

First Student Telethon Shows Promise

At its midpoint, the first-ever student telethon to alumni shows signs of being a great success. It has raised nearly \$45,000 of a \$50,000 goal and there are still five nights to go.

Though that figure looks rosy, at the same time, only 1,213—much closer to half—pledges have been made toward a goal of 2,000 pledges.

Specific aim of this first telethon is to raise money for the Independent Residence Development Fund (fraternities) and the Campus Residents Fund (dormitories). How-

ever the students will happily accept any designation the pledging alumnus/a makes. So far, about half the pledges have been designated for one of the residence funds.

The idea for a student telethon originated last year as one means of encouraging more communication between students and alumni. Choice of the residence funds for a beginning target seemed a natural since most students and alumni have had experience with the living groups.

Student recruiting for the tele-

thon began last fall with visits to the living groups by Joan Sclar, telethon coordinator and administrative assistant to Stephen P. Denker, director of the Alumni Fund.

"Many students showed immediate interest and several residences made tentative commitments," she said. "Later we made firm appointments with all groups who agreed to participate."

Inducements to student cooperation are pizza and beer each evening before telephoning begins, a free telephone call within the continental US and miscellaneous prizes donated by local businesses for random accomplishments. Such accomplishments include the next pledge over \$50, the next increased pledge or the next pledge from someone who hasn't given for two years or more.

"You just won me two tickets to the John Hancock Observatory," one telethoner was overheard telling his contact.

A number of the student callers also have been offered jobs during the course of their calls. And some have been invited to dinner.

The calls also work to the benefit

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Renowned Russian Scientist Benjamin Levich to Speak

Benjamin Grigorevich Levich, the renowned Russian scientist whose request to emigrate to Israel brought him his government's official scorn and censure for six years, will lecture at MIT March 13 on physicochemical hydrodynamics, a field he largely created.

Professor Levich, the highest ranking Russian scientist to be refused permission to emigrate, will speak at 3pm in Rm 10-250. His subject: "Physicochemical Hydrodynamics: Its Current State and Some Problems."

Dr. Ascher H. Shapiro, Institute Professor, of the Department of Mechanical Engineering, will be Professor Levich's host during his two days at MIT. He is scheduled to arrive Monday, March 12.

Professor Shapiro, who has never met Professor Levich, is one of several people at MIT—including Dr. Jerome B. Wiesner—and elsewhere who have worked since 1972 to convince the Russians to approve an exit visa for Professor and Mrs. Levich. Their two sons had been allowed to leave in 1974.

Sen. Edward M. Kennedy was contacted in behalf of Professor Levich just before Sen. Kennedy's

trip to the Soviet Union in September. The senator discussed the Levich case—and those of several other Soviet Jews—with President Leonid Brezhnev.

Several weeks went by before Professor Levich, who formerly held the Chair of Chemical Mechanics at Moscow State University, was informed that he would be allowed to leave. Mr.

Rasmussen Reasserts Position on Power Plants

Dr. Norman C. Rasmussen, head of the Department of Nuclear Engineering, testified before a House subcommittee in Washington, D.C., Monday, Feb. 26, that a new report criticizing the reactor safety study of which he is the principal author does not mean that power plants are any more safe or unsafe than originally believed.

Professor Rasmussen's assessment was shared by the man who headed the group that criticized the Rasmussen report and by several members of the Nuclear Regulatory Commission, according to the Associated Press report of the testimony.

Testifying before the subcommittee on energy and the environment of the House Committee on Interior and Insular Affairs, Professor Rasmussen said:

"On the basis of experience data, I believe it is possible to confirm that the basic result of the Reactor Safety Study—that reactor accident risks are small compared to other societal risks—remains valid. I believe the risk from today's reactors is acceptably low."

The Associated Press report continued:

H. W. Lewis, a professor at the

Fraud Scheme Surfaces Again

In what appears to be an annual event these days, another fraud scheme has surfaced at MIT, according to Robert E. Durland of the Purchasing Office.

In this version, agencies with governmental-sounding names—General Services Agency for example—call MIT offices directly offering to sell surplus material at bargain prices.

If the intended victim responds, the caller requests shipping instructions and states the invoice will be enclosed with the goods or requests payment in advance because of the low price. What the victim gets, however, is either no materials at all or inferior materials at inflated prices.

Please refer any such calls to Mr. Durland, x3-7245.

University of California who headed the panel that criticized the Rasmussen report, told the subcommittee his report "does not mean that reactors are either more or less safe than was projected in that (Rasmussen) report, only that we are less sure of the conclusions."

The testimony came at a hearing on the controversy that has developed since the Lewis report was issued earlier this year and since the Nuclear Regulatory Commission announced it was lessening its reliance on the Rasmussen report, which was released in 1975.

The Rasmussen report, prepared by a panel of scientists, analyzed the chances of nuclear power plant failure that could release dangerous radiation. It found that the risk of death from a power plant accident was low compared with the risk from other energy sources.

The Lewis report was requested by Rep. Morris Udall (D-Ariz.), chairman of the House panel, which found that the statistical method of determining risk used in the Rasmussen report was valid but said there was inadequate data for the conclusions. It also claimed there were some faulty calculations in the Rasmussen report.

Rasmussen agreed with Lewis' findings that the probabilities of a power plant accident were more uncertain than his report implied.

Library Booksale

Who's Who? Find this reference work and thousands of other volumes at bargain prices at the MIT Libraries Booksale.

This annual event will take place on Wednesday and Thursday, March 7 and 8, in Rm 7-102, 10am-4pm.

Books in all subject areas, technical reports, journals, records and tapes will be offered. All sale items are surplus library material. Proceeds from the sale will be used for library purchases.

Plan on stopping in at the sale more than once as prices are reduced as the sale progresses.



Professor Herbert S. Bridge is shown here with a prototype of the instrument aboard Voyager 1 which is measuring the solar wind near Jupiter. —Photo by Calvin Campbell

Scientists to Measure Jupiter's Solar Wind

Half-a-dozen MIT scientists are in California this week to complete work that has been years in preparation.

The spacecraft Voyager I was launched 17 months ago and on March 5 it will fly within 280,000 kilometers of the surface of Jupiter, giving scientists their best look yet at the largest planet in the solar system.

The MIT scientists, working on one of 11 experiments aboard Voyager, are obtaining important data about the solar wind, or interplanetary plasma, vast clouds of tenuous ionized gas that blow continuously from the sun and spread through the solar system at supersonic speeds. They also hope to make the first definitive measurements of the interaction of the wind with Jupiter and, most important, hope to make the first measurements of low energy plasma inside the Jovian magnetosphere.

