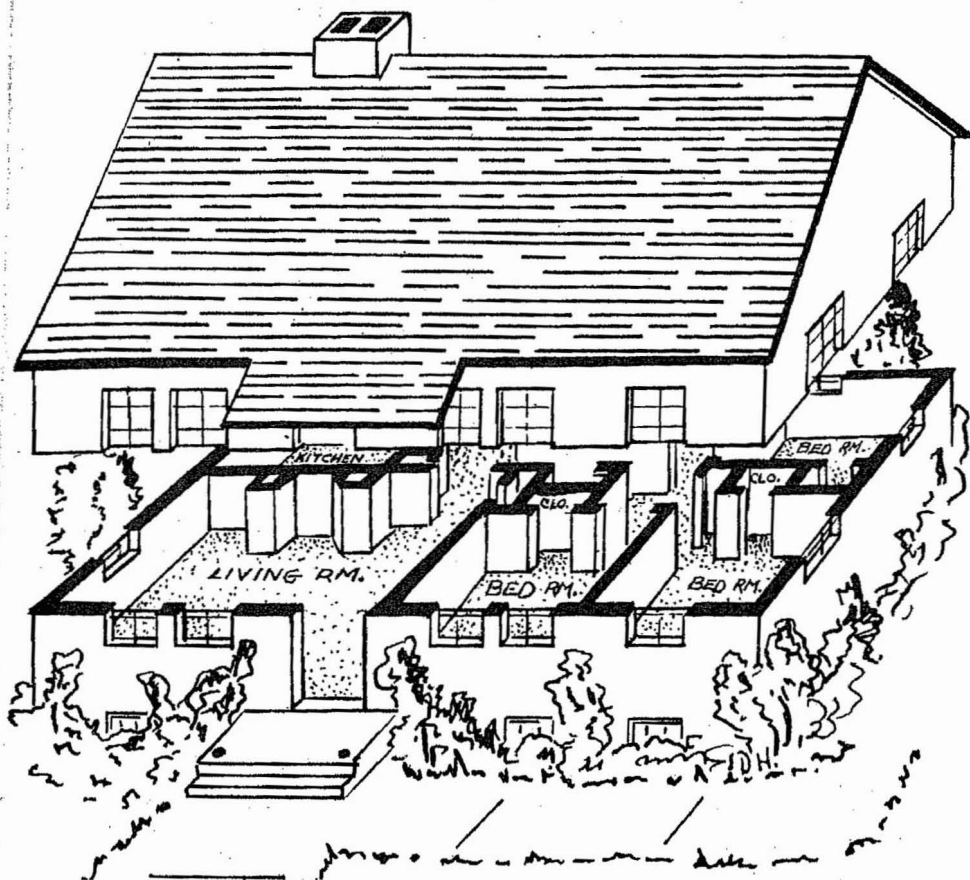


Planning **BETTER HOMES**



Montana State College
Extension Service
Bozeman, Montana

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Mr. E. E. Isaac, Horticulture Specialist
Mr. Hugo Eck, Associate Member Representing Architectural Department
Mr. E. B. Wilson, Extension Agricultural Engineer, Chairman

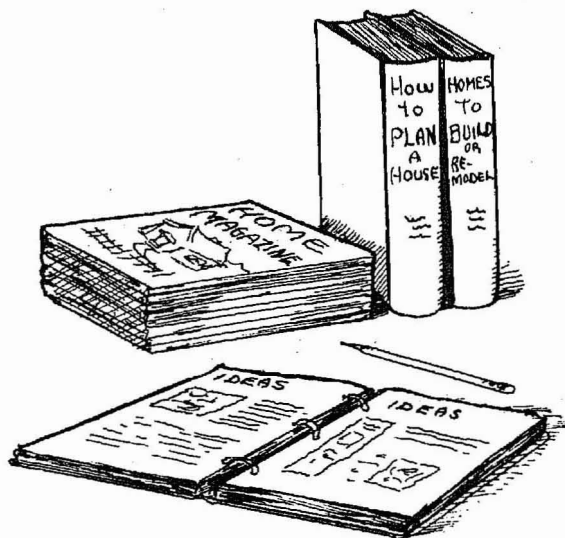
Montana Extension Service in Agriculture and Home Economics, R. B. Tootell, Director. Montana State College and the United States Department of Agriculture cooperating. Distributed in furtherance of Acts of Congress, May 8 and June 30, 1914.

