

LET SOL DO IT

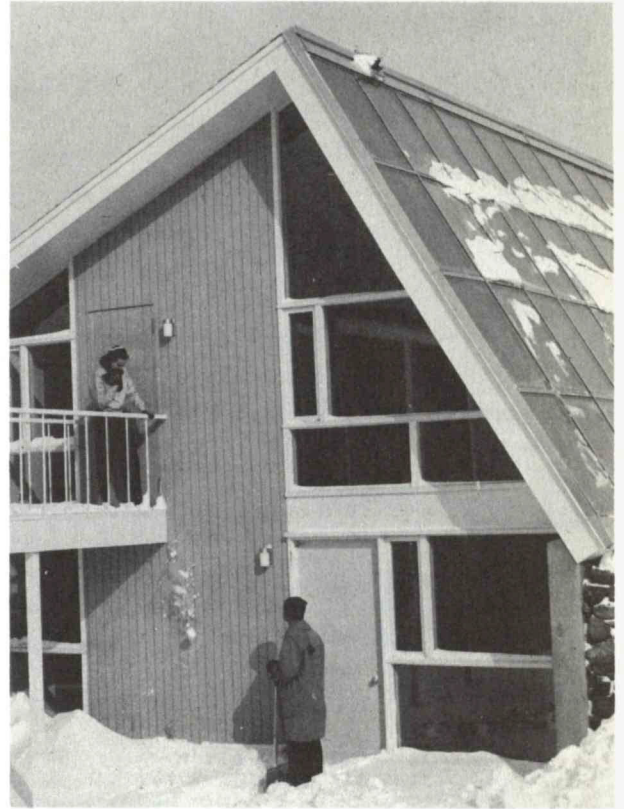
"It's the most insulated house in New England," says Bernie Spring, one of the architects for M.I.T. Solar House #4 which will open its doors to potential M.I.T. purchasers this Saturday (queries: Ext. 4411).

Insulation, in this case, takes several forms. Earth is banked up on two sides of the house in such a way that it looks like part of the landscape. Windows, mostly Thermopane and all double-layer, are unusually carefully fitted. And the use of pink Fiberglas stuffing behind walls and under floors is a little more widespread than in conventional houses. The padding is there for a good cause: the house is the first sun-heated structure designed especially for modern family living in a northern climate.

What is most unusual about the appearance of the house is the sharp-sloping roof which faces south. Made of special glass (two layers), backed by black aluminum sheeting and a network of water-carrying copper tubes, this is the unit that "collects" sunshine, circulates it in the form of heated water to a 1500-gallon storage tank in the basement, and provides not only heat for the house but hot water as well. For reasons of economy, the sun will not take full responsibility in this respect. It will do 75-80% of the job, but for long, cloudy spells of New England weather an oil-fired hot water heater is available to help out. A refrigeration unit is also hooked up to the big water tank to provide air-conditioning in summer. All these units are automatically controlled by thermostat, and all the housewife has to do is spin a few valves twice a year to switch from cold to warm weather operation.

Contemporary in design and decor both inside and out, the solar house boasts three bedrooms, ultra-modern G. E. kitchen, activities-dining space, two tile baths, a large living room, and carport. Among its more unusual architectural features: an amazing variety of window sizes (13, to be exact), to conform to the sharp roof angle formed by the collector; location of a studio-type living room on the second floor to show off the sweeping, hillside view of Lexington to best advantage; and, for summer luxury, a screened porch which is set off from the house (on stilts) at the second floor level and connected to the living room by a flying bridge.

One thing the occupants will enjoy is a notable lack of fuel bills. But as a pioneering venture in solar heating, the house has taken a corresponding toll in terms of research, manpower, and materials. The cost of only the conventional aspects of the house was \$38,000. Financed by



View from the bridge



Electric

the Godfrey L. Cabot Foundation were some twenty years of solar energy research that have made the house possible, plus all architectural and engineering fees, all the special solar equipment, many of the special construction materials, some of the landscaping, and some of the actual construction work itself.

Bob Pelletier, researcher in civil engineering who built a large part of the collector himself, has been spending about half his waking hours in Lexington for many months. The weather hasn't always helped him out. In the interest of adding green to the landscape, Bob planted shrubbery and grass around the house last summer. The evergreens are doing fine, but by the time 1001 pigeons had finished gobbling up seed and a baking drought had run its course, the lawn looked definitely frowsy. Engineer Pelletier takes the hopeful view that the latest snow may bring about a revival.

HERE AND THERE

The foundation is firm. Franki's test caisson, with its bulging load of 130,000 tons, showed a seven-day net settlement of exactly 24/100 of an inch. To the parties concerned, this means full steam ahead on the remaining 214 caissons -- the only deterrent so far being the weather. (We stated in the last issue that Franki foundations save time and manpower. They do --- but not quite so much time that the duPont Athletic Center "will open its doors in the spring of 1958." The last numeral should have been "9".)

