

The Tech

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VOL. LXXVII NO. 1

CAMBRIDGE, MASSACHUSETTS, FRIDAY, FEBRUARY 8, 1957

5 CENTS

Try Library Guards To Curb Book Thefts But Chief Woe Is \$s

"We are the last major urban institution to initiate such a plan," states Professor W. N. Locke, Director of the Institute Libraries, of the new library "book checking" policy. Citing the inconvenience to Institute students and faculty of the some five thousand odd dollars of "missing" books which plague the system annually, Locke emphasized the "frustrating" nature of book disappearances as the prime motivation behind the move. Called long overdue by many faculty members and Professor A. T. Topen, chairman of the Library Executive Board, the new policy places so-called "book-checkers" at all entrances of the Science and Engineering libraries with the authority to examine all outgoing material. No checkers are being considered for the smaller libraries, like Rotch and Aeronautical, for the present period. Necessitated by the checking system is the permanent closing of the Hayden east wing second corridor. Regretting this unfortunate "inconvenience", Locke plans to make the south wing elevator "more accessible". Revamping book shelving in the involved area will permit easy access to the elevator from the first floor Science Library and the second floor Central Library. Consequent improved convenience of the basement "stacks" will facilitate Professor Locke's plan to utilize now vacant parts of these quiet, air-conditioned basement "stacks" as a study area. This remodeling which will include new lighting and desks for the basement waits only for an added appropriation.

Net cost of the book checking system itself (the system will use available student personnel and outside help) will probably be in excess of the cost saving.

Despite a fourteen per cent budgetary increase over last year, the library is in financial straits. Rapid increase in the number of technical publications and the Institute's relatively late library start keep the system in a constant "squeeze". Despite what Locke cites as a "great improvement" in the Humanities library, the need is still acute. With all book publication at the most voluminous in history and the "geometric progression" of technical printing, the Institute libraries with an at best

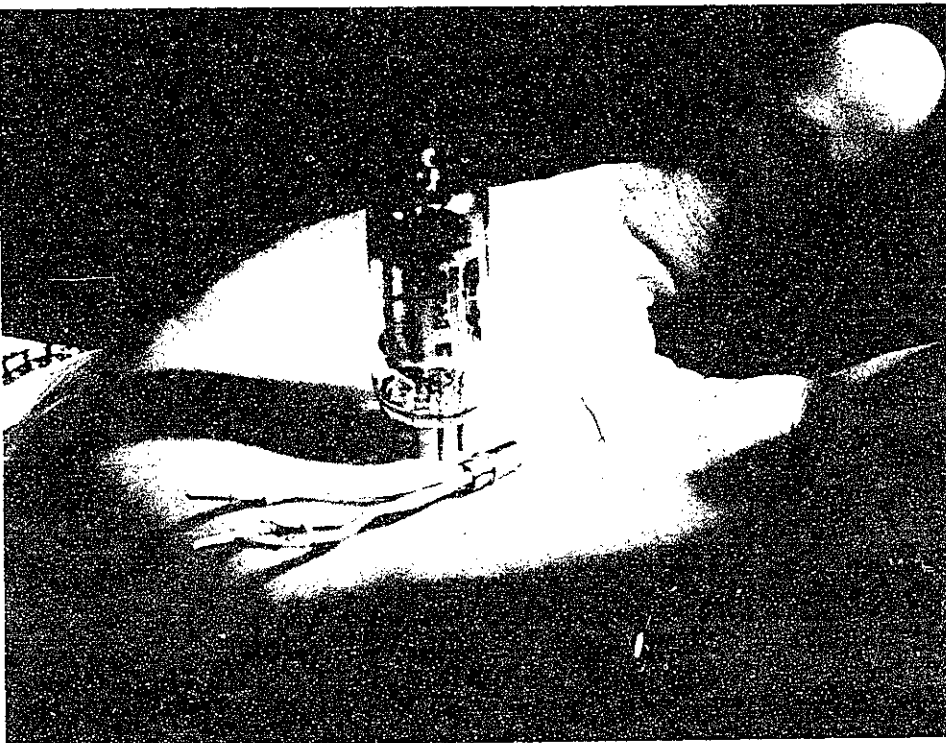
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Seven-Man Board Named To Run The Tech Under New Constitution

A new constitution and the staff appointments for Volume 77 were announced at The Annual *The Tech* Staff Banquet last month. The constitution changes the controlling body of the newspaper from the traditional four-man Managing Board to a seven-man Board of Directors.

Named Chairman of the Board of Directors was Ralph E. Manchester, a Course II Junior from Easton, Massachusetts. The other Board members are: William G. Daly, Jr. '58, Managing Editor; Murray Kohlman '58, Business Manager; Leland E. Holloway, Jr. '58, Editorial Chairman; Stephen M. Samuels '59, News Editor; F. Thomas Bond '59, Sports Editor; and George E. Glen '59, Photography Chairman.

The new constitution, which still must be approved by Institute Committee, was written by John A. Friedman '57 and Robert G. Bridgman '57, outgoing Managing Board members; and supersedes a document



Cryotron, Tinier Than Transistors, Will Shrink Giant Computers Soon

With pioneering research on a new device to replace transistors and tubes in giant computers, the Institute has made a major contribution to what one of its engineers calls a coming "revolution" in electronics.

This new device is a cryotron, so small that 100 will fit into a thimble. It is the first useful application of a phenomenon discovered nearly 50 years ago but still not yet understood.

Development of the cryotron has begun three years ago by Dudley A. Buck, a graduate student and instructor in the Electrical Engineering Department at MIT, in cooperation with the Lincoln Laboratory.

The first data-processing equipment in which this simple, tiny device will replace complex tubes and expensive transistors is now being built at Arthur D. Little, Inc., with the cooperation of MIT engineers.

This first cryotron electronic catalogue will use 215,000 cryotrons. A conventional computer to do the same job might require more than 50,000 vacuum tubes.

Present experimental circuits, says Mr. Buck, suggest "that a large-scale digital computer can be made to occupy one cubic foot," not including refrigeration and terminal equipment. In contrast, today's digital computers fill whole rooms.

For his first report on cryotron research, published by the Institute

written more than ten years ago.

The constitution also provides for the establishment of an Advisory Board consisting "of alumni and friends of *The Tech* and representatives of the faculty and administration." The first chairman of this Advisory Board, as provided for in the constitution, will be Mr. Friedman. The other members will be named by the Board of Directors later this term.

The reorganization of the staff system is expected to streamline and make more efficient the operations of *The Tech*. At the same time, the system should provide more opportunities for staff members to receive adequate recognition for their services. It is hoped that a larger number of students will thereby be induced to affiliate themselves with *The Tech*. Opportunity for this will be provided at a *The Tech* smoker to be announced within the next two weeks.

of Radio Engineers in April, 1956, Mr. Buck will receive I.R.E.'s 1957 Browder J. Thompson Memorial Prize. The award is made annually for an outstanding paper by an author under 30 years of age.

The cryotron is man's first practical use of superconductivity—the ability of some metals to conduct current with no resistance at extremely low temperatures, below minus 420 degrees Fahrenheit. In its simplest form, the cryotron consists of a straight piece of wire with another wire—as fine as a human hair—wound around it as a control winding.

Below the critical temperature the

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Amstutz, Coryell, Spiro, In Race; Weymar Plans Six-Point Program

With the official announcements of three new candidates for Undergraduate Association offices, and the six-point program of another, the election race went into full swing this week.

The campaign really took on a political aspect when Arnie Amstutz '58 and Ritchie Coryell '58 joined forces, running for UAP and UAVP respectively. Amstutz, Burton House Incomm representative and chairman of the Communications Committee, was a member of Execomm this year and was elected as a delegate to the '56 National Student Congress. Coryell was a member of Junior Prom Committee, and was the Secretary-Treasurer of the Junior Class.

Larry Spiro '59, also an NSC delegate, has announced his candidacy for UAVP. Spiro, the sophomore representative to Incomm, has served as a member of several sub-committees and was the chairman of the Freshman Leadership Conference.

The plan of running on a party ticket is a comparatively new idea at Tech, and has met with varied reactions, both pro and con. Amstutz and Coryell, in explaining their action, stated, "Student government has already spent enough time dreaming up new philosophies and creating colorful resolutions. However, this has not always led to positive results. We believe that in many areas we need action and not talk. We are running on a joint platform because we feel that we can accomplish more by working together. Judging from our past experience, we believe that this is the only way to insure action." Even though a platform was mentioned in the official statement, they

Stouffer's Starts Running Morss Hall Food Service

"I honestly don't know of any food-service company which serves as good food at such low prices." In this way, R. Colin Maclaurin, Director of General Services, describes Stouffer's, the firm which will manage the dining service in Morss Hall and Pritchett Lounge this term.

In a few weeks, Stouffer's recipes will be used to prepare the food served in Walker Memorial, and the firm will also soon be responsible for food purchases.

Mr. Maclaurin said that his assistant, William Mackintosh, had considered a large number of firms and had finally selected Stouffer's. The chief reason for the decision was the high quality and low cost of their food. Another reason was the research done by Stouffer's in new food products on the market. The firm, Mr. Maclaurin feels, is about the only one placing enough emphasis on the testing of new foods. The firm is now testing some new frozen foods.

Since the beginning of this term, the food served in Morss Hall and Pritchett Lounge has been under the management of Mr. Robert Wheeler and under the supervision of Miss England, a dietician, both Stouffer's employees. The Graduate House dining service is not yet under the new management. "Evidently, Stouffer's had some difficulty finding two teams to send to MIT," Maclaurin said. However, that service, too, will be under the new management within six months.

The staff serving the food is still employed by MIT, though it is under the direction of Mr. Wheeler.

Speaking about the complaints

about the deterioration of Commons meals, Mr. Maclaurin said that about the only appreciable change made was in limiting the number of beverages served on Commons to one instead of three, as previously. This and the other minor changes in the food were necessary in view of the rising costs of food and labor within the last few years. For example, the salaries of the employees were recently raised by 10%. The prices, however, had to be kept within the reach of the students' pockets, and now are still considerably lower than the cost of meals at many other schools.

Free World's Unity Will Be Discussed By Ward Friday At 5

Barbara Ward, noted British author and lecturer will appear in Kresge Auditorium Friday, February 8, at 5:15 p.m. as the final speaker in the series, "Diplomats-Off-the-Record" sponsored by the World Affairs Council.

