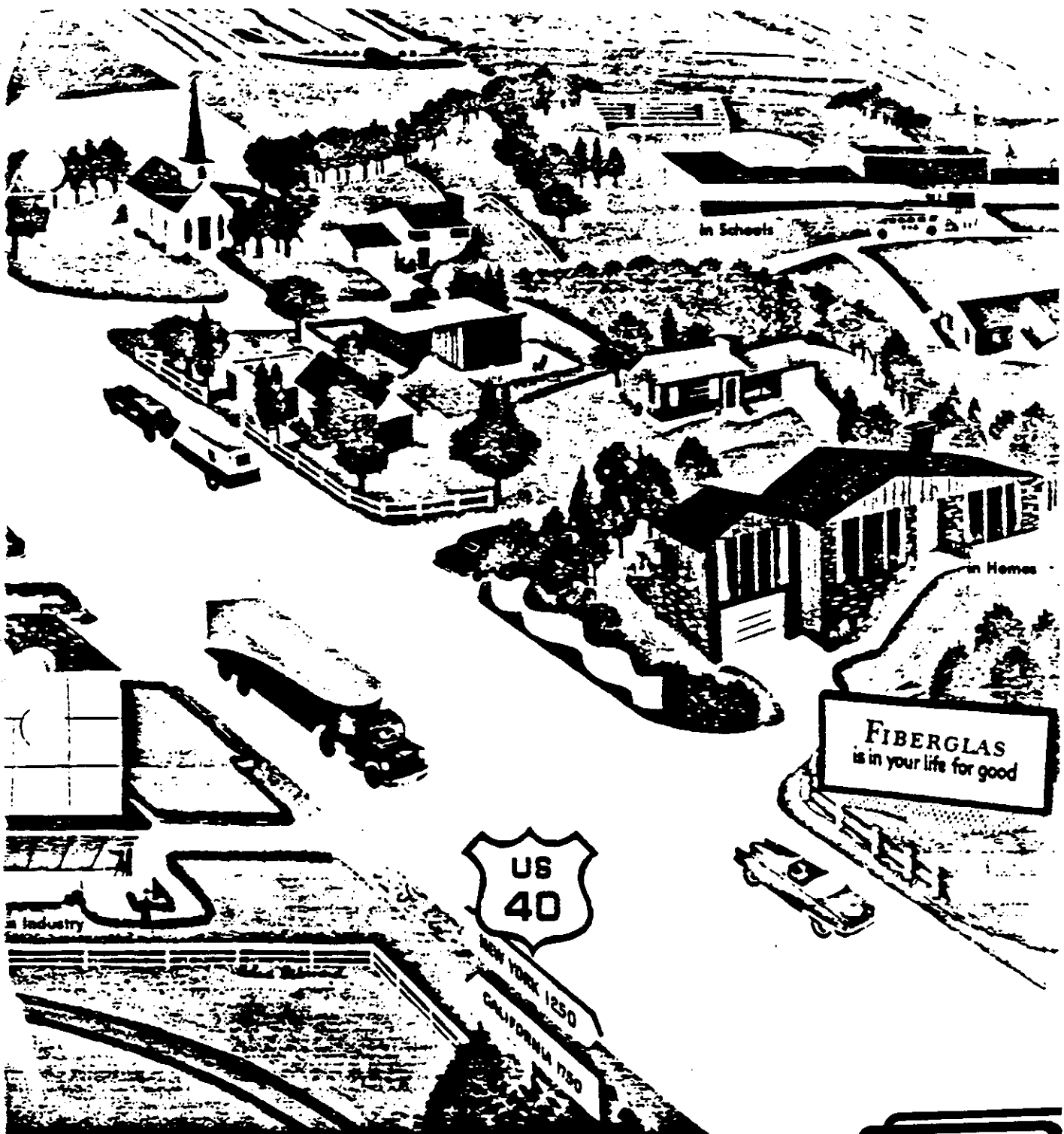




OWENS-CORNING
FIBERGLAS

Annual Report 1953

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Generally, our business was at a high level of activity and, for the year as a whole, increased sales were recorded in all but two product lines. By the end of the first half, it became clear that business in some fields where Fiberglas materials are widely used was levelling off and that consumer demand did not support peak levels of production. This, of course, affected our business but was offset by growing sales in other markets and of Fiberglas materials in new forms. Some of the products that were introduced commercially during the year, as well as others under development, are mentioned later in this report in sections on Sales and on Research and Development.

We anticipate keen competition during 1954 but believe our total business will continue to grow. Fiberglas research was pioneered in the depth of a depression and we emerged as a company in a year of recession. By vigorous product and process development, application engineering in cooperation with others and market effort, Fiberglas expects to continue to extend its usefulness as a basic material. Thus we expect to contribute to and participate in new needs and opportunities growing out of the significant increase in population which has already taken place in our country and in advances in living standards which we believe will be accelerated in the years immediately ahead.

We invite your suggestions and your comments.

