

FACE LIFTING FOR SCIENCE

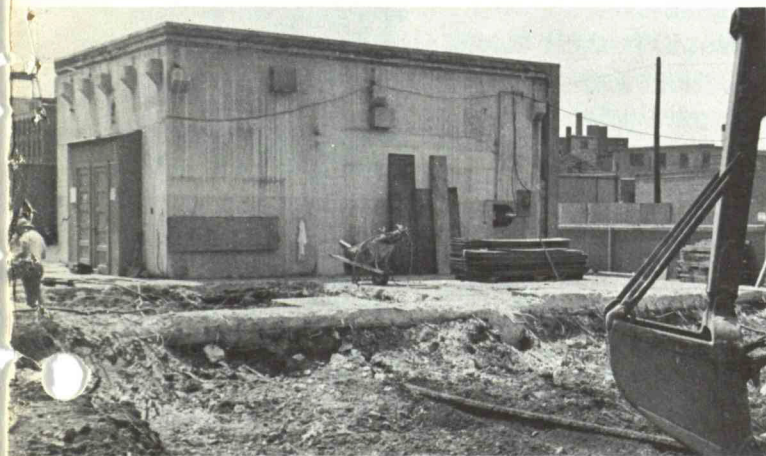
MIT's Cyclotron at 51 Vassar St., for 22 years a mainstay in atomic age research is undergoing a major face lifting. The entire cyclotron building, except for the cyclotron itself and the one-story concrete vault that houses it, has been torn down to make way for the new and expanded laboratories and support facilities. The new two-story building will provide four times as much space as the old building. Included in the new structure will be an expanded radiochemistry laboratory, a much enlarged target room, an improved control and electronics area, and new laboratory facilities for general research. The project is financed, in part, by the Atomic Energy Commission and, in part, by MIT itself. Contractor is Canter Construction Co., Brookline. Occupancy is expected by early 1963.

The enlarged target area is the basic reason for the expansion. The former area was only six feet by six feet. The new one, 20 x 30 feet, will make the cyclotron a far more versatile research tool for nuclear physics.

The cyclotron, started in 1938 and finished in 1940, is a part of the MIT Radioactivity Center, and the Laboratory for Nuclear Science. It is capable of accelerating protons to energies of 7.5 million electron volts...hydrogen nuclei to 15 Mev...and alpha particles (helium nuclei) to 30 Mev. It was designed by Professor Robley Evans, head of the Radioactivity Center, Professor M. Stanley Livingston and others. Professor Livingston also designed and now heads the Cambridge Electron Accelerator operated jointly by MIT and Harvard. Although the cyclotron's energy levels are low compared to the more powerful machines of recent years, the instrument still can and does perform yeoman service in the study of nuclear physics and in production of radioactive isotopes.

The machine has had an illustrious history. Built with funds from the John and Mary Markle Foundation (in the days before huge government grants), the cyclotron served as a tool for nuclear physics research and as a source of isotopes for medical research. Professor Evans used radioactive iodine from the cyclotron to develop the use of iodine-131 for diagnosis and treatment of thyroid disorders. During World War II, the cyclotron was pressed into national service and was used for military research, including Professor Evans' studies on the preservation of blood by irradiation.

The cyclotron has always been "old reliable" in terms of minimum down-time for repairs. Its record is the best in the country for machines of its kind and this is due in large measure to Earle F. White of Arlington who helped build the instrument and who has been the operating supervisor ever since. He came to MIT as a Spectroscopy Laboratory technician in 1936 and transferred to the cyclotron group when it was first formed. Other members of the cyclotron crew are Frank Fay, machinist, and Bill Carrasco, electronics technician.



The cyclotron vault

HILL OF ROUND HILL

An association that began one day in 1927 when a young New Bedford, Mass., mechanic and flying buff made an impulsive and uninvited landing on an unfinished private airport near South Dartmouth, Mass., has drawn to a close. The young buff was Herbert (Bert) Hill who has just retired as superintendent at what is now MIT's Round Hill Field Station at South Dartmouth. The landing helped Bert get his job.