Herbert S. Bridge, director of MIT's Center for Space Research has spent much of his career studying and measuring the solar wind.

"Thirty years ago scientists thought the earth essentially moved through a void," said Professor Bridge. "But now it is generally accepted that the earth moves within the outer extension of the sun's corona."

This extension of the sun's corona—the solar wind—is composed of positively and negatively charged pieces of atoms. The wind sometimes affects radio transmissions on earth and causes the aurora borealis, or northern lights, when the particles slip into the earth's atmosphere at the poles.

Scientists can't study the solar wind from earth because the earth's magnetic field keeps the wind from coming closer than about 65,000km to Earth. Since 1960, Professor Bridge and his colleagues have put instruments designed to measure and help the scientists learn about the solar wind on about 15 spacecraft.

The instrument on Voyager I (and also on its sister ship, Voyager 2, which will encounter Jupiter

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Credit Union Plans Banquet March 17

The annual banquet of the MIT Employees Federal Credit Union will be held Saturday, March 17 (St. Patrick's Day—want to make something of it??), at 7pm at the Montvale Plaza in Stoneham.

Tickets, at \$10 each, will be limited to two per member. They will be on sale beginning Friday, March 2, at 4:30pm in the Lobby of Building 10. Tickets for Lincoln Laboratory members will be sold at the Lincoln Credit Union Office (Rm A-010) beginning at noon Friday, March 2.

When buying tickets members must have their membership cards or be prepared to give their membership numbers.

Club Closed

Because of a special luncheon for the MIT Corporation, the Faculty Club will be closed for lunch on Friday, March 2. It will reopen for business as usual on Friday evening.

Open House For Employees Planned in May

With the grey of late winter permeating our souls, a spring date to look forward to is a good thing to have.

So mark your calendars for Saturday, May 12, when the third biennial MIT Employees Open House will be held from 10am-4pm. These open houses offer an opportunity for all employees to share their working experiences with their families and friends as well as to explore parts of the Institute not usually encountered while working.

The planning committee for this year's event has just been assembled under the aegis of the MIT Quarter Century Club. Members of the community who would like to volunteer to work on arrangements are asked to call Ann Perkins at the Quarter Century Club Office, x3-3714.

Employees are also—in fact, especially—invited to call Ms. Perkins with suggestions of exhibits or activities they would find educational, helpful or entertaining.

One innovation at Employees Open House two years ago was an exhibit of arts and crafts executed by members of the community. This event proved so popular that it is already on the schedule for this year. MIT artisans who would like to enter exhibits should call Tony Zona, x3-5297.

Brecher, Shapiro To Be Seen On Einstein Show

Two MIT professors—Kenneth Brecher and Irwin I. Shapiro, both of the Department of Physics—will be seen on television in March when stations of the Public Broadcasting Service show a special program commemorating the 100th anniversary of the birth of Alfred Einstein.

"Einstein's Universe" is a co-production of the British Broadcasting Corp. and WGBH-TV of Boston. WGBH-TV will televise the program March 13.

Professors Brecher and Shapiro are two of the six internationally known physicists and astronomers involved in the film. The format is to have the six explain Einstein's ideas in conversational style to an interested layman—Peter Ustinov. The other scientists are John Wheeler of the University of Texas, Austin; Roger Penrose, Oxford; Wallace Sargent, California Institute of Technology; and Sidney Drell of the Stanford Linear Accelerator Center.

The six were at McDonald Observatory, operated by the University of Texas in the Davis Mountains of West Texas, last month for a filming session.

The observatory has 107-inch and 82-inch reflecting telescopes and is the site of a lunar ranging program designed to test Einstein's theory of general relativity. The test involves bouncing laser light off reflectors placed on the moon by Apollo astronauts. Scientists measure the round-trip travel time for the light and can determine to within three inches the distance between the earth and the moon.

Other filming will be done at Arecibo Observatory in Puerto Rico and the Stanford Linear Accelerator in California.

Crowe Appointed In Development

G. Rodger Crowe, associate director of the Arts Council of Erie, Pennsylvania, has been appointed assistant director of the Development Office at MIT.

Mr. Crowe has twelve years of experience in development, including eight years in higher education. From 1966 to 1970 he directed the Central Research Unit of Northwestern University during its \$180 million capital campaign. From 1970 to 1973 he was director of Development at Villa Maria College in Erie.

Mr. Crowe received the BS degree in marketing management from Northwestern University in 1965. He has attended the Harvard Institute for Educational Management and will receive the MBA degree from Gannon College in Erie, Pa., in May 1979. His master's thesis deals with the philanthropic behavior of individuals, specifically those factors which correlate with the level of giving.

Mr. Crowe will have broad responsibilities in the Development Office in support of the Institute's senior officers and Resource Development staff.

Announcement of the appointment was made by Donald B. Johnson, director of the Development Office.

