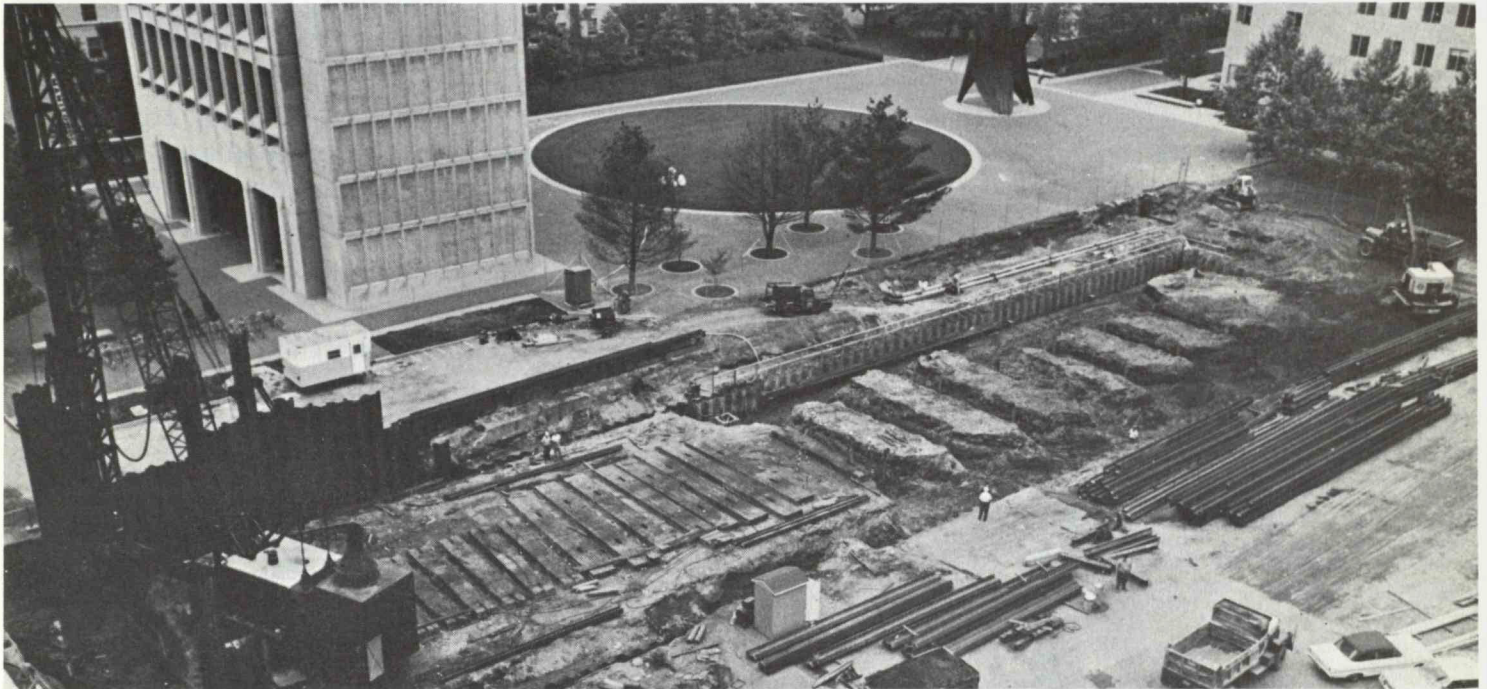


# TECH TALK

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

July 27, 1967

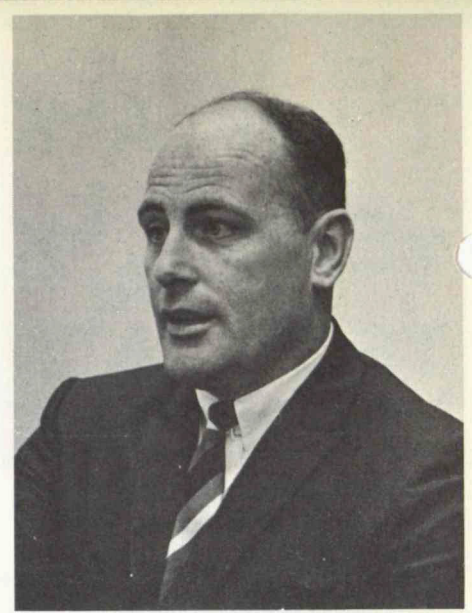


## WHERE THE CONSTRUCTIVE ACTION IS

Like all experienced construction crews, the Aberthaw Company men working in the 280 by 66 foot trench for the new Camille Dreyfus Building for the Department of Chemistry have become accustomed to being observed by interested MIT passersby, usually stationed outside the fenced area of McDermott Court and the Whitaker Building. For the MIT construction observers, the present center of their attention is the 120-ft. pile driver, the prima donna of the construction site. The intricate maneuverings of operating and positioning the driver for the aligning of the cofferdam bracing by its five-man crew make the observer aware of the skill and precision needed for the construction of a building's foundation and support. The pile driver will soon complete its job of setting in the 35-foot long interlocking steel sheet piling that will act as a cofferdam and concrete form for the building foundation. These sheets are driven to a toe-hold in the underlying clay. Next cross bracing will be placed to give lateral support to the sheet piling and then excavation operations will begin downwards for the construction of the double basement and the three tunnels that will connect with the Whitaker Building, the Green Building, and Hayden Library. The excavation goes through a five-foot surface layer of top soil and old fill to clay strata filled with the shells and remains of former oyster beds. The concrete mat foundation slab will be placed first after the excavation is complete and then the cross bracing removed as the basement walls go up. According to Paul Barrett, Physical Plant projects manager, and John Barbato, Physical Plant resident engineer for the