Miss Ward is regarded as one of the most influential writers in England and one of the most brilliant women in the Western world. As an Editor of the *London Economist*, she is a specialist in both economics and foreign affairs and is the author of several recent books dealing with foreign policy, the latest of which is *Policy for the West*. Miss Ward has written many articles for the *New York Times Magazine*.

"The Western world," says Barbara Ward, "has never known any belief other than that society exists for the protection of the human individual; that the human individual in society can achieve goodness and wisdom and freedom. If we lose that faith, then we shall not survive whatever we do, because it is that faith which is the tap-root of democratic society. We can build up our defenses. We can build up our armaments. We can multiply our material satisfactions. In the end we shall fail because if there is no vision, the people perish."

Miss Ward was educated at the Sorbonne in Paris and also studied in

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5% Of Student Body Dropped At Mid-Year

"Look to the left of you, look to the right of you, in six months one of you won't be here." The validity of this old saying was sharply disproved by B. Alden Thresher, Dean of Admissions who stated that only about 35 members of the Class of '60 have "flunked out".

Of the entering freshman class of 1936, Dean Thresher, although he didn't have the exact figures, guessed that somewhere near 75 students had left the Institute, 35 for scholastic difficulties, the others of their own free will. These students left to enter other schools, accept jobs, or enter the army. However, it is expected that many of them will re-apply for admission to the Institute for the September term. Although it is not known exactly what becomes of many of the students who drop out, the Admissions office is planning to conduct a survey to find out the future of these lost Techmen.

The classes of '59, '58, '57 have also lost members. Of the 2752 registered

(Continued on page 5)



Arnold Amstutz, second to announce U.A.P. candidacy.

have declined to release it for publication at the present time.

In announcing his candidacy, Spiro stated, "The office of Undergraduate Association Vice-President can and must be used to maximum effectiveness by improving its basic functions: co-ordinating the subcommittees, and acting as liaison with Incomm; carrying out special policies and projects; and contributing independent and original thought. The UAVP is therefore in an excellent position to effectively initiate and carry out student government policies. His success depends upon the interest and ambition of the individual I feel that the background and experience which I have gained in stu-

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EDITORIALS

This issue marks the beginning of Volume LXXVII of *The Tech* and, as have previous Managing Boards, we look forward to the challenge, and also the feeling of accomplishment, that publishing a newspaper can give.

Along with the inherited responsibility the new Board has a new constitution to work with. This constitution does away with the old Managing Board and sets up a seven man Board of Directors. The old four man Managing Board system, while perfectly logical on paper, had been somewhat lacking in the last few years, the main disadvantages being that authority and responsibility were not outlined specifically, and in many cases overlapped in the various Board positions. The new constitution, however, makes a clear-cut definition of each department and places a man at the head of each department with proper responsibility and authority. It is hoped that this system will produce a more unified and efficient *The Tech*.

letters

We reiterate that *The Tech* is a student-controlled, autonomous organization and all opinions and policies are made by the staff. We feel, however, that *The Tech* has a certain responsibility to maintain contact with outside opinion. We therefore encourage students, faculty, and other members of the MIT family to submit signed letters to the editor. All letters will be considered and as many as possible will be printed.

reviews

On Wednesday, February 6 at 8:30 in the evening, the New England Conservatory of Music in cooperation with the MIT Department of Humanities presented Donald Willing, organist, in a program including works of Bach, van der Horst, Brahms, Hindemith, Kennan, and Sowerby.

Mr. Willing was assisted by Norma Cleary, soprano, and Elinor Preble, flutist.

A member of the faculty of the New England Conservatory, Mr. Willing demonstrated a competent technique and interpretation on the MIT Holtkamp. Your reviewer feels that the Bach deserves special mention in regard to registration and interpretation. On one hand the Fifth Trio Sonata, while played well enough, was very uninteresting—especially in the Largo where the registration was not changed once. While on the other hand his use of the "Holtkampreeds" was excellent. The ugly, grunting reeds were not used at all and the others were dished out with care. As a high ranking tonal finisher of a well known Boston Organ Company has said, "Our janitors would be expected to voice reeds better than that!" Also, your reviewer believes that one should not take too much liberty in Bach with regard to tempo changes within the composition. The B Minor prelude was played as if someone had written "rubato" all over the music.

calendar of events

THURSDAY, FEBRUARY 7

Physics Department. Colloquium: "Trapping and Recombination Processes in Solids." Dr. M. Lax, of Bell Telephone Laboratory.

ROOM 6-120, 4:00 p.m.

Mathematics Department. Harvard-MIT Joint Mathematics Colloquium: "Irregularities of Distribution." Dr. K. F. Roth, of MIT and the University of London. Tea will be served at 4:00 p.m.

FRIDAY, FEBRUARY 8

ROOM 18, 2 DIVINITY AVE., HARVARD, 4:30 p.m. Mechanical Engineering Department. Seminar: "New Symbolism for Graphical Operations." Professor S. A. Coons, Mechanical Engineering Department. Coffee will be served in Room 3-174 from 3:00-3:30 p.m.

ROOM 3-270, 3:30 p.m.

MIT Dramashop Celebrity Series. Robert Graves, English poet, novelist and critic, will present readings of his own poetry and prose with critical commentary. Tickets at \$1.50 (reserved), \$1.00 (student reserved), and \$1.00 (unreserved) may be obtained at the Kresge Auditorium office and at the door. For telephone reservations, call extension 2902.

KRESGE AUDITORIUM, 8:30 p.m.

SATURDAY, FEBRUARY 9

MIT Bridge Club. Monthly Master Point Tournament. BAKER HOUSE CAFETERIA, 1:30 p.m. Varsity Swimming Team. Meet with U.S. Coast Guard Academy. ALUMNI POOL, 2:00 p.m.

Varsity Wrestling Team. Meet with Boston University.

ROCKWELL CAGE, 3:00 p.m.

Lecture Series Committee. Film: "Jubal" (in Cinema-Scope and color), starring Glenn Ford and Ernest Borgnine. Admission: 30 cents.

KRESGE AUDITORIUM, 5:30, 7:30 and 9:45 p.m.

SUNDAY, FEBRUARY 10

Department of Humanities. Organ Recital by Ruth Sisson, Minister of Music at the First Congregational Church, Manchester, N. H.

MIT CHAPEL, 4:00 p.m.

MONDAY, FEBRUARY 11

Geology and Geophysics Department. Meteorology Department. Earth Science Colloquium: "Some Refinements of the Thermal Contraction Theory." Dr. Francis Birch, Sturgis Hooper Professor, Director of Geological Sciences, Harvard University.

ROOM 4-231, 4:00 p.m.

MIT Rocket Research Society. Business Meeting.

ROOM 10-275, 5:10 p.m.

Lecture Series Committee. Lecture: "American vs. British Humour." Stephen Potter, British satirist and author. Admission free.

KRESGE AUDITORIUM, 7:30 p.m.

TUESDAY, FEBRUARY 12

Computation Center. Seminar: "A Short, Elementary Coding Course for the IBM 704 Computer." Dr. F. J. Corbato, MIT Computation Center.

ROOM 2-239, 3:00 p.m.

Metallurgy Department. Electrochemistry Colloquium: "A Quantitative Interpretation of the Shape of Electrochemical Polarization Curves." Dr. Milton Stern, Metals Research Laboratories, Electro Metallurgical Company, New York.

ROOM 10-275, 4:00 p.m.

MIT Rugby Club. Meeting and discussion of California trip.

ROOM 1-203, 5:00 p.m.

Varsity Swimming Team. Meet with the University of Massachusetts.

ALUMNI POOL, 7:15 p.m.

WEDNESDAY, FEBRUARY 13

Organ Demonstration. Mr. David C. Johnson, MIT Organist. KRESGE AUDITORIUM, 12:10-12:40 p.m.

Junior Varsity Squash Team. Game with Middlesex.

SQUASH COURTS, ALUMNI POOL, 3:00 p.m.

Operations Research. Seminar: "Waiting Lines—Part VI: Poisson Arrivals, Exponential Servicing." Dr. Herbert P. Galliher, of the Operations Research Project.

ROOM 2-333, 3:00 p.m.

Electrical Engineering Department. Colloquium: "Controlled Thermonuclear Fusion." Professor Melville Clark, Chemical Engineering Department. Refreshments will be served in Room 10-280 at 4:30 p.m.

ROOM 10-250, 3:30 p.m.

Biology Department. Colloquium: "The Mechanisms of Gene Recombination." Dr. Paul Levine, Biological Laboratories, Harvard University. Tea will be served in Room 16-711 at 3:30 p.m.

ROOM 16-310, 4:00 p.m.

Freshman Hockey Team. Game with Lawrence Academy.

SKATING RINK, 4:00 p.m.

Freshman Basketball Team. Game with Boston University.

ROCKWELL CAGE, 6:15 p.m.

Baptist Student Union and Inter-Varsity Christian Fellowship. Joint meeting. Speaker: Bill Bright, of Campus Crusades.

ROOM 3-070, 7:00 p.m.

Varsity Fencing Team. Match with Harvard University.

WALKER MEMORIAL, 7:30 p.m.

Varsity Basketball Team. Game with Boston University.

ROCKWELL CAGE, 8:15 p.m.

MIT Humanities Series. A concert by the Juilliard Quartet and Gregory Tucker, Pianist, will be given in Kresge Auditorium at 3:00 p.m. on Sunday, February 17. Tickets for the performance are on sale in the Music Office, Room 14-N236, at \$1.75. Checks should be made payable to the MIT Humanities Series.

CALENDAR OF EVENTS

The Calendar of Events is distributed to the staff through the Institute's mails each Wednesday, with announcements for the following eight days. Material for the Calendar of February 13-20 is due in the editor's office, Room 3-339, not later than noon on Thursday, February 7.

WINTER FUN

WANT A NOVEL PARTY?

Sidney Hill Country Club of Chestnut Hill has available to private groups, fraternities, etc., its beautiful indoor Cascade Pool, and its new olympic-sized artificial Ice Skating Rink.

For information, contact Mr. Swanson

DEcatur 2-6100

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AIR CONDITIONED



LITERATURE CAN BE SCREAMS!

To save you tiresome days of reading, days that can be more happily devoted to healthful winter activities like skiing, tobogganing, and three card monte, this column today presents digests of some classic novels that are sure to come up in your lit courses.

