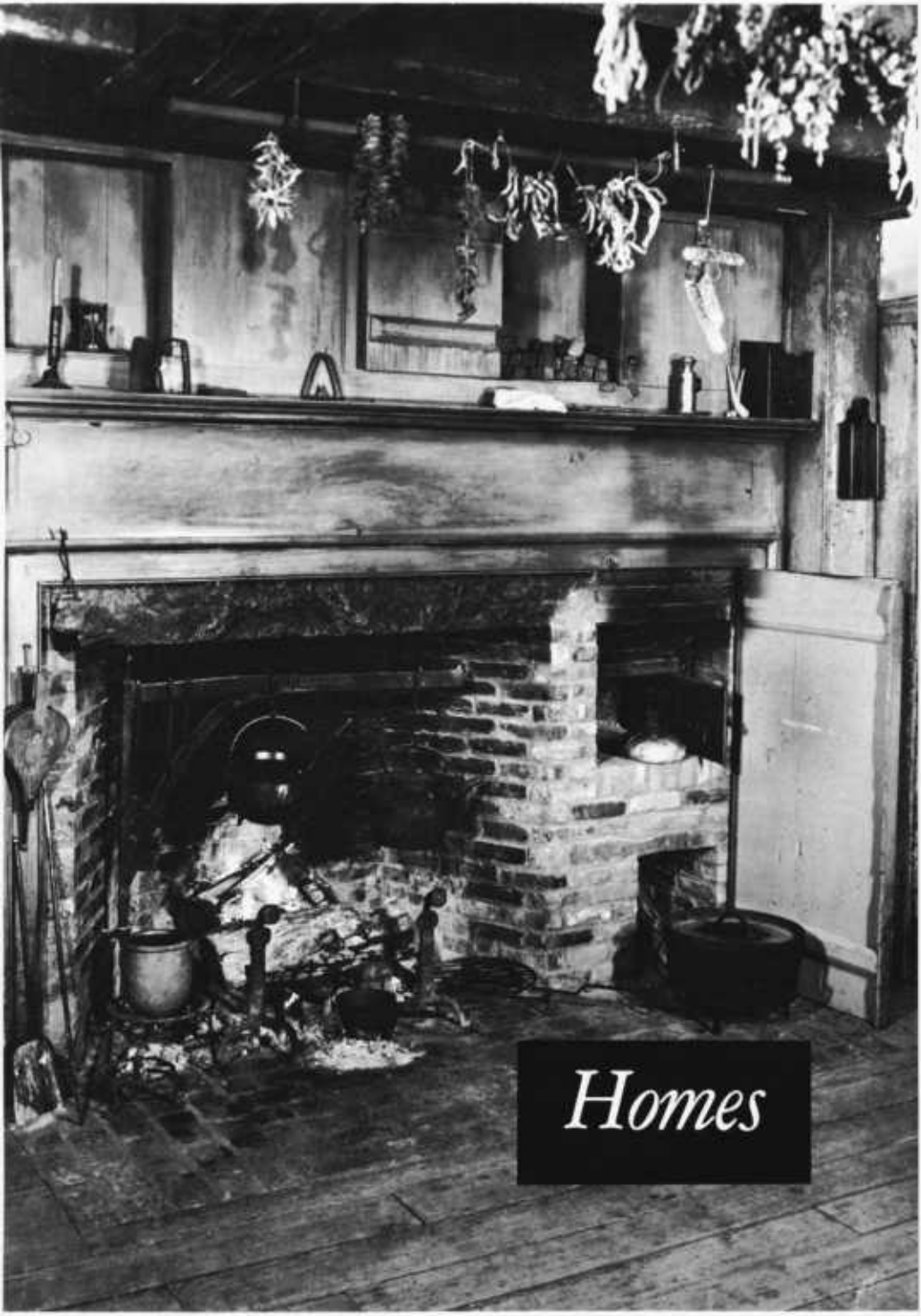
Homes

The House on the Farm

FARMHOUSES of the 1860's were the monuments of the times and the men who built them. There were houses of sod and adobe and houses of logs, columned plantation houses of brick or clapboard, and ornate Victorian houses with fancy fretwork. Variety there was, if nothing else, for more than anything they reflected the resources of time, money, skills, imagination, and materials that were available.