Respectfully,

Harold Rosenheim

Our sales gains were in part a reflection of the record levels of general business activity through most of the year, but they also reflect broader acceptance and distribution of some of our products and the initial commercial introduction of others. All types of construction—residential, industrial and commercial—were near an all-time peak and Fiberglas participation was increased by broadened distribution and by wider use of our newer materials. Since 1951 a score of new products have been added to our lines and sales of most of these reflect steady increases in acceptance. In the residential building field, the Ruberoid Company was added as the sixth national distributor of Fiberglas house insulation.

On April 1, 1953 the company became a national distributor of Kaylo pipe and block insulations. These materials supplement products of our own manufacture and we are now able to offer a complete line of the best non-combustible insulations available for use at temperatures ranging from well below zero to 1200° F.

Appliance insulation sales reached an all-time peak in the first half of the year but declined during the second half in keeping with the scaling down of production schedules on refrigerators, stoves and some other types of appliances which had been at record levels for many months. For the year as a whole, Fiberglas sales in this field were ahead of 1952. Sales of Fiberglas products to the automotive industry increased, but marine sales and those in other fields of transportation, except aircraft, declined, reflecting in some cases adjustments in the National Defense program.

In the Textile Products Division significant gains were made in sales of Fiberglas in various forms for reinforcing plastics products, and also for other reinforcements, including papers used for industrial, building and specialty purposes, for packaging and friction tapes, and in gypsum wall board. Use of Fiberglas yarn for marquissette curtains continues to grow and lightweight draperies were introduced commercially during the Fall season. These draperies are particularly suited for large window areas incorporated in

most of the newer houses and apartment buildings. During the year, insect screening made of Fiberglas coated yarn, which has been on test and field trials over an extended period, was introduced commercially. Sales are presently limited by productive capacity but this is being increased and we look forward to a very substantial market for coated yarns not only for screening but for other uses.

Important impetus was given during the year to the development of Fiberglas reinforced plastics as a significant new material and to methods of fabrication and application. Products ranging from fishing rods to flat and corrugated sheets and from skis to small cruisers, huge aircraft radomes, chemical tanks and piping and automobile bodies are being made in increasing variety and numbers. Automobile bodies, first introduced as special custom-built sports models little more than a year ago, received wide public interest. General Motors promptly launched an exploratory production program and is under way now with a schedule of 10,000 Chevrolet Corvettes. Kaiser-Willys plan to build 1,000 of their special Kaiser-Darrin models. Other automobile manufacturers have produced experimental models and are appraising them. The outcome is certain to be accelerated development of methods of large-scale production applicable in a number of fields. It is too early to determine the place of these materials and their economic limitations, but your company is cooperating with fabricators and with producers of plastic resins. It is clear that significant advancement has been made during the past year.

Total sales of Fiberglas products in the eleven Western states by our Pacific Coast Division increased more than the average for the country.

Export sales, while not presently a significant part of our business, are receiving active attention from a re-organized department. We hope to build up our relations in areas where market potentials appear attractive and trade barriers are not forbidding.

Our sales are affected in only minor amount by cut-backs and adjustments in military requirements.

in our report a year ago as a promising non-corrosive material then under field test, is now being made and sold on a commercial basis. Productive capacity is presently being expanded. Coated Fiberglas yarns woven into fabrics and tapes are under test for outdoor upholstery, seat covers and other products.

Further improvements in storage battery plate separators were made during the year and a second production machine was completed late in the fall.

Molded-to-shape Fiberglas products were also introduced for automobile dash panel pads, and designs were presented for other uses in the transportation field and for sound control and thermal housings for blowers, motors, compressors and other equipment.

Other products and applications developed or improved include a roofing felt, an improved process for making pipe covering, Fiberglas in new forms for the reinforcement of paper and tapes, the introduction of Fiberglas for reinforcing gypsum board and improvements in our cold insulation products and processes.

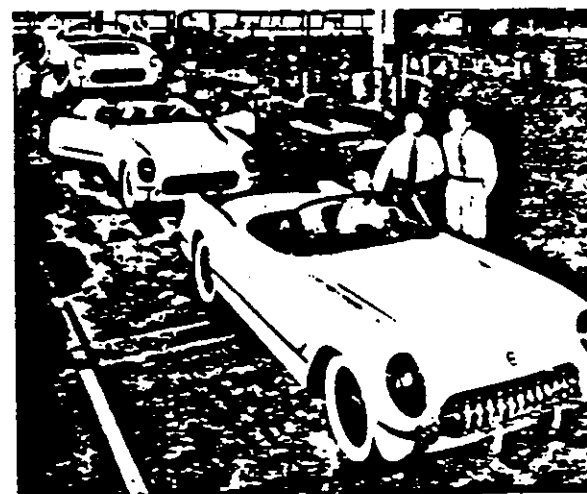
A "laminar" process for making insulating wool batts affords a controlled operation with resulting substantial betterment in insulating values. One unit has been proven in production during the year and an additional one is authorized for construction. An extensive program for facilities improvement for all of our insulating and mat products is under way and we expect to see this well advanced by the end of 1954. Substantial improvements were made in textile processes and in yarn handling and packaging methods at all textile plants.