The Scarlet Letter

This is a heart rending story of a humble Boston lass named Hester Prynne who is so poor that she does not have enough to eat, nor a roof to cover her head. But she is a brave, brawny lass and she never complains and by and by her patience is rewarded: in the summer of 1859 she wins a football scholarship to Alabama.

Hester works hard and makes the varsity and wins her letter. Everybody says she is a shoo-in for All-Conference honors, but along comes the War Between the States, and football, alas, is dropped for the duration.



Poor Hester goes back to Boston. It is a bitter cold winter, and poor Hester, alas, does not have a roof over her head, and the only warm clothing she owns is the football sweater from Alabama, but that, alas, has a big scarlet "A" on the front of it, and she can hardly wear such a thing in Boston where Union sentiment runs so high.

Poor Hester, alas, freezes to death.

Little Women

The Marches are a very happy family—and for no reason whatsoever. They are poor as snakes; they work from cockcrow to evensong; their dear old father Philip is away with the Union armies; and their mattresses are lumpy.

Still, nothing can dampen the spirits of madcap Meg, jocular Jo, buoyant Beth, animated Amy, and crazy old Marmee, as the merry March girls lovingly call their lovable mother.

Well sir, one Christmas the March girls get an invitation to a ball. But Beth reminds the sisters that they can hardly go traipsing off and leave poor Marmee alone at Christmas time. The sisters swear a lot, but they finally agree with Beth.

Marmee, however, will not hear of it. "Land's sake, little women!" she cries. "You must go to the ball and have some fun. There will be punch and ginger snaps and confetti. Best of all, there will be morris dancing. Oh, how your father and I used to love that!"

"I never knew father could dance," cries Meg.

"Oh, yeah?" cries Marmee. "You should have seen Philip morris!"

"Was Philip a good morriser?" cries Jo.

"The best," cries Marmee. "Philip could morris in long size and regular and was full of natural goodness and fresh and firm and unfiltered too."

The girls are cheered to hear this and go to the ball. Marmee stays home all alone, but soon gets a wonderful surprise: Philip comes back from the war!

When the girls return from the ball, they find Marmee and Philip morrissing, and they cry "Huzzah!" and throw their bonnets in the air, where they are to this day.

©Max Shulman, 1957

Speaking of books, in our book today's new Philip Morris, made by the sponsors of this column, is the smoothest, tastiest cigarette ever offered anywhere!

Alumni Assoc. Meets In Walker; Stratton Reports On Compton Lab

The Institute will dedicate this new \$4,200,000 laboratory building for education and research in nuclear science and electronics, Chancellor Julius A. Stratton said last night at the annual mid-winter meeting of the MIT Alumni Association in the Walker Memorial.

"The laboratory building, which is now nearing completion and which will comprise about 145,000 square feet of floor area," Dr. Stratton said, "will be named in memory of the late Earl T. Compton, former president and chairman of MIT."

"MIT's nuclear reactor which is now under construction," Dr. Stratton added, "is expected to be ready for experimental use early next year."

The more than 500 alumni who attended the meeting also heard a panel discussion on "Technology and International Relations" conducted by

members of the MIT staff.

Panelists included General James McCormack, Jr., special adviser to MIT's president and president of the Institute for Defense Analyses; Alexander G. Korol, a senior staff member of MIT's Center for International Studies; and Dr. Everett E. Hagen, visiting professor of economics.

General McCormack, who was formerly director of research and development for the Air Force, spoke on the relationship between technology and national defense.

Mr. Korol, who has been studying Russian scientific education intensively for several years, compared and contrasted the techniques and results of U. S. and Soviet educational programs in science and engineering.

Dr. Hagen, formerly economic advisor to the Burmese government, discussed some of the problems involved in the transfer of technology to underdeveloped countries and the ways in which the manner of transfer affects the international position of the United States.

Discussion leader was Dr. Max F. Millikan, director of the Center for International Studies. Master of ceremonies for the program was Theodore T. Miller '22, president of the alumni association and president of the Polymer Chemicals Division of W. R. Grace and Company.

The meeting was concluded with the showing of a new movie on student life at MIT filmed and produced by Oscar H. Horovitz '22.

Dr. Sizer Named Full Biology Dept. Head; 7 Other Faculty Appointments Announced

Dr. Irwin W. Sizer has been appointed head of the Department of Biology. Professor Sizer, who has taught physiology and biochemistry at MIT since 1935, had been serving as executive officer and acting head of the department.

Dr. Sizer is well known for his studies of the fundamental properties and medical applications of enzymes. Slowing down, or inhibiting, enzyme action is one way of controlling disease. Dr. Sizer is currently studying the use of enzyme inhibitors as antibiotics and in chemotherapy.

MIT's department of biology, which Dr. Sizer now heads, is unique among academic departments for its concentration on modern analytical biology. The department is doing pioneering research in many areas of biophysics and biochemistry. It is also a world center in biological research using the electron microscope, an instrument which makes possible the photography and study of structures approaching the molecule in size.

Appointment of Dr. Hans Meyerhoff as visiting associate professor of philosophy at the Institute for the 1957 spring term was recently announced. Dr. Meyerhoff will come to MIT from the University of California at Los Angeles, where he has been associate professor of philosophy since 1948.

Dr. Meyerhoff received degrees from the University of California at Berkeley and Los Angeles. During World War II he served overseas with the US Army's Office of Strategic Ser-

vices, and from 1945 to 1948 he was a political analyst for the State Department.

Dr. Meyerhoff is widely known for his many articles, reviews, and books on philosophy, and is a former visiting associate professor at the University of Michigan.

Dr. Claude E. Shannon has been given the unique dual title of Professor of Communications Sciences in the Department of Electrical Engineering and Professor of Mathematics.

The field in which Dr. Shannon has achieved special eminence is that of

information theory, a new branch of science which combines the methods of mathematics and electrical communications in computing, automation, and areas of the behavioral sciences that bear on the relation of man to his environment. It encompasses such practical applications as the nation-wide automatic telephone system and devices by which streams of electrons can be translated into television pictures.

Scientific papers by Dr. Shannon have ranged from those dealing with the theory and theorem of optimum transmission of information to theoretical studies of machines which would play chess and other games. He holds several patents.

Dr. Shannon is a permanent addition to the MIT faculty. He will conduct a seminar on computers and information theory this term, and will conduct research in "non-numerical uses of computers", which includes language translation, symbolic mathematics and automation.

Dr. Laurits Bjerrum, named Visiting Professor of Soil Mechanics, has been director of the Norwegian Geotechnical Institute in Oslo since 1951. He began his career as research assistant at the Technical University of Copenhagen and then served as foundation engineer with Ostensfeldt & Jonson, consulting engineers. From 1947 to 1951, Dr. Bjerrum was on the staff of the Institute of Soil Mechanics and

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Professor Sizer, newly appointed head of the Department of Biology.

ALBERT SCHWEITZER

BRATTLE THEATRE
Harvard Square

ALEC GUINNESS

KIND HEARTS AND CORONETS

Sticklers!

WHO'S ALWAYS THERE WHEN YOU TAKE OUT YOUR LUCKIES?
(SEE PARAGRAPH AT RIGHT)

SIT DOWN in the common room, take out your Luckies—and who pops up to share the fun? None other than that friendly, familiar figure, the *Lounge Scrounge!* He's a sly guy, too; he knows which cigarettes taste best—and he knows just who carries 'em. Luckies taste better to buyers and borrowers—and no wonder! A Lucky is all cigarette . . . nothing but fine, mild, good-tasting tobacco that's **TOASTED** to taste even better. Light up a Lucky right now. You'll say it's the best-tasting cigarette you ever smoked!

WHAT IS STALE PENICILLIN?

Old Mold
LEONARD RICHARDS, JR.,
PENN STATE

WHAT DID THEY CALL THE TROJAN HORSE?

Phony Pony
FARRIS HOTCHKISS,
WASHINGTON & LEE

WHAT IS A 97-LB. ARAB?

Weak Sheik
JOHN RUGGIERO,
YOUNGSTOWN U.

WHAT IS A TIRED CRUSTACEAN?

Limp Shrimp
DAVID HUSMAN,
DE PAUL

WHO KEEPS THE NAVY IN STITCHES?

Sailors' Tailors
JOHN BRADY,
PROVIDENCE COLLEGE

WHERE DO YOU KEEP A HIGH HORSE?

Tall Stall
ROBERT LONG,
MISSISSIPPI SOUTHERN

WHAT DO YOU GET WHEN YOU FORGET TO SHAVE?

Stubble Trouble
JEAN SHAW,
RADCLIFFE

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Inscomm Considers Discussion Groups, Beer In Football Games, Cum System

Dormcon Plans "Bring Out The Voters"; Cocktails for Success

The Cumulative marking system, drinking at athletic contests, and the forthcoming elections were some of the subjects discussed at the Inscomm meeting held on the 6th of February.

The minutes of the Liaison Committee meeting held the night before were first considered. This committee had discussed the formation of small, informal discussion groups made up of members of the faculty and students to discuss subjects of common interests. These groups could be of two kinds: those concerned with particular topics, and those which met periodically to discuss different subjects. Informality was to be stressed, and Mal Jones '57, UAP, said that these groups would not need constitutions. The general opinion was that the initial formation of these groups would be difficult and if these groups are to be set up, TCA and *The Tech* would probably be asked to help.

The compulsory athletic program had also been discussed in the Liaison Committee meeting. Some members of the Institute Committee felt that the reasons given for the retention of this compulsory program were not strong and logical enough. However, this was not the general opinion, and no action was taken.

The cumulative system had been discussed in the liaison committee and was again discussed here. It was mentioned that some form of numerical ranking of students was required by the United States Government, and that while a student's "cum" is used extensively to evaluate his academic ability, this was not entered in his record. Moreover students who flunked out did not do so merely on the basis of their "cums". The administration could not do anything to change the system: this authority resides in the faculty. While some members of the faculty wanted to do away with this system, there were more who wanted to retain it. The fact that the last system had been far more confusing than the present was also brought out.

Ed Roberts, President of the Activities Council, had been asked to look into the matter of drinking at Athletic Contests. He presented his report, which ran as follows:

"Disorderly conduct at Athletic Contests: Involuntary physical or mental abuse of a person or group of persons whether provoked by the imbibement of alcoholic drinks or not.

"Recommendations: (a) That disorderly conduct at athletic contests as defined above, be eliminated.

(b) That the Athletic Association be instructed that it has the authority to enforce this ruling promptly and distinctly by 1) ejecting the disorderly spectators from the athletic contest, and/or 2) Referring the violation to the Judicial Committee of the Institute Committee for prosecution."