At the time, Round Hill was a palatial 278-acre estate belonging to the late and colorful Col. E. H. R. Green, scion of a wealthy family and son of Mrs. Hetty Green, a famed Wall Street financial figure. The colonel was having the airport built to serve the estate. Anyone else would have had Bert and his airplane thrown off the property. But not Colonel Green. Impressed with the skill and daring of the landing, the colonel made friends with Bert and wound up making Bert manager of the new airport. Over the years, the airport, under Bert's

management, blossomed into one of the finest lighted airports of its day (it was destroyed in a 1938 hurricane) and Bert's wizardry as an aircraft mechanic made friends for him among the pioneer pilots of the 1920s and 1930s who frequently flew into Round Hill.

When Bert arrived, there was already on the scene a team of MIT engineers and scientists using the estate as a field station for research in radio. Presence of the team resulted from a close friendship between the colonel and the late MIT President Samuel W. Stratton and from the colonel's interest in things scientific. The original MIT group, whose members Bert counts as friends, included such present-day MIT figures as President J. A. Stratton, Professor William H. Radford who is now associate director of Lincoln Laboratory, Consulting Professor Edward L. Bowles, Professor Henry Houghton who heads the Meteorology Dept. and Round Hill, and E. A. Murphy, technical instructor in meteorology.

Bert remained at Round Hill following the colonel's death in 1936 and was made superintendent of the facility when the colonel's sister, Mrs. Matthew Astor Wilkes, donated the property to MIT as an interdepartmental field station in 1948. Since then, Round Hill and Bert have played prominent roles in MIT research. Radar, communications and weather research programs have been carried on there almost continuously (Professor Houghton's department has a group there now studying turbulent forces of the earth's atmosphere) and all have leaned on Bert for support in one way or another.

Professor Houghton counts MIT as lucky to have had a frugal Yankee like Bert as superintendent for 14 years.

"He never asks for new equipment, saves every tool and makes do with what he has," says Professor Houghton. "Yet he can cope with any emergency."

In retirement, Bert and his wife, Priscilla, will remain in their Round Hill home of 35 years. The couple has three children--Herbert, Jr., Noel and (Mrs.) Roberta Hill Sawyer. All the children learned to fly from their father. Noel is a pilot for the Fram Filter Corp.

RETIREMENTS

Twenty-six MIT employes have retired from the Institute effective the end of June. All told, the retirees have behind them a combined total of more than 350 work years of service to MIT. The group includes 22 from the Cambridge campus and four from Lincoln Laboratory.

Three of the Cambridge retirees will continue working part-time. They are: Manson Bent, mechanic in the Mechanical Engineering Dept. who came to MIT in January, 1942; Herbert Fottler, administrative assistant in the Purchasing Office who came here in November, 1950; and John H. Felhage, administrative assistant at Instrumentation Laboratory who joined the



Round Hill

Institute in September, 1946. Other Cambridge retirees and the dates they started at MIT are: Marion Chaney, typist at Hayden Library, December, 1952; William Gottlieb, bookbinder at Hayden Library, September, 1952; William Leonard, bookchecker at the Electrical Engineering Library, February, 1957; Marion Fitzmaurice, Medical Dept., March, 1954; Herbert D. Hill, supervisor at Round Hill Field Station (see page two), July, 1948.