PLANNING BETTER HOMES

By: E. B. Wilson
Extension Agricultural Engineer

The first step toward better housing is good planning, and the key to good planning is the personal planning that begins long before detailed drawings can be made or the improvement started. Such questions as when and where to build, how much to spend, and whether to remodel or build new must be decided first.

Only the family that is to make the improvements is in a position to decide many of these questions.



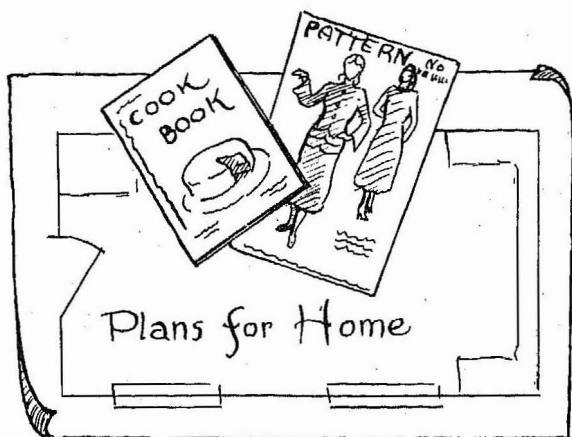
There is usually more than one way to solve a problem, and not everyone will agree which is best. That is why this publication is offered as a guide for your planning instead of a booklet of ready made plans.

PLANNING AIDS AND INFORMATION

The first step in planning a new house or remodeling an old one is to collect and study information that will help get your ideas into form. Getting them on paper is the next important step.

It is much cheaper to move a door or window with a pencil and eraser than with a saw and hammer.

Even mistakes as large as the locations of rooms are not discovered until too late. In fact, people usually live with their housing mistakes rather than correct them. Plans cannot be made too completely or too well.



It is much more important to have a plan for a house than a pattern for a dress or a recipe for a cake, because the house is expected to last for many years and will cost a large amount of money.

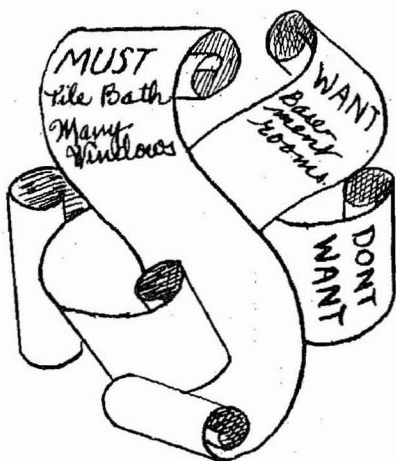
A good house plan is found only after much study by all members of the family. Such things as the ages of the family members, personal likes and dislikes, the amount and kind of entertaining to be done, and special hobbies should be considered by the whole family. You will think of many changes and improvements after the first sketch is made and as new ideas are found.

Lists are a must. You will need a list of things you must have, a list of things you would like to have, and a list of things you don't want. These are especially necessary whether you are going to remodel or build new. Sometimes there is only one reason for remodeling, such as a new bathroom or convenient kitchen. If a list of undesirable things for the whole house is made, many of them will be corrected at the same time with little

or no extra work. If other parts of the house are not considered, even more undesirable features might result.

The planning of a farmhouse is, in some ways, harder than planning a house in town. For example, there is the relationship of the house to the other buildings. Generally, too, a country home has more functions than one

in town. It must serve as a business center or office, it may house part of the processing of farm products, and it may house and feed all the workers of the farm.



ARCHITECT'S SERVICE. If you engage an architect, he will take into account your location, financial situation, farm and family needs, and will adjust the house to them. He will need to have the lists of things you want and don't want. He is an expert at putting these desirable things together in a plan. He will see your building project carried to a satisfactory completion, but he must know your wants.