Roberts said that the object was not to prevent or stop drinking at games, but only disorderly conduct whether resulting from drinking or any other cause.

The recommendation was passed, 12-5.

A program to encourage students to vote in the forthcoming elections, and plans for a cocktail party to welcome the incoming committee were the subjects discussed by the Dormitory Council in their meeting on Monday.

The "Bring Out the Voters" program may include a meeting of the living groups at which each candidate could explain his platform and answer questions; this could be followed on the eve of the election, by the Hall Chairmen in each dormitory visiting each room and reminding their constituents that the next day was election day. It was hoped that through the co-operation of the Inter-fraternity council and *The Tech*, the students could be made more conscious of their right—and obligation—to vote.

A Dormcon cocktail party, to precede Dean Fassett's dinner for the incoming committee, was discussed. This would serve the purpose of acquainting the members of the incoming council with those members of the administration they would be to work with. However, nothing definite could be decided until the final position of the committee is clearer.

The Tech Gets East Campus Coverage

One copy of the *The Tech* was purchased for each resident of East Campus, according to a decision of the House Committee. Passed with opposition, and only one abstention, this resolution goes into effect immediately.

HERE ARE THE CORRECT ANSWERS TO THE OLD GOLD TANGLE SCHOOLS PUZZLES

Check the record of your answers against these, to see if you are automatically eligible to compete in the tie-breakers.

- | | | | |
|------------|---------------|----------------|---------------------|
| 1. Smith | 7. Oberlin | 13. Stephens | 19. Georgetown |
| 2. Purdue | 8. Harvard | 14. Princeton | 20. Middlebury |
| 3. Tulane | 9. Colgate | 15. Dartmouth | 21. Johns Hopkins |
| 4. Beloit | 10. Stanford | 16. Wellesley | 22. Brigham Young |
| 5. Rollins | 11. Bryn Mawr | 17. Notre Dame | 23. Western Reserve |
| 6. Rutgers | 12. Grinnell | 18. Vanderbilt | 24. Northwestern |

Enough entries have been checked to show that many players have correctly solved all 24 puzzles, thereby creating a tie for all prizes.

If the record of your answers to the first 24 puzzles, mailed on or before December 19, conforms with the correct answers published herein, you are automatically eligible to compete in the tie-breaking puzzles. The series of tie-breakers will be published in this paper, commencing on or about February 1st. Watch for the tie-breakers!

Please note Rule 2 as published in the official Tangle School rules at the beginning of the contest . . . which reads as follows:

- Rule 2(b) In case more than one person solves correctly the same number of puzzles, the prize tied for and as many subsequent prizes as there are persons tied, will be reserved and those so tying will be required to solve a set of tie-breaking puzzles, to determine the order in which the reserved prizes will be awarded.

YOU'LL GO FOR OLD GOLDS

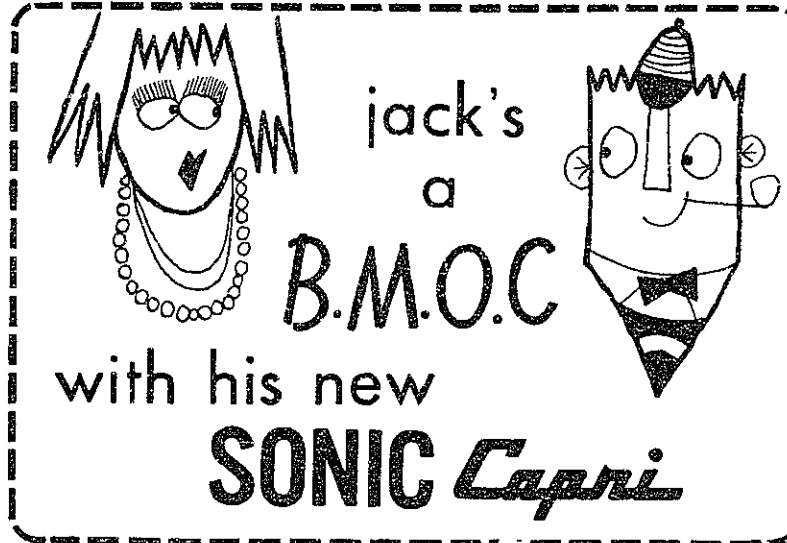
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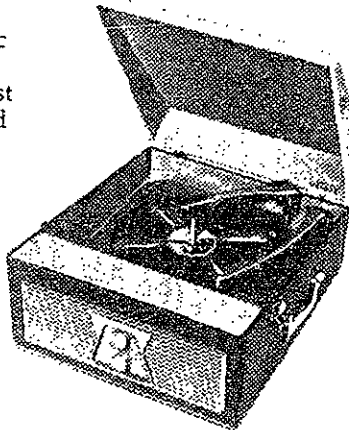


Get a pack . . . or a carton and see if you don't agree...

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will be on campus...

February 18 and 19

ADMISSIONS

(Continued from page 1)

Thresher prophesied that when the final figures are tabulated there will be a loss of approximately 150. All these figures quoted are unofficial since the official survey has not been made public.

However, the Institute, also gained students, since 130 from other colleges, including 25 frosh have transferred. Most of these students came from the combined 3-2 study plan offered currently at 17 colleges. This plan offers a three-year liberal arts training at the school, after which the students major in science or engineering here at the Institute. This plan is being intensified so that any school which gives the requisite courses can now participate in it.

But Dean Thresher is expecting some 6000 preliminary applications for the class of '61 to be made, from which only 1800 of these will be admitted. It is expected that 900, the same approximate number as the class of '60, will finally wind up in Tech. Dean Thresher assures that there will be no change of admissions policy even with the acute housing situation, thus assuring the size of the class of '61 to be about 900.

Dr. Killian Honored In Osage Indian Rite As Tulsa Grads Meet

The President of The Massachusetts Institute of Technology is now an adopted son of the Osage Indian Tribe. President Killian's adoption was the highlight of the MIT Alumni Regional conference in Tulsa, Oklahoma on February second. An Osage chief presented President Killian with an elaborate headdress and an Indian blanket. The Osages are very careful in the selection of "honorary members" and it is a distinct honor to be received into such an important tribe in Oklahoma.

Feb. 2 was declared MIT Day in Oklahoma and about 1200 people, including students from high schools and colleges in the area attended the conference.

Two Alumni were given citations for their service to MIT. William Holloway of the class of '15, who has been in flood control work in Oklahoma for 40 years, was cited for his meritorious service. W. J. Sherry of the class of '21 was made "Mister MIT of Oklahoma", and was given an honorary certificate for service to MIT.

Delta Upsilon, IFC Aid Foster Children

For over four years members of Delta Upsilon Fraternity have been quietly paying 50c each, every month to support an "adopted" son, Josef Millicker who lives in a DP camp in Western Germany.

The men send a total of \$180 a year through the Foster Parent's Plan, Inc. in New York City. The money goes for food and clothing and Josef receives a cash grant each month. From letters received from Josef, the DU's have learned that he is in the seventh grade. He lives with his mother, who supports 3 other children on \$62 per month relief.

The Inter-Fraternity Conference helps support an adopted child in the same manner. The IFC is the proud father to Jean Marc Corlouer of France. A blue-eyed, blond boy, Jean has known only poverty his whole life, because his father, whose mind was shattered during the war, cannot work to support his family.

Foster Parents Plan which has aided more than 76,000 children since its founding in 1937, is now operating in France, Holland, Greece, Korea, Belgium, and West Germany.

Robert Graves, Noted Poet To Talk In Kresge Auditorium On Friday

Robert Graves, noted English poet, novelist and critic, will make the only Boston appearance of his current trip to the United States at MIT on Friday evening, February 8. Mr. Graves' lecture at Kresge Auditorium, beginning at 8:30 p.m., will include readings of his own poetry and prose followed by critical commentary.

The 61-year-old poet, who last visited this country in 1937, is author of such well-known historical novels as "I, Claudius," "Claudius the God," and "Count Belisarius." His non-fiction includes scholarly works on literature and religion as well as controversial retelling of "The Greek Myths, in which Mr. Graves embodied the conclusions of modern anthropology and archaeology. One of his recent critical works, "The Crowning Privilege," includes his widely-discussed attack on Yeats, Pound, Eliot, Auden and Dylan Thomas.

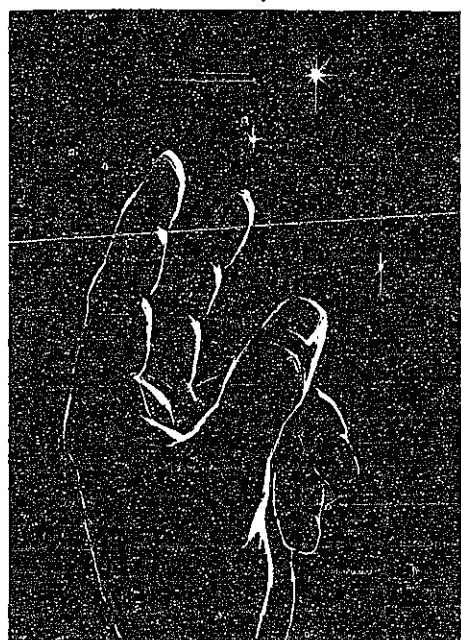
Mr. Graves was born in Wimbledon, England, served as captain in the Royal Welsh Fusiliers during World War I, and began his career as professor of English literature at

Cairo University in 1926. He was elected a Fellow of the Royal Anthropological Institute and has received many distinguished literary prizes for his poetry and novels. During his short stay in this country he will appear at Mt. Holyoke, MIT, the YMHA Poetry Center in New York, and the Library of Congress before returning to his home in Majorca, Spain.

Mr. Graves' appearance in Cambridge is sponsored by the MIT Dramashop Celebrity Series. Tickets at \$1.50 for reserved seats, \$1 for student reserved seats, and \$1 for unreserved seats are available at Kresge Auditorium and the Mandrake Bookstore in Harvard Square.

TVA TRIP

Foreign students, or American students with cars, who would like to visit TVA during the spring vacation, should attend a meeting in Room 3-108 today, at 5 p.m.



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Sunday, Feb. 24—Dr. Henry Austin
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New Earth Science Laboratory Will Probe Globe, Atmosphere

Is it possible to modify the weather on a large scale?

What is the interior of the earth really like?

Why do continents and oceans exist and why are they distributed as they are?