Here a glass fiber 20 hundred thousandths of an inch in diameter has its surface reproduced by the time-honored "replica technique" on collodion film, which is photographed by the electron microscope to disclose surface irregularities. As part of basic research, studies such as this give a better understanding of factors involved in making a glass fiber and lead to improved qualities and processing.



Here Fiberglas insulation is being placed in a "weathering" chamber to accelerated effects of adverse conditions. This is one of many tests carried out to control quality of production, to evaluate products for specific uses, and to help develop new products or applications. Your Company maintains extensive testing facilities staffed by expert technologists.

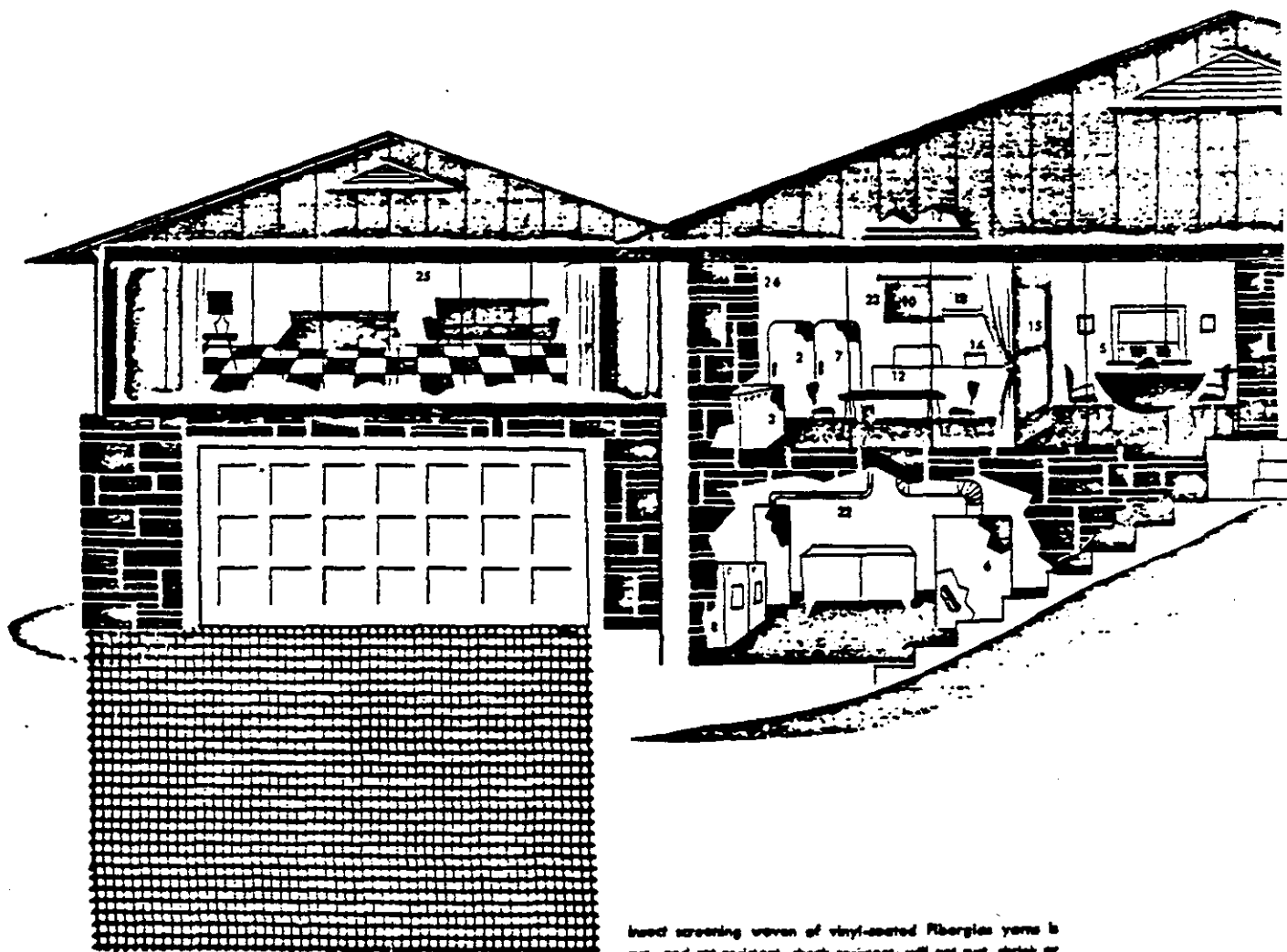


Cooperative development carried on by your company with the plastic industry and glass-plastic body companies resulted in the first product sports car with a Fiberglas reinforced plastic body. Your Company engages in such endeavors where large market potentials exist.

Versatile Fiberglas

Fiberglas products are made in many forms, used in many places, and the list continues to grow. Some of the more important are shown on the following pages and in some cases smaller uses are given where there is promise of future development. Key numbers on the drawings refer to listed products or uses.

