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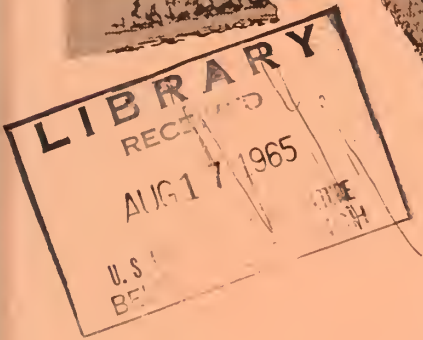
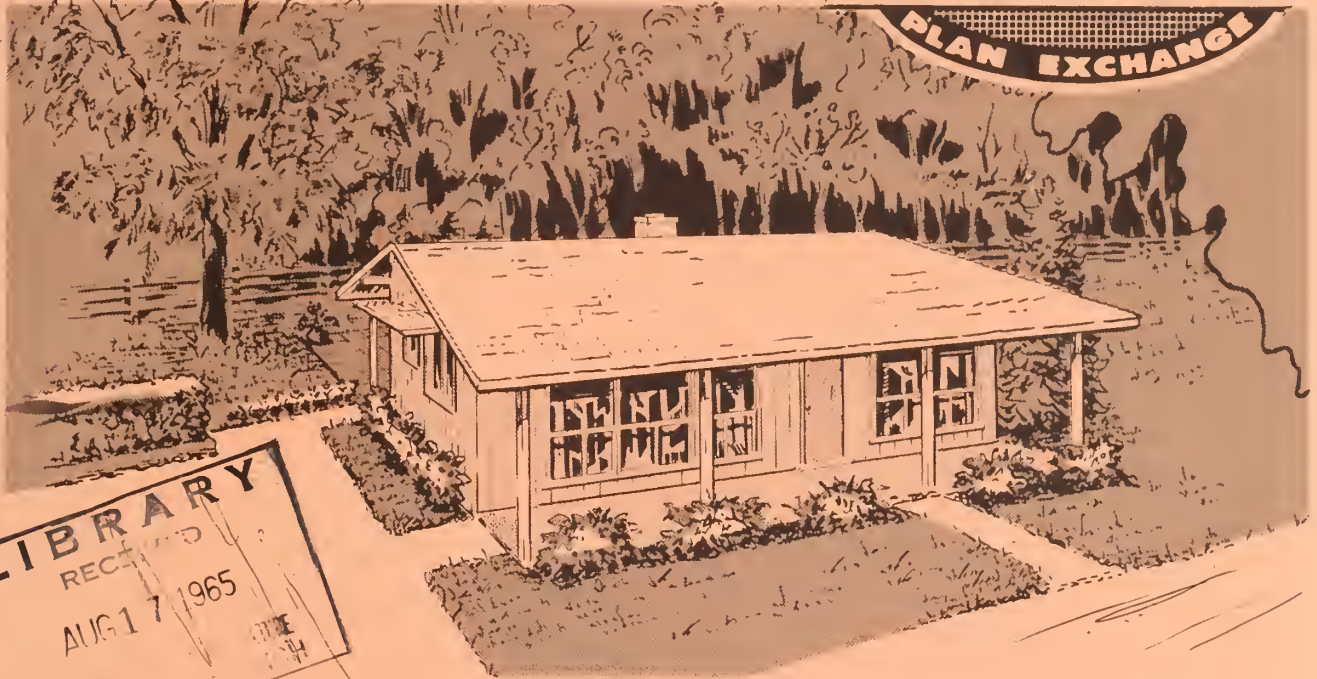
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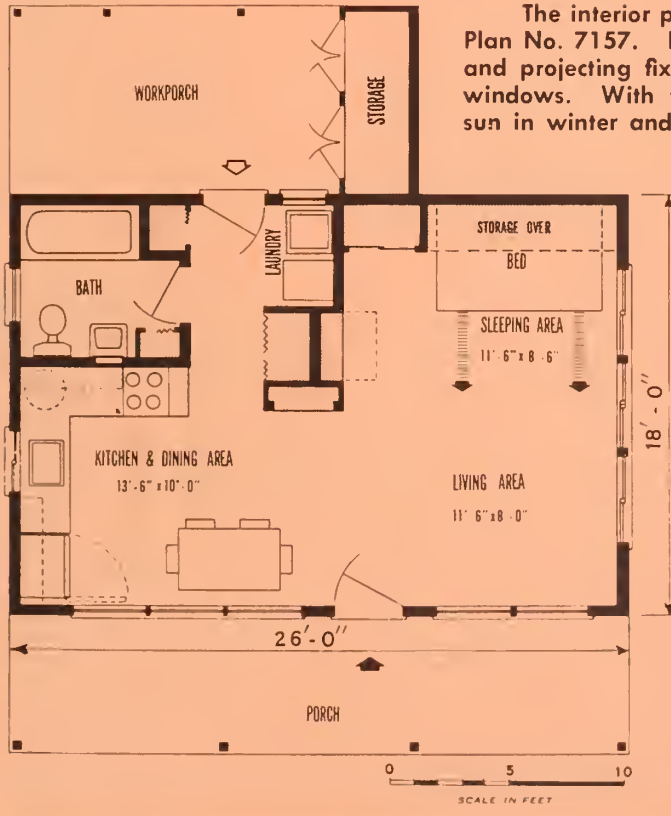
solar-type

