nature and description—but though we search diligently and well, we cannot find *Mad* or *Playboy*.



"You pinned or anything?"

Next let us venture into the reference room. Here in this hushed, vaulted chamber, we find the true scholars of the university—earnest, dedicated young men and women who care for only one thing in the world: the pursuit of knowledge.

Let us eavesdrop for a moment on this erudite couple poring over heavy tomes at the corner table. Hush! She speaks:

SHE: Whatcha readin', hey?

HE: The Origin of Species. You ever read it?

SHE: No, but I seen the movie.

HE: Oh.

SHE: You like readin'?

HE: Naah.

SHE: What do you like?

HE: Hockey, licorice, girls, stuff like that.

SHE: Me too, hey.

HE: You pinned or anything?

SHE: Well, sort of. I'm wearin a fellow's motorcycle emblem ... But it's only platonic.

HE: Wanna go out for a smoke?

SHE: Marlboro?

HE: What else?

And as our learned friends take their leave, let us too wend our way homeward—a trifle weary, perhaps, but enlightened and renewed and better citizens for having spent these happy hours in the library, Aloha, library, aloha!

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The makers of Marlboro, who sponsor this column, could write volumes about another one of their fine products—the unfiltered king-size Philip Morris Commander—but we'll only tell you this: Take a leaf from our book. Enjoy a Commander today.

Visiting Nobel Winner In Physics On MIT Biology Staff

"This is the way an atom appears in Time magazine," said the man at the blackboard; he then proceeded to draw a picture, commenting as he drew: "Here's the hard round ball called the nucleus, and, as we all know, the electrons travel around the nucleus in elliptical orbits like this."

The audience, MIT's chapter of the American Institute of Physics and guests, laughed, and the speaker went on in his relaxed, informal manner, speaking with a pleasant, conversational tone.

Just Another Instructor?

The speaker himself did not impress one at first glance as being particularly outstanding; he was rather young, and could have been just another of MIT's instructors or assistant professors. He could have been, but he wasn't: he was Donald A. Glaser, the only Nobel Laureate on the MIT faculty.

He went on speaking, working his way briefly through the development of the modern theory of the atom. ("All lectures of this type," he explained, "have to begin like this.") In discuss-

ing the study of the atom and the nucleus, he proceeded as follows:

Atom vs. Avacado

"Let me make an analogy: suppose you've never seen an avacado before, and you're told to describe it without seeing it or touching it. Well, you ask that the lights be turned out, you tell your assistant to place the avacado on the end of a table, you ask for a b-b gun, and you pepper away.

"When you are through, your assistant takes away what's left of the avacado and the lights are turned on. It's rather obvious that on the wall you'll see a large area with imbedded b-b's and pieces of green pulp, but right in the center you'll find a blank space, indicating that this thing was a hard core, and a large, pulpy area surrounding it. Well, this is what Rutherford did.

Crack that Nucleus!

"The next problem is to investigate that core; you run the same experiment again, but this time you ask for a .22. Now you find little splinters of wood lying on the floor afterwards.

Again, this is what scientists did next, using high-energy particle accelerators."

Dr. Glaser went on, describing various nuclear reactions observed, and coming at last to the case of the "strange particles." He discussed in particular the reaction of a pi-meson with a proton, which seemed to produce a lambda-particle; unfortunately, there were certain observed discrepancies in the reaction which seemed to defy the laws of physics.

World Produces 100 Reactions

Here was a problem: a way must be provided so that physicists could observe this and other reactions in detail. The cloud chambers then in common use were inadequate because of the great lengths of time between reactions. The total world production of observed reactions was 100 per year.

Dr. Glaser went to work on the problem; first he considered the possibility of particles being used as catalysts in chemical reactions.

He explained, "This could be done in several ways. For instance, my shirt is made of dacron; here we have a polymer which is insoluble in something, say methyl alcohol. However, the related monomer might be very soluble in this solvent.

It Won't Work

"Now all we have to do is to pass high energy particles through a saturated solution of the monomer and get these particles to set off a reaction which produces the polymer. Then we have little strands of polymer produced and theoretically we can even pull the whole thing out of the solution and measure the angles with a protractor. Unfortunately, this doesn't work."

Dr. Glaser's thinking next enters the realm of superheated liquids, and it was at this point that the bubble chamber, the device for which he won the 1960 Nobel prize in Physics, was born.

Particles Leave Trails

The principle behind the bubble chamber is as follows: inside the chamber a liquid is maintained in a superheated state; when the high-energy

particles from accelerators are passed through the liquid, they bring the liquid along their tracks to a boil, thus leaving little trails of bubbles. These are photographed with high-speed photographic equipment and can be studied later in detail.

The first bubble chamber was a one-inch chamber of glass; when a large chamber was desired, problems arose. Making a large chamber solely of glass was impracticable; if other materials were used, however, tiny scratches or slightly rough edges could initiate boiling.

Bigger and Better Chambers

Such a chamber was built, however, and it was discovered that although there was boiling at the edges this could be kept at a minimum and tracks of particles could still be seen clearly in the center of the chamber.

One great advantage of the bubble chamber is the short amount of time required to re-establish the superheated condition after particles have passed through and their paths have been photographed. The cosmotron, for example, emits a burst of high-energy particles every five seconds, and in order that money not be wasted, the chamber must be ready to go for each burst.

At first Dr. Glaser experimented with various liquids, starting with diethyl ether. Al-

though hydrogen would have been the ideal liquid, he did not have the proper facilities when he began his work at the University of Michigan eight years ago. His recent work has been conducted at the Lawrence Radiation Laboratory on the Berkeley campus of University of California.

Xenon Provides Much Data

At California Dr. Glaser has made extensive use of xenon in his chamber; with xenon, of atomic mass number 131, there is a high probability of collisions and a large amount of data can be gathered. In fact, Dr. Glaser was using 21 liters of liquid xenon, practically the whole world's supply of the gas. The cost of obtaining the liquid xenon was over a quarter of a million dollars.