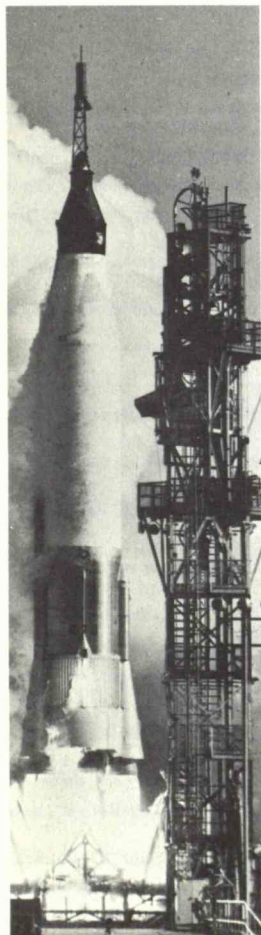
Charles McManus, Campus Patrol, April, 1958; Cornelius Finnegan, Bedford Flight Facility guard, September, 1952; Elmer Gaudet, Operations Evaluation Group guard at Kendall Sq., March, 1942; Thomas Pellegrine, Instrumentation Laboratory guard, April, 1943; Abel M. Kimball, Burton House dorm service, June, 1946; Samuel Saroka, Walker Dining Service, October, 1936. Maurice Forbes, Instrumentation Laboratory instrument maker, February, 1930; and Basile Athens, September, 1946; John B. Collins, October, 1951; Michael DeSimone, May, 1951; Theresa Dilworth, May, 1941; Harry Nahigian, February, 1950; Daniel Walker, September, 1941; and Joseph Santangelo, May, 1950, all of Physical Plant.

The four Lincoln retirees are: B. Francis Cote, Group 18, February, 1956; Leon T. Brown, Group 51, November, 1942; Anna M. Fougere, Group 73, September, 1952; and Rosaire Savoie, Group 712, February, 1955.

Joseph Sullivan, Instrumentation Laboratory guard who joined the Institute in June, 1950, and went on part-time status in 1958, also retired at the end of June.

ASTRONAUT LIFESAVER

Although he's only 22 years old, Tom Heinsheimer already has made an engineering mark in America's space effort. Right now, Tom is a design engineer with the Instrumentation Laboratory group that is developing the guidance-navigation system for the Apollo mooncraft. But before he came here last March, he put in nearly two years with Convair (Astronautics) Division of General Dynamics Corp., San Diego, Calif., where he and two other engineers developed the 36-pound package of electronics that would save the life of a Mercury astronaut should anything ever go wrong during a Mercury launch.



Atlas liftoff

The electronics package is called ASIS (abort sensing and implementation system). An ASIS package is aboard every Atlas rocket used to boost Mercury capsules in earth orbit. From the moment of ignition to the time the booster shuts down and the capsule separates, ASIS monitors every critical sub assembly of the rocket, from engines to autopilot. Should any sub assembly show signs of failure, ASIS would trigger the pilot safety escape system that would blow the capsule safely away and let it--and its occupant--return to earth by parachute.

ASIS hasn't had to pull the trigger in any of the manned Mercury shots so far. But astronauts know it will work. In April, 1961, during the attempted launch of an unmanned Mercury capsule, something did go wrong. ASIS aborted the flight and the capsule was returned to earth safely. Had there been a man inside, he would have lived--thanks to Tom Heinsheimer and his two co-workers at Convair.

Tom was graduated from MIT in 1960 in electrical engineering. In his undergraduate days, he worked at Instrumentation Laboratory and spent one summer doing engineering work at Cape Canaveral, Fla., for Pan American Airways. PAA runs the missile test range for the government.

Tom came back to MIT expressly to work on Apollo, the program to send men to the moon and bring them back.



Heinsheimer
and ASIS

FOR SALE ETC.

Leaving country. 5 rms of furniture must go incl. GE refrigerator, bed, TV, phono. Good prices. Plus silver. Call ext 708 or WA6-0730.

Freezer chest, 860 lbs. capacity, \$200. WA3-9874 after 6 pm.

Earnest student would like to babysit any time after 6 pm. Michael Walsh, ext 3920 or TR6-7972.

23" sl oop, Diesel aux. Used 1 season. Cast iron keel, lg cabin. CR4-7493.

Bottled gas Magic Chef, 4 burner stove, auto oven, separate broiler, appliances outlet, 2 storage drawers. Best offer. K17-5664.

Outboard steering wheel & misc fittings. Big savings. Pearlman, ext 3681.

1 Scott tuner kit, \$50. J. Dumanian, ext 372 (Lincoln).

You can be cooking (and heating) w/gas, if you can dig up \$75 for my \$385 Magee stove. Exc cond. L07-3403.

Webster's second edition unabridged dictionary, new \$33. Lee Murray, Lincoln ext 5765.