FARM COTTAGE

**COOPERATIVE
FARM BUILDING**
Plan No. 7148
(2 - SHEETS)
PLAN EXCHANGE



The interior plan of this cottage is the same as that of Farm Cottage, Plan No. 7157. But the roof and window areas have been redesigned, and projecting fixed trellis shades have been added to the east and west windows. With these changes, the cottage can be partly heated by the sun in winter and protected from it in summer.



The design is versatile. It is suitable for a young family, a retired couple, or a tenant family; or it can be used as a summer cottage. The kitchen area, although small, is conveniently arranged and has enough storage space for the uses for which it was planned. The dining area is located near a large window and would be especially pleasant if the view is good. If desired, the sleeping area could be curtained or partitioned to provide privacy. The remaining space is large enough to accommodate the usual living room furnishings. The bathroom is convenient for use as a washup center or for dressing after outdoor activities.

HOUSE AREAS:	Square Feet
Living area.....	468
Porch and storage area.....	289

Washington, D.C.

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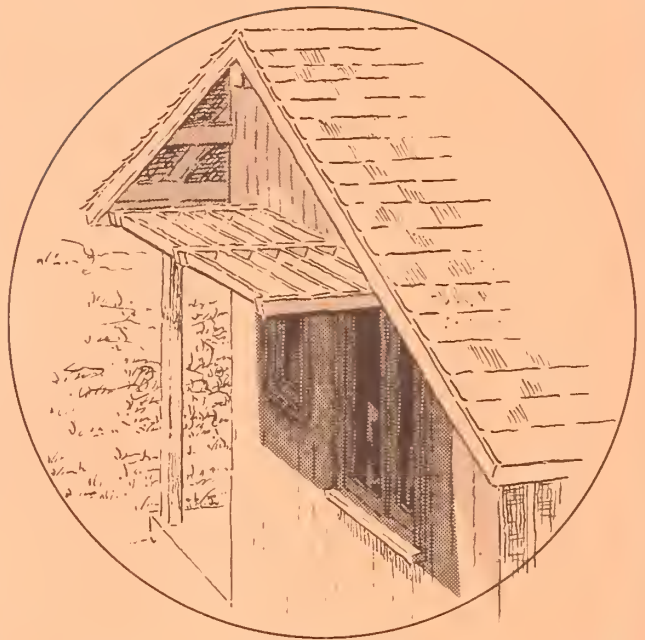
A solar-type building takes advantage of the changing position of the sun with a specially designed roof overhang that lets sunshine through the south windows in the winter but not in the summer.

The angle at which the sun strikes a building depends on the time of day, the time of year, and the latitude of the geographic area in which the building is located. A simple table on the working drawings shows the roof overhang needed at various latitudes and the proper location of window sills in relation to the roof overhang.