To seek answers to such questions as these, MIT has established a laboratory of earth sciences, Dr. George R. Harrison, Dean of Science, announced last night.

The laboratory, which will be under the direction of Professor Henry G. Houghton, head of MIT's department of meteorology, will attempt a new and integrated approach to experimental and theoretical investigations of man's environment: the atmosphere, the oceans, and the land masses between, including the inte-

rior of the solid earth.

Jointly sponsored by MIT's departments of geology and geophysics and of meteorology, the new laboratory will become a research center for geologists, geophysicists, geochemists, meteorologists, and oceanographers.

MIT's department of geology and geophysics is widely known for such diverse researches as the determination of the age of rocks by radioactivity, the development of new methods of exploration for mineral deposits, and the study of the structure of minerals by x-ray diffraction. Geology has been taught at MIT since the founding of the Institute.

Dr. Houghton, who will head the new laboratory, has been in charge of meteorology at MIT since 1945 and a member of the staff since 1928.

Foremost Gamesman Here For LSC Talk On Anglo-US Humor

The LSC has an internationally-flavored lecture in store for the MIT Community on February 12 when Stephen Potter, the well-known British satirist and author will speak in Kresge Auditorium. Mr. Potter will discuss the basic difference between American humor and that of our "more subdued" British cousins.

Stephen Potter is a gentlemanly wit (a fact which will probably be appreciated by the MIT community). He is an Oxford man, a scholar with some valuable work on Coleridge and D. H. Lawrence to his credit.

In addition to his books; "Game-ship", "Lifemanship", and "One-Upmanship", he has just published "Sense of Humor" and is now working on "Golfmanship".

The lecture will be at 7:30 p.m. Admission is free.

LIBRARY

(Continued from page 1)
"arithmetic progression" in budget are caught in a squeeze. "Fortunately," Locke states, "Technical reports and journal articles are replacing books as the most important source of up-to-date information."

A great increase in available library funds is an immediate necessity. Library-earmarked endowments or allotments from research are possibilities. Best chance for immediate help may be a cooperative agreement between Harvard and MIT on joint use of all libraries. Such a plan is endorsed by Locke and has been recommended by the Harvard Director of Libraries. Consideration by Harvard University President Pussey and by President Killian should be forthcoming.

WEISSKOPF TALK

Dr. Victor F. Weisskopf will speak on "The Fall of Parity", Monday, February 11, in room 10-250, under the sponsorship of the MIT Physics Society. The public is invited.

WARD LECTURE

(Continued from page 1)

Germany and then at Somerville, Oxford, where she took a class honors degree in philosophy, politics, and economics. She received honorary degrees from Columbia University, Smith College, and Fordham University.

The subject of Miss Ward's Friday will be "The United Nations and the Free World".

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A subsidiary of Westinghouse Air Brake Company, Melpar is now engaged in a program of expansion involving both increases in staff and facilities. The organization's headquarters laboratory is located in Fairfax County, Virginia, only 10 miles from Washington, D. C.

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The college or university graduate who joins Melpar is not required to undergo a formal training program. Instead he immediately becomes a member of a project group and is assigned to work with an experienced engineer whose guidance and assistance enable him to advance rapidly. Members of Melpar project groups gain experience in all phases of engineering problems by free and frequent interchange of ideas during group meetings. Such experience is valuable in leading to eventual managerial responsibility.

Financial Assistance Offered by Melpar for Graduate Work

The list of universities located near Melpar laboratories that offer graduate and undergraduate courses in engineering subjects includes: Georgetown University, George Washington University, American University, Catholic University, University of Maryland, University of Virginia, Harvard, Massachusetts Institute of Technology, Northeastern University, and Boston University. Melpar offers financial assistance for study at these distinguished schools.

Melpar Locales Offer Fine Living Conditions

Melpar's R & D operations are centered near and in Washington, D. C. and Boston, Mass. Both are rich in cultural and educational facilities. The Washington, D. C. area in which Melpar's headquarters laboratory is located is within easy driving range of beaches, lakes, mountains, as well as other recreational and scenic points. The climate allows outdoor recreation 215 days of the year. Fine homes and apartments in all price ranges are readily available.

Melpar's Boston area plants allow engineers to enjoy the pleasant tempo of New England living coupled with Boston's splendid cultural and educational advantages. Melpar pays re-location expenses.

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An attractive, fully-illustrated booklet describing living conditions prevailing in the Washington, D. C. area can be obtained from your campus Placement Officer.

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At Melpar there is no waiting period for "automatic" advancement. Instead, an engineer, regardless of his age or tenure, may move ahead as rapidly as his skill and performance dictate. Each engi-

neer's achievement is reviewed at least twice a year. In this manner engineers deserving advancement can be quickly "spotted" and promoted. As soon as an engineer is ready for more complex responsibilities they are given him.

Qualified Graduates Offered Paid Inspection Trips

After a personal interview on their campus, qualified candidates may be invited to visit Melpar's headquarters laboratory near Washington, D. C. at Company expense. Information on opportunities available for graduates together with details on living conditions in the Washington, D. C. area is available by simply writing: Mr. William Schaub, Melpar, Inc., 3000 Arlington Blvd., Falls Church, Virginia.

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Melpar staff members, both holders and non-holders of degrees, may take advantage of the many fully-accredited courses in engineering subjects which are offered at Melpar's headquarters laboratory.

Melpar Expanding Steadily Every Year

Founded in 1945, Melpar has doubled in size every 18 months for the past 11 years. Recently it completed erection of a complete new headquarters laboratory near the Nation's Capital, and is presently making substantial additions to its Watertown, Mass. laboratory (6 miles west of Boston), and to its research department in Boston.

Located on a 44-acre landscaped tract, Melpar's main laboratories encompass over 265,000 square feet under a single roof. Fully air-conditioned, they are equipped with every facility. In addition to the new, ultra-modern headquarters plant, Melpar maintains additional facilities in Arlington, Virginia, Boston and Watertown, Massachusetts, encompassing a total of 460,000 square feet.

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Members of Melpar's research and engineering staff are ably supported by many designers, draftsmen and technicians. Coordinated supporting services include a chemistry laboratory, a quality control group, an environmental test laboratory, a number of shops, and other specialized facilities.

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GREATER BOSTON

FORUM

"Private Censorship in Movies and TV" will be the first topic of discussion in the Forum's Spring series, Friday evening, February 8, at 8 p.m., in the New Lecture Hall, Oxford and Kirkland Streets.

The featured speakers will be Godfrey Schmidt, law professor at Fordham University and president of AWARE, INC., an organization dedicated to exposing Communist infiltration in the entertainment industry, and Patrick Murphy Malin, Executive Director of the American Civil Liberties Union. The moderator will be Prof. Benjamin Kaplan. Mr. Malin, past president of the National Council on Religion and Higher Education, was for many years a professor of economics at Swarthmore College.

Tickets may be purchased at the door or at the Forum Office, at 95 cents.



Dudley A. Buck, a graduate student at MIT, has developed a contribution to Technology tiny in size only. Cryotron shown here has just been pulled from cooling helium bath.

CRYOTRON

(Continued from page 1)

straight wire conducts current with no resistance, but current in the control winding produces a magnetic field which destroys superconductivity in the straight wire, causing its resistance to return. Thus current in the control winding can cut off current in the straight wire. Interconnect these single switches in great families and you have switching circuits of exactly the kind needed for many computers.

Cryotrons operate only at this extremely low temperature; they must be held at that temperature by liquefied helium, whose boiling point is 4.2 degrees Fahrenheit above absolute zero. One part of any cryotron computer will be a special refrigerator, known as a cryostat, to liquify helium and generate these extremely low temperatures.

The small size of a cryotron is only one of its advantages—and, says Mr. Buck, an advantage somewhat limited because to achieve the liquid helium temperatures requires some of the space the cryotrons save.

A much more important characteristic is basic simplicity. Cryotrons—single wires with tiny coils wrapped around them—can be made by automatic factories at great speed. And they can be made and pre-assembled in long chains, so that circuits formerly requiring many hours for assembly may become routine manufacturing operations.

Versitron Acts As Ultra Sensitive Amplifier And Thermal Detector

How a new amplifying device called a Versitron could be built, and used to modify microwave communication technique greatly, was described by Professor Malcolm W. Strandberg of the Massachusetts Institute of Technology at the meeting of the American Physical Society in New York this morning.

The Versitron would be a quantum mechanical amplifier with low intrinsic noise and wide band amplifying characteristics, and such high sensitivity that it could serve as a thermal detector. It would be particularly applicable at frequencies typical of those used for television broadcasts and higher, including those used for radar and microwave relay links. Because it would be substantially noise free, the useful sensitivity of the Versitron could be pushed to about 1000 times that which can be obtained with conventional electronic amplifiers.

It would be a practical application of theoretical and experimental research in paramagnetics that is being carried on under Professor Strandberg's direction in the physics department and the Research Laboratory of Electronics at MIT. Professor Strandberg's paper for the American Physical Society dealt with theoretical factors which determine the limiting sensitivity of quantum mechanical amplifiers.

Conventional Amplifiers

Conventional amplifiers that are now available use, for the most part, the current that results from the translational motion or flow of electrons in matter or space. The Versitron, meaning essentially "spin-tool," would use instead of the flowing of electrons, their spinning, gyroscopic motion in a magnetic field. Research both in this country and in Russia since 1945 has demonstrated that paramagnetic materials—that is, materials having uncompensated electronic spin in their atoms—exhibit resonant absorption of radio and microwave frequencies when these paramagnetic materials are in a magnetic field. The actual absorption frequency depends not only upon the constituent atoms and the crystal, but also upon the applied magnetic field.

Energy Emitted

By any of several methods, it is possible to invert this process so that instead of absorbing energy, the crystals will emit energy coherently with the radio waves. Thus energy can be extracted from the crystals and they can operate as an amplifier. This requires, of course, a condition of thermal nonequilibrium.

Theory indicates that, unlike conventional thermionic vacuum tubes, travelling waves tubes, or even transistors, the Versitron amplifiers, consisting essentially of a paramagnetic crystal in a magnetic field, could be operated with very low effective limiting noise. Present day amplifiers generate within themselves a high

noise level (called "snow" when it appears on television sets) because of their high effective operating temperatures. The possibility of operating the Versitron amplifier at low temperatures provides a substantial reduction in this limiting noise, and also makes possible the application of the Versitron as a sensitive thermal detector.