Research with bubble chambers is currently being carried on all over the world. Dr. Glaser hopes that in the not-too-distant future computers will be able to process data on the spot, signalling scientists whenever reactions occur with which they are not familiar.

Glaser Get Many Awards

Dr. Glaser has won the worldwide recognition and praise for his invention and development of the bubble chamber. He began his work shortly after joining the faculty of the University of Michigan in 1949. In 1955, he received the University's Russel Award, which is presented each year to an outstanding young faculty member of the rank of instructor or assistant professor whose work holds great future promise.

Two years later the Physical Society of London presented to him the Charles Vernon Boys Prize in recognition of his work in experimental physics. In 1959 he won the \$2500 American Physical Society Prize sponsored by the Hughes Aircraft Company; the same year the United States Junior Chamber of Commerce named him one of the "Ten Outstanding Young Men of 1958."

Moves To Berkeley

There was another important event in 1959: Dr. Glaser served as a visiting professor of (Please turn to page 9)

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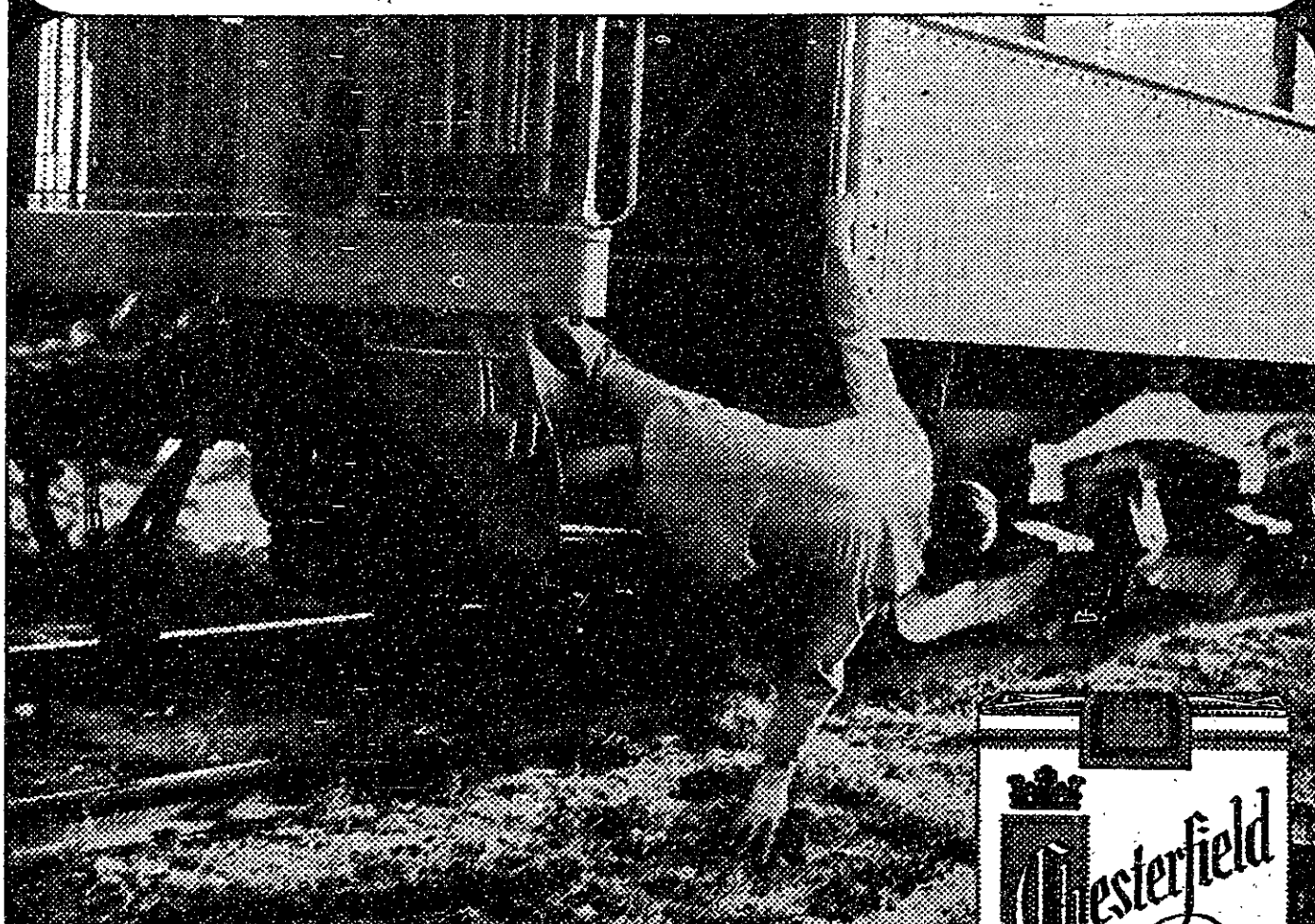
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Nobel Winner At Tech

(Continued from page 8)

physics at the University of California, Berkeley. The following year he joined the permanent Berkeley staff and moved his research work to the Lawrence Radiation Laboratory.

Dr. Glaser today is a member of the American Physical Society and Sigma Xi; he holds his B.S. from Case Institute of Technology, his Ph. D. in physics and math from Caltech, and an honorary doctorate from Case.

In addition to teaching at Michigan and Berkeley, he has served as consultant to the Institute for Nuclear Studies at the University of Chicago. He has lectured at the International School of Physics at Ravenna, Italy, and recently visited India under the auspices of the American Specialists Program.

Now comes the answer to a question which may have occurred to the reader: "What is Dr. Glaser doing at MIT?" The answer is very simple: he's a visiting professor studying micro-biology.