Building, the excavation work will be completed in the early fall. Shortly after Thanksgiving the entire basement structure will be covered over. It is hoped that by August of 1968 the entire exterior structure of the top five floors will be completed and closed in so that interior work may be finished in time for an opening in the spring of 1969.

## A JOURNEY TO KABUL

Merton Tefft, a summer vacation staff member of the Fiscal Office of the Division of Sponsored Research for 12 years, and principal of the Williams Elementary School in Newton, will be traveling with his family this summer to Kabul, Afghanistan. On August 30 he will assume the duties of assistant superintendent of a 300-pupil school, kindergarten through 12th grade, serving the American community in Kabul. For the next two years he will be in charge of the elementary level in much the same capacity as his present position in Newton. The school in Kabul, the 350,000 population capital of Afghanistan, is sponsored by the AID/AISC (the American International School Committee) and is made up of the children of the 1500 American families associated with the work of AID, the Peace Corps, and the U.S. Embassy. The Tefft family will leave the United States on July 29 and will travel through Europe and to Istanbul before they reach Kabul, where a home is already awaiting their arrival. Mr. Tefft, a member of the Newton School System for 17 years, and his wife, Esther, look forward to a new family living experience along with their 16-year old daughter, Susan, and their 10-year old son, Steve, both of whom will attend the school. During their two-year stay in Afghanistan the family plans to travel to India, Pakistan and parts of Russia for vacation. Mr. Tefft has been associated with the MIT community in another capacity as physical activities counselor for many of the student programs.



