

N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agriculture  
and Engineering, and U. S. Dept.  
of Agriculture Cooperating

Pauline E. Gordon, Specialist in  
Home Management and House Furnishings  
Mamie N. Whisnant, Assistant Specialist

HOME MANAGEMENT PLAN OF WORK - 1940

House Furnishings 1940 - (page 2)

Throughout North Carolina there are families planning to make structural changes in their homes, and many others, who, if interested, could rearrange the work centers of their homes so as to eliminate time-consuming and fatigue-producing conditions.

To meet the needs in counties desiring a program of this type the following monthly method demonstrations are available:

1. Kitchen Improvement

- a. Arrangement of kitchens, laundries, and other work areas to save time, energy, and money.
- b. Planning and building of adequate and satisfying storage.
  - (1) Kitchen storage.
  - (2) Canned goods storage.
  - (3) Clothing storage.
  - (4) Bedding storage.
- c. Color and finishes for the farm kitchen.
- d. Sanitation.
  - (1) Screening, ventilation.
  - (2) Household Pests.
  - (3) Minor repairs in the home.
- e. The farm home water supply.

2. Electricity.

Hundreds of miles of electric lines are built, or are being built, in rural North Carolina. It is suggested that special interest meetings on good wiring be held in communities where lines are being built or are to be built.

Suggested method demonstrations:

- a. Planning for adequate lights, both artificial and daylight.
- b. Selection of electrical equipment.
- c. Care of electrical equipment (special interest on refrigerator).
- d. Care and repair of extension cords, etc.

### 3. Family Financial Planning.

The exchange of money, time, and energy for goods for living is one of the most important of family activities. Families use their resources for purposes that result in satisfaction or dissatisfaction. Farm people are faced with the problem of decreased incomes. Changes in spending habits as well as qualities of goods offered face them. Assistance in this field may be given in:

- a. Farm Family Outlook.
- b. Income Management (need of keeping farm and home record and methods of keeping records).
- c. The Farm Home Business Center.
- d. Business Interests of Women.
- e. Guides in Buying.
  - (1) Small equipment for the kitchen.
  - (2) Household linens.
  - (3) Rugs.

### 4. Household Skills.

Time and energy may be saved by improved household practices:

- a. Good Standards for Housekeeping (cleaning metals, rugs, upholstery; bed-making, dish washing, cleaning windows, cleaning woodwork).
- b. Soap making.
- c. Laundrying of Household Fabrics.
- d. Stain Removals.

### 5. Community Activities.

Community groups may be interested in:

- a. Farm and Family Outlook Meeting.
- b. Group Discussion on Family Money Management.

## HOUSE FURNISHINGS PLAN OF WORK - 1940

Many farm families in North Carolina may be interested in improving the arrangement of the home in order to have a more satisfactory and happy family life. It is suggested that the program in house furnishings be centered around the living room one year and the bedroom one year.



1. The Living Room Improvement.

a. Color and Design.

- (1) The Properties of Color.
- (2) General Plan for Building a Color Scheme in the Home.
- (3) Color Schemes for a Living Room.
- (4) Use of Design in the Livable Living Room.

b. Treatment of Walls and Woodwork.

c. Floor Finishes.

d. Care and Repair of Floors and Woodwork.

2. Furniture.

a. Arrangement of Furniture.

b. Selection of Furniture.

c. Refinishing Furniture.

d. Reupholstery.

e. Chair Caning.

f. Slip Covers.

g. Furniture We Can Make.

3. Rugs.

a. Selection of Commercial Rugs.

b. Hooked Rugs.

c. Crocheted Rugs.

d. Braided Rugs.

4. Windows.

a. Curtains.

- (1) Purpose.
- (2) Material.
- (3) Treatment for Different Kinds of Windows.
- (4) Methods of Making Curtains.

b. Draperies.

- (1) Purpose.
- (2) Colors.
- (3) Materials.
- (4) Construction.

c. Shades

Kinds, home-made shades, turning shades, painting shades.

5. The Bedroom.

a. Arrangement of Bedroom Furniture.

b. Bedding.

c. Mattress Making: Cotton, Feather.

d. Clothing Storage.