Why?

This seems to be quite a change, but again the explanation is rather simple. Dr. Glaser has always had a liking for biology, but, as he pointed out, a man can't devote himself to two fields at the same time; hence, he has up to the present spent his time in physics.

This year, however, Dr. Glaser had a chance to take a sabbatical and decided to spend it studying biology. During the spring term of this year, he studied molecular biology at the Institute of Micro-Biology, Co-

penhagen University. He worked with genetics of micro-organisms and cell differentiation.

"Most of the advances in biology in the last ten years have been made in this field," he explained. "One advantage of micro-biology is that it doesn't require a knowledge of the more complicated aspects of the science, this study being at a basic, fundamental level. Therefore even I, a physicist, can make a go of it."

Which?

Dr. Glaser's main goal in this research is actually deciding whether he prefers physics or biology. "It's a question I can't answer at the moment; I'll just have to wait and see."

Dr. Glaser, as the reader has probably noticed, is an amazingly well-rounded individual. In addition to his scientific achievements, he is also a musician of sorts: while a student at Case, he played viola in the Cleveland Philharmonic Orchestra; he also plays violin and piano, not to mention tennis and squash. (In reference to the latter two, one can see that he maintains his interest in high-energy particles.)



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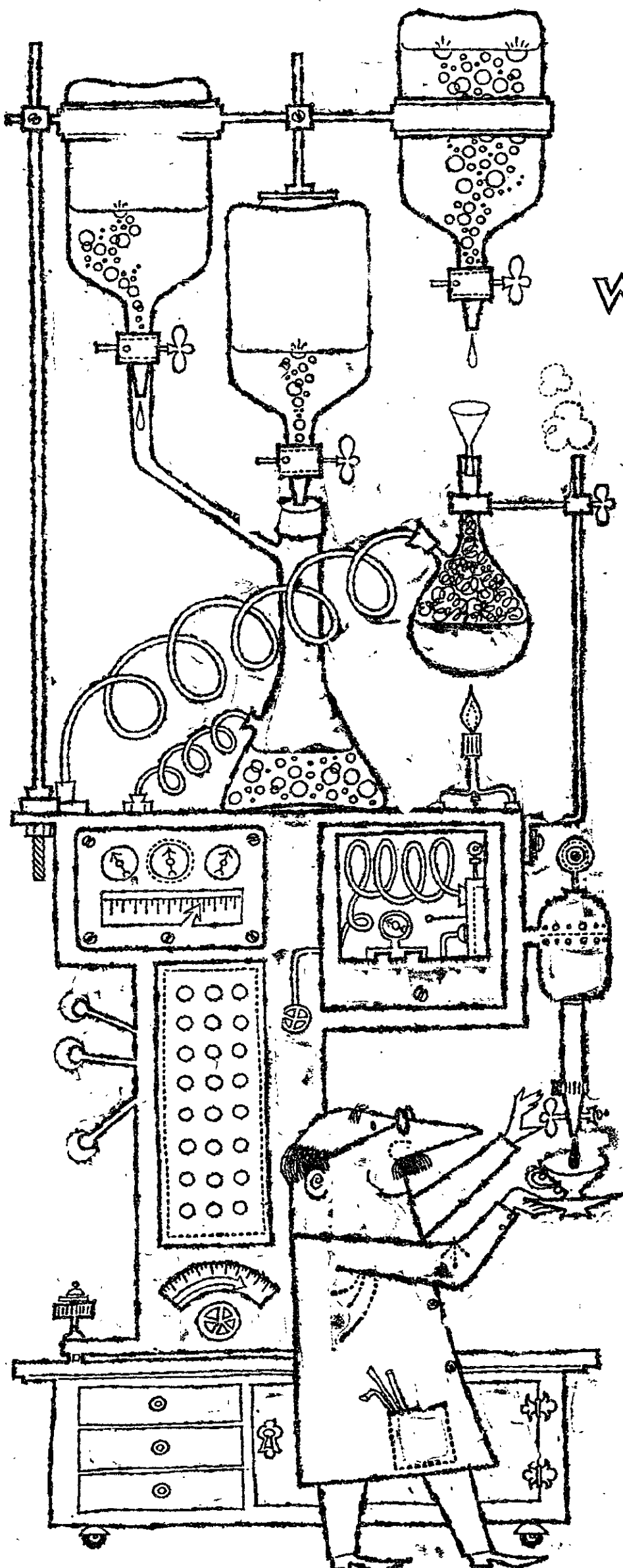
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Swimming Squad Has Good Depth

By Howard Ellis '65

When Tech's swimming team opens its season December 2 with Bowdoin, Coach Charlie Batterman will be sending to the water a host of outstanding swimmers and divers — including a number of record holders. In the past two years the Techmen have shattered all but one of the existing school records, and this year's squad is out to topple many more.

In addition to top individual performances, this team has a great amount of depth and experience. A good part of the squad returns from the 60-61 campaign, in which Tech posted a 7-3 record and placed 5th out of twenty entries in the New England Intercollegiate Swimming Championships.

Engeler, Stein Lead Lettermen
Leading the returning lettermen are Captain Jed Engeler '62 and Dave Stein '62. Engeler and Stein are distance men who have consistently placed in competition. Stein is the holder of three Tech records — the 220 yard freestyle (2:14.9), the 440 yard freestyle (4:59.8), and the 1500 meter freestyle (20:34.8). In addition he was a member of the 400 yard freestyle relay team which shaved 6 seconds off the old school record at the New England's last March. Engeler was also a member of this relay team and has always been only a second or two behind Stein in his record breaking performances.

In the 100 yard butterfly, Batterman has three strong entries. Tom Ising '61, Ron Metlin '63, and Mike Todd '64. Ising holds the MIT record (1:00.3) and two years ago placed third in this event at the New England Championships.