The westwarding pioneer was pressed to provide shelter for his family and could not wait for materials from the sawmill operator, the ironmonger, and brickmaker. Equally urgent was the need to establish croplands and herds; time was scant for fashioning a permanent home of finished materials or money to pay for it. So it was that the pioneer's other resources—manual dexterity and ingenuity to make do with materials at hand—were dominant in determining the type of house that first sheltered farm families in newly developing sections. The East had long since passed the crucial early days of settlement. There had been time and money to replace the first humble dwellings with more splendid ones. New England started building permanent homes during the colonial period and endowed domestic architecture with the well-proportioned clapboard house in villages and on farms. Interest in classic architecture spread to America early in the 19th century, left its imprint on the farmhouses of the Atlantic Coastal States and through the plantation regions of the South, and then moved on to the Middle West. Built of staunch materials, carefully crafted by hand, these colonial and Greek Revival houses were still in use in the 1860's. Midcentury saw an improvement in building supplies. Machines turned out construction materials and equipment formerly crafted by hand. New materials appeared. The domestic architecture was Victorian Gothic. Many farmhouses were built or remodeled into the style of the period. Traces of the gingerbread era can still be seen in the wooden lace around the eaves and porches of houses across the country.

"Beautiful birds built tasty nests," wrote O. S. Fowler in *A Home for All,* published in 1854. "As a general rule, a fancy man will build a fancy cottage, a practical man a convenient home." The American farmer, a practical man, may have paid some deference to popular styles in the exterior of his home and adopted new materials if they were more practical for the building, but he likely adhered to the philosophy that has traditionally governed the in-

The settler built his house of native materials.

Farmhouses were built of milled lumber and brick in well-established farming sections.

A kitchen in 1874.

terior design of farmhouses in this country—design for functional use. The early farmhouses had many functions. They were production plants for much of what the family ate and wore. "A house on a farm should be considered a place of business, and every provision should be made to fitly carry its business on," wrote Gervase Wheeler in 1855. He offered a house plan that would accommodate the several businesses of the farm household.

What was needed, several authors of the period agreed, were ways to lighten the workload of the farm household. The kitchen came in for the greatest attention, as it still does. "If any area of the house should be rendered comfortable, convenient and attractive, it is the kitchen, for it is in this room that the family will live," admonished one adviser to farm families. Another wrote: "A kitchen supplied with some modern conveniences and labor-saving implements and so cheerfully arranged that to do work in it is a delight rather than drudgery, is of infinite more value [than a parlor] if a choice must fall between the two." The "modern conveniences and labor-saving implements" available to the farm housewife of 1860 were meager enough. Consider the kitchen room itself. It was so big that it earned the description of "half-acre." Foods were stored outside the kitchen proper. The work surface was a table, too low to allow a person to work at it in comfort if it served also as the family's dining table, as many of them did. The fireplace and fireplace oven still were used for cooking and heating in many farm homes. The water supply was in a bucket kept in the dry sink.

The first step toward bringing modern convenience to the farmhouse likely was taken in the kitchen and in the direction of solving the problem of water supply and disposal. Running water for homes had been introduced during the 1830's, but even in the cities installation of plumbing facilities was slow. But there were other avenues of improvement: The well could be located close by the kitchen door. A drain could be installed in the dry sink. Next the pump came indoors, and the sink was no longer a "dry" one. Enameled plumbing fixtures were introduced about 1900 and met with immediate favor. The next step was piped running water. Not until electric power reached farther into the rural areas did plumbing facilities for farm homes become prevalent. Even as recently as 1950, more than half the farm homes of the country did not have running water. The inventor and manufacturer brought about the first real improvements through the development and mass production of radically different equipment for household chores and innovations in finishing materials. A wooden-tub washing machine was patented in 1863. Metal cookstoves began to supplant the fireplace and brick-lined oven. There was linoleum for the floors and oilcloth for tabletops.

No sooner had improvements been made in kitchen equipment

than the search began for ways of improving the improvements. By the early 1900's, a well-furnished kitchen was equipped with a manufactured kitchen cabinet in addition to the sink, ice refrigerator, wood or coal range, and perhaps an electric or oil stove for summertime cooking. Credit for the second era of improvement in kitchen planning goes to the women—to homemakers, who complained that, even with their new laborsaving equipment and materials, their backs still ached and their feet were tired, and to the women who were applying their newly won higher education to solving problems of home management (like Ellen H. Richards, the chemist who is acclaimed as the founder of professional home economics). Such women listened to the complaints and tried to help. The help that could be given was based mostly on commonsense reasoning and practical experience. A look at the posture of homemakers at work solved the mystery of the aching backs and instigated studies to determine the comfortable height for the kitchen sink and work surfaces. Rules emerged for arranging the equipment in the kitchen to save steps, rules made necessary by the fact that installed equipment could not be moved so readily as the dry sink, the kitchen cabinet, and table. Organization of the kitchen by work centers came to be emphasized. A bulletin on kitchen planning issued by the Department of Agriculture in 1926 gave this advice: "Group all equipment large and small into compact work centers for preparation of raw food, cooking, serving, clearing away, and dishwashing and any other activities done regularly in the kitchen." The compact small kitchen planned for efficiency came into being.