Merton Tefft

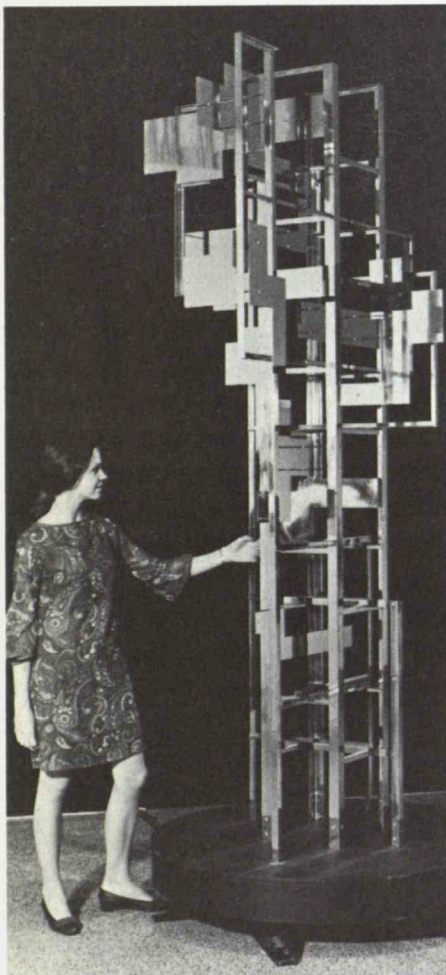
## UNDER A NEW ROOF

The Institute Real Estate Office and the Community Housing Service are accustomed to helping others solve their moving problems, but this week they have their own to think about. On Tuesday the Institute Real Estate Office was to move to the first floor of W-31, the Armory, and on Wednesday, the Community Housing Service to join them in the same location. Here, faculty, staff and students will find listings of houses for sale, and apartments and houses for rent in the Cambridge and the Greater Boston area. The telephone extensions for each office will remain the same.

Another step in the Electronic Systems Laboratory's relocation to Building 35 took place recently. Approximately one-third of the ESL personnel has been moved in there, and it is hoped that the rest of ESL will be moved in by this December. For the past 25 years ESL offices and personnel have been located in Building 32, Tech Square, and Buildings 20 and 24, and all the staff look forward to being situated under one roof.

## THE ESSEX ACCELERATOR

Initial work has started on fabricating equipment for the LNS 400-million electron volt linear accelerator for Middleton in Essex County, and site construction is expected to begin in early fall. Essex County Commissioners last week approved transfer of 91 acres to MIT. A local newspaper reported that MIT would use part of the site for the future construction of a "tandem vandygraph." Before the Van de Graaff generator is a reality, construction activities will be devoted to building the \$3.6 million LINAC. The accelerator proper will be a specially designed copper tube 600 feet long which is fed at intervals with bursts of radio frequency power from high power transmitters similar to those used in radio and radar applications. The accelerating tube, or waveguide, will be contained in an underground vault some 600 feet long, 10 feet high and 10 feet wide. When it is operational, there will be 35 or 40 persons working at the LINAC.



Marietta S. Millet is shown with a new acquisition to the MIT Art Collection. The sculpture entitled "Spatiodynamique" is currently on exhibit in Hayden Gallery. A gift to the Institute from Mr. and Mrs. Max Wasserman of Chestnut Hill, Mass., the kinetic light-throwing sculpture is a revolving construction of stainless steel by the German artist Nicholas Schöffer.

### FASSETT FUND BENEFIT

The Classical Musical Society will dedicate its opening night performance of "Li'l Abner" Friday, August 11, in the Kresge Little Theatre to the Julie Fasset Foundation.

During Dean Fasset's term as Dean of Residence, the Fassetts were staunch supporters of the Society and its wintertime equivalent, the Gilbert and Sullivan Society. The Dean provided a valuable liaison between the group and the Administration during its formative years, and has attended its every performance, summer and winter, even those that have been staged since his retirement a year ago. Dean Fasset will make the trip from his Damariscotta Mills, Me., home to be on hand for the first-night performance.



Will he get away this time? -- Li'l Abner(Norman Rubin) & Daisy Mae(Sue Waldman)

The \$3 proceeds from each ticket purchased for opening night will benefit the Foundation. The first project to be undertaken by the Foundation's student committee and faculty advisory board is the establishment of a campus garden retreat, a haven from the pace of the rest of the Institute. Mrs. Fasset's warmth and understanding provided a "haven" for generations of MIT students.

Opening night will be followed by performances August 12, 15, 16, 17, 18 and 19 at regular prices. Tickets for all performances, including the benefit, can be obtained in the lobby of Building 10 or by calling Kresge at Ext. 2910.

### HAPPENINGS

---The MIT Community Players sponsored by the Summer Session Office will present two one-act plays on Wednesday, Thursday, and Friday evenings, August 2, 3, and 4 at 8:30 p.m. in Kresge Auditorium. The plays, "The Collection" by Harold Pinter and "Try, Try" by Frank O'Hara, depict undercurrents and drives in human relationships. Members of MIT involved in the production are Margaret Kraatz, Maury Lanman and Jim Gleisman. Admission to the plays is free and tickets may be obtained from the Summer Session Office, Rooms 7-108 and E19-356.