Present Day Amplifiers

Present day amplifiers must operate at least at room temperature and above in order to obtain the necessary electron current. The noise produced by the thermal agitation of the electrons or atoms in these devices is essentially proportional to the temperature, and it sets a limit to the useful amplification when electron tubes or transistors are used. The Versitron, however, could be operated at low temperatures and consequently the limiting thermal noise could be greatly reduced. By operating a Versitron at liquid helium temperatures, for example, a useful gain in amplification of 1000 times that obtainable with conventional techniques could be realized.

Development of the helium cryostat by Samuel C. Collins of MIT's department of mechanical engineering, and commercial production of such low temperature units by the A. D. Little Company, have placed low-temperature techniques on a commercial basis.

Radar Technology

Such an increase in sensitivity could revolutionize radar technology, and ultra high frequency and microwave transmission as we know them today. A thousand-fold increase in useful amplification of the signal is equivalent to increasing the radiated power of the transmitter 1000 times. For a radar set, this would mean that its effective range could be increased by a factor of six. Or, if the range is kept the same, the transmitter power could be reduced from kilowatts to watts of power.

Thermal Detector

Perhaps the most exciting application for the Versitron, however, will be its use as a thermal detector. Operating at a low effective temperature, the Versitron would be sensitive to temperature changes of a few degrees. When operated with a directional antenna, such an amplifier would be able to amplify the thermal noise radiated from objects within its antenna beam and would be able to differentiate between sources differing only a few degrees in temperature. Pushed to an absurd limit, this property of a Versitron would allow the construction of a device which would be able to tell whether a soldier in its antenna beam had a fever or not.

Since the Versitron could be made a broad band device covering tens of megacycles in the microwave spectrum, its response to temperature changes of a few degrees would take place within a fraction of a microsecond. Important applications to radio astronomy and national defense can easily be envisioned.

Broad general research in the field of paramagnetics is continuing under the direction of Professor Strandberg at MIT, and confirmatory experiments are being carried out at other educational and industrial laboratories.

Two Fulbright Bills Would Lower Taxes For College Students

College students and their parents will get a break from Uncle Sam's tax collectors if two bills introduced in the Senate last month become law.

According to Senator Fulbright of Arkansas, sponsor of the bills: "The first bill would allow an additional income tax exemption for a taxpayer or a spouse, or a dependent child under twenty-three years of age, who is a full-time student at an educational institution above the secondary level.

"The second bill would allow a taxpayer, who is a student in an institution of higher learning to deduct expenses for books, tuition, fees, and other supplies necessary to the courses of instruction in which he is enrolled."

The two bills were presented last year but no Congressional action was taken at that time.

Fulbright cited the rising cost of a college education and the threat of the Soviets overtaking this country in quantity of college-educated specialists.

\$44,000 Grant For Paralysis Research

A study, using radioactive tracer elements to determine what happens to body calcium in normal and bed-ridden patients, will be continued at the Massachusetts Institute of Technology under a grant of \$44,082 from the the national Foundation for Infantile Paralysis.

The March of Dimes has aided MIT in its research programs since 1954 with grants totalling \$123,437. In pointing out the need for this particular type of research, Dr. Harris said, "The paralyzed patient, as distinct from the normal individual, is apparently unable fully to assimilate calcium. This causes weakening of the bones and kidney stones may also develop. Removal of kidney stones nearly always means subjecting an already seriously sick individual to surgical operation."

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APPOINTMENTS

(Continued from page 3)

Foundation Engineering at the Federal University of Switzerland.

Dr. Bjerrum will teach a special graduate course on the latest European research on soil mechanics. The course can, however, be elected by Seniors.

Russian Expert

Evsey D. Domar has been appointed Visiting Professor in the Department of Economics and Social Science at Massachusetts Institute of Technology. A professor of political economy at The Johns Hopkins University, he will teach at MIT during the 1957 spring term.

The Hopkins economist, a recognized authority on the theory of growth and the Russian economy, will give two graduate courses here—one on fiscal policy and one on Soviet economics. After the semester, Dr. Domar will go to Stanford University for the summer quarter.

In recent years Dr. Domar has also been visiting lecturer at the University of Buffalo, visiting associate professor at Columbia University's Russian Institute, and Fulbright lecturer at Oxford University.

New Lincoln Lab Head

Dr. Carl F. J. Overhage has been appointed director and William H. Radford associate director of Lincoln Laboratory. They succeed, respectively, Dr. Marshall G. Holloway and Dr. George E. Valley, who have resigned. Dr. Overhage has specialized in the development of data transmission and in prototype evaluation for the SAGE system of air defense. His special scientific interests are in radar and photography.

Dr. Overhage was awarded the President's Certificate of Merit for his technical contributions in World War II. He is a Fellow of the American Physical Society and a member of the Optical Society of America, Sigma Xi and Tau Beta Pi.

Professor Radford, who was born in Philadelphia, received a B.S. degree at Drexel Institute of Technology and M.S. degree from MIT. He has been on the staff of the MIT Department of Electrical Engineering since 1932, becoming a full professor in 1951.

In 1953 Professor Radford went to Lincoln, where he has pioneered in the development of scatter radio communications, the "over-the-horizon" system which is used for all communications between the mainland and the Texas Tower and for other purposes. The division which he has headed also carries on research and development in such scientific fields as solid state physics.

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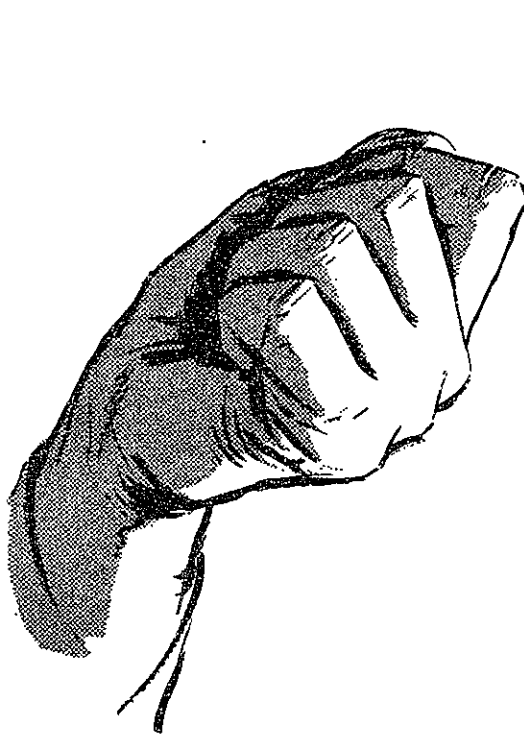
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ELECTIONS

(Continued from page 1)

dent government will enable me to better perform the functions of the UAVP."

Two weeks ago when Helmut Weymar '58 announced his candidacy for UAP, his new "philosophy" met with much interest and criticism. To clarify his stand, Weymar has announced a six-point program, paraphrased as follows: (1) in regard to parking, co-operation with the faculty and the administration, and coordination with the Harvard Student Council for revision of the Cambridge parking regulations; (2) acting together, the ROTC officer personnel and the student body should be able to effect a solution to the problem of compulsory basic ROTC; (3) since compulsory commons is unavoidable due to the recent Ryer Report and the engagement of a catering firm, all student government authority must be placed behind a joint dormitory committee to inspect and enforce high standards of quality, quantity, and service; (4) the immediate coordination of student government and concerned faculty should be instituted in a program where present and proposed curricula and other academic problems should and will receive top priority; (5) present judicial methods and policies should be reviewed, for closed hearings and insufficient notice to defendants, which characterizes our otherwise enlightened student judicial program, cannot be condoned; (6) hazing activities outside the various living groups should be strictly forbidden, and, while Inscomm should lay down broad guides for hazing activities within the groups, interpretation and enforcement authority must be given in full to the living groups themselves.

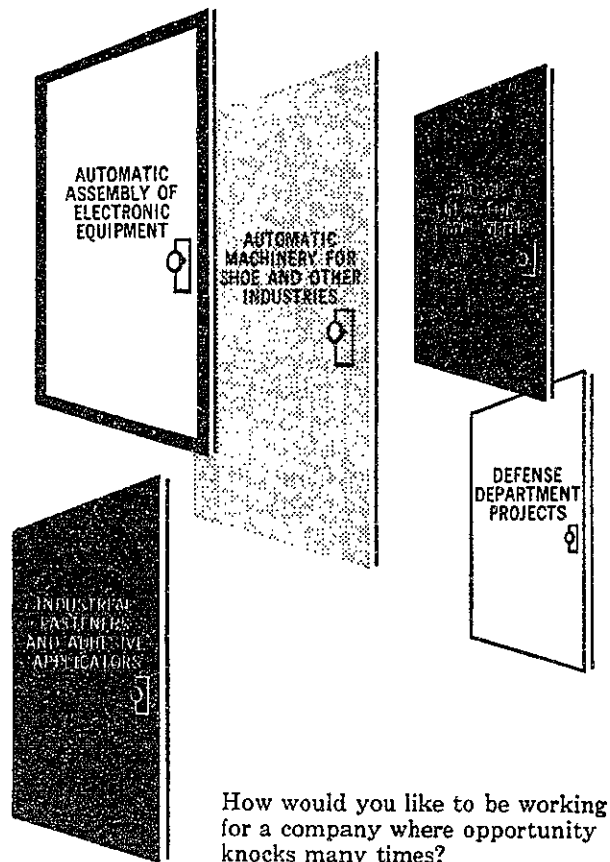


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The Intramural Basketballers finished their league battles in the last week before final exams, and the hoopsters are now preparing for the playoff rounds. League One was captured by Phi Sigma Epsilon, a team usually known for an outstanding brand of basketball, with one of the top teams of last year, Meteorology finishing second. League Two found Grad House A, another of the top teams of last year, and one that is a strong favorite this year, in first place with Baker House A maintaining second. League Three was won by Theta Chi A while a surprisingly good Westgate team took the second place position. East Campus captured top place in League Four with Beta Theta Pi, possibly a darkhorse candidate for the championship, placing in the race. Always a power in the hoop game, Delta Upsilon, gained first in League Five with Phi Gamma Delta, another possible surprise team taking second. Sigma Chi, also one of the favorites for the championship, was in top position in League Six with Phi Delta Theta in second place. League Seven proved a battle that found Lambda Chi Alpha in the winner's spot with the Student House right behind them.