Products made by Owens-Corning are in bold type, but not all of the products shown are made by Fiberglas. Some are manufactured by our customers from materials purchased from us; others may pass through three or four stages of manufacture before they reach their end-use form.



Insulated screening woven of vinyl-coated Fiberglas yarns is sun- and rot-resistant; shock resistant; will not rust, shrink or stretch; will not stain house paint and requires no painting.



Fibreglas Dust-Steps filter air effectively in millions of conditioning units and forced warm air furnaces.

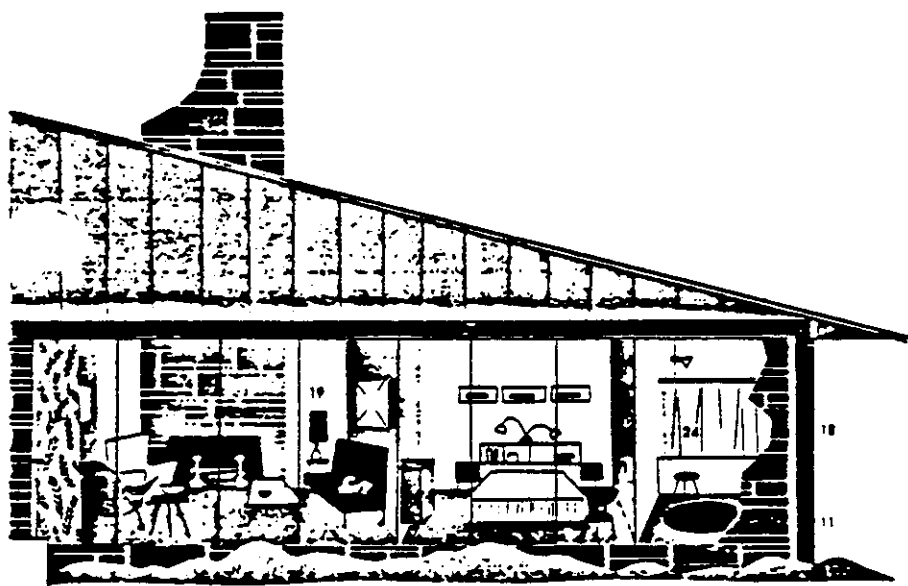


Huge expanse of window area covered with light-weight, translucent, Fibreglas casement fabrics.



Easy-to-install Fibreglas Building Insulations are perfect for the do-it-yourself trend in home improvement.

In The Home



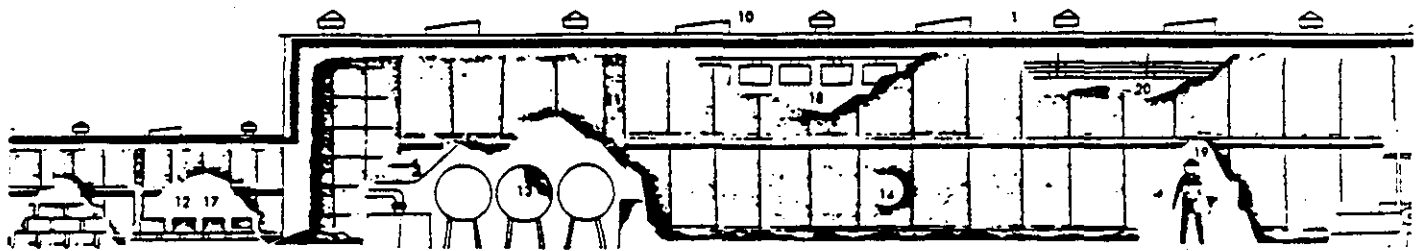
in the home

1. walls and ceiling—house insulation
2. refrigerator—insulation, Fibreglas-reinforced plastic parts
3. range—insulation
4. water heater—insulation
5. air conditioner—insulation, filters, Fibreglas-reinforced plastic parts
6. furnace—insulation, filters
7. food freezer—insulation
8. washer—insulation, Fibreglas-reinforced plastic tub
9. dryer—insulation
10. marquisette curtains—Fibreglas yarns
11. concrete slab edge—perimeter insulation
12. wiring—electrical insulation
13. insect screening—Fibreglas yarns
14. small appliances—insulation, Fibreglas-reinforced plastic parts
15. plastic paneling—Fibreglas reinforcement
16. draperies—Fibreglas yarns
17. casement fabrics—Fibreglas yarns
18. gypsum wallboard—Fibreglas reinforcement
19. lampshade—coated mat
20. chairs—Fibreglas-reinforced plastic
21. luggage—Fibreglas-reinforced plastic
22. water pipes—pipe insulation
23. weatherstripping—insulation
24. shower curtain—Fibreglas yarns
25. ceilings—acoustical tile
26. clothing—insulated lining