---Making a transition from City Hall to academic halls will be Boston's Mayor John F. Collins upon his retirement from city politics January 1. As Visiting Professor of Urban Affairs, Professor Collins will be affiliated with the Department of Political Science, the Sloan School of Management and the Department of Civil Engineering.

---"Truly outstanding and the unanimous choice of the judges," was the way one official of the American College Public Relations Association described MIT's entry in the Association's National Honors Competition. Tangible evidence of the first place award to the Office of Publications came July 25 at the annual ACPRA meeting in Dallas, where a Certificate of Exceptional Achievement plus a \$500 Incentive Grant were awarded for the staff's total publications program for the past year.

### ACCOUNTING MADE

MIT Credit Union accounts ending in 2 and 3 have been audited as of June 30, 1967 and corresponding quarterly statements have been stamped with a request that members check their statements and report any exceptions directly to the Supervisory Audit Committee. Joseph Cullinan, chairman of the committee, urges members with accounts ending in 2 and 3 to examine their statements carefully. Notify him at the Payroll Office, Ext. 4491 or Room E19-515 if no statement has been received.



## ELECTRICAL SHOCK

Last year over 1000 persons in the U.S. died from electrical shocks and many additional thousands received lesser injuries from electrical sources. The National Safety Council states that almost all of these deaths and injuries resulted from the initial failure to take simple precautions and to administer immediate and proper treatment to victims. The MIT Accident Prevention Guide includes a list of suggestions for persons working with electrical and electronic equipment.

Although much remains to be known about how electricity affects the human body, a complete understanding is not necessary to recognize that electricity is potentially dangerous and that a set of precautions for working with electricity should be established.

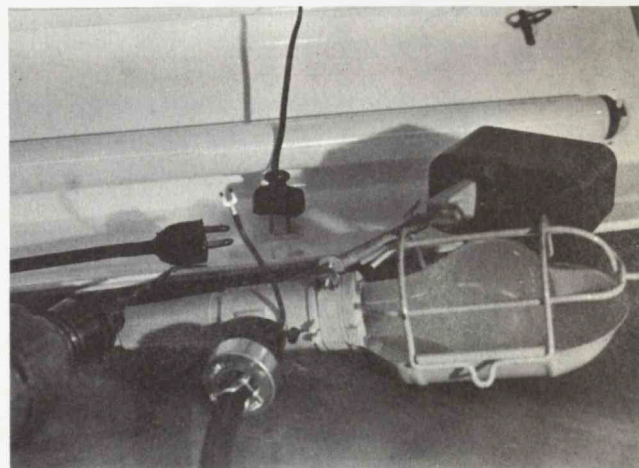
A person receives a shock when he becomes a part of a circuit, and his body conducts the flow of the current. This circuit is completed by 1) touching both wires of a circuit, 2) contacting a "hot" wire and the ground, or 3) contacting a metal part that has become energized due to a "short."

The severity of a shock depends on three variables: 1) the strength of a current (amperage); 2) the path of the current; 3) the length of time which the body is part of the circuit. The voltage is important only in that it supplies the potential for which the strength of the current is determined; the path of the current determines the body resistance and the body parts susceptible to damage. When the body becomes a part of an electrical circuit, interference with the performance of the nervous or the respiratory systems may result; if this interference is too great or too long, these systems may break down completely.

