

Via 'fireplace under glass'

It's home sweet (and unassuming solar-heated) home

By NANCY KOURTJIAN

Dwellings that capture the sun's energy don't have to be bizarre or expensive, according to David Mitchell, who lives in the solar home he developed in Farmington Hills.

Mitchell and his wife, Melissa, share a solar home whose appearance does not betray its energy system.

"People are amazed at the simplicity of my 'mystery system,'" Mitchell said. "Lids control how much sun enters. The mass collects heat or cold, which is transferred to the home's atmosphere by reflection, convection and circulation."

"Water and air are used for circulation. Valves close off ducts in the baseboard system and under the tile floor when they are not needed."

A partnership with his father and brother in SOL-CON (Solar Consultants and Construction), a Florida based firm which installs hot water and pool heating systems, enriched Mitchell's technical knowledge and experience.

"There is no reason why new homes can't be totally self sufficient," he said. "In fact, any small home with a basement can be naturally conditioned by adding a fireplace solarium."

Mitchell, a 1971 North Farmington High graduate, developed his solar design after taking courses at Jordan College and seminars at Upland Hills.

Ferns and foliage plants swayed in the stream of cool air that flowed from the windows in his solarium. A massive structure of glistening white marble dominated two rooms: a living room and an alcove.

It was a fireplace functioning as part of a natural air conditioning system. The constant 55 degree basement temperature is used to cool the entire home.

He built the "mass" to absorb and store solar energy in a comfortable, familiar setting. Then he designed a system to use it efficiently.

Attached to the south side of a modest 1,100 square-foot ranch home on Greening, the solarium helps provide comfortable temperatures year-round and has reduced fuel costs.

In the system, the home is a collector. Three 100 pound handmade wood covers are raised or lowered to shade or expose the exterior glass. They're filled with urethane foam and look like huge shoe box lids.

Opened manually, the lids will soon be automatically operated by a motor controlled by a sun-powered cell.

Sprayed on polyurethane foam forms an air-tight seal that covers the basement walls.

"Urethane will revolutionize home building," Mitchell said. "In new homes, it is an ideal insulation material for the entire building."

RIISING FUEL COSTS and a 65 percent tax credit — 40 percent federal and 25 percent state in 1980 — make insulation a necessity and solar heating practical in new or existing housing.

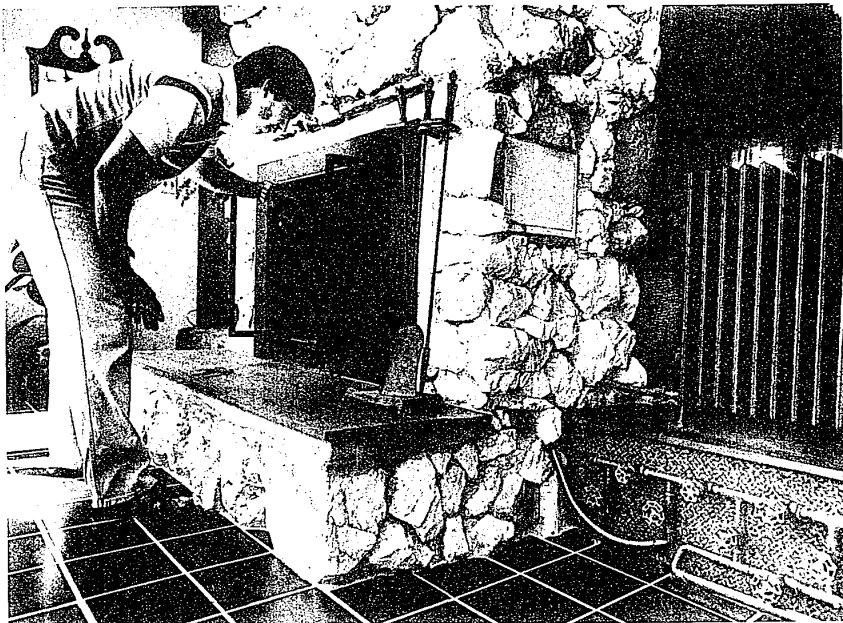
Mitchell estimates if both are installed, 60 to 75 percent of space heating needs can be met. He also predicts a four year payback on the 10 percent additional cost required to design and build a new solar home.

The house, which Mitchell calls "A fortunate retrofit", is properly oriented for solar with three large silver maples on the east which shade the roof.

His collector-less system combines passive and active methods. Started in 1972, it is complete except for motorizing the roof covers.

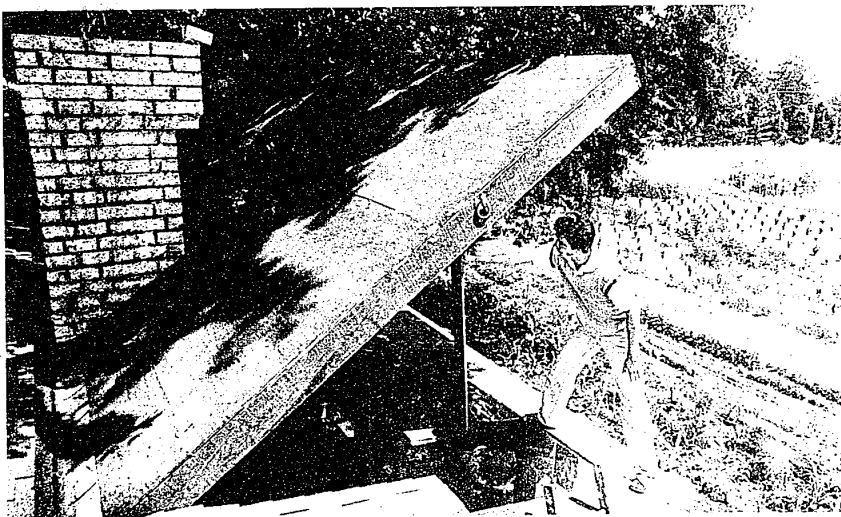
Two features of the fireplace solarium had historical inspiration. The adjustable lids which cover the roof were adapted from a 17th century European greenhouse.