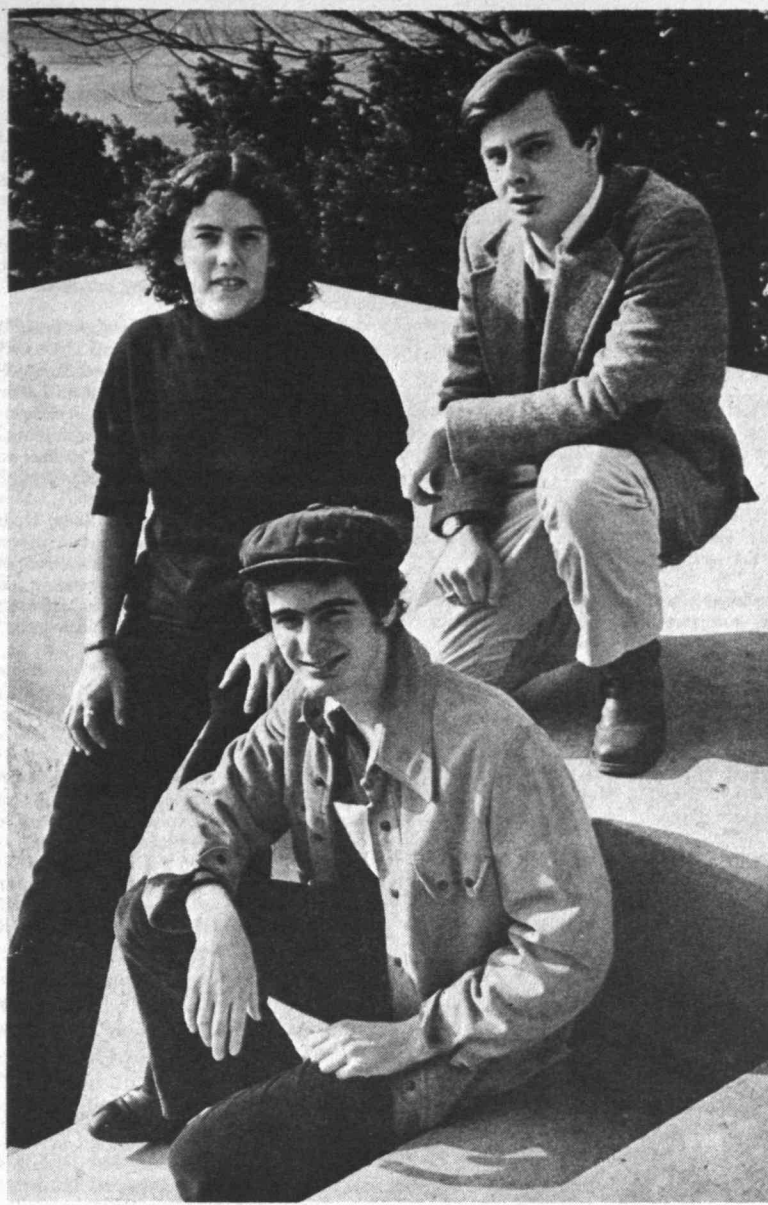


Mr. Crowe

Forums to Focus on 'Computers and Society'

The first of a series of three public forums on Computers and Society will be held Wednesday, March 7, at 4pm in Rm 54-100. The title of the first forum is *Computers and the Work Place*.

Panelists will be Rob Kling, assistant professor of computer science at UC Irvine; Laurence Reineman, president of First National Bank of Boston; Howard Angione, news technology editor at the New York Times, and Octo Barnett, di-



THREE FOR ENGLAND—MIT students (l. to r.) Beth Marcus, Dan Galson and Scott Lewis have been awarded Marshall Scholarships for two years study in England. Ms. Marcus will be going to London University, Mr. Lewis to Balliol College, Oxford, and Mr. Galson has been accepted at King's College, Cambridge.

—Photo by Calvin Campbell

Marshall Scholarships Awarded to Three at MIT

Three MIT students are among thirty from the United States who have received Marshall Scholarships for 1979-81 from the British Government.

Winners from MIT are Scott Lewis, a graduate student in mechanical engineering, Beth Marcus, a senior in mechanical engineering and Dan Galson, a member of the class of 1980 who expects to receive the SB and SM in earth and planetary sciences this June.

Lewis will be studying at Balliol College, Oxford, for the D. Phil. He will be working on an existing project in fault imaging, a new kind of computerized mapping technique, with Dr. I.M. Mason of Oxford. Lewis will work on the design of a microprocessor based system to map faults in coal seams without excavation. The project is supported by Britain's National Coal Board.

Ms. Marcus, who is president of the senior class, will attend London University. She received the SB in mechanical engineering and biology in January and expects to finish work for the SM in September. She is interested in working on prosthetics or rehabilitation, and chose London University because of the opportunity it offers to do clinical work in London hospitals.

Mr. Galson has been accepted at King's College, Cambridge, where he may work with Dr. Dan McKenzie on the dynamics of the earth's mantle. He is particularly interested in a study of the North Sea sedimentary basin, continental stretching and lithospheric thinning, two factors which relate to the formation of hydrocarbons.

Aside from the educational opportunity the scholarships offer, Mr. Lewis, Ms. Marcus and Mr. Galson are all eager to experience living in a country with a different political system and social values from those of the United States.

The scholarships were founded in 1953 as an expression of British appreciation for help given under the Marshall Plan. The original 12 scholarships have increased over the years to the present 30.

The awards include payment of fares to and from Britain, full tuition, book grant, cost of study travel, a thesis grant and living allowance.

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Rhodes Scholar Adams Wins Prize

James E. Adams, Jr., a Course XXI literature major in the class of 1977 and a Rhodes Scholarship winner that year, has been awarded the Charles Oldham Shakespeare Prize, one of Oxford University's highest literary honors.

Competition for the prize involves nine hours of intensive examination, an ordeal both physical and mental, according to Mr. Adams, and one for which he spent three weeks of "obsessed" preparation. Standard dress for competitive examinations at Oxford includes black suit, white bow tie, and academic cap and gown.

According to the Oxford University Calendar, the Oldham was

What Do I Do Monday? and other books, and Seymour Papert, Cecil and Ida Green Professor of Education at MIT. MIT President Jerome Wiesner will be the moderator.

The title and participants of the third forum, scheduled for early May, will be announced later. The series is sponsored by the Program in Science, Technology and Society.



Mr. Adams

Computer Graphics Conference To Assess State of Knowledge

A conference on computer graphics in CAD/CAM systems will be held at MIT from April 9 to 11.

The conference is sponsored by the MIT Department of Mechanical Engineering in cooperation with Applicon, Inc., Burlington, Computervision Corp., Bedford, General Electric Co., General Motors Corp. and Westinghouse Electric Corp.

Dr. David C. Gossard, associate professor of mechanical engineering at MIT, who will chair the conference, said its purpose is to establish the current state of knowledge in computer graphics and to assess problems that will affect future development.

Computer graphics experts from industry, government and academe will present papers in sessions on mechanical systems applications, integrated circuit design,

specific mechanical applications, printed circuit board layout, wiring interconnection and documentation, geometric modeling, emerging technologies and educational programs in computer-aided design and manufacture.

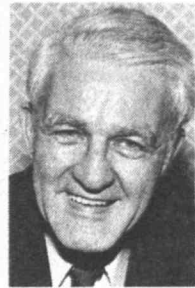
The conference keynote address, "A Perspective on the Role of Computer Graphics in CAD/CAM" will be given by Sylvan Chasen, staff scientist in Lockheed Georgia Co.'s advanced design division.

Working with Professor Gossard on the conference executive committee are Philippe Villers, senior vice president, Computervision Corp., and Robert Tatem, supervisor, design and manufacturing technology, Bell Telephone Laboratories, North Andover.

Those interested in attending the conference should contact Barbara Weinblatt, assistant for special events, Rm 4-237, x3-1703.