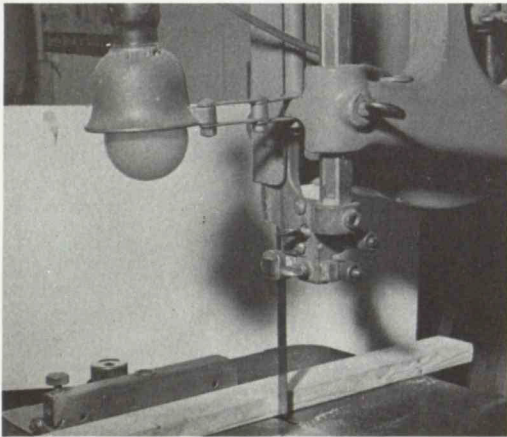
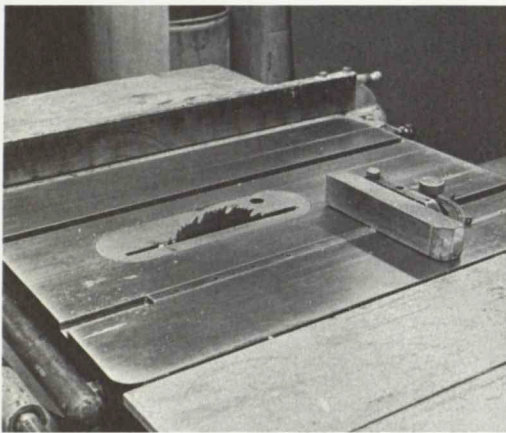
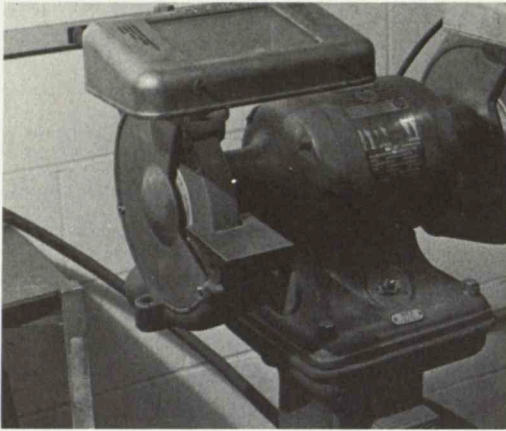
The body does not have to become part of the circuit for electrical burns to occur; contact with an energized source is all that is necessary. A common cause of electrical burns is the body coming into contact with an energized source indirectly by a metallic instrument or partly while the body is not "grounded."



Potential electrical danger: the overloaded circuit.



How to live dangerously: cut off the ground prong of a drill; leave a light ungrounded; disconnect and unground an adapter wire.



### MECHANICAL GUARDING--WHAT?

The hazards of cutting or of shearing mechanism are at the points where a rotary cutting action is used, or where the moving parts of a reciprocating mechanism approach or cross a fixed object. Examples of such machines are band and circular saws, grinding machines, milling, drilling and boring machines.

### SMOOTH PEDALING

After conducting a six-month study of more than 800 non-fatal bicycle accidents in Massachusetts, The Medical Foundation, a United Fund agency, offers the following tips for safe and enjoyable cycling.

Like any other vehicle, a bicycle must be in excellent condition for the safest operation. Since a leaky tire can result in a blowout and loss of control, tires should be properly inflated and the coaster brakes should be tested, cleaned and adjusted regularly. All moving parts should be cleaned and lubricated frequently, and worn pedals and handle grips should be replaced immediately. Attention should be paid to the fact that poor adjustment, friction and wear of a part is evident if noises occur when the bike is in motion.

The rules of the road are basically the same for the bicycle as for any other vehicle. Keep to the right-hand side of the road, ride single file, do not overload a bike by carrying a passenger, and never hitch a ride on cars or trucks. Avoid crossing crowded streets and highways; get off and walk when the vehicle or pedestrian traffic is heavy. One should also be aware of local regulations about riding on sidewalks, and it should be noted here that riding bikes on and off curbs seriously affects operating ability. Use hand signals when stopping or turning, have a bell that always works, and do not weave in and out of traffic or do "stunt" riding.

In addition, it is important for parents to know when the child has developed the coordination and the ability to handle a bicycle.

### MIT ACCIDENT PREVENTION GUIDE

The May 1967 edition of the MIT Accident Prevention Guide is now at the printers and will be ready for distribution sometime during August. All holders of the 1966 edition should call the Safety Office if they wish to receive a copy of the revision. The format of the Guide has been changed so that in the future revision and changes will be made by replacing pages. It is anticipated that policies on safety developed after this printing will be mailed to those holders of the guide that have registered in the Safety Office. Pockets have been provided in the covers for those wishing to keep in one place "Safe Talk" copies. Any M.I.T. personnel may register to receive a copy of this publication.