Stroller Patterson delux, siesta model. Exc cond, orig. price (\$19.95), will sell for \$10. D. Baker, ext 4151.

10" Atlas lathe and bench w/\$150 worth of extras. Price, \$250. EX5-4235.

Martin guitar, \$85; accordian, \$130; 9x12 rug w/pad, \$20; end table, \$7; large lamp, \$8; rotissimat, \$25. Langridge, 277-8435 evgs or RE4-6400, ext 482 days.

Linguaphone: Curso de Espanol. Comprised of 4 work manuals and approx. 15 records. Exc cond. Cost \$90. Any reasonable offer considered. Ext 2513 or MI8-5868.

Silvertone 4-speed automatic model 261, 3 mo. old (used only 1 mo.). Orig. cost \$50. Will accept best offer. Ext 2154.

New wooden folding door. 28" to 32" wide, up to 81" long. Best offer. VO2-5584 evgs.

A new movie camera, Cannon lens C-8 Zoom, 10-40mm, f:1.4. Best offer. Call 354-2306.

Adorable Persian kittens, pedigree champion blood lines & champion-sired. Reasonable. MI3-7081.

Experienced teacher, graduate degree, interested in tutoring elementary school children. VO2-3200.

\$29.95 Thayer sleeper stroller, asking \$20. Ext 2348 or BI4-6607 after 5pm.

3 furry Tiger kittens, 6 wks old. Peggy, ext 3825.

Dishwasher, automatic and mobile, Kenmore, good cond. \$25. F.J. Hale, ext 2264 or CO3-7128 (Acton).

Labrador Retriever pup, AKC regis. Bargain. Ext 712.

National SW-54 Radio, \$25. Dial phones, \$5.50, Dresser, \$7. R.C. Levine, EL4-5054 evgs.

Puppies, champion breed. AKC regis. German Shepard choice of 10. \$75 ea., avail July 13. E. Fairweather, ext 4029.

Hoover port. washing machine, exc cond, reasonably priced. RE4-2416.

Glass top office desk, 4 drawer steel file cabinet, 7' table, chairs. NO5-5230 after 5pm.

Clothing, misses' sizes 7, 9, 10, 12, 14 and girls' sizes 8-10. All exc cond. Very reasonable. VO2-5872.

LR couch w/slipcover, 2 easy chairs, 2 bookcase end tables, 3 rugs, 1 chest of drawers, piano. Best offer. TR6-2523 or K. Harte, Lincoln ext 7552.

Reo 21" Rotary mower with starter, exc cond. Mr. Conant, ext 765.

Free kittens prt persian born May 16. PA9-5973.

'45 Plymouth, cheap & reliable transportation. Best offer. Fred, ext 2576.

'50 Chevy. Maintained in good running order. New shock absorbers. New signal light. Sutro, ext 3494.

'51 DeSoto, clean car, any reasonable offer accepted. W. Haigh, MO8-2467.

'52 Mercury, 2 dr, auto trans, R&H, white leather seat covers. Asking \$185. A. Waltar, 491-3198.

'52 Plymouth, standard shift. Call John Fahimian, ext 3211 or CO6-5550 evgs.

'53 Plymouth, clean, good cond, \$185. TR6-6794.

'54 Plymouth, 2 dr coupe in good running cond. \$150. Donald Crook, Lincoln ext 7549.

'55 Ford, \$100. Owner leaving country in late July. Narita, ext 2925 or ext 148.

'56 Corvette, only 41,000 mi, two 4-barrels, manual transmission, exc cond. Ext 168 or PA9-3381.

'56 Mercury, 4 dr hardtop. Auto trans, fully equipped, exc cond. Approx. \$595. Ext 2531 or LA7-3479 evgs.

'57 Plymouth hardtop sedan, auto drive. Best offer. Bentley, Elmwood 8-2366.

'57 Fleetwood Cadillac, exc cond, June Slader, Lincoln ext 401.