Cambridge Chamber Elects Milne

Walter L. Milne, assistant to the chairman of the Corporation and special assistant to the president of MIT, has been elected president of the Cambridge Chamber of Commerce for 1979.



Mr. Milne

A past vice president and director of the Chamber, Mr. Milne was chairman this year of the Chamber's membership committee. He is a director of the Reliance Cooperative Bank, a trustee of the Moses Kimball Fund, and a member and past president of the Cambridge Rotary Club.

A corporator of the Cambridge Family "Y" and the Mt. Auburn Hospital, he is on the board of the Cambridge Red Cross, on the advisory board of the Salvation Army, the Cambridge Civic Unity Committee, and the East End House, of which he served as president for five years.

He has also been a board member of the Cambridge Model Cities, the Cambridge Economic Opportunity Committee, the Just-A-Start Corporation, and he helped establish the Neighborhood Family Care Center in Cambridge. In Boston he is a member of the technical and policy boards of the Boston Urban Observatory, and a member of the advisory council of the city-wide magnet school district.

Mr. Milne said that this year the Chamber of Commerce will give the highest attention and priority to economic development.

Atoms for Peace Proceedings Out

Proceedings of the Atoms for Peace Awards (A Memorial to Henry Ford and Edsel Ford), edited by James R. Killian, Jr., has just been issued by the MIT Press.

In the preface, Dr. Killian writes, "... it is interesting to compare the views expressed when the awards were made (1957-69) with current views about nuclear technology and policies."

"The addresses by eminent men, both statesmen and scientists, at our award convocations are worthy of preservation and constitute a record of putting the atom to work for benign, life-giving use. This has heightened meaning today as we contemplate the grim hazards of the continuing nuclear arms race and the importance of recognizing that idealistic atoms for peace objectives can be corrupted to increase and not diminish proliferation and other nuclear hazards."

Dr. Killian also paid tribute to the late M. Bryce Leggett, associate director of admissions and executive secretary to the trustees of the Atoms for Peace Awards, Inc., who compiled material for the book and was editing it at the time of his death in the summer of 1977.

Edgerton Elected To Hall of Fame

The Photo Marketing Association has elected the father of the strobe light to its Hall of Fame.

Dr. Harold E. Edgerton, Institute Professor, Emeritus, and professor of electrical measurements, emeritus, in the Department of Electrical Engineering and Computer Science, will be formally inducted at the international association's 55th annual convention March 26 in Chicago.

Previous recipients of the award include Victor Hasselblad and Dr. Edwin H. Land.

The award is presented to a select number of individuals who have made substantial contributions to the advancement of the industry, the association said.

Postal Notice

The US Postal Service has suspended all mail service to Iran, effective February 6, until further notice. Iran bound mail is to be returned to sender. Postage is refundable.

Faculty Members Elected Trustees

Two members of the MIT faculty have been elected to the boards of prominent local institutions recently.

Institute Professor Walter A. Rosenblith, MIT Provost, was elected to the board of trustees of Brandeis University on Jan. 22, 1979, for a term of five years.

Dr. Melvin H. Rodman, Medical Director and professor of medicine at MIT, was elected a trustee of Mt. Auburn Hospital at the annual meeting of the hospital's Corporation on January 10, 1979.

Exhibits

Exhibit* — A two-man show of photographs by John McWilliams and Lawrence McFarland. On view through Feb 28, Mon-Fri, 9am-10pm; Sat, 10am-6pm; Sun, Noon-8pm, Creative Photography Gallery, 120 Mass Ave, Cambridge, MA. For information call 253-4424.

Subjects* — A two-man show representing the work of photographers who have been concentrating on one subject, theme, place or approach for a period of time. On view March 6 through April 3, Mon-Fri, 9am-10pm; Sat, 10am-6pm; Sun, Noon-8pm, Creative Photography Gallery, 120 Mass Ave, Cambridge, MA.

Color and Vision* — Representing the work of Harvey Stein (Parallels: A Look at Twins), Duane Michals (Homage to Cavafy), James Van Der Zee (The Harlem Book of the Dead), and Jim Goldberg (The San Francisco Series). On view March 6 through April 4, Mon-Fri 9am-10pm, Sat, 10am-6pm, Sun, Noon-8pm. Public Reception, Tues, March 6, 5-7pm, Creative Photography Gallery, 120 Mass Ave, Camb, MA.

Robert Alley* — High speed photographs by Harold E. Edgerton, Institute Professor and Professor of Electrical Measurement, Emeritus. Bldg 4, 4th floor.

Anthony Dubovsky* — Sponsored by the Committee on the Visual Arts. Photographic essay, and lecture given by artist. On view daily through March 7, 10am-4pm; Wed evening 6-9pm, Hayden Corridor Gallery, 160 Memorial Drive, Camb, MA.

Historical Collections* — Katharine Dexter McCormick, '04; Vannevar Bush, '16; Bldg 4 corridor. **The New Technology Exhibit**, 2nd floor lobby of Lobby 7. **Energy Exhibit**, Bldg E40, 1st floor. **Solar Energy**, Bldg 8, main corridor. **Harvard-MIT Rehabilitation Engineering Center**, Bldg 4, 8th floor. **Rogers Building Exhibit**, Bldg 4. **Meteorology**, Bldg 8, 8th floor. **Norbert Wiener**, and **Karl Taylor Compton**, Bldg 4. **Laboratory for Physical Chemistry**, Bldg 6.

Books 2000: Publishing AT MIT Press* — An exhibition on the MIT Press, one of the largest and youngest of America's university presses, and one of the few existing at a major technological institution. Sponsored by the Compton Gallery Committee. On view Mon-Fri, 9:30-5pm, through March, Margaret Hutchinson Compton Gallery, Rm 10-150, Cambridge, Mass.

MIT Science Fiction Society* — Come and visit the world's largest lending science fiction library. Hours posted on door, Rm W20-421.

New Records* — Music Library, Rm 14E-109. Exhibit of record jackets of recent Library purchases.

MIT Historical Collections* — In house exhibits include antique globes; the Ellsworth A. Wentz Collection of motors and meters; rare instruments including compasses, sundials and other measuring devices from the 17th and 18th centuries; Early Alumni and several exhibits of memorabilia and photographs honoring prominent graduate of the Institute. Charles Stark Draper: Many Facet of the Man; The Compton years, a photographic essay of the lives of Dr. & Mrs. Karl Taylor Compton. On view daily, 9am-5pm, 265 Mass Ave, 2nd floor, Camb, Mass.

