



Life tried cover shot in Computation Center, moved to Library Map Room for final picture (see issue of Oct. 21)

## A LUCKY SEVEN

He's still working around the clock. From 11 a.m. to 7 a.m., to be exact, with two hours out for dinner. But even that is an improvement. During the first week that Sputnik wheeled momentarily around the earth, Dr. Giampiero Rossoni, Satellite Coordinator of IBM Applied Science (Cambridge), kept himself going on a diet of hamburgers and coffee.

The marathon started on October 4, the day Sputnik made its appearance. The huge M.I.T. 704 computer, tackling its first assignment as official tracker for the Smithsonian Astrophysical Observatory, was manned night and day by intense relays of Smithsonian and IBM experts. Success (delayed only by inaccurate human observations of satellite speed and distance) came in exactly a week. At 7 a.m. on October 11, the whirring computer totted up the first "satisfactory orbit" for the satellite.

The victory has meant little relaxation in pace.

Four teams of IBM and Smithsonian representatives are still working overtime to incorporate new sightings into their calculations and to program a 10-day prediction of Sputnik's orbit which is accurate enough to be accepted by the shrewdly selective computer.

Of the endless calculations -- human and electronic -- that have gone on in the last two weeks, Dr. Rossoni says that "the computer's performance has been the most astounding of all." During the first big week he reports that "there wasn't one minute of 'machine down,'" which is computer lingo for error. "The machine never tired, was always ready and always cooperative." So were all the M.I.T. computation people, adds Dr. Rossoni with emphasis, "who had plenty of their own projects to program but who always put the satellite first."

## IN THEIR CUPS

Taking a hint from current developments in the air, the M.I.T. Rockets (issue of Sept. 10) cleaned up the Cambridge Barnyard this season by winning all the League's trophies. Line-up includes (left to right): the Play-Off Trophy, the Championship Trophy (must be won 3 times for permanent ownership), the regular Season Trophy, and the Most Valuable Player Trophy, this year won by pitcher Jack Kitch of Lincoln Lab. Showing off the collection is Captain Ed O'Brien (RLE).





## TOWARDS A LASTING PEACE

The oxygen masks aboard the British Mosquito bomber that plucked him out of Nazi-occupied Copenhagen were all standard sized. Not so the head of the man who was being rescued. Dr. Neils Bohr struggled into the tight-fitting mask with his customary good humor. After nearly suffocating on the hasty flight to London, he turned to his British benefactors and thanked them heartily for the ride.

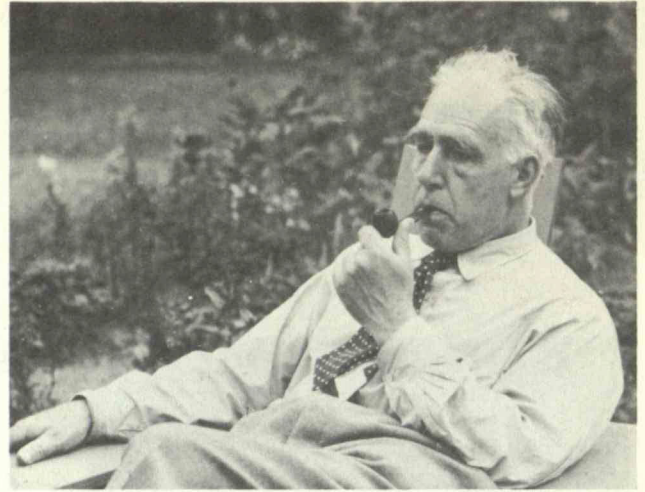
It was a ride which had implications far beyond Dr. Bohr's native country of Denmark. One of the world's greatest scientists, the 71-year-old Dr. Bohr will receive in Washington on Thursday the first Atoms for Peace Award. Established as a memorial to Henry Ford and Edsel Ford, the \$75,000 award will be presented by Dr. Killian, President of the Trustees.

Dr. Bohr will return from Washington this weekend to begin more than a month's visit at M.I.T. During November, he will deliver the first series of Karl Taylor Compton Lectures. Dr. Bohr has treated the lectures as a major work. In them he will discuss the gigantic theme of the development of quantum physics and the philosophical implications of modern scientific thought. Few men are better qualified to speak on this subject than Dr. Bohr. For M.I.T. the opportunity is a signal one: to share in the life work and wisdom of one of the most brilliant thinkers -- and humanitarians -- of our age.

