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Modernizing a Midwestern Farmhouse

Van Vlack and Simpson: Modernizing a midwestern farmhouse

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Beauty in home architecture can be obtained without costly decoration. The two arms of the L are unequal in size. Thus the design is given unity because the larger mass dominates the smaller. The simplicity and the good proportions of this seven-room bungalow give it a definite charm. A terrace, enclosed with a low wall, is in keeping with the modern trend.

It has simple beauty on the outside, is compact and well arranged on the inside. Rooms of proper size for their purposes, arranged about a central hall, insure complete use of space. The living room, with a corner fireplace and large unbroken wall areas, offers an excellent opportunity for interesting and attractive decoration and placing of furniture. The office is large enough to be used as an emergency bedroom. Space for laundry, storage and a central heating unit is provided in a full basement. However, where possible the ideal place for the laundry is on the first floor adjacent to the kitchen.

Fig. 1. 34' x 36' Seven-Room Farmhouse. Midwest Plan available through the Iowa Agricultural Extension Service.
Modernizing
A Midwestern Farmhouse

By C. H. Van Vlack and Ruby Simpson

THREE GENERAL POINTS TO KEEP IN MIND

The remodeling experiences of farm families have shown that one should consider these things in deciding whether or not to remodel:

1. **IS THE HOUSE WORTH REMODELING?**
   
   Just how good is the old house? Is it structurally sound and are the lines true? If there is decay in sills, studs and joists, they should be replaced. If the walls are not plumb, or the roof is distorted, there is warning that the building is basically weak due to poor materials or faulty construction or possibly both.

   How good is the foundation? Does it extend below frost? Is there advantage in moving the house to a new site nearby which would better suit the general farmstead layout?

   How valuable is the traditional charm of the old house? Is it an important landmark? These points should not be overrated, but could be weighed when other important factors are well balanced. Too often the “sentimental value” of the old house is rated too highly.

2. **WILL THE REMODELED HOUSE BE SATISFACTORY?**
   
   Even though the old house is structurally sound, the next point to consider is whether the family needs can be satisfied. This requires working out a possible plan of room arrangement.

   It is seldom possible to have all the desired features when remodeling a house. The wise family will recognize this and be prepared to weigh the desired changes and compromise on those which will be most satisfactory from the standpoint of family needs and the cost.

   Furthermore, while interior changes are being planned, the exterior must be considered. Elevations—plans drawn
by an architect showing how the house will look from the outside—are very helpful. From these it is possible to get the effect of the location of windows and doors and the general proportions of the house. In some cases it will be necessary to decide which is of more importance to the family, the outside appearance or the inside convenience. One may have to be sacrificed.

3. WHAT WILL BE THE COST?

Even though one should decide (1) that the house is worth remodeling and (2) that the remodeled house will be satisfactory, one should not start remodeling without being sure that it can be done at much less cost than building a new house. The new house considered should offer the same or even greater comforts and conveniences. Remodeling should conserve at least 50 percent of the original value of the old house.

A new house will probably increase the value of the property more than a remodeled house. It is rarely possible to secure all the features desired in a remodeled house.

Probably the best way to determine the cost of a house is to obtain estimates from local builders or contractors. Even better, get bids on both the remodeled job and the new house.

Too often the budget includes only the structural items and does not care for items which appear later and generally seem to be termed extras, such as lighting fixtures, screens, storm sashes, driveway, landscaping and architectural fees.

Though most often omitted in the listing, the landscaping and architectural fees should be included as an essential item of cost in the best possible house for the money available. That relatively small item when hundreds and even thousands of dollars are being invested might save one or more of the following defects: wet basement, sagging floors, cracked plaster, leaky roofs, inconvenient arrangements and unpleasing designs.

Finally, since the purpose of remodeling is to secure
additional comforts and conveniences, practically every house has some possibility for improvement. Generally one would not consider building a new house if remodeling is limited to minor repairs, addition of equipment or rearrangement of space.

THE BRUNS FAMILY DECIDES TO REMODEL

When the farm family considers remodeling its house, usually it wishes to bring about one or more outstanding changes such as providing more room, changing the stairway, adding a bathroom, providing a more convenient kitchen, making the front entrance more usable, or just making the house generally more attractive and more livable.

For most farm families the experience of planning and remodeling a house comes only once in a lifetime. Few families can hope to profit by experience.