6. Decorative Objects.

- a. Pictures in the Home.
  - (1) How to Choose a Picture.
  - (2) Picture Frames.
  - (3) Hanging of Pictures.
- b. Mantel: Arrangement of Mantel.
- c. Accessories for the Home: Selection and Use of Decorative Objects.
- d. Selection of Vases and Flower Arrangement.
- e. Storage of Books in the Farm Home.

7. Porches.

Selection and Arrangement of Porch Furniture.

Tourist Home.

Present conditions indicate that thousands of tourists will come to North Carolina in 1940. In counties where farm women are interested in tourist houses it is suggested that a county meeting on this subject be held.

Farm and Home Demonstrations

Farm and home demonstrations are to be continued in 1940. In counties where this work has not been started, the home agent is asked to consult with the farm agent, the Farm and Home Management specialists, and plan to begin this work in 1940.

HOME MANAGEMENT

HOUSE FURNISHINGS

Approx. No. Lesson  
Sheets to be sent

Current year

County

No. Women's Clubs

Home Dem. Agent

Enrollment

Subject

: Given by

:

Demonstration

: Home Assignment

Jan.

Feb.

March

April

May

June

July

Subject	Given by	Demonstration	Home Assignment
Aug.			
Sept.			
Oct.			
Nov.			
Dec.			

Goals for Home Management or House Furnishing Project:



Home Demonstration Division  
Agricultural Extension Service  
N. C. State College  
Raleigh, N. C.

Pauline E. Gordon, Specialist in Home  
Management and House Furnishings  
Mamie N. Whisnant, Assistant Specialist

REQUIREMENTS FOR AWARD OF MERIT IN HOUSE FURNISHINGS

1. Good Arrangement -

- (a) Furniture and floor coverings placed to conform to lines of rooms.
- (b) Mantels, dressers, buffet, etc., represent the principles of artistic arrangement.
- (c) All pictures correctly hung.
- (d) Well worked out color plan in any two rooms in the home.

2. Ample Space for Home Activities -

- (a) Comfortable sitting space for each member of the family in the living room.
- (b) Space for reading and work adequately lighted.
- (c) Adequate space for reading, writing, sleeping, work, and study.

3. Window Treatment -

- (a) Shades adjustable.
- (b) Curtains and draperies hung to harmonize with window structure.
- (c) Sunlight and air admitted.
- (d) Screens at windows and doors.

4. Five of the following Practices Applies -

- (a) Refinished furniture.
- (b) Slip covers.
- (c) Reupholstered furniture.
- (d) Furniture made at home.
- (e) Rugs made.
- (f) New curtains or draperies.
- (g) Suitable furniture purchased.
- (h) New pictures bought.
- (i) Adequate artificial light.

5. Floors, Walls, Woodwork -

- (a) Refinished or finished for 1st time at least one room.

6. Attendance at 6 House Furnishings club meetings a year for two years - and a well kept House Furnishing notebook.

HOUSE FURNISHING LEADERS OUTLINE

No. 1 - Introduction

What We desire of Our Rooms -

I. "I want my room to appear SPACIOUS."

- (a) Make the walls light in color but not white.
- (b) Group together the furniture which is used together.  
Select furniture in scale with size of the room.
- (c) The backgrounds of rugs must be as dark as floor and the backgrounds of the drapery as light as the wall.
- (d) Keep the paths of travel and, if possible, the center of the room free from furniture.
- (e) There must be nothing in the room which is not there for its usefulness or because it contributes to the beauty of the whole.

II. "I want my room to appear RESTFUL."

- (a) Make the floors darker than sidewalls or ceiling.
- (b) Place the furniture parallel to the walls of the room and in balanced arrangement.
- (c) The room must contain sufficient design to break the monotony, but not enough to be confusing.
- (d) Pictures and ornamental objects must be harmonious in color, cheerful in subject and limited in number.
- (e) Furniture must be comfortable.

III. "I want my room to be FRIENDLY."

- (a) My room must have sunlight, fresh air, and adequate artificial light.
- (b) My room must have books, good pictures, and flowers.
- (c) My room must have soft harmonious colors.
- (d) The furniture must provide for the comfort, convenience, and pleasure of all the family in all their activities.
  - 1. A reading center.      5. Study space for children.
  - 2. A writing center.      6. A center for quiet games.
  - 3. A music center.      7. Storage space.
  - 4. A center for conversation.
- (e) My furniture must be in a good state of repair.