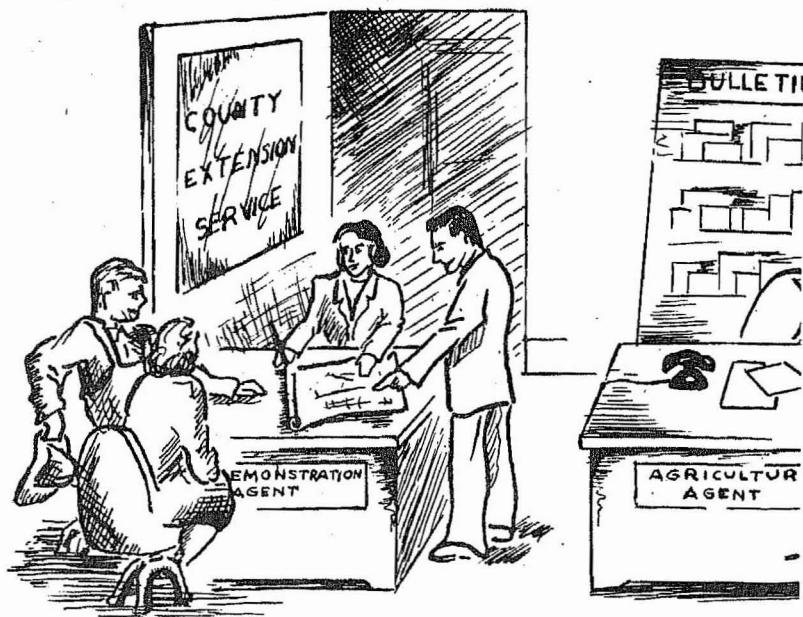


Many lumber dealers have access to architectural services and will have a set of plans drawn for a customer. Even if

you are fortunate enough to have an architect's services, you still need to give a lot of study to your plans to see that they fit your needs.

EXTENSION SERVICE HELP. Talk with your County

Home Demonstration Agent and Agricultural Agent about your house plans. They have various planning aids and can give you some pointers on fitting the plan to your needs. Blueprints and plans



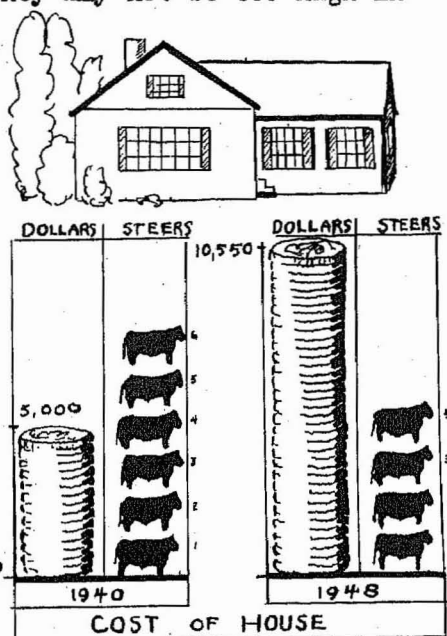
of houses are available through them or directly from the Department of Agricultural Engineering Extension, Montana State College, Bozeman, Montana. Several bulletins are available on subjects directly related to house planning and construction. These bulletins deal with electrical wiring, lighting, septic tanks, farm plumbing, painting, roof coverings, use of concrete, kitchen planning, closets and storage spaces, bathroom planning, fruit and vegetable storage, and so forth.

One bulletin that is especially helpful in putting all of these ideas together is entitled "Your Farmhouse Cut-Outs To Help In Planning". With the use of scale cut-outs of rooms, closets, stairways, furniture, and so forth, new or remodeling plans can be made and checked. This bulletin is valuable in making or checking your own plan or in checking a plan made by an architect or anyone else. Ask your Extension Agent for a copy or order it from Montana State College, Bozeman.

If several families are interested, the County Extension Agent will arrange a House Planning Workshop and have Specialists from the State Extension Staff available for advice and consultation. If you want this service, see your Home Demonstration Agent or County Agricultural Agent.