Matlin who has made tremendous gains, will be counted on heavily in the current campaign. Todd is a strong swimmer, who turned in a number of

outstanding performances as a freshman.

Three Good Sprinters

In the sprints Tech also has three good men. Roger Cooke '62 is holder of the school record in the 50 yard freestyle. He placed third in the New England and was a member of the record-breaking 400 yard relay team. Joe Schrade '63, another fine sprinter, was also a member of that team. Wayne

Matson '64 broke the frosh 50 yard sprint record last year and should prove to be an important asset to the squad.

Ising and Tim Sloat '63 are the top men in the backstroke. Sloat was captain of his freshman team.

The last individual event is the 200 yard breast stroke. Lauren Sompayrac '63, Charles Einoff '63, and Dave Carey '62 are Batterman's three entries here. Sompayrac placed third in the New England's last year and is expected to turn in similar performances this year. Einoff and Carey are both greatly improved and will be pressing Sompayrac for the top position.

Divers On Same Par

MIT's divers are right on a par with the swimmers. Last year these boys placed third in the New England's, and two years ago they were finalists in the Eastern Intercollegiate Championships. Members of the squad are Louis Thompson '63, Bill Bails '62, Steve Coburn '63, and Gordon Mann '62.

Coach Charlie Batterman is quite a diver himself. As a student at Ohio State Batterman held the titles of National Intercollegiate high and low board Champion and National A.A.U. High and Low Board Champion. In addition, he was named to the All-American team a number of times.

Hurt By Graduation

Batterman feels that his squad was definitely hurt by graduation last June, but that there is still a large degree of experience and depth. He predicts a good season, but stresses the fact that Tech's schedule includes some of the top swimming powers in the nation. Out of the eleven dual meets, the ones against Brown, Springfield, Army, and Bowdoin should prove the roughest.

The freshman swimming team is headed by Coach Hendrik D. Gideonese. The frosh have nine meets and have been working out for the past three weeks.

MIT Fencers Clean Up In AFLA Championship

The New England Division of the Amateur Fencers League of America held its championship on Sunday, November 11, in the du Pont fencing room. First place went to Ed Richards of the Curry School of Dancing in Boston.

With a bye in the qualifying round, Richards came through the finals undefeated and victor of the day. His only struggle was with Gus Witt of the MIT research staff (DSR) who recently took first place in the Class C Foil event. As in their final match in the Sabre Open two weeks ago, both men kept taking the lead from each other to finally tie the score 4-4. Richards, with the same smooth and supple offense that placed him second in the U.S. Foil Nationals, scored the final touch to win the bout and take first place in the tournament.

Gus Witt and former MIT fencing captain Sherman Karp, now in grad school here, tied for second place with four victories and two defeats each. Karp took second place, having had less touches scored against him than Witt.

The MIT fencers dominated the field of eleven entries, placing five of their six fencers in the finals. Four of them took honors in the first five places. Ralph Zimmerman '64 and Bob Levis '63 placed fourth and fifth respectively.

Rifle Defeats UNH, 1417-1400

Saturday morning MIT's rifle team fired a 1417 to defeat the undermanned University of New Hampshire's 1400.

The top five scorers were in the 280's, but the week before only two shooters scored above 280. The high five were Dick Ludeman '63, 287; Steve Smith '62, 285; Al Gleim '62, 282; Jerry Skinner '63, 282; and Bruce Peterson '63, 281.

Ordinarily a team will have ten men fire, and then count only the highest five scores for the team score. New Hampshire was at a disadvantage because they had only seven members that could make the trip to the match held at MIT's range. They had three 284's, but lacked the depth needed to top the Tech score.

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Seven Look Strong At IM Basketball Midpoint

THE TECH TUESDAY, NOV. 21, 1961 Page 11



Bob Petrich '63 grabs a rebound for Bemis 2nd as Norm Weeks '63 screens. Bemis lost 30-29 to Hayden 1st in Eastern League action Wednesday. — photo by Scott Graham '65

As the intramural basketball season nears the half-way point, seven major division teams look strong enough to take the championship. In the American League both Alpha Tau Omega and Burton "A" remain undefeated, but they will both have to contend for the lead with a strong Graduate Management Society team.

By Warren Anderson '65

The Graduate House victory over Theta Chi was the big game in the National League as it left Grad House and The Old Guys as the only undefeated teams in the league. However, neither team will be able to overlook The Gross Nationals