Monday night action in the fourteen team playoff will find Phi Gamma Kappa pitted against Westgate; East Campus facing Meteorology; Lambda Chi Alpha meeting Baker House A; and Delta Upsilon battling Student House. The following night has Graduate House against Beta Theta Pi and Sigma Chi playing Phi Delta Theta.

On Deck

Millrose Games Tops Sports Card

The first weekend of the second term offers some top notch athletic contests as practically all varsity teams will see action. Highlight of the weekend is the track team's annual appearance in the Millrose Games in New York's Madison Square Garden. The tracksters will be going in the mile relay, the event in which they captured a first place in the B.A.A. Games last weekend. On Wednesday night, running on a poor track, the stickmen grabbed a fourth place in the relay out of 15 teams entered.

The varsity hoopsters, smarting from a 63-61 defeat at the hands of Wesleyan last Wednesday night will be seeking revenge in a game with Worcester Tech Saturday, to be played on WPI's hand box court. The loss Wednesday was the second heart-breaker in a row for the Burkemen as they lost their last game before the vacation to Bates on a last second layup. Last year MIT rolled over WPI 80-69 as Dee Vergun turned in one of his best performances of the year. The hoopsters have now dropped three in a row to bring their season's record to four won and five lost. Next home game for the Burkemen will come Wednesday when they face a potent Boston University in Rockwell Cage.

The varsity hockey team has high hopes of recording their first win of the season, and have two chances to do it in. On Friday night the pucksters travel to Amherst to face the Jeffs who likewise sport an unvictorious record. Comparative scores show that MIT lost to Bowdoin by 1 goal

in overtime whereas the the Polar Bears easily trounced Amherst 4-1. Comparative scores are of little value, however, and in a hockey game anything can happen. Saturday afternoon Coach Martin will throw his team against U. of Mass., in another game to be played at Amherst.

Tech's highly successful swimming team will compete in a home meet at 2:00 p.m. on Saturday as they face the U. S. Coast Guard Academy in Alumni Pool. Last year, Tech dropped this meet by a ten point margin, but indications are that the meet will go the other way this year.

The Varsity wrestling team is also looking for a victory as they face Boston University on the Rockwell Cage mats this Saturday at 3:00 p.m. The Grapplers took this meet last year, and led by Captain Tony Vertin and Harris Hyman they should repeat this year.

MIT's undefeated fencing team faces its toughest competition of the year as they travel to New York to face CCNY. The fencers were topped by City College 15-12 in a thriller last year. This is the last match for the team before the crucial Harvard contest to be held next Tuesday.

Led by Captain Richard Schwaegler '57, the varsity skiing team will open its season in the New England College Trophy meet to be held at Mount Sunapee, New Hampshire this Sunday afternoon. Supported by a successful season during the previous year the polemen are confident of continued success on the snowy slopes.

HERE ARE THE FIRST TWO TIE-BREAKERS IN
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The first two of the eight tie-breakers are published herein, according to rule 2(b) of the official Tangle Schools rules:

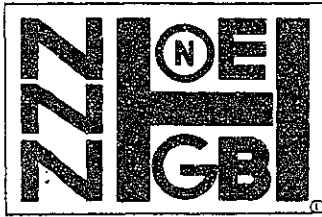
2(b) In case more than one person solves correctly the same number of puzzles, the prize tied for and as many

subsequent prizes as there are persons tied will be reserved and those so tying will be required to solve a set of tie-breaking puzzles to determine the order in which the reserved prizes will be awarded.

Each of the tie-breaking puzzles will contain scrambled letters forming the names of either one, two or three American colleges or universities.

Do not mail these tie-breakers now! Save them until you have completed all eight tie-breaking puzzles. Details on when and where to mail the tie-breakers will be published with the eighth puzzle.

TIE-BREAKING PUZZLE NO. 1



CLUE: A leading experimental college for women, this New England school features workshops as part of the regular social science, literature and performing arts programs. There is a 10-week non-resident term here.

ANSWER _____
Name _____
Address _____
City _____ State _____
College _____

TIE-BREAKING PUZZLE NO. 2



CLUE: This university, located in the Southwest, was originally named Add-Ran for its two founders. Its present name dates from 1902. One of its divisions is Brite College of the Bible.

ANSWER _____
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College _____

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Swordmen Maintain Record By Victory Over U. Of Connecticut

Last January 16 the Tech fencers maintained their no loss record by defeating the University of Connecticut 16 to 11. Although the final score was decisive, the match was tough and go through the second round of fencing. At the end of the first round, MIT was on top 6 to 3. This early lead was soon reduced to 9 to 9 in the second phase of matches as UConn attempted a rally. In the remaining bouts there were several 5-4 decisions as both teams battled for decisive points. UConn, however, was unable to produce the final winning effort as Tech took seven of the remaining nine bouts to win the meet.

The MIT foil team won 5-4 over their opponents with individual scores as follows: Mike Fein 2-1, Barry Shabel 2-1, and Ted Quist 1-2. The sabre team also had a 5-4 score with Hal Miller 1-2, Larry Campbell 2-1, and Mike Meeker 2-1. The epee team bettered UConn by a wide margin of 6-3 with team members Les Dirks 2-1, Roy Norris 3-0, and Ron Wempen 1-2. This week MIT meets both Bradford-Durfee Technological Institute and City College of New York. The former may not present too much difficulty to the home fencers, but CCNY represents one of the tougher New York teams.

Boardmen's Season Opens As Runners Place In Mile Relay

MIT's indoor track season got off to a flying start the past two weekends as the boardmen competed in The Knights of Columbus meet and the Boston Athletic Association Games, both of which were held in Boston Garden. In the K of C games, Tech's mile relay team of Bob Williamson, Glenn Bennett, Bill Duffy, and Ed Bell had to settle for a second behind Providence as anchor man Bell was fouled in passing a U. of Mass. runner, and as a result was unable to overtake the Providence runner. Vito Maglione turned in a good 12' 6" performance in the pole vault, but did not place in the highly competitive event.

Last Saturday at the BAA Games the tracksters fared much better as the relay team of Dick Murdock, Bennett, Duffy, and Bell ran away with their race, winning over Bowdoin, Providence, and U. of Mass. with a good 3:29.4 clocking. In the open 50-yard dash, soph Bob Williamson finished third in his heat behind eventual winner Ira Murchison, but was shut out in the semi-finals. In the pole vault Maglione hurt his ankle and will probably be out of action for several weeks. Tomorrow night the mile relay team will be seeking another win as they enter the annual Millrose Games in New York's Madison Square Garden.

BRILLAT-SAVARIN

Brillat-Savarin will not convene this month. Interested members may obtain relevant information by writing Box 201, Ciudad Trujillo, D.R. or by contacting GAW.

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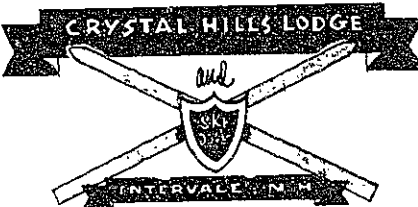
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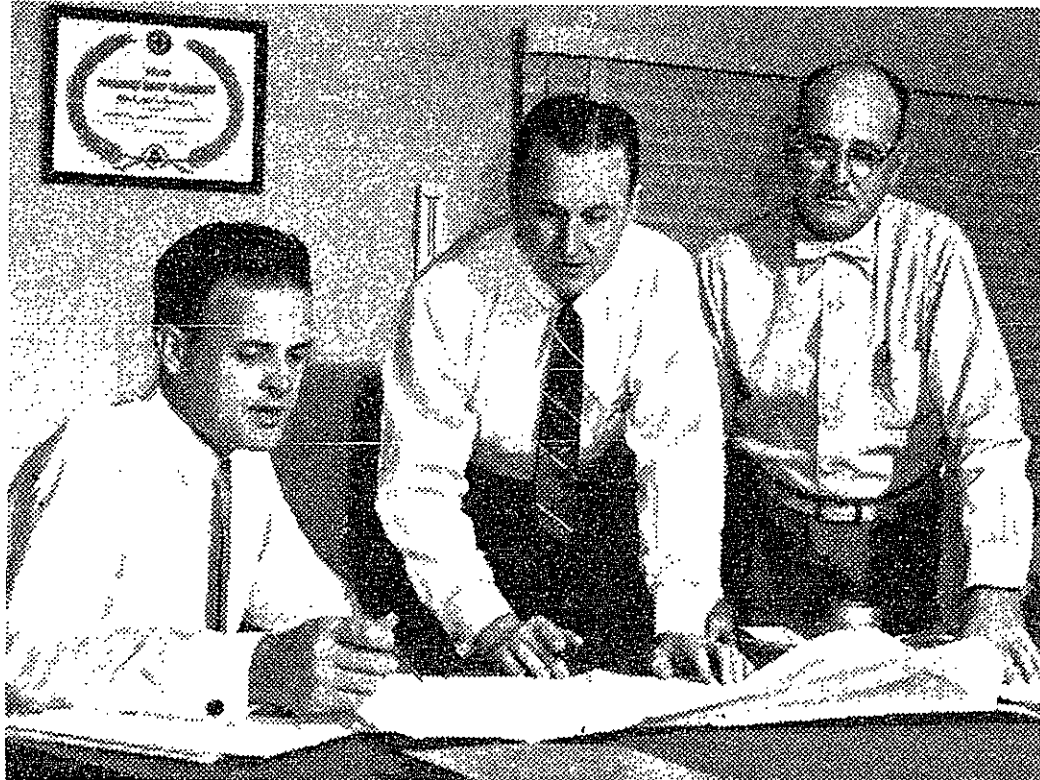
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A Campus-to-Career Case History



Planning for growth. Joe Hunt (left) talks with Jim Robinson (center), District Construction Foreman, and O. D. Frisbie, Supervising Repair Foreman. In Joe's district alone, 600 new telephones are put into service every month.

"I'll take a growing company"

70,000 telephones to keep in operation ... \$20,000,000 worth of telephone company property to watch over ... 160 people to supervise — these are some of the salient facts about Joe Hunt's present job with Southwestern Bell. He's a District Plant Superintendent at Tulsa, Oklahoma.

"It's a man-sized job," says Joe, who graduated from Oklahoma A. & M. in 1949 as an E.E. "And it's the kind of job I was looking for when I joined the telephone company."

"I wanted an engineering career that would lead to management responsibility."

ties. Moreover, I wanted that career to be in a growing company, because growth creates real opportunities to get ahead.