We shall try to show in this bulletin how an Iowa farm family remodeled a farmhouse, thereby improving its appearance and convenience and raising the level of living for the family.

Members of the William Bruns family, near Sheffield in Cerro Gordo County, Iowa, were careful in their decision-making when they concluded that their 60-year-old house was worth remodeling. Nor did they neglect careful planning. Theirs was a typical 160-acre midwest farm with a farmhouse good in its day.

Skilled labor was scarce and farm operations had to continue while the house was being remodeled. Their experience was not different from that of most farm families.

The Bruns family wanted a modern home built as well as their income would allow. It had to provide, above all other things, running water, sewage disposal, and modern heating and lighting. They wanted their house to face the drive so that visitors would go to the front door.

It seemed at first that all of these features could not be obtained by remodeling the old house. On the other hand the kind of a house they wanted, if built new, using such materials as they might salvage from the old house, would
Before and after plans for first floor of the Bruns house.
See legend on opposite page.
cost more than they felt they should invest in the house.

Lack of available skilled labor was a problem for the Bruns family. Farm people who visited the Bruns farm during their remodeling job just before building materials were

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**Fig. 2. Before and After Floor Plans for the Bruns House.**

Two closets open off the large vestibule just inside the front door. Formerly there was one closet off the hall on the second floor. That has been divided and gives a nice closet for each of two adjoining bedrooms. The built-on addition provides two closets for the third second-floor bedroom. In the hall next to the second-floor bath are storage spaces for linens, bedding, cleaning equipment and luggage. In fact the Bruns family will have no difficulty in finding a place for everything.

Note that the basement stairs were not placed under the stairs to the second floor. However, there would have been some advantages in tearing out and reversing the old stairs. A better second-floor hall arrangement could have been secured. To remove or alter stairways in a house is often a major job, but sometimes the better arrangement justifies the extra expense.
restricted saw how Will, his son Bob, and a neighbor who had had previous building experience did most of the remodeling themselves. A retired cabinetmaker was employed for some of the more difficult finishing work. Mrs. Bruns helped with the interior finishing and painting.

The Bruns family decided to modernize the old farmhouse completely. It seemed that the main part of the old straight-lined structure could well save them much material and labor. It seemed, too, that if they could use their available funds to improve the foundation and basement, add a new wing and renew all the outside and inside walls, they might achieve a satisfactory house at less cost than if they should tear down the old building and start from scratch.

As is so often true of these older houses, the front of the house faced the road squarely. No one ever thought of using the front door. They planned, therefore, to relocate the front entrance and make it available for actual use. They also wanted to select materials and construction methods which could be handled by family labor and help. Of course, they were interested in a house which would provide the comforts of a central heating plant, insulation, hot and cold running water, modern bath, kitchen and laundry facilities.

As the pictures show, the old house was raised, the
kitchen wing torn off, the old foundation dug out and the excavation deepened.

A full basement was provided. Additional basement space was dug under the kitchen and the dining room additions. New tile walls and partitions were built and a smooth concrete floor was laid. The basement included rooms for furnace, fuel, fruit and vegetable storage and a farm office.

Some basic room arrangements are important in every house, although not all of them can be worked satisfactorily into the floor plan of a remodeled house. If the kitchen and living room are both near the front door, the housewife will seldom have to walk more than a few steps to answer the doorbell. The stairs leading to the basement should be near the back door.

Fig. 4-A. (LATER) From the same direction as that of the old house, this picture of the remodeled house under construction shows the new roof lines, the sunroom replacing the front porch, and the side entrance toward the north drive.

Fig. 4-B. Some of the shrubbery plantings included in the remodeling program are shown here.

Sometimes one can obtain a more convenient arrangement by changing the use of some rooms. For example, the room used for the kitchen may not be the best one for that purpose. Likewise, the living room, if not easily reached from the drive, might be changed.
Naturally, chimneys, plumbing or other limiting factors may determine what can be done. Certain features cannot be changed. Some partitions must remain because of their structural importance while others may be removed without harm. Another common problem is the stairway. It is seldom advisable to move the stairway, because of expense and structural features. But it may be possible to have the stairs run the opposite direction without affecting the structural walls.