IM Basketball League Standings

MAJOR LEAGUES			STANDINGS			INTERNATIONAL LEAGUE		
OFFENSE LEADERS			(as of Nov. 18)			team		
(as of Nov. 18)			MAJOR LEAGUES			team		
team			team			team		
pts. leag.			AMERICAN LEAGUE			team		
Grad. House A 50.7 N			team			team		
Grad. Man. So. 48.7 A			Alpha Tau Omega A 3 0			Alpha Epsilon Pi A 3 0		
The Old Guys 48.3 N			Burton House A 3 0			Electronics Systems 2 0		
Burton House A 44.7 A			Grad. Man. Soc. 2 1			Atom Smashers 1 1		
Al. Tau Om. A 43.7 A			Lambda Chi Alpha 2 1			Phi Kappa Theta 1 2		
Gross Nationals 43.3 N			Sigma Alpha Mu 1 2			Delta Upsilon 0 2		
Sigma Alpha Mu 37.7 A			Senior House A 1 2			Phi Kappa Sigma 0 2		
Theta Chi A 37.7 N			Graduate House B 0 3			A LEAGUES		
L'mbd Chi Alph. 36.0 A			Pi Lambda Phi 0 3			team		
Sigma Chi 33.0 N			NATIONAL LEAGUE			team		
AAA LEAGUES			team			team		
OFFENSIVE LEADERS			Graduate House A 3 0			Hayden 1st 3 0		
(Nov. 18)			The Old Guys 3 0			Burton House C 2 0		
team			Beta Theta Pi 1 2			Baker House C 1 1		
pts. leag.			Gross Nationals 1 2			Hayden 2nd 1 1		
Baker House A 50.0 In.			Phi Delta Theta 1 2			Bemis 2nd 1 2		
Baker House B 48.0 A.A.			Sigma Alpha Epsilon 1 2			Bemis 4th 1 2		
Delta Tau Delta 44.0 A.A.			Sigma Chi 1 2			Theta Chi A 1 2		
Alpha Ep. Pi A 43.3 Pa.			AAA LEAGUES			SOUTHERN LEAGUE		
Student House 40.5 A.A.			AMERICAN ASSOCIATION			team		
Elec. Systems 38.5 Pa.			team			team		
Phi Sigma Kappa 36.0 In.			Student House 2 0			Phi Mu Delta 3 0		
Phi Gam. Delta 35.7 In.			Baker House B 1 0			Theta Delta Chi 3 0		
Sigma Phi Ep. 34.0 In.			Delta Tau Delta 1 0			Kappa Sigma 2 1		
Phi Kappa Theta 33.7 Pa.			Astronauts 1 1			Alpha Epsilon Pi B 1 1		
OFFENSIVE LEADERS			Delta Kappa Epsilon 0 2			Alpha Tau Omega B 0 2		
team			Zeta Beta Tau 0 2			Theta Chi B 0 2		
pts. leag.			WESTERN LEAGUE			Chi Phi 0 3		
Grad. House C 50.0 W			team			team		
Burton House C 41.0 E			Student House 2 0			Burton Dining 3 0		
Chinese Students 40.7 W			Baker House B 1 0			Chinese Students 2 1		
Theta Delta Chi 39.3 S			Delta Tau Delta 1 0			Graduate House C 2 1		
Phi Mu Delta 38.7 S			Astronauts 1 1			Senior House B 1 1		
Kappa Sigma 32.3 S			Delta Kappa Epsilon 0 2			Walker Dining 1 1		
Hayden 1st 32.3 E			Zeta Beta Tau 0 2			NRSA 0 2		
Burton Dining 32.0 W						Net Nationals 0 3		
Baker House C 30.5 E								
Senior House B 30.0 W								

who soundly defeated a good Sigma Chi team in their last game.

Both Delta Tau Delta and Student House look strong in the American Association although neither team has played more than two games. In the Pacific Coast League, Alpha Epsilon Pi "A" has looked strong behind some fine play by Dave Judelson and Howie Ellis while Electronic Systems Laboratory, led by Jim Roberge, is also undefeated. The biggest game to date in the International League has been the Baker House "A" defeat of Phi Gamma Delta. The shooting of Leonard Ferrari and fine board play of Jim Falender led the Baker House team to a victory in what may turn out to be the most important game in the International League this season.

In the Eastern League, Burton "C" and Hayden 1st remain undefeated, Theta Delta Chi and Phi Mu Delta lead the Southern League, and Burton Dining Staff, the Chinese Student Club, and Graduate House "C" all look strong in the Western League.

Squash Rebuilds; Sophs, Lettermen To Spark Team

MIT's varsity squash team faces a tough schedule but hopes to improve on last year's 2-11 record. Five lettermen return this year and a sixth will return second semester.

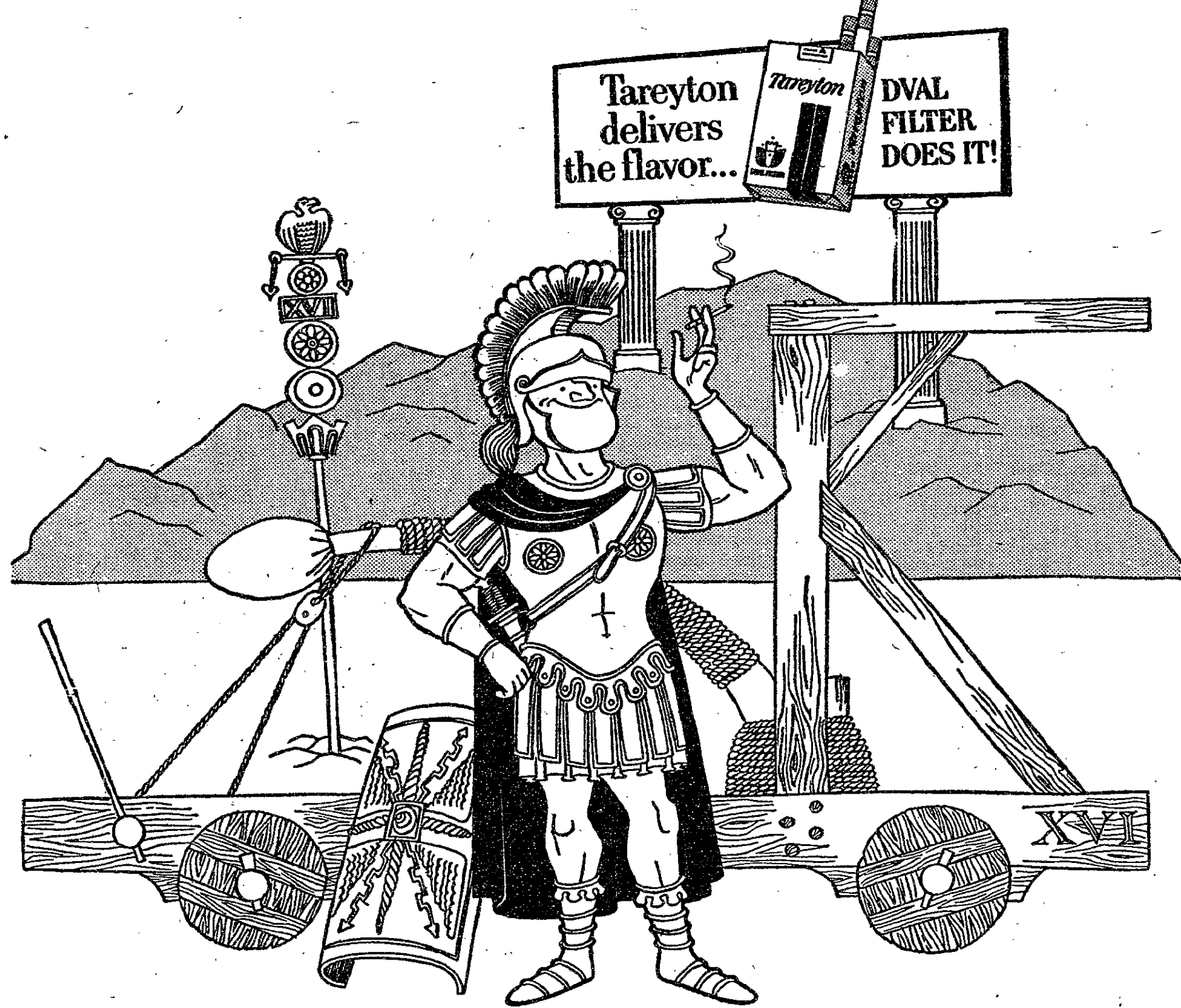
Labouisse To Be Captain
Captain and probable number one man is Monroe Labouisse '62 who won the all-institute championship last spring. Other returning lettermen include George Meyer '62, Joe Rappaport '62, Joe Strutt '62 and Ravi Sikri '62. Matt Lind '63 who lettered last year is on co-op but will be back at Tech for the second term and the last four matches.