"But to take advantage of opportunities as they come along, you must have sound training and experience. The telephone company sees that you get plenty of both. Really useful training, and experience that gives you know-how and confidence. Then, when bigger jobs come your way, you're equipped to handle them."

"If I had it to do all over again, I'd make the same decision about where to find a career. Now — as then — I'll take a growing company."

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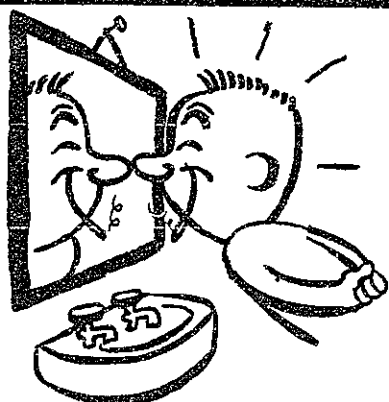
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Internationally-Flavored Rugby Club Rally Tuesday, Points Toward California Trip As Season Highlight

Anticipating their coming trip to California the MIT Rugby Club will be getting into action early this year. On Tuesday, Feb. 12, at 5:00 p.m. in room 1-203 the rugbyers will hold their initial meeting of the Spring Season. Plans for the Spring trip, and the season's schedule will be discussed along with an introductory talk on Rugby that will be given for those coming out for the first time.

Formed ten years ago by a South African student, Oscar Whillier, the MIT Rugby Club was originally designed as a graduate student activity. However, during the succeeding years undergraduate student interest

in the sport grew to such an extent that now approximately half the members of the organization are undergraduates. Among these are students from such countries as Great Britain, Canada, South Africa, and many parts of South America. In fact the present Club boasts of a thirty per cent foreign student membership. In the words of Prof. George Brown, a Mechanical Engineering Professor and the present President of the Rugby Club, Rugby is an "international exercise".

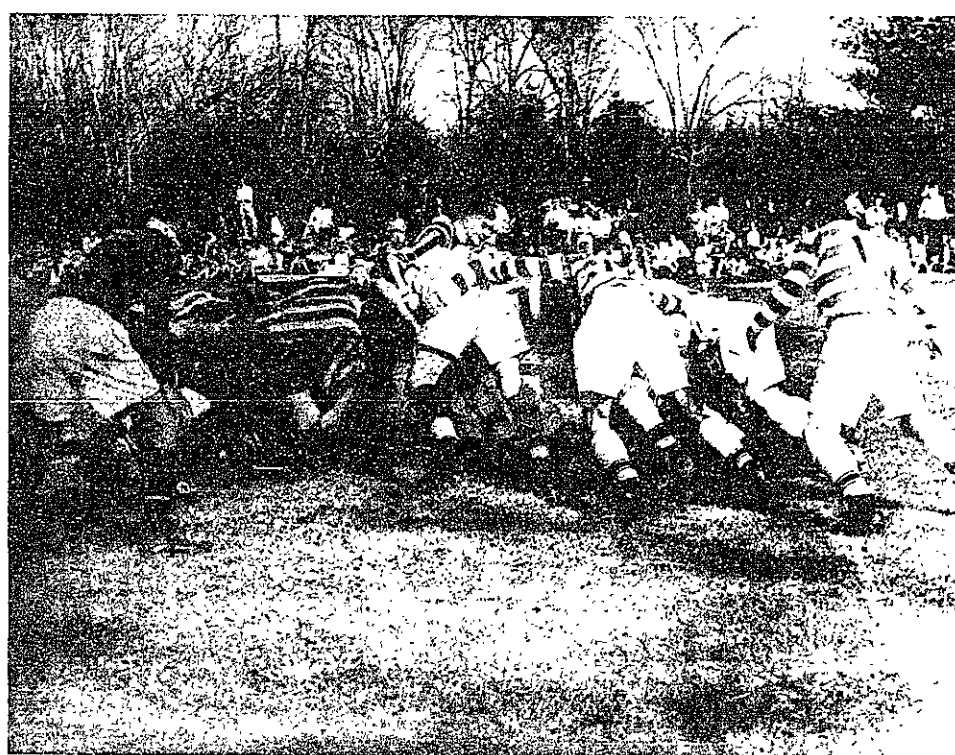
A recent issue of Sports Illustrated has more to say about the sport: "It (Rugby) has everything to recom-

mend it. It is hard and fast; it is rough but it is not dangerous. You get bruised and shaken but bones are rarely broken; no special padding is prescribed; you wear shorts and a jersey. Dexterity and speed are as important as weight and strength. It is essentially a team game but it is highly individualistic. The majority of points are scored not as the outcome of a concerted movement but through an opportunist taking advantage of an opponent's slip. Each player develops his own style."

One added attraction that the Rugby Club at MIT offers according to Prof. Brown is its unusual social advantages. In the past the team has been able to play their games on the campuses of Wheaton, Smith, and Skidmore, and the previous seasons have included trips to New York to play the New York and the Wall Street Rugby Clubs and to Canada to play Montreal teams.

The highlight of the present year will be a trip to California over Spring vacation. Besides the sun, sand and surf, the team will have the chance to play such formidable opponents as Stanford, the University of California, and the San Francisco Olympic Club, teams usually loaded with West Coast gridiron heroes roughing up during off-season. However, coach Mike Hough has hinted that California nurses are worth getting all broken up about.

Eighteen players will make the trip sponsored jointly by funds from the Graduate Student Council, the Athletic Association, and the Administration.



Tech men mixing it up. A familiar sight at all Rugby games. This confused circle of men seems to have forgotten all about the ball.

Big Opportunities Await '57 Grads At Philco Corp.

PHILADELPHIA, PA.—Mr. L. J. Woods, vice-president and director of Research and Engineering announced today that Philco's pioneering and continuing growth and expansion in the electronics field—notably in color television, transistors, computers, data processing systems and guided missiles has opened up unique and rewarding opportunities for young engineers and scientists to extend their professional development upon graduation.

Mr. Woods also pointed out that Philco's recent entry into the home laundry field, and the necessity for developing entire new lines of automatic washers and dryers, in addition to other household appliances, has created many new and attractive openings for beginning engineers.

The location of Philco's research and engineering laboratories in the Philadelphia area provides members of its professional staff with a choice of outstanding accredited universities and colleges in which they may continue studies at the graduate level.

The company's liberal, full tuition refund plan encourages staff members to enroll at the University of Pennsylvania, Drexel Institute of Technology, Temple University, Villanova University or St. Joseph's College.

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ON February 13

LITERATURE ON "YOUR FUTURE WITH PHILCO" CAN BE HAD
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WRITING TO MR. CHARLES LUPTON, Manager College Relations

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Men in the know know true from false



Classical music is preferred
over popular music by
college men

☐ TRUE ☐ FALSE

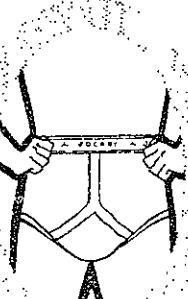
False. Popular music is more popular on campus, according to record sales. After college, too.



College men prefer to
date college gals

☐ TRUE ☐ FALSE

True. Only in isolated colleges where no women's colleges are near do college men turn to the town gals.



Jockey is a Trademark.
It refers to underwear made
only by Coopers

☐ TRUE ☐ FALSE

True. Jockey is a registered brand and trademark of Cooper's, Inc. It applies only to Jockey brand briefs, Midways® longs, undershirts, T-shirts and boxer shorts. Each the very finest and most comfortable of its kind, too.

Men on the go
go for **Jockey** underwear



made only by *Coopers*

notices

EARTH SCIENCE COLLOQUIUM
The Departments of Geology and Geophysics and of Meteorology announce a lecture entitled "Some Refinements of the Thermal Contraction Theory" by Dr. Francis Birch, Sturgis Hooper Professor, Division of Geological Sciences, Harvard University; Monday, February 11, 1957, Room 4-231, 4:00 p.m.

LIBRARY

On Wednesday, February 13, a second-hand book sale will be held in Room 14-0413 from 8 a.m. to 4:30 p.m. Reference books and textbooks on many subjects will be available as well as novels, poetry, plays and biographies at \$.10 per item.

14-0413 is located in the basement of the Hayden Library directly below the exhibition gallery. The only entrance to this area is from the corridor in the basement of the north wing.

ACQUAINTANCE DANCE
East Campus House Committee presents an acquaintance dance on Friday, February 15, in Morss Hall from 8-12. Music by the Jerry Davis Orchestra. Refreshments. Admission \$1.00.

DE MOLAY INSTALLATION

A public installation of officers of the MIT "Tech" Chapter of the Order of De Molay will take place at 7:30 p.m., February 13, in the Hayden Library Lounge.

RLE OPEN HOUSE

The Research Laboratory of Electronics will hold an open house this afternoon for all students. Institute research in the fields of microwaves, transistor circuitry, and low temperature physics will be described. Refreshments. 3 to 5 p.m. Start at Room 20 A-122.



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Monday, Feb. 11 and Tuesday, Feb. 12, 1957

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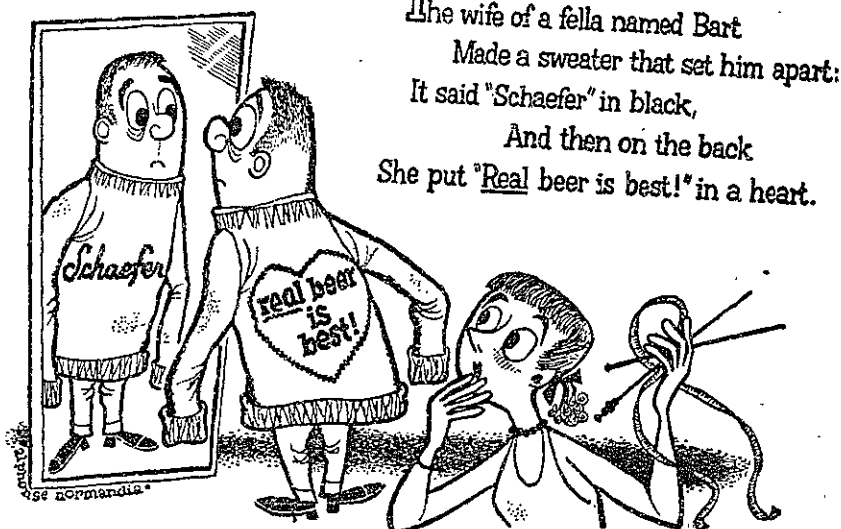
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And then on the back
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