A family should try to visualize itself actually living in the house. When the homemaker sees herself going through both dining room and living room to reach the front entrance, she may be able to rearrange the plan so that the work area will not be so far from the front door. Or when she imagines herself working in her kitchen while the family members must cross the entire kitchen to reach the dining room or stairway, she may be able to change a door to improve the situation. Regardless of how minor the anticipated changes may be, a sketch of the floor plan is desirable. Just the addition of a bathroom justifies a floor plan on which possible places for the bathroom are indicated.

In a two-story house the most economical location for the stairs to the basement is under the stairs that lead to the second floor. Of course, in many cases, a grade en-
trance is the real and only solution to a basement-stairs problem. It will be noted that the Bruns basement stairs were not placed under the stairs to the second floor. (Fig. 2.) But many advantages would have been obtained if the old stairs had been torn out and reversed. A much better upstairs hall arrangement could have been obtained.

The ideal place for the workroom is on the first floor at the rear of the house, with an outside door. The workroom should connect with the rear hall which leads to the rest of the house. This room is for such work as laundry, canning, caring for meat and separating cream. Facilities should be provided for drying clothes in cold weather.

Some plans place the workroom in the basement. This is a compromise. It is not likely that it will be as useful in the basement as it would be on the first floor, readily reached from the kitchen and the outside. It requires time and effort to travel up and down stairs.

Because more farm people are interested in improving the kitchen than any other part of the house, it might be given first thought. A well-thought-out kitchen has only two doors and these near one corner so that no traffic of family members disturbs the worker. Mrs. Bruns achieved that. The arrangement of equipment should be such that work may be done in the least time possible, with the
Fig. 7. These photographs show that the 60-year-old house was deteriorating on the outside. The framework, however, was in good condition and should last indefinitely. Even though the old siding was showing decay around the nails, it gave a satisfactory base for the double, shadow-line course of red cedar shingles which were laid over the old siding. This rebuilt wall gave much insulation.

least energy and with the most pleasure.

Mrs. Bruns carefully planned the wall space available in each room. When wall spaces are too large, though this seldom happens, it is difficult to place furnishings and keep an appearance of good proportion. If wall spaces are too small, either pieces of furniture must be placed in front of windows or the arrangement of the furniture will have to be determined by the wall spaces rather than the family needs. For example, in bedrooms it is desirable to have two places where the bed could be placed without extending across the window area. In the living room a large space

Fig. 8. The soundness of the old house was still a question. It stood straight and true, but were there decay in the sills or other vital portions of the framework? Removal of some siding and corner boards showed that the studding was sound, but decay was found in some parts of the sills and joints. A local carpenter satisfied Mr. Bruns that such parts could be removed and replaced readily without great cost or any weakening of the building.
to accommodate a davenport or piano is important. Preferably this will not be in a corner. Mrs. Bruns took care of that by locating all her furniture on the plans before any remodeling of the house was started.

There is no plaster in the remodeled house. Since the members of the family had planned to do as much as possible of the remodeling themselves, they decided to use fir plywood for all the interior walls because it was easy to apply. By using plywood they had the advantage of dry-built construction, thus allowing the family to continue living in the house while building was in progress.

Some second-floor walls were papered, but most rooms were decorated in delicate pastel shades of lead-and-oil paints. Woodwork was painted an off-white. Mr. and Mrs.

Fig. 9. (BEFORE) (Two Views) Let's take a look at the kitchen in the old house. The range and sink, with pump, were in opposite corners of the kitchen, and traffic crossed the kitchen diagonally in the other direction. There were no built-in cabinets or drawers and no working area except that provided by a small kitchen cabinet which stood alone along one wall. The refrigerator was at the far end of a back entry, while the pantry was at the extreme end of the dining room on the opposite end of the kitchen.

But these were not the only inconvenient features of the house. The front door looked to the highway, but because a fence completely enclosed the front lawn, a knock at the front door was rare. So, no matter what kind of housework was in progress, all callers came to the kitchen door.
Fig. 10. Mrs. Bruns had five major goals in planning the kitchen: (1) To avoid having guests come to the kitchen door. (2) To eliminate traffic through the working area. (3) To have storage space. (4) To avoid having the men wash and leave their wraps in the kitchen. (5) To have a floor which could be kept clean easily.

The new kitchen has no outside door but is reached through a rear central hall. Off this hall are: (1) the stairway to the basement; (2) a washroom with shower and a toilet; (3) a closet for wraps; (4) a closet for cleaning equipment and (5) a laundry room. Traffic is through one corner of the kitchen. The working area is U-shaped.
Bruns did the finishing and painting themselves as regular farm work would permit, using white lead as a base for their paints and blending colors to suit their taste.