OTHER PLANNING HELPS. Good ideas and plans can often be obtained from magazines, commercial plan services, dealers in building materials, contractors, builders, and trade associations and manufacturers concerned with housing. Sometimes these plans may be more beautiful than practical, however. Such plans may have to be altered to fit your needs, location, or to make them suitable for a farm. They do furnish good ideas and a collection of them is a good start.

WHEN TO MAKE THE INVESTMENT. The ideal time to build a new house or make extensive improvements on an old one is, of course, when materials and labor are plentiful and prices are low. But at those times your income may be low, too, and your savings may have to go for other things. Even when materials and labor are high they may not be too high in relation to your income and savings. For example, a house that would cost \$5,000 in 1940 would cost about \$10,550 in 1948. With the increased price of farm products, fewer animals or bushels are needed to build the house now. In the case of wheat it takes about 62% as many bushels to build the \$10,550 house in 1948 as it did to build the \$5,000 house in 1940. Similarly, it takes 64% as many steers, 80% as many lambs, and 109% as much wool.



These comparisons will vary as prices change. What is favorable now may not be later. A similar comparison should be made at the time of building. This is especially important when part of the money is to be borrowed. To be safe, the percentage borrowed when prices are high should be less than when all prices were low.

CHOOSING THE SITE

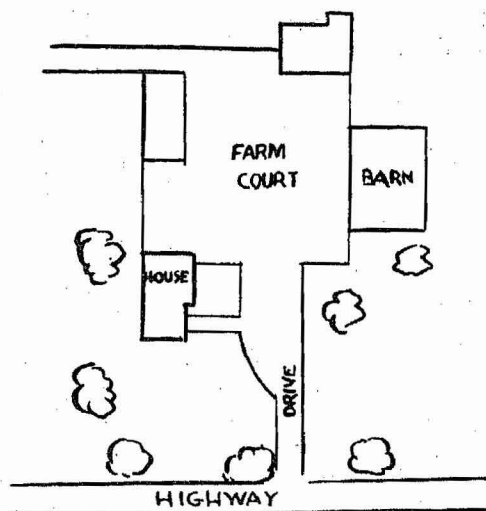
Would you locate a new house in the same place as the old one? Or would a different location for both the house and the rest of the buildings be better? Does the location you are considering have electric and telephone service lines, automobile traffic, surfaced roads, satisfactory water supply, and proper soil for gardening and landscaping?

Locating the new house, or moving the old house to a new site, is worth a lot of thought. Here are the principal things to consider when locating a new house or making changes in and around an old one.

ORIENTATION. You must know your farmstead before you can lay out a good farmhouse plan. Where is the highway? Its location will help you decide where to locate the rooms. Where will you place the driveway and the parking lot? Their location almost decides the place for the front and rear doors. Where are the farm buildings? Their location will help decide the location of the rooms and the drive. Which way does the land slope? Let the house be on higher ground than the barns, if possible. What is the direction of prevailing winds? Let them blow barn odors away from the house. From what rooms do you want the best view? Your decision may completely change the room arrangement and drive location. In what room do you want sunshine? Your decision will help decide the location of the rooms and drive.

HOUSE MOST PROMINENT. Ordinarily the house will be the nearest building to the public road, but placed back at least 100 feet from the road. A town

house will probably face the street. The rural home should face the driveway and not the highway.



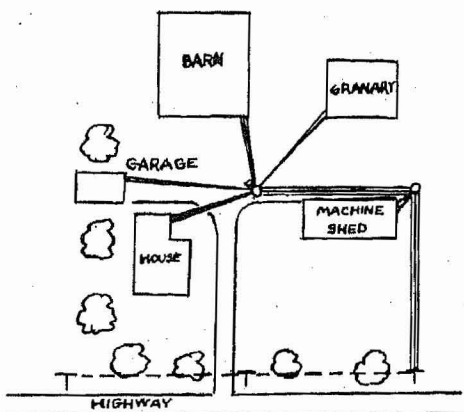
The driveway and walks should be placed so that it is easy to reach either the front or back door. A parking area near the front entrance will help attract visitors to the front door instead of the back door.