'57 & '60 Fords. Both 4 dr, std shift, overdrive, T-Bird engines. \$500 ('57), \$1300 ('60). Ext 4436 or EL4-1371.

'57 Pontiac, 38001, Chieftan hardtop, 4 dr, auto trans, V8 eng., R&H, back-up lights, 2 tone, ww's, \$590. VO2-2060.

'57 Ford Country Squire. Good cond. Reasonable. 876-7172 after 6pm.

'57 Nash Rambler. 8 cyl, 4 dr, auto trans, good running cond. Must sell immediately. \$420 or best offer. Call 491-0156 after 6pm.

'58 VW sedan, Blaupunkt R, recent overhauled, exc body, \$795. A. Parker, ext 81-240 or K17-9258.

'58 Mercedes 180A sedan, gray, sunroof, FM-AM R, \$1200. J. Tierney, Lincoln ext 277 or EM9-4867 evgs.

'58 MGA white, 20,000 mi, perf except for brakes. \$1,100. H. Kolm, ext 3905 or EL8-2175 Wayland.

'58 Vauxhall, 4 dr sedan, good mechanical cond. 39,000 mi. \$450. W. Bertozzi, ext 2398.

'59 red VW convertible. All accessories, one owner. \$1300. Call ext 2491 or BI4-9209 after 6pm.

'59 TR3, exc cond, 26,000 mi, best offer over \$1250. Lee Gardner, Lincoln ext 7475.

'59 Ford, 4 dr, Custom 300, R&H, blue, \$995. Ken Ralston, ext 7227 or TW7-8275.

'59 Vespa, "400 Deluxe" convertible. Not a scooter. 60mpg-60mph. 16,000 orig mi. ww's, H, defr., exc cond, perf second car. No parking problems. Asking \$350. Will haggle. Paul, ext 3720.

'60 VW sunroof, ww's, 23,000 mi, exc cond. Going abroad, avail mid-Aug. \$1400. N. Brown, ext 138 or TR6-9510 evgs.

'60 Simca, Elysee model 4 dr sedan, R, ww's, good cond. Only 16,000 mi. Asking \$830. Going to Europe for year. Ext 134 or VO2-8757.

'60 Vespa 150, '62 engine, \$250 or best offer. Call 30-298, Mimi Ganem.

'61 Parkwood Chevy sta wagon, 4 dr, 6 cyl, std. 12,500 mi. Leaving country. Avail Aug. 25. J. Royce Brown, ext 5347 (Lincoln) or BR2-1298.

'61 Peugeot driven only 4 mos. 491-3638.

New '62 VW w/H & gas gage. Fire-engine red. Shapiro, UN4-5431.

Furn apt, 6 rms, \$95/mo. A few minutes travel time in Cambridge from Tech. K17-4917.

Retire to Florida for summer or fall. 2 BR house on island on Gulf coast. Rent is cheap. Call UN4-8186.

Burlington home for lease, 3 BR ranch. Avail Sept. 1. For information call J.R. Brown, Lincoln ext 5347 or BR2-1298.

Cottage for rent (Damariscotta, Me.) secluded location on salt-water river, 6 rms w/bath, screened-in porch, gas & elec, modestly furn incl. washing machine. \$50/wk. Lincoln ext 671 or ext 2564.

Back Bay mod. 3 rm apt w/view & parking. Owner will redecorate. \$95/mo. CO2-0293.

6rm, single, Dutch Colonial, Brighton, twenty min to MIT, owner, low \$20's, ST2-0486.

Lexington house, sublet for Aug. 3 BRs, 3/4 acre, \$200/mo (utilities, not telephone). Ext 4833 or VO2-6874.

5rm ranch, Holbrook, full cellar, hardwood finish, FHA, oil heat. All furn in exc cond. \$16,500. LI2-5365 or WO3-2151.

South Acton 3 BR ranch, 1/2 acre wooded lot, LR w/fireplace, DR, 1 1/2 baths, elec K, family rm w/fireplace. 2-car garage. \$22,900. Prof. Sotier, ext 4917 or CO3-5833.