Compaction of kitchen areas was furthered by continuous built-in work counters and storage areas, which were introduced in the early twenties. With the introduction of tabletop ranges in 1930, a truly streamlined kitchen was possible but not always recommended. The kitchen planner was advised to weigh carefully the pros and cons of built-in and movable furnishings and to compare prices. The second era slid gradually into the third, an era born of experimental research. First efforts generally were in the field of equipment. Even before electricity became generally available to rural homes, the operating characteristics and performance requirements of dishwashers, refrigerators, ranges, and other equipment were being determined in the laboratories of some State colleges and the newly established Bureau of Home Economics in the Department of Agriculture. The growth of research on housing was slow, however, until 1931, when the President's Conference on Home Building and Home Ownership brought a new consciousness of the need for research on family housing problems.

Then farmhousing was established as a field of agricultural research. Under a grant from the Civil Works Administration, hundreds of specially trained workers were employed to obtain facts

concerning conditions of farmhousing in 46 States. More than one-half million homes were included in this study, the first survey designed specifically for the purposes of housing research. Others also were exploring the possibilities of the experimental approach to housing problems. Maud Wilson, of Oregon State College, and Evelyn Roberts, of Washington State College, published the first research-based standards for working surface heights and other space units in farm homes. Thus the pattern was set for the research that was to receive its greatest boost with the passage of the Research and Marketing Act of 1946. The act authorized research relating to the design, development, and more efficient and satisfactory use of farm homes. Coordinated programs of work subsequently were conducted cooperatively by the Agricultural Research Service in the Department of Agriculture and 43 State agricultural experiment stations in four regions. The first study, an analysis of the kind and extent of activities carried on in farm homes and farm families' preferences for housing facilities, was followed by laboratory research to determine space needs and efficient arrangements of space for all major household activities and storage. Technicians started to translate the research-based data on space requirements into graphic standards for architects and families to use in planning homes for today's farm families.

We now have standards to guide us in making decisions as to how many inches of space to allow on the floor, on the work surface, or in a storage area for major household activities. We can position a wall oven within a range of heights that for the woman of average height has been found to require the least expenditure of energy. We can estimate in advance the difference in time and money costs of operating different types of household equipment. The concept of farmhouse planning for functional use has not changed, but changes in family living patterns have changed the functions of the house. Yesterday's farm kitchen had to be large enough to accommodate the extra workers who came to help with food preservation and feeding the harvest workers. Rarely do more than two persons work at a time in today's farm kitchen. When transportation was slow and one trip to town a week was the custom, large quantities of household supplies were purchased and stored in the farm home. With today's improved transportation, the amounts of goods purchased by the rural homemaker do not differ greatly from those of her city counterpart in most areas of the country.

Likewise the ice refrigerator that had to be replenished frequently was best placed near the back door so that it could be filled without tracking up the kitchen floor. Today's mechanical refrigerator may be placed for the user's convenience. As an example of what may happen in the second century of the Department, our sugges-

tions for placement of the refrigerator today may not be suitable for the refrigerator of tomorrow, which may be several small units with different temperatures, each placed wherever it is needed. A similar division of cooking facilities is foreseen: Several surface cooking areas, ovens for baking, and ovens for warming, all placed for convenience. With the development of electronic cooking facilities, the organization and time required for kitchen work will change markedly, since cooking time will be reduced to minutes. These are only some of the anticipated changes that will influence the design of the kitchen of tomorrow. As social and economic changes continue to influence the living patterns of farm families, the concepts of what constitutes a good house will also have to change. We can expect that the farmhouse of 100 years hence will differ markedly from that of today, perhaps as much as today's differs from that of the 1860's. *(Avis M. Woolrich* and *Mildred S. Howard)*

The Beltsville Energy-Saving Kitchen Design No. 1 incorporated the results of research on human energy expenditures and on space requirements for household activities. Working drawings are made available to families through the Regional Plan Exchange, a cooperative activity of the Department and the State Agricultural Extension Services.