NATURAL FEATURES. The house will be much more pleasant and enjoyable if you have a

good view from those rooms used in the day time. You will want the living areas of the house on the sunny side, with sleeping rooms on the opposite side. The slope of the land, streams, and other natural features should be considered in choosing a site.

UTILITIES. Bring electric and telephone lines in from the side or rear. Keep poles off lawns and run wires where good trees will not have to be taken out or damaged.

For further information on farmstead planning see your County Extension Agent for bulletins on farmstead planning, shelter belts and beautifying the farmstead.



SHOULD YOU REMODEL OR BUILD NEW?

For many families the best way to get improved housing is to remodel their present home. If the following questions can be answered "yes", it is probably all right to remodel.

Is the location good?

Is the foundation solid, or can it be repaired easily?

Are the side walls straight and not bulged?

Are the floors level?

Does the chimney foundation set on solid earth instead of wall brackets?

It is generally possible to repair any of the above defects, but it is frequently very costly. If many of the answers are "no", it might be better to build new rather than remodel.

MAKING THE PLAN

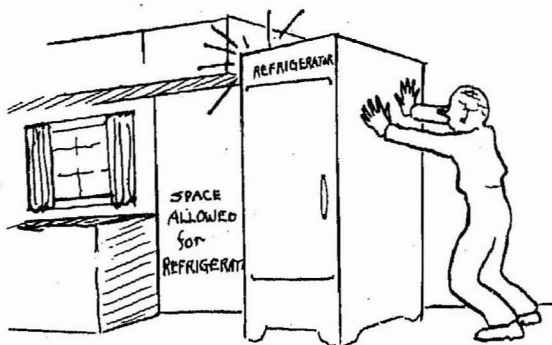
Suggestions have already been given for making the plan. These are (1) collection of ideas, (2) making lists of desirable features, and (3) the use of cut-outs. Whether you make the plan yourself or hire it done, it is very important that the plan be put on paper. A floor plan drawn to scale is of utmost importance. It should show the exact location of all walls, doors, windows, chimneys and plumbing fixtures, electrical outlets, heat outlets, and so forth. It is also advisable to show built-in cabinets as well as portable items of furniture.

In order to get an idea of how the house is going to look from the outside, elevations or outside views should be drawn for each side of the house. A better idea of how the house is going to look can be obtained by making a small pasteboard model to scale. In addition, there should be detailed plans of all built-in features, such as fireplaces, cabinets, closets, and the like. Careful plans of storage space for the things you wish to store should be included. Specifications should

be drawn showing the size and grade of joists, studs, flooring, roofing, and all other construction details.

It is very important that all drawings be made to scale, with the proper distance allowed for walls, halls, closets, and so forth. Scales of either $\frac{1}{4}$ inch per foot or $\frac{1}{2}$ inch per foot are recommended.

If you are using the cut-outs in the bulletin referred to on page 4, you should use a $\frac{1}{2}$ inch per foot scale to correspond with the cut-outs.



CHECKING THE PLAN

Before construction is begun plans should be checked and checked and checked. The following questions are offered as an aid in checking your plans:

EXTERIOR --

1. Have you made use of natural conditions on your lot, such as trees, slope of land, or other natural features that will make your house more attractive?
2. Is the location where you can get water and will the soil support plants for landscaping?
3. Will the outside or exterior of your house be pleasing to look at from all sides?
4. Will the shape of the house go well with nearby buildings and surroundings?

FRONT ENTRANCE --

1. Is there protection from storms as callers wait on the steps for someone to answer the doorbell?

2. As you enter is there a hall large enough for several people to conveniently take off their coats?

3. Is there a closet where the family and a few guests can hang their wraps?

4. If you expect a large group of guests, is there a room near the entrance hall where the guests may leave their wraps before entering the living room?

5. Is there enough wall space for a mirror near the entrance?

6. Is there space for a small chest of drawers or a built-in cabinet for storing such articles as gloves, scarfs, hats and purses?