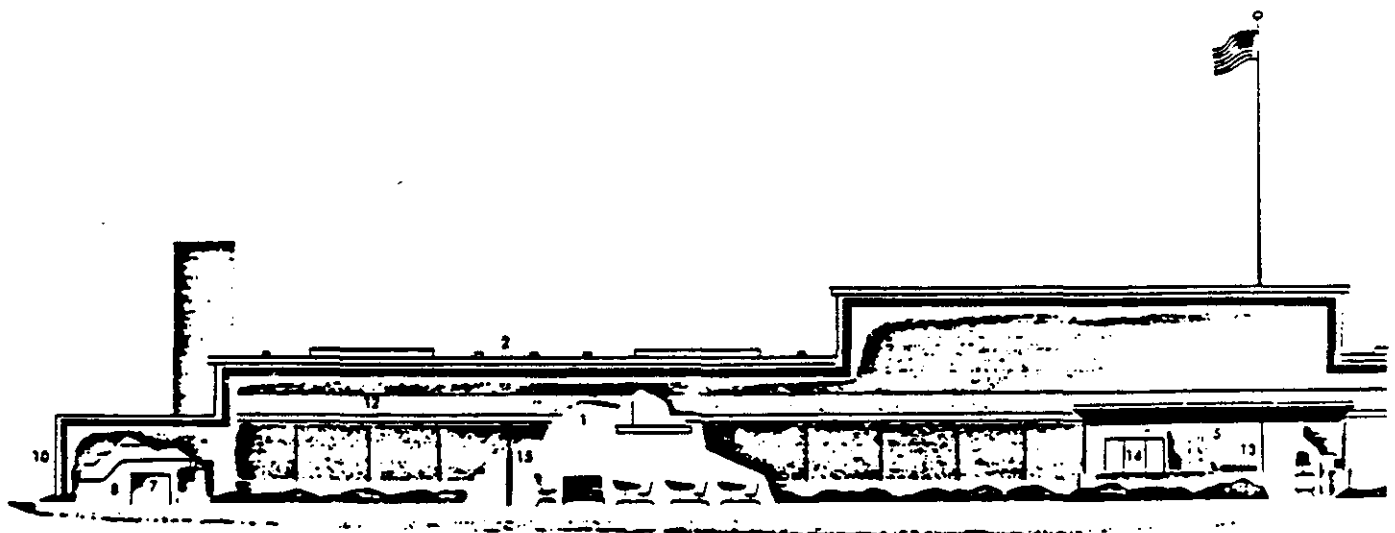
Compact, modern kitchens owe much of their efficiency to Fibreglas-insulated ranges, refrigerators and other appliances.

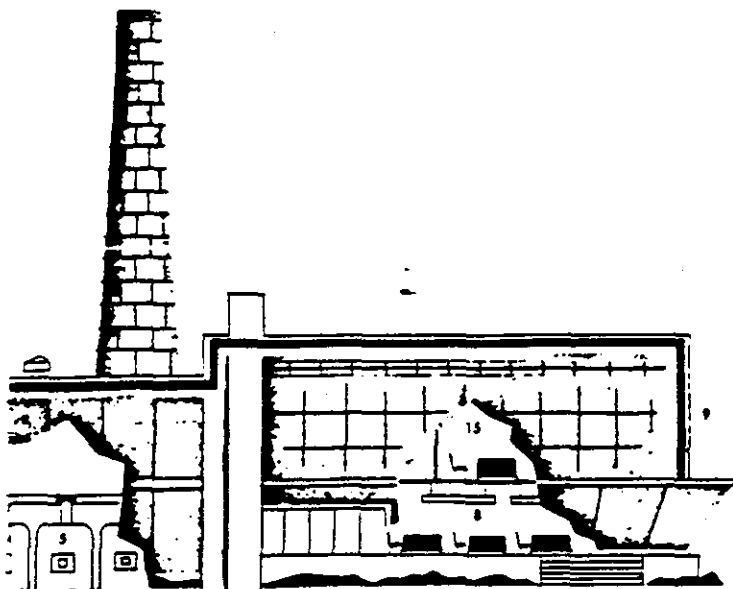


In Industry



In Schools, Offices and Public Buildings

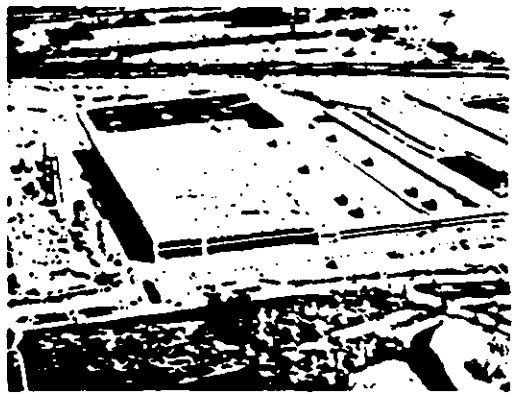




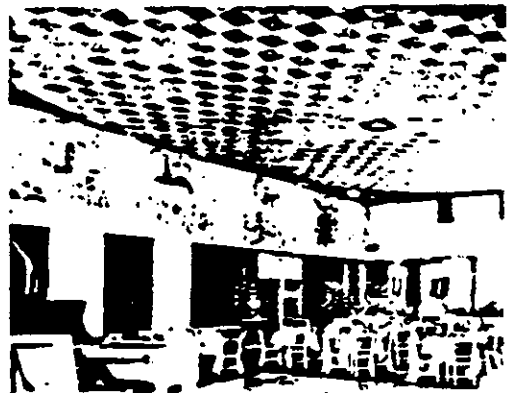
Installing Fiberglas Cold Storage Insulation in large Florida cold storage warehouse.