IV. "I want my room to be BEAUTIFUL."

- (a) Harmony - Line; color; texture; idea; size and shape.
- (b) Proportion - Relation of furnishing to room and to each other.
- (c) Balance - Arrangement.
- (d) Rhythm - Repetition of idea, etc.
- (e) Emphasis - A center of interest.

HOUSE FURNISHING LEADERS OUTLINE

No. II - ARRANGEMENT

I. Steps Preparatory to Arranging a Living Room

1. Eliminate everything that is not useful and that you do not believe to be beautiful.
2. Collect all your resources, not forgetting to look in attics, corncribs, etc., and sort out like or harmonizing pieces to be used in living room.  
The color of furniture may be changed, or an unsightly piece refinished, so sorting should be done on basis of scale, proportion, etc.
3. List the uses to which your living room must be adopted.  
Plan a group of furnishings to provide for each need.
4. Provide for day and artificial light on each group requiring.

II. Arranging the Living Room Furniture

1. Study the room to determine where lines of travel will be, to determine where in room the groups will be most useful.
2. As far as possible make the size of groups conform to size of floor space available.
3. Build up the group with pictures, wall hangings or other means to make it conform in size and shape to its wall space.
4. Balance the arrangements -
  - (a) Furnishings must balance on floor space.
  - (b) Each of the four wall spaces must balance within itself.

Formal Balance - Like or equally heavy objects are placed equidistant from center.

Informal Balance - Unequally attractive objects placed at varying distances from center.  
Heavier object comes nearer center -  
(See Stencils)

Bright colors, interesting shapes and more material give added weight.

5. Repeat each color, shape or idea in more than one place in the room.
6. Be sure that one group in the room is sufficiently attractive to be seen first and to serve as a center of interest.

### COLOR IN THE HOME

In order for one to develop a color sense, to understand color and to use it beautifully, one must learn the language of color and the relationship of one color to another. One can follow a recipe for a color scheme and get a very good effect but in order to appreciate color and enjoy using it, one must have training in the harmonious use of colors. One should have the fundamentals of color knowledge and then develop the habit of observing colors and their relations with other colors and deciding why certain color combinations are so satisfying.

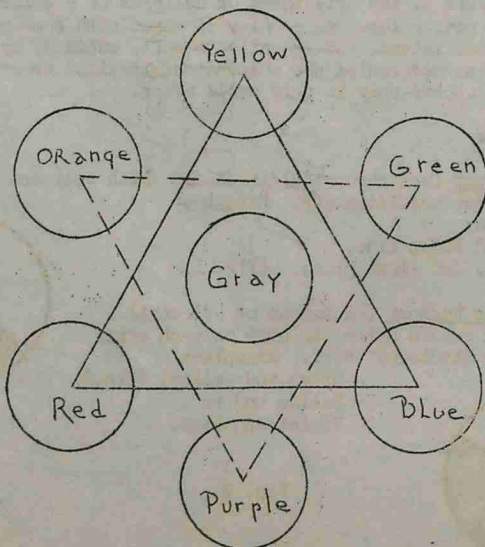
Colors differ from each other in three qualities: (1) Hue - the name of the color; (2) Value - the lightness or darkness of color; and (3) Intensity - the brightness or dullness of color.

There are three fundamental hues: (1) Red, (2) Yellow, and (3) Blue. These three are called primary colors. They are the only hues that cannot be obtained by mixing other hues.

When two primary colors are mixed in equal amounts, a different hue will result. This new hue is called a secondary color. There are three secondary colors: (1) Green - made by mixing yellow and blue; (2) Orange - from red and yellow, and (3) Purple - from red and blue.

When a primary and a neighboring secondary color are mixed, an intermediate hue results. There are six of these intermediate hues: (1) Yellow - green; (2) Blue - green; (3) Blue - purple; (4) Red - purple; (5) Red - orange; and (6) Yellow - orange. There is room between each one of the intermediates and its neighbor for an infinite number of hues.