TRAFFIC —

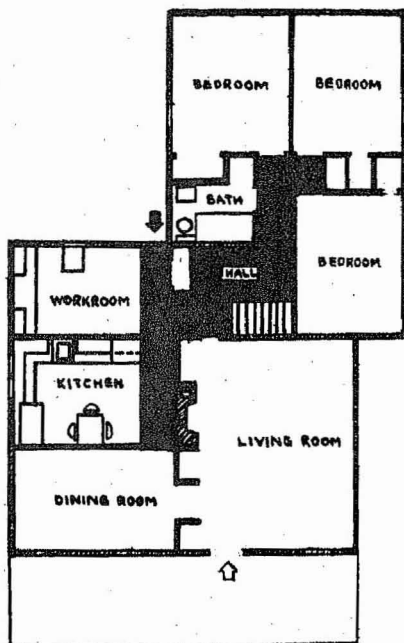
1. Is there a central hall?

2. Does this hall connect to all major rooms, so that traffic will not be through one room to get to another?

3. Does it connect directly with the rear or most used door?

4. Do stairways, either up or down, open into it?

5. Are doors, halls and stairways wide enough to move major items of furniture through?



LIVING ROOM —

1. Will the room have plenty of sunshine?

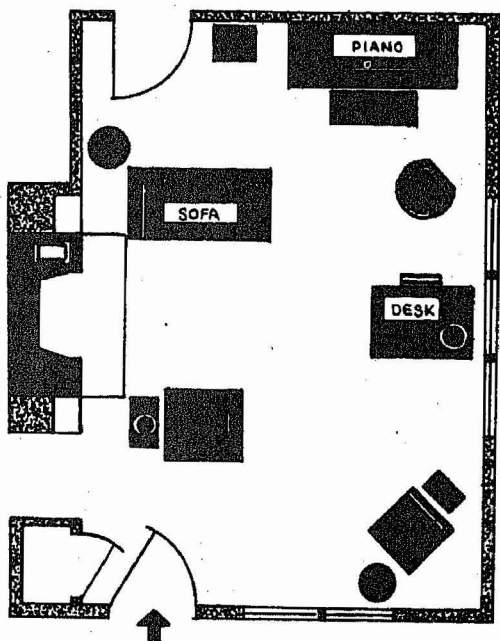
2. Do you have an attractive view from each window?

3. Is there enough wall space for a davenport and a piano?

4. Do the scale cut-outs of your furniture fit the floor plan?

5. Is there plenty of space to get by each piece of furniture? If there is a fireplace, is it placed so that you could move through the room without bothering people seated around it?

6. Is it planned for the activities you want to carry on there, such as: reading, writing, homework, dancing, card playing and other games, visiting and parties for various age groups?



7. Is it flexible? For instance, if it must occasionally function as a bedroom, is it so planned?

8. Is there storage space for the things you will use in the living room, books, magazines, games, card tables, card table covers and linens, writing materials, sheet music, small music instruments, kodak pictures, slides, movies, screen, projection machine, record albums, or other equipment?

DINING ROOM —

1. Do you want a separate dining room? Many homes are being built with a dining area in the kitchen and living room. If you have a separate dining room, you will want to consider these things.

2. Is the dining room next to the kitchen?

3. Is the dining room easily reached from the living room?

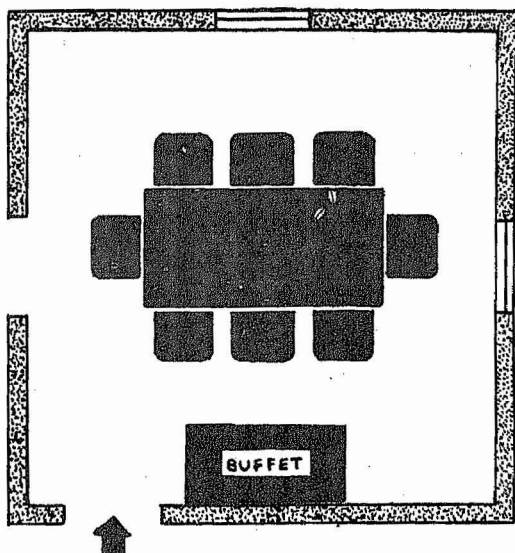
4. Is the door between the kitchen and dining room convenient to the kitchen, yet placed to screen the view from the dining room?