## A BLOSSOMING PLANT

The change has been made on paper, but it will probably be some time before "B & P" disappears from common M.I.T. usage. With reason: known as Buildings and Power since the first pillared structure took shape on this side of the Charles, the department responsible for M.I.T. plant had its first change of name on October first of this year. From now on it will be listed as Physical Plant.

Hidden in the new name is a big effort to reorganize the voluminous responsibilities for M.I.T.'s expanding campus. In the last two years, Physical Plant has taken over full maintenance of eight more buildings -- from the Compton Lab to the newest campus addition, Whittemore 5. Power consumption, which ran around 2 million kilowatt hours per year before World War II, is



An honorary guest

currently more than 22 million. Mail delivery, one of the thorniest problems to solve on the M.I.T. end, was reputed by the Cambridge Post Office last spring to "approach a city of 20,000" (not counting, of course, the mountains of interdepartmental mail and memos).

How best to streamline these burgeoning operations was the subject of long discussion. With the help of Fred Wood, a consulting engineer who has helped many colleges to iron out similar problems, a blueprint





was drawn up with a new definition of responsibilities. The resulting system boils down to these major areas: power, utilities, and grounds (Jerome Barraford); building services such as cleaning, mail, shipping, and "special events" (Miles Cowan); construction (Edward Pieper); and design and drafting (Ted Jordan). Day-to-day coordination of these operations is the province of Don Whiston, General Superintendent. Over-all administration is still in the hands of Carl Peterson, Director of Physical Plant.

### UNSHAKABLE, UNSHOCKABLE

When someone was needed a week ago "to fix a hole" in the telephone system just this side of Baker House, Fred Broderick (Elec. Eng.) was elected to do the job. Fred got a big crew of students to help him lay some new cable, led a fine tug-of-war between manholes near Memorial Drive that lasted the better part of Saturday morning.

Fred has had long training in things electrical. Starting in the old lab on Boylston Street when he was fifteen, Fred moved across the river with the electrical engineering lab in 1917 and has been puttering around its more spacious quarters (10-008) ever since. In the interim, he has helped to build such classic apparatus as Trump's electrostatic generator and the first differential analyzer, forerunner of mental giants like the IBM 704. He has also developed the nose of a bloodhound for finding his way through the most obscure electrical diagrams and knowing exactly what is needed to hook up the circuits outlined in them.

Under Fred's watchful eye, the lab has remained remarkably free from catastrophe. The worst that has ever happened, he says, is a few jaw-rattling shocks (non-injurious) from the old plug-in power panel. "That was mostly during the war," Fred recalls, "when we had some Chinese boys studying here. They couldn't speak a word of English, nor understand it, and one or two of them got over-enthusiastic with the plug-in system." On those occasions, Fred got an earful of protests -- in high-pitched Chinese -- the likes of which he hasn't heard before or since.

In his spare time, Fred has kept himself busy with such projects as the Independent Union (which he started and later captained for six years), the Credit Union (which he helped to found), and the M.I.T. Safety Committee. He is also an avid gardener. A member of the Fenway Club of Boston, Fred keeps an eye on a good-sized patch near Muddy River. From this year's crop, which flourished in spite of the drought, Fred offers one new invention. "A friend gave me one squash seed which he said was Zucchini," he explains. "Darned if the thing didn't come up half green and half yellow....Must've crossed with some summer squash....Best I've tasted yet."

### RECOMMENDED

The torch will be lit for the annual United Fund appeal at M.I.T. next Monday. In addition to some 277 Red Feather agencies, UF beneficiaries include for the first time this year the Red Cross and Salvation Army. M.I.T. has no specific goal in dollars and cents. But with increasing



One leave of absence. . .

during World War I







UF emphasis on giving at place of work (their house-to-house canvass will run for only a week at the end of November), M.I.T. hopes to add a full-bodied voice to this big community cause.