Natalie Nicholson (Hayden Library) is one of eight knowledgeable librarians throughout the country who have been chosen for Carnegie Fellowships in advanced library administration. Miss Nicholson leaves M.I.T. this Friday for three months of study, most of it at Johns Hopkins University in Baltimore.

Received: a query from a determined highschooler in Cicero, Illinois, which begins, "I would like to know if you could tell me how to build an experimental ion-propelled rocket or engine and the principles behind it....."

At the annual business meeting on January 30, Prof. George B. Thomas was elected first vice-president of the Mathematical Association of America.

The 1958 Tech Show, "Out on a Limbo" (provisional title, "Lava, Come Back to Me"), is scheduled for performance in Kresge on February 28 and March 1, 7 and 8. The show has been alluringly described by The Tech as "the antics of a world weary engineer, his boss' excessively available daughter, the Governess-General of a penguin-ridden (volcanic) isle, and an existentialist witch doctor." Many of the girls in the cast come from neighboring colleges, but to M.I.T. coed Elaine Beane (junior, Course XXI) fittingly goes the part of the excessively available daughter.



Full of Beanes

From the mailbag: a letter from Lawrence Jeffery (Lincoln Lab). "Regarding you article, 'Who Missled Whom?' (issue of Feb. 11), the mystery has been solved. It is not the department of space at all but the headquarters of a bird watching society." Mr. Jeffery goes on to say that the Center in question is clearly marked "Missel" (not missile), a word defined by Webster as a "small or medium sized passerine bird (family Turdidae)-- a thrush." We stand corrected, would like to add that the lucky missel gets his name from his favorite food, mistletoe.

For all those interested in finding out more about the subject of patents, the Harvard Graduate School of Engineering is running an excellent series of lectures on Fridays at 2:30 p.m. (Jefferson Hall). The hugely popular speaker: patent lawyer Robert Rines, who was so enthusiastically received a year ago when he gave the same series of lectures that Harvard invited him to do it all over again this year.

LIFESAVERS, ALL

The fact that the M.I.T. Credit Union held its annual banquet in a howling northeast storm did not congeal the spirits of the hundreds of hardy CU members who slogged out for the occasion.

The affair was a happy combination of excellent cuisine, business and bop--the latter as background for a long session on the dance floor. Before the merriment, a new slate of officers was elected: Jim Keskula (Instrumentation), president; Mark Connelly (Servo), vice president; Phil Keohan (Res. Fiscal Office), treasurer; and Gloria Johnson (Metallurgy), secretary.

As a million dollar business, the M.I.T. Credit Union stands high among the more than 17,000 federal credit unions stretching from coast to coast and even as far south as the island of Trinidad. Now under the aegis of the Department of Health, Education, and Welfare, credit unions represent one of the fastest growing cooperative movements in the United States (combined assets, plus \$3 billion). This is partly because they are designed to help the "small borrower," and also because their system of volunteer management keeps operating expenses so low that they are able to offer more attractive terms to both savers and borrowers than most private agencies or banks.

The M.I.T. Credit Union begins the new year with its most vital statistics on the rise. Membership: 3,516 out of the potential total of 7,500 employees. Assets: \$1,364,879 and some odd cents (national average \$61,000)-- an increase of more than \$200,000 over the preceding year. During 1957, the interest rate on loans was maintained at a bargain .6% per month and a dividend of 3.6% again granted on savings. (This interest rate, which is less than half the rate of many banks, was described as "unusually low" by a regional representative of the Bureau of Federal Credit Unions).

Also during 1957, a total of 2,985 loans, totalling just over a million and a half dollars, were extended. Among these, top demand was for help in payment and consolidation of bills, while smaller sums were also borrowed for such diverse projects as boating, books, "down payment on a dairy," diving lung, graduation, greenhouse, honeymoon, plumbing, ski club, summer camp, tuition, and one unfortunate incident of "wallet stolen."



Volunteer management: CU's new board of directors

(Left to right: John Breen, Bill Mosher, Tom Osborne, Connelly, Keskula, Keohan, Johnson, Ken Smith, Wendell Derry. Missing: Ed Dillon, Jim Fandel, Russ Wall)

SNOW BIZ

Monday (a week ago) was a busy day for clearance crews on campus. It was made a good deal more so by the unexpected announcement over several radio stations that one of the four parking lots in the whole city of Cambridge available for general public use could be found at M.I.T. Quite a slice of the public accepted the invitation, and M.I.T. plows and tractors had to circumnavigate accordingly.