5. Is the room or area large enough for your

table (extended) and for the chairs around it? Does it allow three feet from table to wall for pulling out or passing back of each chair?

6. Is there space either for built-in or movable furniture where silver, linens, extra dishes, glassware, toaster, waffle iron and other equipment may be stored?

7. Are there convenient outlets within reach of the table for connecting an electric toaster or waffle iron?



8. Is it possible for the dining room to be located so as to take advantage of a good view?

9. Can the dining room be used for studying, sewing, and so forth, if desired?

BEDROOMS —

1. Is there wall space in one or more places in each bedroom for the head of a double bed or the heads of twin beds?

2. Is there enough floor space for the bed to be placed 18 inches from the wall so that it can be made without moving it?

3. Is there space for a table, lamp, books or a radio beside the bed?

4. Do you get cross ventilation in each bedroom?

5. Is there adequate light in each closet?

6. Is there enough wall space for the other furniture?

BATHROOM —

1. Is it close to the bedrooms?

2. If it is the only bathroom in a two-story house, is it close to the stairway?

3. If there is no bathroom near the rear entry, is the bath easily accessible from the kitchen?

4. Is it placed so that the fixtures are not visible from the living room or front hall when the bathroom door is open?

5. Can closets be placed between the bedroom and bathroom as sound proofing?

6. Is the tub placed at the side rather than under a window?

7. Is there a well lighted mirror?

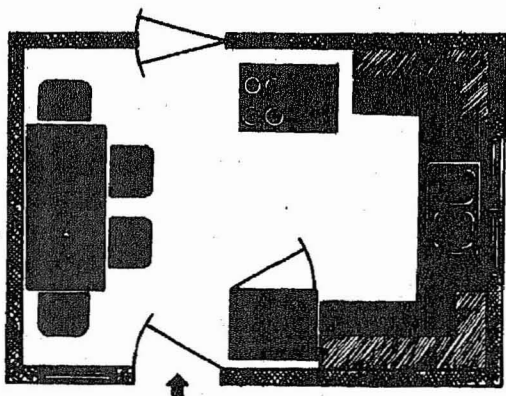
8. Is there storage space for towels, wash cloths, toilet articles, soaps, toilet paper, cleansers and other articles used in the bathroom?

KITCHEN --

1. Is the kitchen planned with the three main centers -- mixing, cleaning and cooking?

2. Are each of these centers large enough for the jobs to be done?

3. Is each center the right working height for the jobs to be done there?



4. Is there cross ventilation and good light?

5. Is there space for a dining area, if you wish to eat in the kitchen?

6. Is there a place for children to play near at hand but out of the way of the homemaker?

UTILITY ROOM--LAUNDRY --

1. Will you be using an automatic or a conventional type of washer? This will make a difference in planning the laundry room.

2. Do you want a first floor utility room for the laundry?

3. Whether the laundry is on the first floor or in the basement, has it been planned to save steps while washing?

4. If you are using a conventional type washer, does the room allow enough space to get around the machine and at both ends of the tubs?

5. Is there space for a 6 to 8 foot sorting table?

6. Is there conveniently located shelf space for soaps, stain removers, and starch?

7. Is there space for indoor clotheslines or a clothes drier?

8. Is there storage space for clothespins, clothesbaskets, and soiled clothes?

9. Will you iron here? Do you prefer a built-in ironing board? Has the proper space been planned both for using and storing the ironing board?