Rounding out the probable first nine are Bill Mihaltske '62, Thomas Guillermo '64, Bob Blumberg '64, and George Adaniya '64 with Paul Bugl '63, Don Nelson '62 and Jose Alonso '62 not far behind. Alberto Solas '62 and John Gruber '64 also may see some action.

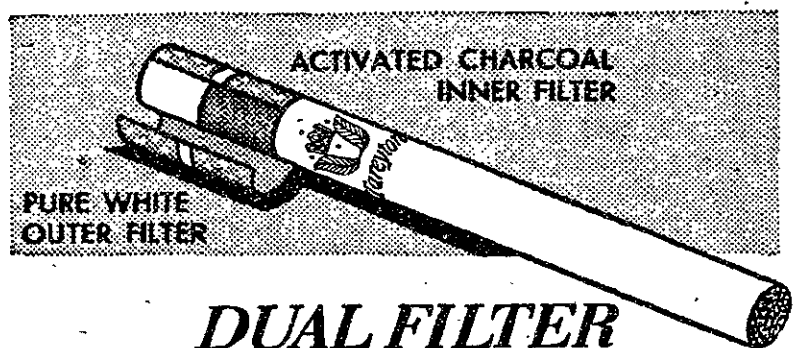
The opposition will be extremely tough this year as usual for such powers Harvard, Yale, Princeton, Army and Navy will be on the schedule. MIT is in a difficult situation with regard to squash, very few schools play intercollegiate squash and several of those who do have an abundance of people who have played since childhood, thus Tech is hard put to compete against these schools but must in order to play a significant number of matches. Others on the schedule such as Adelphi are greatly outmatched by Tech.

Inexperience Main Handicap
"Inexperience will be our main handicap," says Coach Ed Crocker, "but it should be an interesting season and if the sophomores come along we should do fairly well."

The team's first match will be December 1 against McGill and the season runs through to the Nationals March 2 and 3 at Harvard



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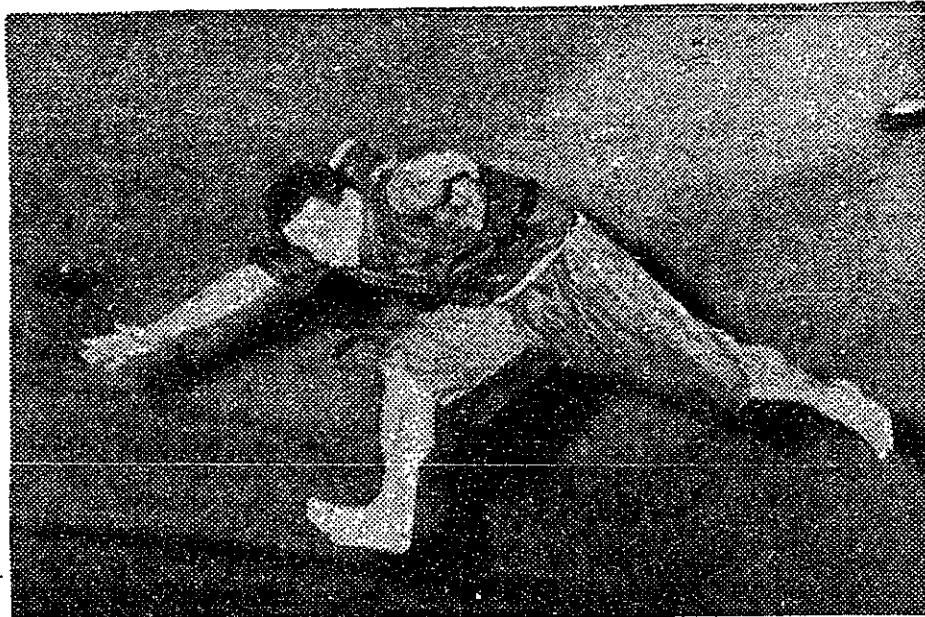