The crawlspace/basement air conditioning concept was used by the Navajos, who cooled their adobe dwellings by tunneling between levels.



The fireplace in the Mitchell residence functions as a natural air conditioner. David Mitchell checks the fireplace which is to the left of some of the plumbing which controls his home's temperature. (Staff photo by Randy Borst)

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Up on the roof of his home, David Mitchell raises the wooden slats which serve as shades for the panels. Each of the three shade weighs 100 pounds. When they are lifted the interior of the home is exposed to

the sun. Mitchell hopes to someday operate the shade by an electric motor.



Wood is stored in a bin which opens to the exterior of the home. When the box is closed, the lid serves as a seat. (Staff photo by Randy Borst)

INSIDE ANGLES

BY LOUISE OKRUTSKY

RECALL: Johnson Wax (S.C. Johnson & Son, Inc.) is recalling some recently manufactured 10 oz. aerosol containers of Shout laundry stain remover. The side seams of the containers leak, which could lead to consumers getting the product in their eyes or allowing it to leak in flammable conditions. The can involved began appearing in stores in June. It has a small drawing of a "crown" printed at the left end of the blue stripe which is part of the package's front label design. They also have an inch-wide, notched vertical side seam. Consumers having these containers should dispose of them carefully after reading the instructions on the label. To contact Johnson Wax for product replacement or for further information, call the toll-free Shout consumer line, 1-800-558-5790 or write to Carol Hansen, S.C. Johnson & Son, Inc., 1525 Howe, Racine, Wis. 53403.

AH YES, there's another convention going on right this minute — the 67th National Ladies Auxiliary Convention in Chicago, which brings together women of the Veterans of Foreign Wars. From Michigan, newly elected auxiliary president Ruth W. Smith will attend, representing 30,000 members in the state.

In other VFW Auxiliary news: Jean Telford of the Brodhead Farmington Hills post worked on one

of the group's four Founders Festival booths and managed to show her VFW colors in the annual parade. Mrs. Telford, the group's president, walked along with council president Carole Staneach, Alice Tripp and Jeanne Kaufmann. Florence Allen also participated. The group's various title holders made their appearances, too. Marching along were Americanism Queen Dayle Churchill; Miss Liberty, Deanne Churchill; Senior Poppy Queen Bonnie Seates; and Junior Poppy Queen Yvonne Tripp.

EXTENDED REGISTRATION hours for the fall term at Madonna College, Livonia have been set for 8 a.m. to 8 p.m. Aug. 25-29 in the Administration Building, Registrar's Office. Fall term begins Sept. 2. For further information call the registrar at 591-5038.

COOL AND SMOOTH like the river at night: the Montreux-Detroit Jazz Festival, Aug. 28-Sept. 1 features such artists as Donald Town, Donald Walden, George Davidson, Sippy Wallace and Melvin Jackson. Tickets for concerts in the Hart Plaza, aboard the Bob-Lo boat, in the Music Hall and the Plaza are available by calling 963-7880.

LETTUCE TELL you about the magical Burger King who'll finally catsup with our town when he brings his magic act to the local restaurant that bears his name on Orchard Lake Road.

The King of the mayo and pickles will show off some his magic tricks at 2, 3:30 and 4:30 p.m. Aug. 24.

SENIORS CAN have their pictures taken for their Oakland Livingston discount card from 10 a.m. to 12:30 p.m. and 1:30-3:30 p.m. Sept. 26 in the Gathering Place, Mercy Center, 28600 11 Mile, gate four, in Farmington Hills. For further information call 858-5171. The ID cards will enable seniors in the county to take advantage of discounts offered by local merchants on a variety of items and services. A directory of participating merchants is available and may be purchased for 65 cents at the senior centers and camera locations. Persons who wish to order the directory by mail should send a check for \$1.20 to Discount Directory, OLHSA, 196 Oakland Ave., Pontiac 48058. To participate in the program, a senior citizen must be 60 years old or older and an Oakland County resident.

THE DETROIT INSTITUTE of Technology will open its doors for its 103rd year of operation with its fall classes. New student

applications will be accepted through Aug. 29 with registration scheduled for 10 a.m. to 7 p.m. Sept. 2 and 10 a.m. to 5 p.m. Sept. 3. Classes begin Sept. 4. DIT is located at 2727 Second. Additional information on the college's programs and the admissions procedures can be obtained by contacting Walter Williamson, director of admissions, at 962-0830, ext. 211.

ONE MORE TIME: It's State Fair time again in Michigan, a sure sign that summer (gas) is almost over.

This year, the folks at the fair are touting the participation of Hollywood's original video Superman, a 4-year-old clown and a virtual bumper crop of parade bands, equestrian units, floats, marching teams, baton corps and celebrities. The whole lot of them are scheduled to march down Woodward Aug. 21. Among the marchers are Farmington's own Step Sisters Twirlers and Dancers. They'll be twirling and dancing their way into spectators' hearts along with the Bles of Thomas Hearn and Filmer Kenty. The parade begins at 11:30 a.m. at Woodward and the Fisher Freeway. It passes a reviewing stand at the Kern Block and proceeds to Jefferson. Gov. Gibby, Hollywood's original TV Superman, will pull a car with his teeth and smile a lot. (Sure that's not a grimace?) The fair runs until Sept. 1.