REAR ENTRANCE —

1. Does the rear entrance have protection from storms?

2. Is there a storage space in the rear hall to hang outdoor wraps? Are there low hooks for the children to use?

3. Is there a place where dirty boots may be left?

4. Is there space for storing children's outdoor play equipment?

5. If a farmhouse, is there adequate space for drying work clothes?

6. Does this entrance have a door to the kitchen, basement, and perhaps to a utility room?

7. Is there a toilet and washroom near the rear entrance?

FOOD STORAGE —

1. Is there storage space close to the kitchen for canned or frozen foods?

2. Is there storage space for root vegetables?

UTILITY STORAGE —

1. Is there storage space for out-of-season woollens?

2. Is there storage space for such things as screens, storm sash, step ladder, paints, brushes, tools, fireplace wood, and seldom used equipment?

3. Is there enough storage space for fuel?

HALLS AND STAIRS —

1. Are the halls and stairs wide enough that you can move the larger pieces of furniture and kitchen equipment through them?

2. Is there a turn in a hall or stairs that would stop the moving of a large piece of furniture such as a bed spring?

3. Is there a light switch at the head and foot of each stairway and at both ends of each hall?

4. Is there a handrail on each stairway?

5. Are the steps ten or eleven inches wide with risers between seven and eight inches high?

6. Is there a storage closet in the bedroom hallway for blankets, sheets and pillowcases?

7. Is there a closet in the upstairs hall for storage of cleaning supplies to be used there?

8. Is it possible to provide natural light in the halls and stairs?

9. Is there a cleaning closet centrally located for the vacuum cleaner and other cleaning equipment and supplies?

SEWING AREA —

1. Is there space planned for sewing in a bedroom, guest room, hall, utility room or special sewing room?

2. Is there a sewing closet in this space for storing all sewing and mending supplies and equipment?

3. Is there space for a cutting table?

4. Is there space to conveniently arrange the sewing equipment when it is being used?

SUMMARY

1. Collect and study ideas and information.
2. Prepare lists of necessities, likes and dislikes.
3. Consult the Home Demonstration Agent and County Agricultural Agent.
4. Obtain bulletins and plans from the County EXTENSION office (See list on opposite page).
5. Study your FINANCIAL status and outlook.
6. Choose the SITE carefully.
7. Make the plan, or have it made, on paper, to SCALE.
8. Check your plan with scale CUT-OUTS of rooms and furniture.
9. Check your plan against YOUR LISTS.
10. Check your plan by the questions on pages 9 to 15 of this circular.

BULLETINS CONTAINING HOUSING INFORMATION

- M.P. 622 - Cut-Outs to Help In Planning
- M.P. 619 - How To Plan Remodelling
- M.P. 646 - Step Saving U Kitchen
- E.C. 191 - Convenience In Kitchen Drawers
- E.C. 192 - Convenience In Kitchen Cupboards
- F.B. 1865 - Closets and Storage Spaces
- M.P. 638 - Your Farmhouse - Planning A Bathroom
- E.C. 200 - Septic Tanks
- F.B. 1426 - Farm Plumbing
- F.B. 1978 - Safe Water For The Farm
- E.C. 202 - Plan Your Wiring
- F.B. 1838 - Electric Light For The Farmstead
- F.B. 1698 - Heating The Farm Home
- M.P. 633 - Insulation and Weatherproofing
- F.B. 1889 - Fireplaces and Chimneys
- F.B. 1452 - Painting On The Farm
- M.P. 579 - Building With Logs
- E.B. 211 - Beautifying The Farm Home
- E.B. 194 - Shelter Belts For Montana
- E.C. 198 - Planting and Care Of Shelter Belt Trees
- E.L. 2 - Planning Montana Farmsteads
- E.C. 154 - Home Storage of Vegetables
- E.C. 182 - Walk-In Freezer Construction
- Cir. 185 - Housing and Sanitation For Farm Workers
- E.B. 219 - Housing Farm Laborers
- F.B. 1772 - Use of Concrete On The Farm
- F.B. 1869 - Foundations For Farm Buildings
- P.C.A. 24 - Building Waterproof Basements With
Concrete
- P.C.A. 12 - Repairing Leaky Basement Walls In
Residences
- P.C.A. 25 - Concrete Floors On The Ground
- F.B. 1572 - Making Cellars Dry
- F.B. 1751 - Roof Coverings For Farm Buildings
- S.C. 279 - Farm Building Repair