Most dramatic of all, perhaps, were the problems of small car owners. On top of one huge mountain of snow on Mass. Avenue appeared, several days after the blizzard, a small sign which went something like this: Do NOT remove. Renault underneath.....

THE EXCHANGE IS MORE THAN FAIR

An interesting question has been raised by the M.I.T. Matrons. "What old furniture would you like your wife to get rid of?" The Matrons, who are setting up a worthy institution to be called The M.I.T. Furniture Exchange, are now on the prowl for household items which might be useful to either students or M.I.T. personnel. "We pay a small amount for what we buy, we sell cheap, and we'll never be undersold," is their tempting sales song. Beginning this week, the Exchange will be open on Thursdays and Saturdays at 321 Westgate West (just in back of Howard Johnson's). For inquiries or donations, Mrs. E.P. Brooks (KE6-1746), Mrs. H.B. Richmond (TR6-5236) or Mrs. Howard Taylor (IV4-6058) can be reached weekdays between 9:30 and 4 p.m.

FOR SALE ETC.

Numerous model airplane engines from .049 to .63 cubic in. Some new, all in good cond. J. A. Vanderpoel, Ext. 4475.

Knitking knitting machine, deluxe model, #4500. Never used. Original cost \$185, will sell for \$125, or best offer. Also Craftsman paint sprayer. Diaphragm type with gun. Excellent cond. \$25. Nick DiPaolo, Ext. 3496.

Modern, 54" double drain board cabinet kitchen sink in good cond. \$35. M.J. Gordon, Ext. 153.

"Introduction to Electron Microscopy" by Cecil Hall. \$4.50 (half price). Also "Perpetual Trouble Shooters Manual," Vol 15, by John F. Rider. \$9 (half price). Joseph Hanesik, Ext. 2393.

Varigraph lettering instrument. Perfect cond. 6 templates included. Height and width of lettering adjustable. Instruction manual. \$85. UN4-6400, Ext. 27, (9 a.m. to 1 p.m.).

'51 4 door Nash Ambassador in excellent cond. Only 41,000 miles. 4 practically new tires and 2 snow tires. Very good R & H. Economical for vacation trips. Runs 1 to 19 in overdrive. Push down front seats and you can sleep inside. \$300. Ext. 2786.

'51 Plymouth 4-door. \$250. R & H. Tires in good cond. Chamberlain, Ext. 791.

Wanted: modest piano. Will move. Jeffrey Lewins, Ext. 4201.

Wanted: recent model portable typewriter. Mrs. Dean, Ext. 3313.

Wanted: Russian conversation records, preferably Holt. Ext. 3115.

Wanted: riders. Between M.I.T. and Methuen (Mass.). Don Lesley, Ext. 3451.

For rent. Somerville: 5 rooms (unfurnished), gas heat, Good cond., near MTA, 10 minute ride to M.I.T. \$50/mo. SO6-0986.

Apt. for rent. Groton. 4-rooms, completely redecorated, 2nd floor. Sep. entrance, heat & hw supplied, mod. K with new GE stove and Frig. Adults preferred. References required. \$100/mo. 34 miles from M.I.T. Apply Doris Peabody, 5 Court St., Groton or GI(lbert) 8-5270.

House for rent. Arlington, near Symmes Hospital. Completely furnished. Being painted, etc. Avail. immediately. \$100/mo. including autom. washing mach., K with dining area, LR & 2BR's, garage. Tenant must heat. Autom. h.w. & heat by gas. Mrs. King, MI8-5467, or D. Johnson, Ext. 2539.

For sale. Lexington contemporary house. 4 BR's (or 3 BR's & study), 2 baths, 30 ft. LR with copper-hooded fp, mod. K. All appliances, drapes included. House set on 3/4 wooded acre in good neighborhood. Close to Lincoln Lab & Harv Sq. by bus. Priced in upper 20's to sell quickly. VO2-2640 or KI7-7600, Ext. 545 or 343.

House for sale. North Waltham. 3 BR ranch, separate DR, lg terrace, gas heat & hw. Dead end street. \$12,750. D. Spaeth, Ext. 283 (Lincoln).

For sale. South Acton. 3 BR Cape. 2 ceramic tile baths, K, LR, dining area, hot air heat by gas, garage attached. 1/2 acre. \$16,500. J. Peters, Ext. 7192 (Lincoln).

Res. Assoc. coming to M.I.T. 1st of April wants unfurnished apt. 2 BR's & parking facilities & backyard (or access to one). Cambridge or vicinity. Call J. Richard, Ext. 701.

For Sale or Trade: Weber square piano (1884) playable if you tinkered; Plymouth 4-door (1950) drivable if ditto. Ext. 204.