### COLOR WHEEL





### Warm and Cool Hues:

In a color chart in form of a circle, place yellow at the top and purple will fall directly opposite on a vertical line. The hues will fall into two groups. The colors at the right of the line near the blues are cool hues and those at the left around red and orange are warm. Red and orange are the warmest colors. They are also the most conspicuous and the most advancing. Warm colors are good for Northern rooms and rooms that get little or no sunlight. Blue and blue-purple are the coldest hues - they seem to recede to become inconspicuous. Cool colors should be chosen for rooms with sunny, southern exposure.

Green is between heat and cold - it gets cooler as it grows bluish and warmer as it grows yellowish. There is harmony among the warm colors and the same quality exists among the cool colors. Warm and cool colors used together make interesting contrasts.

Warm, dark colors make a room appear smaller; and cool, pale colors make a room appear larger.

Red and yellow are apparently the heaviest of all colors. Green seems a little less heavy, and blue and purple are the lightest of all the colors. When colors are grayed, they tend to become more alike or even in apparent weight. Heavy colors seem to belong to the lower part of a room--to the base. Reds, greens, and browns, are suitable for carpets and rugs because they appear heavy enough to stay down, but blue carpets or rugs may seem to float.

### Value:

Value refers to the amount of light or dark in colors regardless of the hue. Different values of one hue are expressed as: Light, medium, and dark blue; light, medium, and dark green, etc.

The lightest value is white and the darkest is black with many degrees between them. Tints are often called high values and shades low values. Colors half-way between high and low value are called colors of middle value.

### Intensity:

Intensity refers to the brightness or dullness of a color. It distinguishes a strong color from a weak color. As a color is mixed with some contrasting color or gray, it becomes less intense and is called a soft, subdued, or grayed color. Most colors used in home decoration are somewhat neutralized or grayed. Strong, intense colors should appear only in very small areas.

### Harmonies of Likeness:

One hue harmony (monochromatic) is one in which only one color is used but varied in value and intensity. Examples:

Brown and tan.

Dark blue and light blue.

Dark, medium, and light green. (fig. 1)

Related color harmony (analogous or adjacent) is made from colors which lie next to each other on the color circle or wheel. Examples:

Green and yellow. (Fig. 2)

Yellow and red.

Violet and blue.

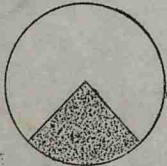


Fig. 1

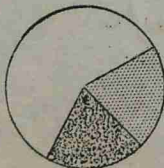


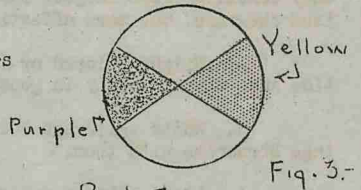
Fig. 2

A grayed harmony may be produced by the addition of a common characteristic of grayness.

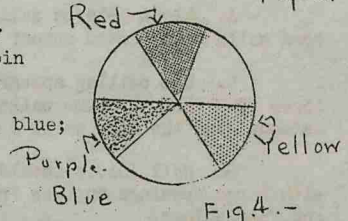
Dominant color harmony is produced by adding small bits of color to a background color.

### Harmonies of Contrast:

Complementary harmony is one in which colors opposite each other on the circle or wheel are used. Examples:  
Yellow and purple. (Fig. 3)  
Blue and orange.  
Green and red.



Split Complementary Harmony is the result of one color used with the two colors that adjoin its complement on the color circle or wheel. Examples:  
(Yellow, red; purple-blue) (Fig. 4); (purple, blue; orange); (blue, green; red-purple).



### Colors in Floors and Wood-work.

1. The floor is the foundation of the room; therefore, it should be the darkest color in the room. Light floors seem to jump up unless the rest of the room is very light.
2. Woodwork should be lighter than the floor but in close harmony.
3. The floor and woodwork should be finished with a dull or semi-gloss. A high gloss gives a harsh effect.
4. In a light room, a light finished floor and woodwork makes the room seem larger and cooler.
5. Dark floor and woodwork should not be used in a room which is light, except for floor and woodwork; it makes a spotted appearance.
6. All floors and woodwork on the same floor should be finished alike, except the bathroom and kitchen.

### Color in Rugs:

1. Rugs, generally, should be dark or medium, and of a neutral tone; this gives greater apparent weight and a more pleasing foundation for furnishings than light, bright colors which appear to "jump up" off the floor.
2. A single, all-over color in plain or conventional design is more pleasing than many colors in realistic design.
3. The rug and the floor should harmonize closely.
4. Too many small rugs of harsh colors and all of different colors will make a floor "spotty" and confusing.