Representing different M.I.T. areas on the organizing end of things this year are John Little (Admin.), Profs. Douglas Adams and Arthur Townsend (Faculty), Jack Donahue (DSR), John Jones (Union), Allen Richmond (Lincoln Lab), and Paula Knight (Secretaries). Campaign chairman is Robert Holden. Bringing an advance torch to the M.I.T. scene (left) are campaign volunteers Ellen Shannon (Personnel) and Ray Chagnon (Payroll).

The proverbial penny always counts. For the handicapped--physically or mentally, adult or child --every contribution has an important stake in new hope.

## HERE AND THERE

From the Atomic Energy Commission: final decision to provide  $5\frac{1}{2}$  pounds of uranium-235 for peaceful research in the reactor now nearing completion on Mass. Avenue.

Anyone headed for Europe? An M.I.T. student is trying to drum up interest in a special M.I.T. flight, New York to Paris and return, for the summer of 1958. This through an arrangement with the Civil Aeronautics Board whereby any group of people who represent a definite "community" can charter a plane to Europe and share expenses. Approximate cost: \$325, round trip. Personnel needed: upwards of 50. For anyone at M.I.T. who knows he is interested, "or thinks he might be later," there will be a meeting today (October 23) at 5 p.m. in Litchfield Lounge.

Invitation is out from the Athletic Department for All-Sports Day, to be held--mostly on the Charles River and on Briggs Field -- on Saturday, November 2. No charge. All welcome.

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### FOR SALE ETC.

For sale. Over \$250 worth of American Flyer train equipment, including 80-100' of track, 6 engines, 5 transformers. Some engines not running, but all repairable. Would like to realize one third, but 'am open to dickering." Shorty, Ext. 4150 or 4154.

'56 Chris Craft 22' cruiser. Sleeps 4, head, galley, 95 hp Chrysler hydraulic controls. Flying bridge. \$3500. Don Allen, FA3-6769 (evgs).

Webcor model 362 portable 3-speed record changer. Excellent cond. Reasonable. Also selection of classical albums. Sacrifice. Helen Morgan, Ext. 3501 or NE3-4616-J.

Wife's Car, \$75. '41 Ford 4-door sedan with rebuilt engine. Bought in Spring. New tires, seat covers added. Heater, directionals. Ernie Roberts, LA7-6988.

'48 Dodge coupe. Rebuilt engine 10,000 miles ago. L. Leonard, Ext. 2413.

'50 Ford Custom Deluxe sedan. 1 owner. R&H. New brakes, battery, voltage regulator. New muffler and tail pipe. Good tires and clean. \$350. Charles Mesrobian, Ext. 315 (Lincoln).

Wanted: Small furnished apt. or house. 5-mile radius of Lincoln Lab. Two adults. December-March. Anne L. Smalley, Ext. 5557 (Lincoln) or VO2-3370.

For rent. One lg. sunny room with private bath. On MTA line, 5 min. from Harvard Square. \$10/week. KI7-9532 after 6 p.m.

For rent. Oak Square, Brighton. 2½ - room apt. with bath. Unfurn. Gas heat and hw. Parking. \$47/mo. plus utils. Mrs. Kallmes, Ext. 2396 or BE2-5067 after 7 p.m.

For sale. Acton. 3-BR Cape Cod. 7 rooms, fp. 19,000 sq. ft. of land. Side street near center of town. Reas. commuting distance. \$21,500. Mrs. Kretschman, Colonial 3-5691 (days) or Colonial 3-4637 (evgs).

For sale. 4-BR home with den, 2 B. Near generous Natick schools: \$15,900. Convenient by car to MIT and Lincoln Lab. Immaculate decor, has 8 sizeable rms in ranch-type (EASY on wife) of solid prewar construction. Many cabinets & closets, separate garage. I've enjoyed the shade and privacy, but now must transfer. Ext. 185 (Lincoln) or OL3-7951.

For sale. Norwell. Two-year-old 6-room Cape with fire-placed LR. Good sized K, 3 spacious BRs, 1½ B. Forced hot air oil heat. Breezeway and garage. 21,000 sq. ft. of land. Choice setting in new home district, 19 miles from Boston. \$14,900 without realtor. For appointment, call Mr. F. Fahmley, Ext. 751 or Hingham 6-3186.