Miles of outdoor piping in refining plant are held at correct temperature by Kaylo, newest addition to Fiberglas line.



Area of roof on giant automobile plant insulated with Fiberglas Roof Insulation to give heat control.



Ceiling of new Fiberglas Shie Tite gives distinctive beauty and quiet to spacious hotel dining room.

Industry

1. roof—roof insulation, form board, Corotop roofing
2. pipes—Fiberglas and Kaylo pipe insulation
3. ducts, vent hoods—duct insulation, sound absorbing liner, Fiberglas-reinforced plastic
4. heating—furnace insulation, filters, conditioning—insulation, filters, Fiberglas-reinforced plastic parts and wiring—electrical insulation
5. boiler—Fiberglas and Kaylo equipment insulation
6. ceiling—acoustical tile, ceiling board
7. walls—insulation
8. skylights and sidelights—Fiberglas-reinforced plastic panels
9. freezer or cooler rooms—cold storage insulation
10. packaging—Fiberglas-reinforced papers and tapes
11. storage tanks—insulation, Fiberglas-reinforced plastic
12. dies, tools and fixtures—Fiberglas-reinforced plastic
13. partitions—insulation, Fiberglas-reinforced plastic panels
14. industrial batteries—separators, retainer mats
15. trays, shipping containers, pallets—Fiberglas-reinforced plastic
16. shop sound control—Noise-stop acoustical baffles
17. safety helmets—Fiberglas-reinforced plastic
18. pipe—Fiberglas-reinforced plastic

in schools, offices and public buildings

1. ceilings—acoustical tile, ceiling board
2. roof—roof insulation, form board, Corotop roofing,
3. heating—furnace insulation, filters
4. pipes—Fiberglas and Kaylo pipe insulation
5. draperies—Fiberglas yarns
6. wiring—electrical insulation
7. air conditioning—insulation, filters, Fiberglas-reinforced plastic parts
8. duct—duct insulation, sound absorbing liner
9. sidelights or skylights—Fiberglas-reinforced plastic panels
10. walls—insulation
11. boilers—Fiberglas and Kaylo insulation
12. light diffusers—Fiberglas cloth
13. office furniture—Fiberglas-reinforced plastic parts
14. marquisette curtains—Fiberglas yarn
15. partitions—insulation, Fiberglas-reinforced plastic panels
16. gymnasium, auditorium—Noise-stop acoustical baffles

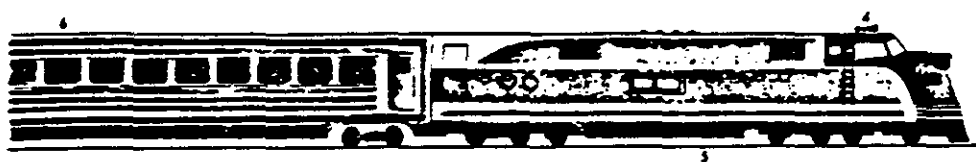


In Transportation



in trains

1. boxcars—insulation, infestation control blankets
2. tank cars—insulation
3. refrigerator car—insulation
4. diesel engine—insulation
5. diesel engine wiring—electrical insulation
6. passenger car—insulation
7. window shades—coated cloth



in ships

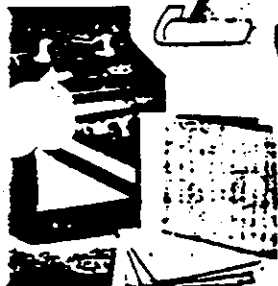
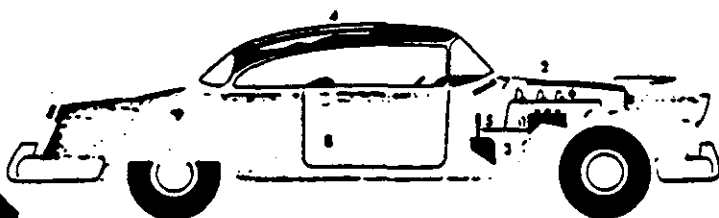
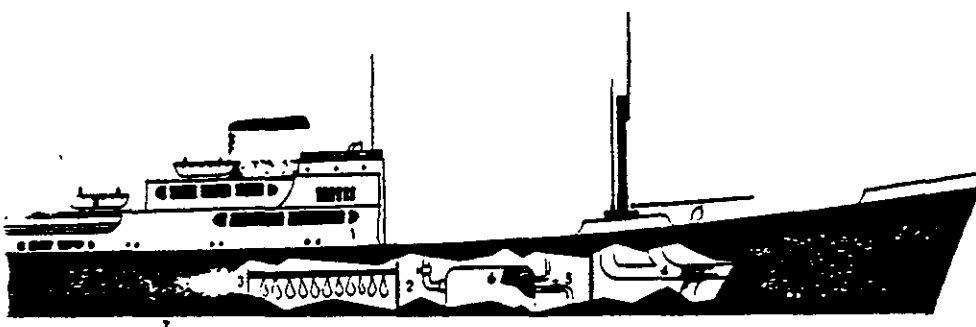
1. living spaces—insulating board
2. cold storage spaces—insulation
3. holds—insulation
4. ducts—duct insulation
5. pipes—pipe insulation
6. boilers—insulation blocks
7. motors and wiring—electrical insulation
8. life jackets—Rotation fiber