### Color in Walls:

1. Light, soft, and wall neutralized colors are best for walls since they constitute the largest surface areas in a room. The softer and more neutralized they are, the more effective are the furnishings.
2. Bright colored or figured wall paper demands undue interest and attention and is very rarely in good taste.
3. White walls are cold and glaring, and it is difficult to make furnishings harmonize with them.
4. Light colored walls make a room appear larger and cooler, and dark colored walls make a room appear smaller and warmer.
5. The ceiling appears higher if the color is lighter than the walls and lower if darker than the walls. The ceiling seems still lower if the ceiling color extends down the side walls a short distance.
6. Wall colors should all be alike in rooms that are connected, especially with large openings such as French doors. Color schemes may be varied in drapes and furnishings.
7. Wall colors should be lighter than the floor but darker than the ceiling, and should be repeated somewhere in the furnishings to give unity.
8. Large samples of wall paper should be placed on the wall and the color and designs studied by both day light and artificial light so that both effects may be considered.
9. Buy paper that is fast color or strong enough to stand some fading and still not be ruined by yellowish tones that usually result in faded wall paper.

### Color in Furniture:

1. Furniture should be about the same value in color as the woodwork, or slightly darker than the walls.
2. Only small pieces should have bright colors and these should be limited in number to two or three pieces in the average room.
3. Texture produces variation in color so that one fiber in a room is usual better than a combination of all. Rich, dark colors are good in velours, velvet, etc., and medium colors in prints, and cretonnes.
4. Porch furniture should be of color neither too bright nor too dull, but neutral enough to seem an inconspicuous part of outdoor nature. Colors most closely related to grass or foliage are best. Blue is not a good color for porch furniture. Ivory and deep greens are good; also medium oak, maple, and brown steins.



Home Demonstration Division  
Agricultural Extension Service  
N. C. State College, Raleigh.

Pauline E. Gordon, Specialist in  
Home Management and House Furnishings  
Mamie N. Whisnant, Assistant Specialist

COLOR AND HOW TO USE IT IN MAKING RUGS

Facts	What to Say	What to Show
<u>Color Qualities</u>	There are 5 colors - R. Y. G. B. P. and five mixed colors - YR. GY. BG. PB. RP. (Psychology and Temperature of color explained if desired.)	A chart of colors
Name of Hue		
Value	Every color may be nearly as light as white and nearly as dark as black (tints and shades) with about 7 steps the eye can distinguish in between.  Rugs, being used on the floor should have a generous propor- tion of dark in them. (2/3 of rugs, by weight in dark colors - and avoid white and light tints for formal rooms.)  Light and dark play the most important role in rugs.	Show value scale to illustrate the point that dark colors are heavier than light and belong at base of room.  Show pictures of rugs in gray il- lustrating interest- ing and uninterest- ing use of light and dark.  Show ombre dyed cur- tain or one color shaded rug.
Intensity	Hues vary in their intensity pure red being brightest, then yellow, green, blue and purple. Any time or shade may be pure color or it may be grayed color.  Pure colors do not harmonize as well as grayed colors.  If one uses several colors in a rug, it is well to have the same amount of "gray" in each.	Show chart of all colors in full and in half intensity.  Show pictures or preferably rugs or mats in which one color stands out above rest because of its intensity.  Show in dye bath how colors may be grayed and introduce com- plementary colors.



Facts	What to Say	What to Show
<u>Color Harmonies</u>		
One color Harmony	One hue with varying lights and dark and brilliance makes a monochromatic (one hue) harmony.	Two toned rug - Ombre dyed curtain, etc.
Complimentary	Colors directly opposite each other in color wheel harmonize. They are called complementary colors because mixed they give white light or in pigments (paints) which are impure, they give gray.  Do not use complementary colors in equal amounts, let one color predominate.	Show equal amounts of complements and unequal amounts.
	Complements always consist of a color with one name and one with two names, the two hues mixed to make the intermediate hue may be used instead of the intermediate hue; e.i., blue has yellow-red for complement but yellow and red may be used with blue instead of yellow-red. This is called a split complementary harmony.	Show split complementary harmony.
Related Color Harmony	Is made by using together any three adjacent colors in the color circle.  Double complements, e.i., two adjacent colors with their respective complements is a favorite combination in furnishing.	Show related harmonies.
Completed Harmony	A related harmony plus a touch of the complement, of the dominant color forms a completed color harmony.	Show completed harmonies.