The house is well insulated in all outside walls and second-floor ceilings. Mr. Bruns installed the insulation and believes it will save its cost in a few winters, since much less heat is needed now. Of course, insulation greatly improves the summer comfort of a house, too.

When the old chimney was torn down a considerable area was exposed to the roof line where there were signs of a recent fire. The old mortar had fallen apart, the bricks were in poor condition and soot had gathered in the cracks. A "too hot" fire is all that would

Fig. 11. When a dinette is planned it is advisable to locate it between the kitchen and dining room, or dining area in a living room, so that dishes may be near both tables. Also, when the dining room is used, the dinette table can be used as a serving table.

The large, smooth table and seat surfaces were obtained by using fir plywood.

Fig. 12. This corner of the dining room shows the possibilities of plywood walls stippled with tinted lead and washable oil paint. Spring mounted, weather-seal sashes were used in the entire house.
Fig. 13. Mr. Bruns (above) and a neighbor (below) apply fir plywood as interior finish. Plywood was used throughout the house to save labor and to keep out moisture by not plastering. It also gave a smooth wall, free from cracks, which could be finished in various attractive ways.

Note that cold glue is applied to the nailing strips which replace the old lath. Glue was also applied to the edges of the plywood boards, thus creating a full, solid wall effect without evident seams or joints.

Fig. 14. (Above) Red cedar shingles laid in wide exposure, double course (double thickness) provide a pleasing finish for the house. The shadow lines are secured by letting the outer course extend about \( \frac{1}{2} \) inch below the under course. That is readily done by the use of the edge of a straight piece of shiplap as a guide for laying. The two thicknesses are thus laid as a single operation.

Little skill is required to obtain a good wall. Note how the shingles on the corners have been alternately edge-lapped, thus eliminating the need for corner boards.

When "double coursing" a wall, the exposed shingles are usually No. 1 grade. The shingles that are covered in each course may be No. 2 or No. 3 grade. The double courses of shingles applied in this way provide a high degree of insulation against heat losses.
have been needed to burn the old farmhouse.

The new chimney was flue-lined with a clean, smooth surface from the basement floor to the very top. A chimney cap of sheet lead was placed to keep out moisture and prevent cracking between the lining and the outer brick wall under freezing conditions. Sheet lead was used also for flashing.

Red cedar shingles were used for both the roof and the sides of the house because of the problem of covering the old siding. Incidentally, added insulation was thus secured. Zinc-covered nails were used to fasten the roof and sidewall shingles. As the photographs show, the sidewalls were covered with two thicknesses of shingles, generally called double course, exposed about 10 inches to the weather. (See fig. 14.)

A great deal of the Bruns’ success was due to careful selection of materials with which they could work without specialized training. The red cedar shingles, the plywood, the application of lead-and-oil finish on the walls, as well as the insulation were no great problems. Likewise, exterior painting was done by

Fig. 15. Vapor-sealed insulation was placed in all outside walls and second-floor ceilings. * * *

Fig. 16. It was not difficult for Mr. Bruns to cut valley strips, deck and chimney flashings from sheet lead. This non-corrosive sheeting will outlast any of the common roofing materials.
Fig. 17-A. View of the Bruns home, north front entrance, corresponding with the drawing below.

family labor. A power spray was bought which greatly reduced labor requirements.

The Bruns' careful planning from the very beginning was an important reason why they obtained a pleasing farm-house. A well worked-out floor plan and elevation drawings helped them to see the remodeling possibilities when the family was still making decisions. Furthermore, plans and material lists helped them to compare probable cost of remodeling with that of new construction. They wanted to make certain that the remodeling job would cost considerably less than a new house offering the same or even greater comforts and conveniences.

Fig. 17-B. Elevation drawing for the Bruns house. * * *

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It is important to obtain balance in remodeling. Balance is not hard to secure in a formal front where the two sides of the main entrance are alike.

Informal balance has the sides unlike, but arranged so they do not disturb the equilibrium of design. It depends upon a more subtle arrangement of sizes and locations and is, therefore, more difficult to achieve. Lack of balance does not constitute informal balance.

Fig. 18. Other possible elevations for a farmhouse of the same general type as the Bruns main structure.
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