The Outdoor Collection* — There are many fine pieces of contemporary sculpture displayed on the MIT campus, including works by Alexander Calder, Louise Nevelson, Pablo Picasso, Henry Moore, Tony Smith and Jacques Lipschitz. For more information and guides to the campus, call the Information Office, x3-4795.

Hart Nautical Museum* — Permanent exhibit of rigged merchant and naval ship models, half models of yachts and engine models. Open daily in Bldg 5, 1st floor.

Ger Dekkers: New Dutch Landscape* — Sponsored by the Committee on the Visual Arts. On view daily through March 7, 10am-4pm; Wed evenings 6-9pm, Hayden Gallery, 160 Memorial Drive, Camb, Ma.

Theater

King Lear and Mr. Pinter* — Scenes by the Shakespeare Ensemble. Mar 2, 3, 8pm, Rm 9-150. Free.

Athletics

Home Schedule* — Fri, Mar 2: Pistol, WPI & Boston State, 7pm. Sat, Mar 10: Rifle, New England College Rifle League Finals, 9am. Sun, Mar 11: Rifle, Collegiate Sectionals, 9am.

Women's Intercollegiate Softball Teams Organizational Meeting** — Varsity and Junior Varsity. Mon, Mar 5, 7pm, Rm W31-118. All interested undergraduate women are welcome.

Dance

Dance Workshop* — Modern dance classes, Mon & Wed technique classes, Thurs Composition-Improvisation Class, 3-5pm, T-Club Lounge, duPont Gymnasium.

Freshmen are encouraged to attend departmental lectures and seminars. Even when these are highly technical they provide students one means to learn more about professional work in a department and field.

*Open to the public
 **Open to the MIT community only
 ***Open to members only
 Send notices for March 7 through March 18 to Calendar Editor, Rm 5-113, x3-3270, before Noon, Fri, March 2.

Blood Drive Starts Next Wednesday

Faculty, staff, employees and students at MIT will have the opportunity to donate blood here on campus during the TCA-Red Cross Spring Blood Drive, beginning March 7 in the Sala de Puerto Rico. Herald of the drive is a large blood drop with suspiciously human looking legs, which has been turning up in classrooms and in the hallways. The MIT community has always been generous with blood donation. Though it has only .2% of the regional population the Institute provides over 1% of the blood used in

similarly small showing. Institute policy allows time off whenever possible, for employees to donate blood. The entire process takes about an hour, and if appointments are made in advance is pleasant and troublefree. The blood collected at the drive is provided to patients in hospitals in the northeast region (Massachusetts and Maine) free of charge except for hospital costs. Further, residents of the region are eligible to receive free blood at any hospital in the country that accepts blood from the Red Cross, as are members of their families even though they are not regional residents.

An East Campus mini blood drive on March 5 and 6 has been organized for the convenience of East Campus and Draper Laboratory employees and residents of Eastgate. Application forms for this drive have been distributed with Tech Talk this morning.

The Spring Blood Drive will be open for eight days, March 7-9 and 12-16. Jerry Marks, chairman of the drive, hopes to collect 2,000 pints of blood during this period. Application forms for blood donors are available at the TCA office, Rm W20-450.

the northeast region. Best support of the drive has come from undergraduate students. In the Fall Blood Drive five times as many undergraduates made appointments as graduate students. Faculty, staff and employees made a

Lincoln Laboratory's Spring Blood Drive, conducted by the American Red Cross Minute-man Chapter, will be held on Monday and Tuesday, March 5 and 6.

25 to Participate in SDP II

The second session of the Supervisory Development Program (SDP II) began on Tuesday, Jan. 23, with 25 participants from various Institute departments, centers, and laboratories. The program, which focuses on matters of MIT policy and related human relations skills, will continue to meet every Tuesday afternoon for ten weeks. Participants selected for the SDP II were:

Nancy Ahlquist, Center for Cancer Research; Patricia Anderegg, Nutrition and Food Science; Clementine Coblyn, Libraries; Deborah Cohen, Resource Planning; Edward Dahlstedt, Housing.

James Dalton, Mathematics; John Doherty, Information Processing Services; Barbara Durland, Alumni Office; Charles Ellis, Center for International Studies; Winston Flynn,

Registrar's Office. Phyllis Gallant, Resource Development; Paul Honiker, Comptroller's Accounting Office; Barbara Johnson, Energy Laboratory; Eva Kampits, Laboratory for Computer Science; Peter Kelley, Information Processing Services.

Muriel Lanpher, Admissions; Anne Lees, Chemistry; Justina Leler, Medical; James McCarthy, Division for Study & Research in Education; Kenneth Phillips, Comptroller's Accounting Office.

Shirley Picardi, Industrial Liaison Program; William Risinger, Information Processing Services; Brooke Stevens, MIT Press; Rosemary Viano, Athletics; Zipora Urbach, Benefits Office.

Principal instructors for the program are Claudia Liebesny, director of Personnel Services, and Drs. Adam and Maureen Yagodka, co-directors of the Office of Personnel Development.

Shakespeare Ensemble to Perform

The MIT Shakespeare Ensemble will present "King Lear and Mister Pinter," a performance of scenes from Shakespeare and Pinter, on Friday and Saturday, March 2 and 3, at 8pm, in Rm 9-150. The scenes selected from King Lear depict Edmund's initial deception of his father and brother; Kent's quarrel with Oswald and his punishment by Cornwall; Lear's denunciation of his two elder daughters and his flight into the storm; and the blinded Gloucester's arrival at the cliffs of Dover. Works by contemporary British

playwright Harold Pinter will include sketches from *A Night Out*, *The Homecoming*, *Night, Applicant and Trouble in the Works*. Each sketch will be a dialogue between two characters, illustrating Pinter's favorite subject—the problem human beings have in communicating with each other. Fifteen of the Ensemble's 22 actors will participate in the performance, as will five freshmen who are members of the Ensemble's first apprenticeship program for actors. This presentation will be free and open to the public.

Pye Elected at East-West Center

Dr. Lucian W. Pye, Ford International Professor of Political Science, has been elected vice chairman of the East-West Center Board of Governors. He also was appointed chairman of the board's executive committee. The East-West Center is the educational institution established by

Congress in 1960 to promote better relations and understanding among the nations of Asia, the Pacific and the United States through cooperative study, training and research. Professor Pye was appointed to the East-West Center board by the US secretary of state.