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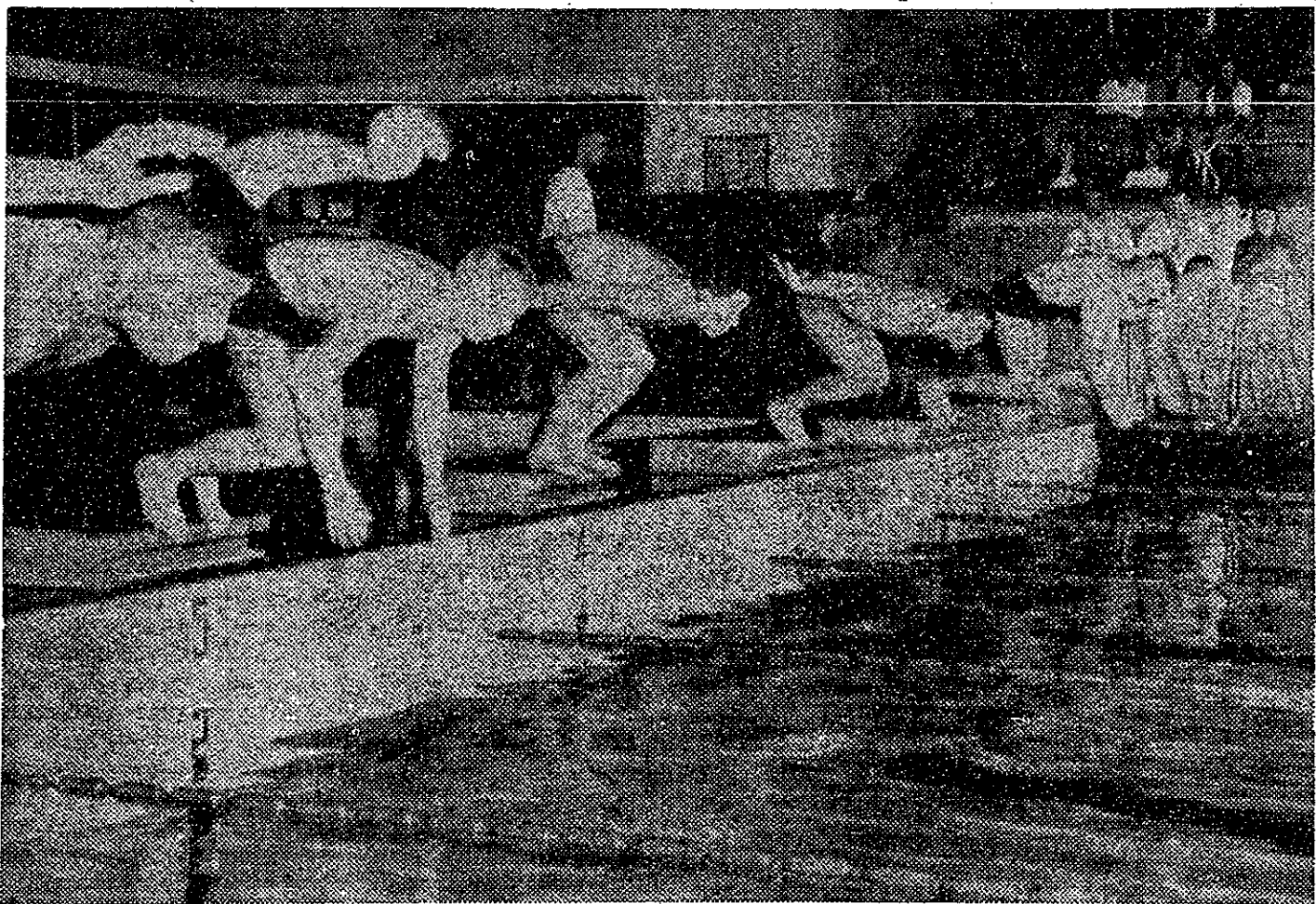
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'64 Halts '62 Swim Victory Skein At Three, 77-75



Dave Cahlander '62 performs an "MIT Swan Dive" off the high board as part of the exhibition diving at the All-Tech Swim. Cahlander also finished fifth in the regular diving competition.

— photo by Curtiss Wiler '63



GO! Swimmers dive into the pool at the start of the 220-yard free-style in the All-Tech Swim. Ted Engeler '62 (lane #2) won the event and broke the meet record at 2:21.3. Other swimmers are (left to right) Dave Stein '62, Bob Geroch '64, Tom Callahan '65, Steve Schutz '65, Engeler, and Bob Bachrach '64.

— photo by Curtiss Wiler '63

One of the most colorful spectacles of the school year took place last Saturday evening as the Institute Swimming Championships were held before an enthusiastic capacity crowd at the Alumni Pool. Four meet records fell in the evening finals and one was tied in the afternoon trials as the sophomore class upset the pre-meet favored seniors to win their first All-Institute meet.

The present senior class had won an unprecedented three straight All-Institute meets and were trying all-out for a fourth championship, but could not hold back the numerous sophomore team. The final team score: '64, 77 points; '62, 75 points; '64, 51 points; Grads, 44 points; '63, 34 points.

Engeler, Howard Star

The two most outstanding performances of the evening

were made by Jed Engeler '62 and Jay Howard '65. Engeler was the meet individual high scorer, winning gold medals in the 220 yard freestyle, the 440 yard freestyle, and as one of the four men on the seniors' victorious 400 yard freestyle relay. In the 200 he led Institute record holder Dave Stein all the way and set a new meet record in the event.

The evening's closest and most thrilling race was the 200 individual medley won by Jay Howard, a member of the freshman squad, who smashed the previous meet record (2:27.8), freshman record (2:30.5) and varsity record (2:24.9; unofficial because Howard is a member of the freshman team and not the varsity team) with a time of 2:24.8. In this race Howard upset veteran Tom Ising '62, previous meet record holder and outstanding varsity swimmer.