LEADERS' OUTLINE ON FLOOR CARE AND FINISH

Facts	What to Say	What to Show
Scrubbed Floors	Require too much time and energy to clean. Water and strong soaps or alkali injure wood. Floors which have been scrubbed may be finished at small cost of money and energy.	Show a weathered board with its raised grain and tendency to splinter.
Floors with a worn finish	<p>Worn floors may be patched when finished with clear varnish or paint but not when finished with varnish stain. Varnishes with stain should never be used on floor.</p> <p>(Note: Ask some member to try out the directions for patching before club meeting.)</p> <p>In most cases it is preferable to remove the old finish. This may be done by sandpapering by hand or with electric sanding machine; paint and varnish remover may be used, or some other commercial preparation.</p> <p>Unless the boards are perfectly smooth to the touch, it is well to sandpaper with No. 2 sandpaper before applying finish.</p>	<p>Give directions if any club member desires and have name of some club member who has tried patching a worn spot so members may see an actual demonstration.</p> <p>Demonstrate removing the finish from small piece of flooring.</p>
Kitchen or "hard wear" floors.	To eliminate scrubbing of floors and water injury to boards for floors that have to be mopped with damp mop, use the following formula: 2 quarts boiled linseed oil, $\frac{1}{4}$ lb. parawax. Heat until parawax is dissolved. Apply hot with cloth or brush. Boiled linseed oil is only oil that should be used on floors. When used care should be taken to thoroughly wipe up all oil not absorbed by boards after 30-45 minutes.	<p>Show a floor in the home so finished.</p> <p>Show method of putting on with mop.</p>

"Satin-finished"  
Floors

In living rooms where a finer finish is desired, prepare the floor as already suggested above and apply one coat of hot boiled linseed oil; this makes old floors sufficiently dark. Wipe up all excess oil and after 24 hours apply paste floor wax as directed, thin coats, each one polished with weighted brush, until floor has the desired finish.

Have a whole floor or section of a floor finished in this manner.

Paste Floor Wax

Commercial wax may be used or wax may be made at home by recipe on lesson sheet. When beeswax can be obtained from an apiary, cost of wax will be about 25¢ per lb. Experience has shown that it costs about 80¢ to finish an average floor with oil and wax method.

Demonstrate Making of Wax

New Floors

Give lesson sheet to anyone having new floors to be finished and discuss if desired.

Staining

For old floors clear linseed oil acts as stain and preservative for wood. Some people use a water stain made from walnut hulls under the wax in place of the oil. It gives a satisfactory color but does not preserve the wood. Oil stain is the best choice for new floors of pine. It may be commercial or homemade.

Give recipe for walnut hull stain.

Oak Floors

Anyone having oak floors to finish should consult the home agent or home management specialist for directions.

Show oil stain and its use on pine flooring.

Painting Floors

Paint, i.e., floor enamel or floor and deck paint, will cover unsightly floors and if finished with one or two coats of varnish is easy to care for.

Crack fillers

Homemade are as satisfactory as commercial. Stain to match floor.

Give directions and show small amount of crack filler.

Linoleum

Linoleum, printed, is protected by clear floor varnish or wax. Wax for kitchen floor where wear is heavy is prepared by melting 1 cake ( $\frac{1}{4}$  lb.) parawax and adding 1 cup kerosene. Apply while hot. Polish when thoroughly dried.



## TO FINISH AN OLD PINE FLOOR

Waxed Floor - Satisfactory for old floors which are not splintering badly.

- (1) Sandpaper to secure a smooth hard surface.
- (2) Apply boiled linseed oil (hot) with a paint brush.  
For quick drying turpentine and Japan drier may be added but this mixture is inflammable.
- (3) Allow to dry for ~~48 to 48 hours~~ <sup>all Surplus Oil</sup> Wipe up thoroughly with clean cloth. Allow to dry 24-48 hours before waxing.
- (4) Apply a thin coat of paste wax. Wrap wax in several layers of muslin and apply crosswise of the grain.
- (5) Rub the wax in with a weighted brush.
- (6) Repeat steps 4 and 5 as often as necessary.