LECTURE SERIES BEGINS—Dr. Herman G. Branson, president of Lincoln University, Pennsylvania, left, is escorted by Dr. Jerome B. Wiesner to Rm 10-105 where Dr. Branson spoke Monday, Feb. 26. He was the first lecturer in MIT's Minority Graduate Students Spring Lecture Series. Three other black college presidents will speak at dates to be announced. Dr. Branson discussed "Availability, Barriers and Solutions in Generating Scholarship in Black Students." Dr. Paul E. Gray, MIT chancellor, was the respondent.

Renowned Russian Scientist Benjamin Levich to Speak

(Continued from page 1) and Mrs. Levich finally reached Israel in December.

Professor Levich, who will be 62 on March 30, was born in Kharkov and graduated from Kharkov University in 1937. He earned his doctoral degree at the V.I. Lenin State Pedagogical Institute in Moscow for work on the theory of processes occurring in an electrolytic cell. This study led him to consideration of the phenomenon of concentration polarization and to the development of the rotating-disc electrode, which brought him international recognition.

Professor Levich's book, "Physicochemical Hydrodynamics," appeared in 1952. It was revised and enlarged in 1959 and appeared in English translation in 1962. The work has been widely recognized as a masterly bringing together of streams of science which, until then, had flowed largely in isolation. He was elected a corresponding member of the Academy of Sciences in 1958 and won many other honors, including the Palladium Medal of the American Electrochemical Society.

Before 1972 he traveled extensively abroad and became a vice president of the International Society of Electrochemists. But in April 1972, when he asked for permission to emigrate, his life changed drastically. His chair at Moscow State University was abolished, he lost his leading position in the Institute of Electrochemistry and ceased to be a member of any editorial board or scientific council. Professor Levich began to encounter great difficulty in publishing his works, conducting seminars and attending scientific meetings.

A biographical sketch published in the proceedings of a meeting organized in England to mark Professor Levich's 60th birthday, concluded

with these words: "The events since April 1972 have, however, imposed upon Benjamin Levich another role, that of a spokesman for the rights of scientists to decide their individual destinies, just like other men, and not to be treated as the property of the state. He has upheld this view consistently and eloquently; and, although not temperamentally a man of organizations or public movements, he has conducted himself courageously and with dignity in the position into which events have thrust him."

Tapscott Wins Foerster Prize

Dr. Stephen J. Tapscott, assistant professor of literature in the Department of Humanities, has been awarded the Norman Foerster Prize, through the Modern Language Association, for the best article published in 1978 in American Literature magazine.

Professor Tapscott won the \$250 prize for his article, "Leaves of Myself: Whitman's Egypt in 'Song of Myself,'" published in the March issue of the magazine. The topic of the essay was the relation of poetic form to politics in Whitman's poetry.

Professor Tapscott came to MIT in 1977 from the University of Kent in England, where he had been a Visiting Fellow in 1976-77. He was an assistant professor of English at Earlham College in Richmond, Ind., in 1975-76. He received his AB from the University of Notre Dame in 1970, and PhD from Cornell University in 1974.

His writing has included *Mesopotamia*, a book of poems published by the Wesleyan University Press in 1975. He received a grant from the National Endowment for the Arts for 1977-78.

Mining & Minerals Librarian Named

Nancy Reid Whitman, formerly Department of Transportation librarian in the MIT Science Library, has been appointed Mining and Mineral Resources librarian with offices in the Barker Engineering Library.



The position is new to the MIT Libraries. It is funded by the Mining and Mineral Resources Research Institute, recently established at the Institute by the Office of Surface Mining of the Department of the Interior.

Mrs. Whitman will provide library services to members of the MIT community interested in mining and mineral resources, and will collate and make available information about library collections in the field at MIT.

A further service will be the publication of a Mining and Mineral Resources Newsletter, which will contain meeting and seminar announcements and reports of recent additions to library collections. Mrs. Whitman will also prepare bibliographies and guides to the literature of mining and mineral resources.

Mrs. Whitman has served as Department of Transportation librarian since 1977. She has the BS in Library Science from Simmons College and has more than ten years experience as technical librarian. Those who wish to use the mining and mineral resources library service can get in touch with her at the Barker Engineering Library, 10-500, x3-6051.

Erdely Duo Plans Kresge Concert

The Erdely Duo will give a free public concert on Sunday, March 4, at 8pm in Kresge Auditorium.

The program will include Beethoven's Sonata in E flat Major, Opus 12, No. 3, Brahms' Sonata in G Major, Opus 78 and Bartok's Second Sonata (1922).

Well known to Boston audiences, the Erdely Duo has also performed in concert halls in New York, Cleveland, Washington, D.C., and at colleges throughout the United States.

Pianist Beatrice Erdely presently teaches piano at Brandeis University and has performed as soloist with the Chicago Symphony, the Grant Park Symphony and the Cleveland Orchestra.

Her husband, violinist Stephen Erdely, is associate professor of music and head of the Music Section at MIT.

Scientists to Measure Jupiter's Solar Wind

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in July) took three years to design and is 100 times more sensitive than any similar instrument that has been put into space. "It had to be," said Professor Bridge, "because as the plasma gets farther away from the sun it becomes much less dense."

Professor Bridge pointed out that one of the things which makes Jupiter a planet different from those previously studied is that it rotates extremely rapidly. Although the planet is huge—142 earths would fit inside it—a Jovian day is only about 10 hours long.

Because the instrument has a dual purpose, to measure the solar wind in interplanetary space and to measure particles in the Jovian magnetosphere, the scientists were put in the difficult position of having to design the instrument before they knew exactly what it would be measuring.

"However, since the design of the instrument," said Professor Bridge, "our knowledge of Jupiter has increased greatly as a result of the Pioneer 10 and 11 missions in 1973 and 1974." Professor Bridge pointed out that the Pioneer instruments were unable to take measurements close to the planet's surface. Voyager instruments were designed to take those measurements and indications are strong that definitive results will allow the scientists to check the validity of several recent theoretical predictions.

At the heart of the detection instrument are electronic sensors called Faraday cups. Three cups, mounted next to each other at slight angles, measure positively charged particles in the solar wind. A fourth cup—mounted on the side of the instrument—measures negatively charged particles in the solar wind. Each cup has wire mesh grids mounted in it and a collector plate.

The cups work by screening for particles of certain energies, and determining the number of particles in that energy range. Particles enter a cup and arrive at a wire grid to which two voltages are alternately applied. Only those particles with energies greater than the grid voltage can pass through the mesh.