in planes

1. fuselage—heat and sound insulation
2. ducts—duct insulation
3. wiring and motors—electrical insulation
4. interiors—coated cloth
5. antenna housing—Fiberglas-reinforced plastic
6. radomes—Fiberglas-reinforced plastic

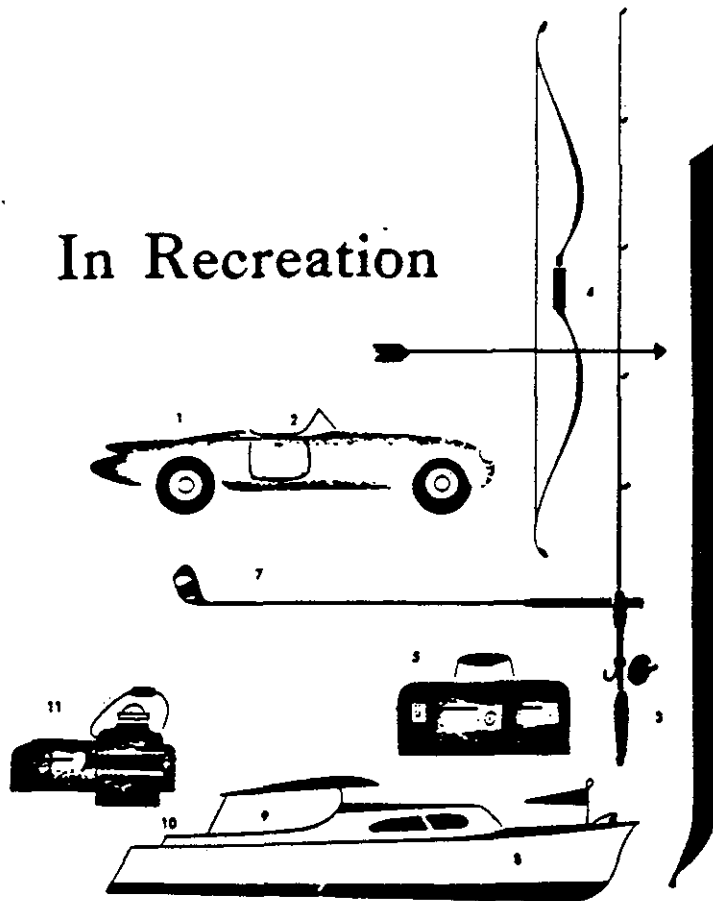
in automobiles

1. battery—separators, retainer mats
2. hood liner—sound absorbing insulation
3. shroud—insulation
4. roof—insulation
5. dash—insulation
6. wiring—electrical insulation
7. dash panel—molded Fiberglas panel pad
8. body pan—Fiberglas-reinforced plastic
9. air conditioner—insulation, filters



Fiberglas Battery Separators give longer life to automobile and industrial batteries

In Recreation

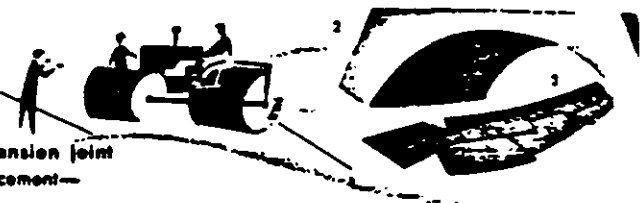


1. sport car bodies—Fiberglas-reinforced plastic
2. convertible top—coated cloth
3. fishing rod—Fiberglas-reinforced plastic
4. bows and arrows—Fiberglas-reinforced plastic
5. tackle box—Fiberglas-reinforced plastic
6. skis—Fiberglas-reinforced plastic
7. golf clubs—Fiberglas-reinforced plastic
8. boat hulls—Fiberglas-reinforced plastic
9. life jacket—floatation fiber
10. tarpaulin—coated cloth
11. portable chill-chests—insulation

Other Uses

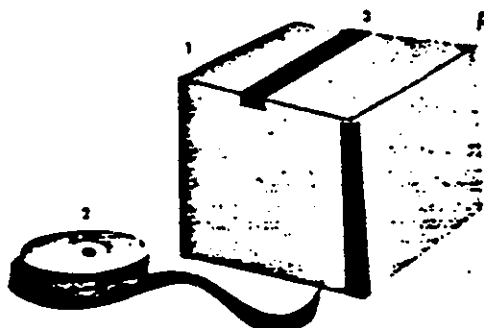
highway construction

1. joints in paving—expansion joint
2. waterproofing reinforcement—membrane fabric
3. concrete curing—Fiberglas-reinforced paper