Business & home, Jackson NH, ski area, 5 rm apt, lunches, sundries, magazines. For more information, contact Carl, ext 2363.

Summer camp for rent, New Hampshire. \$45/wk. W. Derry, ext 2776.

Lake shore cottage, So. N.H., sleeps 9, study cabin in woods. Private beach, boat etc. Avail July, Aug. Sept. CO7-3843.

Mod 2 BR apt. Harvard St. between MIT & Harvard. Parking. UN8-7316 evgs.

Furn 6rm apt w/elec K. \$185/mo. Malden 322-7244.

5 rm apt heated, porch, parking. Comm. Ave. (Furn can be bought or you may rent apt furn.) Mrs. Levinson, AL4-8521.

Sublet mod 4rm apt. unfurn, heated, convenient to MIT, 7/7-10/6 w/option to renew lease. 1400 Comm. Ave., Allston. \$120/mo. Emily, ext 3837.

3BR ranch, Stoneham, 1 1/2 baths. \$21,500. L.J. Romano, ext 30-216.

Wanted: Swivel, tilt-back desk chair w/arms. Call BR2-1105.

Needed: Ride to N.Y.C. or Queens every weekend either one or both ways. Leave Fridays after 5pm. Must be back before midnight Sun-Mon. Oliven, UN8-7600 or ext 3161 evgs.

Wanted: Port-a-crib or equivalent. Ron, ext 4096 or TW4-8991 evgs.

Wanted: Lightweight, fully-collapsible stroller w/sun shade, no swivel wheels. UN4-7853.

Wanted: Responsible person to drive my car to San Francisco area by Aug. 18. D.R. Harleman, ext 2726 or VO2-9305.

Wanted in Cambridge: House or apt prefer unfurn, 3 or 4 BRs, for prof., wife, baby & small child. Sept. 1, 1962-Sept., '63. Maximum rent, \$200/mo. Ext 3124 or K17-5717.

2 girls want rmmate to share 4 rm apt for summer. Equal distance from MIT & Harvard. 1st floor apt w/cool backyard. Call 354-0602 after 7pm.

Wanted: Girl's Eng. type bicycle. Call ext 2611, ask for April.

Wanted: Rider to San Francisco (via Seattle) and return. July 7-Aug. 7. John Kerr, UN4-1600.

Wanted: Small furn apt in residential area for working couple. Prefer owner on premises. Ext 30-260, Ann K.

Wanted: Carpool rider/driver for commuting from Andover (or vicinity) to Cambridge & return daily Mon-Fri. Call John K. Colby, Jr., ext 5150.

Wanted: Ride from West Watertown to MIT for mornings only. Will pay, ext 3816.

Wanted: Playpen. Call S. Mauch, ext 2320 or TR6-1661.

Wanted: Power tools specifically 8-10 inch table saw, drill press, do-all or power hacksaw. Fair price paid. Prof. Teager, ext 4108.

Wanted: Technical typing, theses, papers, etc. Expert typist Miss Cecilia Ferraz, WO9-8440.

Ride wanted daily from Everett to MIT. Will pay. Please call Joan, ext 4461.

Wanted: Rmmate (male) to share apt Cambridge. \$47/mo. Util incl. Jacob, UN8-7186 or ext 2629.

Have wardrobe want to travel. Need: trunk & suitcase. Ext 2168.

Wanted: Summer cottage to sleep 7 for one week (After Aug. 12). Prefer So. Shore or Cape. Call ext 3966 or IV4-9151.

Wanted: Rmmate (female) for summer. Own BR, 461 Beacon St. Miss Abel, ext 684.

Wanted: 1 girl to share semi-furn apt w/3 other girls. Located on Marlboro St., near Mass. Ave. Rent, \$33.75/mo. plus util. CO2-1193 after 5:30 pm.

Anyone interested in a car pool? Watertown-Waltham area. Please call Dr. Goldstein, ext 717.

Wanted: Outboard motor under 5hp. Used and in good cond. Spivack, ext 3410 or 625-1495.

Wanted: 10" lathe w/threading attach. Delta, Southend or equivalent. EM9-9283.