Home-made Floor Wax -

- |                               |                                   |
|-------------------------------|-----------------------------------|
| (1) $\frac{1}{4}$ lb. beeswax | $\frac{1}{2}$ cup raw linseed oil |
| 1 lb. paraffin                | 2 $\frac{1}{2}$ cups turpentine   |

Melt the beeswax and the Parrafin, remove from heat and add the linseed oil and turpentine and stir vigorously. Turpentine is highly inflammable, therefore, care must be taken to heat ingredients only by setting over hot water and to have no flames in the room.

(2) For oiled pine floors - Melt 1 lb. beeswax over boiling water. (Remove from room with flame). Thin with turpentine (about 3 to 4 cups) till the consistency of thick cream. Keep hot, apply to floor in even coat, using a soft cloth. After 24 hours polish, with weighted brush.

Painted Floors -

Paint is an opaque finish: Therefore, it can be used upon floors in too worn condition to be finished with transparent finish. In the care of floors having decidedly worn spots or places where chips have been broken out these may be filled with a mixture of equal parts of glue and vinegar melted over hot water. Only the best grades of floor paint should be used. Colors to be avoided on floors are all tones of yellow and red brown. Walnut brown and grays are safe choices while any hue sufficiently dark and neutral may be used as part of the color scheme.

Plastic wood may also be used to fill broken spots or holes.

To Paint Floors -

- (1) Select a floor paint of good color.
- (2) Apply one or two coats according to directions on can.
- (3) Apply one or two coats of the best clear floor varnish.

This will protect the paint from wear, is easily cleaned and can be renewed if necessary.

Avoid: Varnish stain on the floors.

Crack Fillers - There is no absolutely satisfactory crack filler. A homemade crack filler is made by soaking blotting paper (or news paper) in boiling water to make a thick pulp. Melt some cabinet glue in a little water and combine the mixtures. Add whiting to make stiff paste. Stain to match the floor. Mix thoroughly and press into the cracks while warm. Smooth off with a putty knife. (News paper may need to be run through a food chopper to make a pulp).



# CARE OF FLOORS AND WOODWORK

*Extension Home Management Specialists*

Unfinished wood absorbs more dirt than finished wood. Also grease will spot it badly. All wood surfaces in the house should be finished. If it is necessary to clean unfinished surfaces, this should be done by scrubbing with a mild soap and water, using a small quantity of water and working on a small area at one time. Rinse with clean water and wipe dry. Avoid strong soaps, alkalies, and the use of too much water.

## FLOOR CARE

All floor finishes wear longer with proper care. This means good equipment as well as good methods. A soft brush is preferable to a corn broom for sweeping finished floors. Satisfactory floor care equipment may be made or purchased.

### Oiled Floors:

Sweep with soft floor brush. Dust with a treated dust mop. Periodic cleaning consists of wiping with a mop wrung out of clean warm water or a suds made with mild soap. Wipe dry. The oil removed by mopping may be replaced by rubbing with a wool cloth moistened with boiled linseed oil, or floor oil.

### Waxed Floors:

Sweep with floor brush. Dust with a soft floor mop, dry or treated with wax. Avoid oiled mops on waxed floors. A waxed floor may occasionally be wiped with a mop wrung out of clear tepid water.

**To clean water spots:** Rub in circles with turpentine and a flannel cloth. Rewax the spot if necessary.

### Varnished Floors:

Sweep with a soft brush. Dust with a treated mop. If necessary wipe up with a clean cloth, wrung out of a light soap suds made with neutral soap. Wax may be used to improve the appearance of badly worn varnished floor.

**Mixture for occasional cleaning:** When a spot is heavily soiled, a mixture of equal parts of boiled linseed oil, turpentine, and vinegar may be effective. The vinegar cuts the grease, the oil polishes and turpentine dries the mixture.

### To Make Treated Floor Mops:

Secure a covered tin receptacle large enough to hold the mop. To make an oiled mop, brush the inside with equal parts of boiled linseed oil and turpentine. Place mop in can, cover tightly, and allow to remain over night. Kerosene may be substituted for the oil and turpentine if necessary. To make treated mop for waxed floors use liquid wax in place of the oil and turpentine.