Ising placed second in this event, losing by only a matter of inches. Howard also won the 200 yard backstroke, pulling away early and finishing in the fine time of 2:24.5, ahead of Martens '64 and Machura '65 who placed second and third.

Many New Records

Other outstanding efforts were made by Charlie Einolf '63 who won and set a new meet record in the 200 yard breaststroke (new record 2:37.8, old record 2:38.5); Graduate Tony Silvestri who won and set a new meet record in the 100 yard butterfly (new record 1:01.7, old record 1:02.2); and Wayne

Matson who took two first places, in the 50 yard freestyle and 100 yard freestyle races. The graduate medley relay team of Dirk Plummer, Tony Silvestri, Roger Arndt and Will Travis also did a fine job, winning its event and setting a meet record (new record 4:21.8, old record 4:22.2) in the process.

The meet was highlighted by a fancy diving exhibition from the three meter board by John Connor, Harvard College diving coach and twice All-American champion. Connor showed some fine examples of very difficult dives including a front double-twister, one and one-half somersault, and a spotter (where the diver flips at the end of the board, lands back on the board, then does a dive into the water) with a one and one-half pike somersault.

MIT Swan Dive

Interspersed with Connor's performance was a comic diving show by graduate Dave Cahlander. Cahlander attempted to impress the audience with his diving skill, compared to Connor's, by matching Connor's dives with dives such as the spaghetti dive, the rigor mortis dive and the MIT swan dive.

The Wellesley College Swim Club demonstrated their skills in synchronized swimming and interpretive water ballet. One of their routines was an interpretation of Picasso's "The Three Musicians" to the music of "Ahmal and the Night Visitors," by Gian Carlo Menotti.

Five Lettermen Return

Mat Middleweights Good

MIT's varsity wrestling team, which piled up a 7-1-2 record last year and tied for third in the New England, enters the new season with five lettermen back. The team should be strong through the middleweights, but the 123 pound, 130 and unlimited classes lack wrestlers with varsity experience.

The team will be led by Co-captains Greg Brown '62, who was second in the New England at 147, and Howard Graves '62, who this year will be competing in the 167 pound class after piling up a 2-2-1 record last year in heavier classes. Other lettermen include Jim Evans '63, who was 9-1 in the 137 pound class; Tom Gerity '63, third in the New England at 157; and Mike Williams '63 at 177.

Competition for the other weights is keen as Al Rogel '63 and Armen Gabrielian '63 vie for the 123 pound slot. At 130 pounds Tom Rowe '64, Elliot Bayly '62 and Gabrielian will start. In the unlimited class Kim Sloat '64 and John Eulenberg '64 are the top competitors.

Overall, the club figures to be strong in the 137 through 177 pound classes with the other three weights an unknown quantity as varsity experience is lacking. According to assistant Coach George Davies, the team will be strong, but as

everybody else will be improved the team must battle to equal last year's record.

Other personnel who may see some action are Terry Chatwin '63 at 137, Don Topkis '64 at either 147 or 157, Gerson Carr '62 at 167, and Bob Dick '64 in the 177 pound class.

This year the team has an expanded schedule of 13 matches culminating in the New England Friday and Saturday, March 2-3, at Wesleyan. The first match will be at home Saturday, Dec. 2 against Tufts.

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Mehrabian Soccer Scoring Champion

Bob Mehrabian '64 is the top soccer scorer in New England. He retained the lead over Harvard's Chris Ohiri, who has ten goals against New England teams. Mehrabian scored thirteen goals in eight league games, and led the team to a 6-1-1 New England record. The personable sophomore majors in mathematics and works twenty-five hours a week as a desk clerk.

"I don't have a scholarship, and have to work to stay in school," he says. "It really keeps me busy during the soccer season."

During the fall season he puts in a full work week at athletics and his job, yet manages to get good grades in his studies. The long hours of study and work appear to have little effect on his soccer play, and the coach-

es have been amazed at his aggressive spirit.

"He's a real tiger," says soccer coach Charlie Batterman. "He combines the aggressive play of American soccer with the skill of the foreign players."

Bob learned to play the sport in his native Iran, where he was also a nationally recognized boxer while still in high school.

"I boxed the champion in my weight class and lost by one point," Mehrabian says, "but that's as far as I got."

Sailors Second To CG In Hoyt Trophy Regatta

Last weekend the Tech Sailors sailed in dingies against Coast Guard, Yale, Harvard, Boston University, Brown, and the University of Rhode Island in competition for the C. Sherman Hoyt trophy. The engineers placed second in the series behind defending Coast Guard.

Coast Guard's B-division skipper, John Wuestneck, was high point man for the regatta, while her A-division skippers, Steve Martin and Dave Andrews holding second high point honors. Ken Klare of MIT was third high point man and second in his division.

The series was sailed at the Coast Guard Academy with very light winds prevailing. Normally held at Brown, this event was washed out by high winds on October 22. The two-crew dinghy regatta honors one of America's great racing skippers, C. Sherman Hoyt, who died last year.

On Deck

Five varsity teams and three freshman teams will see their first action over the weekend of Dec. 2-3. Fencing, Squash Swimming and Wrestling all open their seasons with home matches, while Basketball begins away. Freshman Swimming and Wrestling are home events; Basketball is away.

After a successful season of fall sports, MIT looks forward to good seasons in nearly all winter sports. All the above-mentioned sports lend themselves well to spectator enjoyment, and those attending these events can expect to see plenty of action.

Friday, December 1

Squash with McGill, 7:00.

Saturday, December 2

Squash with Dartmouth, 2:00. Swimming with Bowdoin, 2:00.

Wrestling with Tufts (F at 2:00; V at 3:30).

Fencing with Bradford Duffee, 2:00.

Basketball at Trinity (F at 6:30; V at 8:15).

Rifle at Norwich & Nason.

Tuesday, December 5

Wrestling at Harvard (F at 6:00, V at 7:30).

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