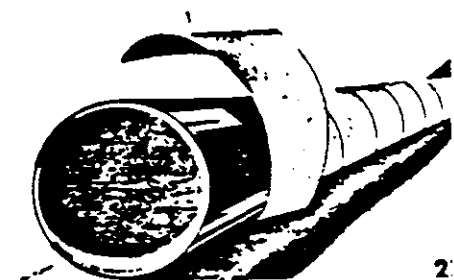
packaging

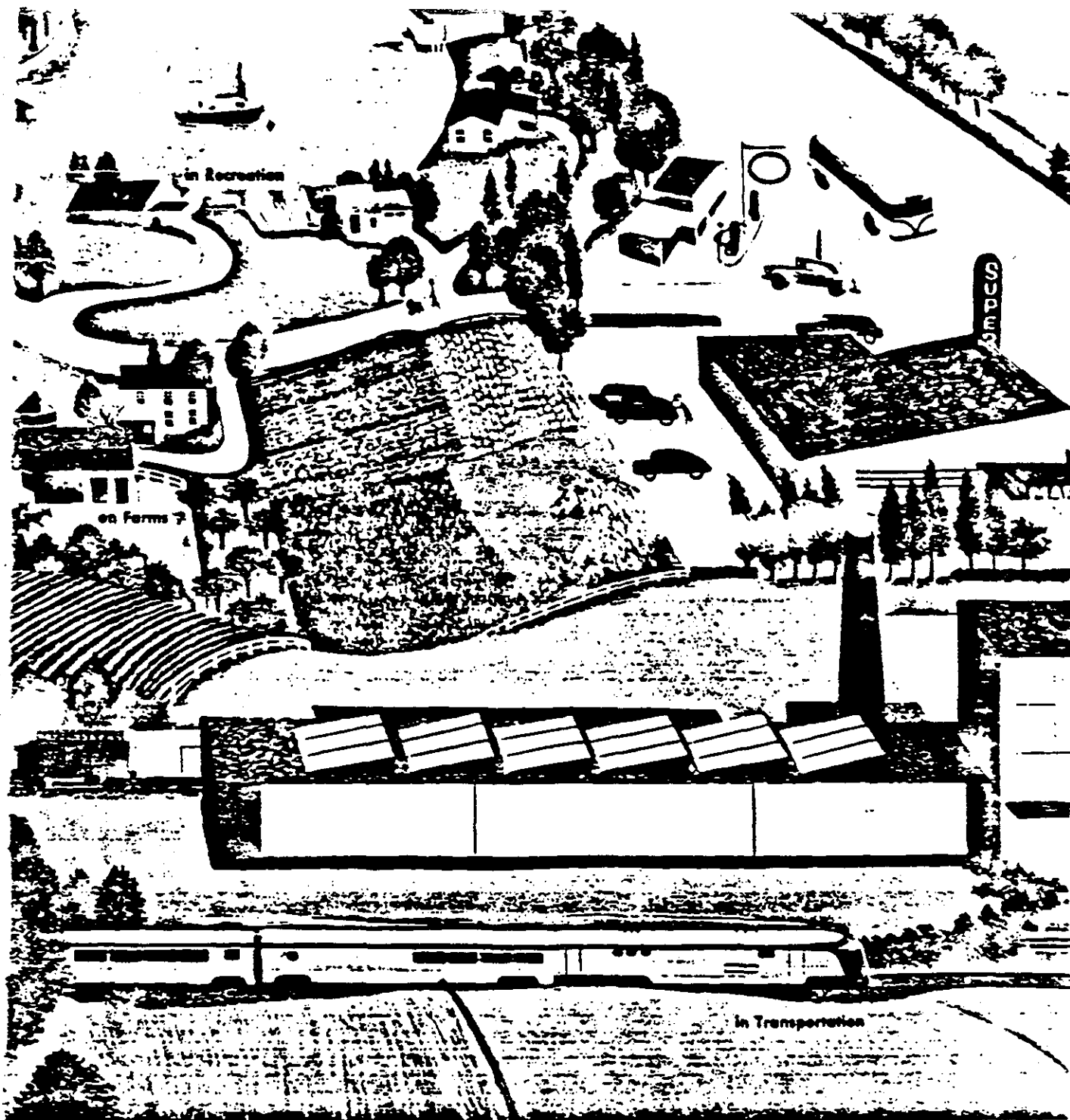
1. paper—Fiberglas-reinforced
2. tape—Fiberglas-reinforced
3. pressure sensitive tape—Fiberglas-reinforced



pipe lines

1. pipe wraps—Coromat and outer wrap





Owens-Corning Fiberglas Corporation

GENERAL PRODUCTS DIVISION, Nicholas Building, Toledo 1, Ohio

TEXTILE PRODUCTS DIVISION, 575 Madison Avenue, New York 22, New York

PACIFIC COAST DIVISION, Santa Clara, California