As the voltage alternates, particles of different energies, or velocities, can get through to strike the collector plate. By "subtracting" the number of particles in one group from the number in the other, the number of particles with energies between the two voltages is recorded.

The voltages can be increased and the process repeated to obtain a velocity distribution—the number of particles per cubic centimeter in each velocity range. From the velocity distribution researchers can determine the average velocity of the particles making up the solar wind as well as the number of particles per cubic centimeter and their thermal speed.

The instrument weighs 21 pounds. It draws about 8 watts of power and measures both positive and negative ions from 10 to 5,950 electron volts.

One big possible problem Professor Bridge explained is that as the spacecraft comes in contact with billions of charged particles the entire spacecraft and the instruments may become charged to a high electrical voltage. If that happens, the experiments which measure charge particles will no longer be able to make accurate measurements because some particles will either be attracted or repelled from the spacecraft.

"To combat this problem we purposefully made the instrument and the entire spacecraft conducting," said Professor Bridge. "That way it will be able to respond quickly to changes in the plasma. However, we really have no sure way of pre-

dicting how that will work. So far everything's fine and we hope it stays that way."

Another problem the scientists have is that protons and electrons do not move at the same speed. Electrons move at roughly 40 times the speed of protons. As a result of this and other factors, the scientists have a much more difficult time measuring the flow of electrons. The three cups which will measure the current from protons must be pointed directly at the sun. However, electrons cannot be measured on a direct line from the sun, so the fourth cup is on the side of the instrument.

Because the solar wind travels at such high speeds, averaging 250 miles per second, no impulses can travel upstream. So the wind does not just flow smoothly around celestial bodies.

Until the wind reaches a distance of 100 Jovian radii it travels at a uniform speed. At that point the plasma builds up forming a "bow shock" behind which the plasma heats up before flowing around the planet.

Voyager I will pass through the bow shock on about February 26, a week before closest encounter. During the following two weeks the instrument will make measurements of plasma in the magnetosheath, magnetopause, and magnetotail, the various layers of influence of the Jovian magnetic field. The magnetic field is known to be roughly similar to the earth's, but is stretched out in the equatorial plane because of centrifugal effects caused by the rapid rotation of Jupiter.

"We know that there are many sources of plasma for the Jovian magnetosphere which differ from sources for the earth's magnetosphere," said Professor Bridge. "And we hope to be able to measure the strengths of those sources. For example, we know there is a large amount of sulphur in the magnetosphere and we also know that Io, Jupiter's innermost moon, leaves a trail of sodium atoms. The instrument should be able to measure at least crudely the ions formed from these atoms."

Voyager 2, Voyager 1's sister ship, will pass by Jupiter in July. Both ships will then go on to Saturn. Voyagers 1 and 2 will pass by Saturn in November of 1980 and August of 1981 respectively. Assuming that the experiments at Saturn go well, Voyager 2 will then head on toward Uranus and will fly close enough to do experiments in January of 1986. Both ships should keep travelling forever.

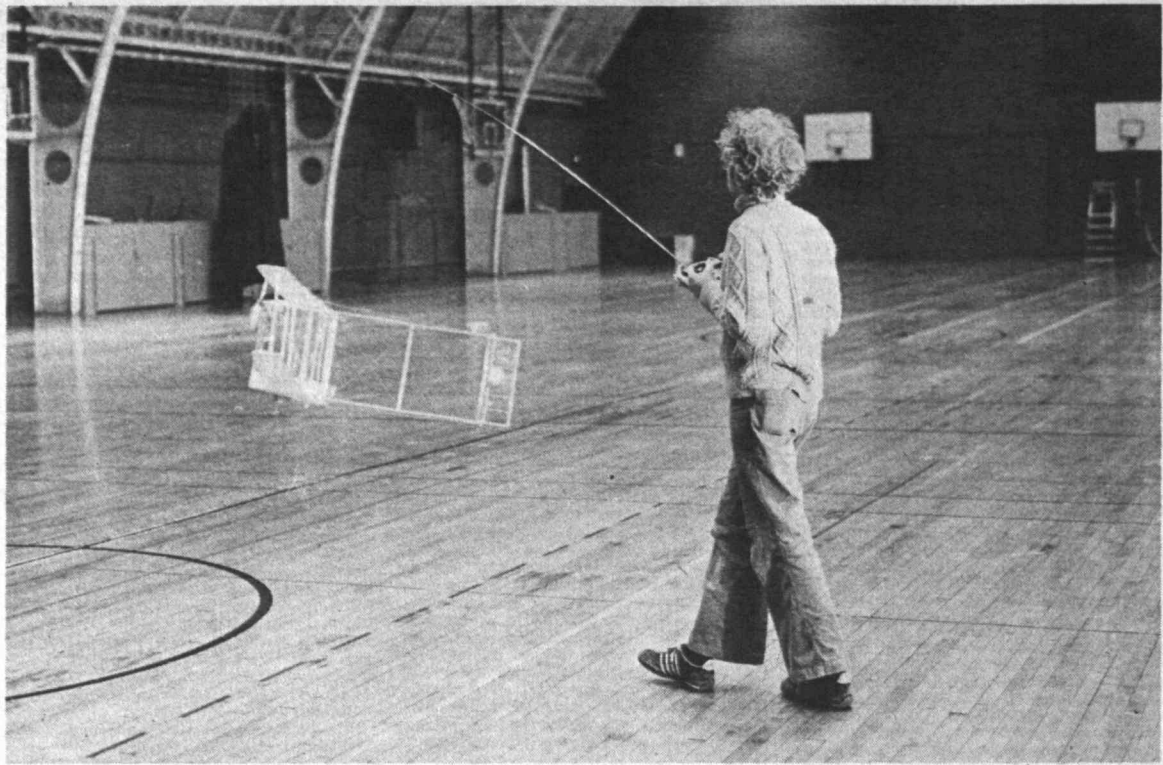
"Despite the fact that scientists have been studying the earth's magnetosphere and its interaction with the solar wind for many years," said Professor Bridge, "there is still no unified detailed theory explaining exactly how this complex system works. We hope by gathering data from missions such as Voyager to be able to apply this new knowledge to the earth and learn more about our own planet."

Engineering Groups Honor Janos Beér

Dr. Janos M. Beér, professor of chemical and fuel engineering in the Department of Chemical Engineering, has been elected to the Fellowship of Engineering of the Council of Engineering Institutions of Great Britain.

The Fellowship was founded in 1976 to honor "not more than 1,000 eminent chartered engineers regarded by virtue of their achievements in the field of engineering as being of exceptional merit."