The overhang for the various latitudes shown in the table gives the south windows full shade at high noon from the first day of spring (March 21) to the first day of fall (September 21).

In northern zones, this prescribed overhang may not be necessary or practical. For a shorter season of protection, a smaller overhang can be used. A table in U.S. Department of Agriculture Miscellaneous Publication No. 995, "Control of Direct Sunlight for Comfort," would be helpful in designing a smaller overhang. The table is based on providing full shade at high noon from April 1 to September 11.

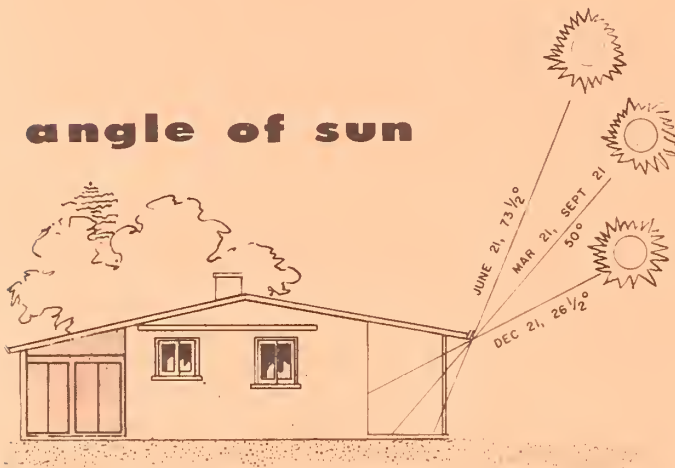
The working drawings for this cottage are for frame construction on slab, but the plan could be adapted to masonry construction or to local materials readily available and suited to the area.



fixed trellis shade

This type of louvered shade protects the window openings from the sun at the gable ends. The trellis projects 3' from the wall. The bottom of the window glass is 3' 8" below the trellis.

angle of sun



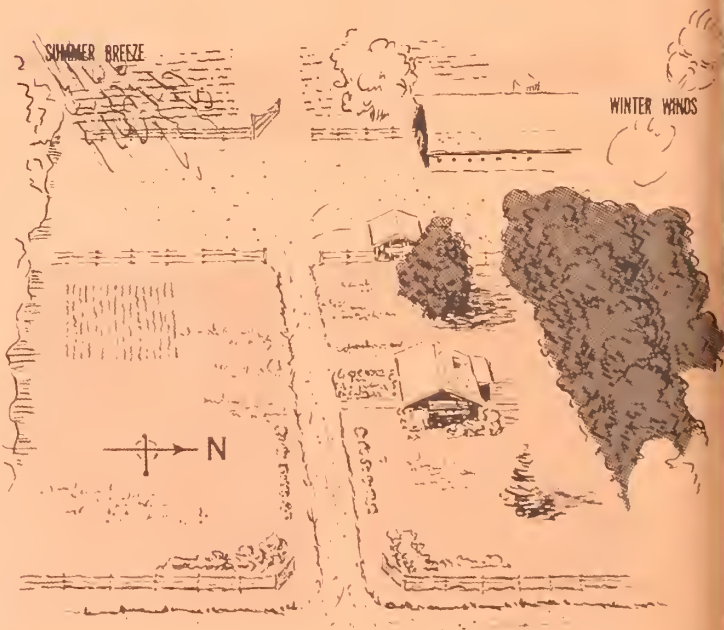
The seasonal south angle of the sun at noon at 40° N. latitude.

Complete working drawings may be obtained through your county agricultural agent or from the Extension agricultural engineer at most State agricultural colleges. There is usually a small charge.

ORDER PLAN NO. 7148, FARM COTTAGE—SOLAR TYPE

If the working drawings are not available in your State, write to the U.S. Department of Agriculture, Agricultural Engineering Research Division, Plant Industry Station, Beltsville, Md. The U.S. Department of Agriculture does not distribute drawings, but will forward your request to a State that does distribute them.

Developed by—
AGRICULTURAL ENGINEERING RESEARCH DIVISION
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site plan

The house is located with the front facing the south. The east and west gable end windows are each shaded by a fixed trellis.