Professor Beér, who is also program director for stationary combustion at the MIT Energy Laboratory, was recently honored by the American Society of Mechanical Engineers by election as a Fellow for his "research of outstanding quality on fossil fuel utilization."



CHRYSALIS TESTED—Robert Parks, a senior in aeronautics and astronautics, flies by radio control a model of the man-powered plane he and three other students hope will take to the air this spring. Parks, Harold Youngren, Hyong Bang and John Langford, all members of the Tech Model Aircrafters and the MIT rocket society, invite interested persons who want to contribute to contact their faculty adviser, Professor E. Eugene Larrabee at Rm. 33-315, Ext. 3-2271. Youngren, a pilot and an experienced bike rider, will be at the controls when Chrysalis attempts flight some time in May. The aircraft—much

different in design and concept from BURD (for Biplane Ultralight Research Device), MIT's previous man-powered flight project—will have a 72-foot wing span and an aft tail structure. Langford said radio-control flying of models is expected to shorten construction time. Small units of the plane will be assembled in the basement of Building 33 and the wings will be put together in a Kendall Square building used by the MIT Soaring Association. Shipment of the parts to Hanscom Field is planned for April 18 and a May 4 roll-out target has been set. Stay tuned. —Photo by Calvin Campbell

First Student Telethon Shows Promise

(Continued from page 1)

of some of the alumni reached, in terms of answering questions they may have about the Institute, checking on their subscriptions to Technology Review and, in one case, chasing down an old loan that had been repaid but miscredited.

The telethon is carried on in the Bush Room (10-105) from 6-10:00pm. Twenty telephone stations are equipped with placemats giving instructions and alumni referral cards. Additional stations are available in the adjoining Alumni Center.

Remaining dates for this year's telethon are: February 28, March 4, 5, 7 and 12. Additional student callers are still welcome and may sign up by calling Ms. Sclar at 3x-8214.

Donors of telethon prizes include:

Ferdinand's Restaurant, Hyatt Regency, Lechmere Sales, Hotel Sonesta, John Hancock Observatory, Boston/Boston Disco—Boston, Museum of Science.

Hunan Restaurant, New England Aquarium, Boston Tea Party Ship Museum, USS Constitution Museum, Prudential Skywalk, Boston Pet Supply.

Sharp Calculator, Purity Confectioners, Legal Seafood, Averof's Restaurant, Ken's Pub, The Tech Coop.

Belgian Fudge, Fanny Farmer Candy,

CEP Summary And Agenda

Summary of CEP Meeting on February 22, 1979

The Committee reviewed and discussed the results of the survey of undergraduates conducted last fall by the Student Committee on Educational Policy. There was also continued, informal discussion of the recommendations of the Ad Hoc Committee on Advising.

Agenda for the CEP Meeting on March 1, 1979

1. Discussion of policy issues raised by the Committee on Discipline.
2. Discussion of Student-Conducted Course Evaluations.

Development Series To Begin March 5

A series of workshops and lectures to discuss development alternatives for the United States and other countries will begin Monday, March 5, with an open forum on MIT Education and the International Community. The forum will begin at 8pm. and will be held in the International Student's Lounge in Walker Memorial.

MIT groups or individuals who wish to contribute to the program should contact Nicholas B. Herman, x3-4089, or Lissa Martinez, x3-5220.

Gnomon Copy, Brigham's, Sack Theaters, Jonathan Swift's Pub, Middle East Restaurant.

For the most part, according to Ms. Sclar, the students are enjoying the project.

"One student was corraied by his house president into coming. He was very reluctant at first, but at the end of the evening he said he loved it and would like to come again."

March 1 Memorial Service Planned for Professor Ray

A memorial service will be held at the MIT Chapel on Thursday, Mar. 1, for Dr. Daniel B. Ray, 51, professor of mathematics at MIT, who died following a heart attack at his home in Hingham, Mass., Monday morning, Feb. 19.

Professor Ray was an internationally known authority on many aspects of mathematical analysis, especially the theory of probability, in which his work on Markov processes was regarded as fundamental. In recent years, he had combined with Professor I.M. Singer of MIT to give new analytic descriptions of torsion (twisting) in Riemannian manifolds. These manifolds are abstract geometrical objects which are important in several branches of mathematics.

Professor Ray joined the Department of Mathematics at MIT in 1957 as assistant professor, was appointed associate professor in 1960 and full professor in 1964. He was an important figure in the administration of the department over a span of eight years, first as executive officer during the Spring Terms of 1964 and 1965 and for the academic year 1968-69. From 1969 through 1972 he was chairman of the Pure Mathematics Committee, a major administrative position with responsibility for appointments and promotions in the department.

Professor Ray received the BA summa cum laude from Harvard College in February 1949, and was awarded a Shaw Travelling Fellowship by Harvard University in 1949-50. As an undergraduate at Harvard he was captain of the wrestling team in 1948-49 and was a member of the Harvard Band and Harvard Glee Club. He was elected to Phi Beta Kappa at Harvard.

He received the PhD degree from Cornell University in 1953. In 1953-54, he was Frank B. Jewett Fellow at Princeton University and became instructor in mathematics at Princeton in 1954. In 1955 he returned to Cornell, first as instructor and then assistant professor of mathematics, serving there until 1957 when he joined the mathematics department at MIT.

His work and his family were the most important factors in his life and much of his spare time was given to coaching his children in



Professor Ray

their different areas of interest in music.

Professor Ray was born in Cleveland, Ohio, the son of Louise (Hompe) and George B. Ray. The family moved to Brooklyn, N.Y., when he was a child and he attended Polytechnic Preparatory School there.

He is survived by his wife, Mary Ann (Huston) Ray, three sons, Daniel, Michael and David, a daughter, Carolyn, all of Hingham; two brothers, James H. Ray of White Plains, N.Y. and John B. Ray of Brooklyn, N.Y., and his aunt, Katharine Ray of Hingham.

Donald S. Tucker

Donald S. Tucker of Concord, a professor of economics at MIT from 1919 until his retirement in 1955, died February 14 at the age of 94.

Prof Tucker was born in Peoria, Illinois, and was graduated from Colorado College in 1906. He received his master's degree in economics from Williams College in 1912 and his doctorate from Columbia in 1922. He was a professor of economics at Wellesley College.

He is survived by a son, Dr. Donald A. Tucker of Cambridge; two sisters, Vesta Lloyd of Illinois and Mary Kirkwood of California, and by two grandchildren.