Floor mops may be purchased or satisfactory ones made by cutting the top of socks into vertical strips and fastening to a handle or sewing to fit into an ordinary mop handle, the corners of which should be covered to prevent the floor becoming scratched.

All treated mops should be washed as they become soiled and then be retreated.

### CAUTIONS

Oil, turpentine, and many other materials used in floor finishing and care are inflammable. There is a decided fire hazard from throwing cloths used in floor care into piles or placing near inflammable material. Place in a metal container and keep where there is a circulation of air. On the same score it is suggested that gasoline should not be used as a household cleaning agent.

### LINOLEUM

Linoleum is of two kinds, inlaid, in which the pattern extends through the material to the back, and printed, on which a surface pattern is finished with varnish or lacquer. A smooth under floor is essential to satisfactory wear. Any linoleum is best laid over a felt base and cemented to the floor. The inlaid linoleum is higher in price but the additional material and labor costs of protecting the printed type renders it as costly over a period of time.

#### Care of Printed Linoleum:

Printed linoleum should be given a coat of clear lacquer or clear floor varnish as soon as laid. Lacquer wears well and is more transparent than varnish. This coat should not be allowed to wear off. Spots may be touched up as they show evidence of wear. Daily care of printed linoleum is the same as that given varnished floors. See above.

#### Care of Inlaid Linoleum:

Inlaid linoleum should be washed carefully with tepid water and pure soap. As soon as dry, before tracked, wax with a standard floor wax, liquid or paste. Apply wax sparingly and rub in thoroughly. Care for as directed under waxed floors. Avoid large quantities of water and any strong or laundry soap on linoleum. These are injurious to both wearing quality and appearance.

#### Use of Wax in Floor Care:

A thin coat of wax wears better than a heavy coat. Care should be taken to apply wax sparingly and to polish it carefully with a weighted brush. A floor properly waxed will not show tracks or be slippery.

#### Renovation of Printed Linoleum:

In cases where the body of the linoleum is good but the design is worn off painting may be an economy. Have the rug clean and free from grease. Select an attractive color of floor enamel and paint one coat, or if necessary two coats. Using paint of another color or tone put on a stipple or spatter finish. This adds to the attractiveness and the ease of caring for the rug. Finish with a coat of lacquer or varnish, and care for as suggested above.

## CARE OF WOODWORK

Strong soaps, scouring powders, and alkaline cleaning compounds are injurious to the finishes used upon woodwork. Woodwork may have a varnished, waxed, or painted finish.

### Varnished Woodwork:

Dust frequently with a dustless dust cloth. For periodic cleaning use the following mixture:

- |                         |                                  |
|-------------------------|----------------------------------|
| 1 quart hot water       | 3 tablespoons boiled linseed oil |
| 1 tablespoon turpentine |                                  |

Wash the woodwork with soft cloth wrung out of the above mixture kept warm by setting over hot water (do not heat on stove as turpentine is inflammable). Polish the woodwork dry with a second cloth. Discard the mixture as it becomes soiled and mix a fresh supply.

This method is also used in cleaning oiled woodwork.

### Painted Woodwork:

Woodwork should be finished with semi-gloss paint. Any treatment removing or roughening the hard, glossy surface causes it to collect dirt more rapidly and become harder to clean. Dust frequently. When necessary rub with a cloth wrung out of hot water. Wipe dry. For badly soiled spots use a little whitening on the wet cloth. Wipe well with cloth wrung from clean, warm water and wipe dry.

### Dustless Dust Cloths:

These may be made from pieces of soft silk, cheesecloth, and other very soft cottons, or from chamois. Place 2 tablespoons of paraffin oil, lemon oil, boiled linseed oil, or kerosene in a quart jar or covered container and turn it about until the oil is evenly spread over the entire interior surface. Pour out any surplus. Place cloth in jar or can, close tightly, and leave over night before using. For waxed surfaces use liquid wax in place of oil.

Dustless dusters may also be made by wringing the cloth out of a mixture consisting of a tablespoon of oil in 1 quart warm water. Allow to become dry before using. These cloths may be washed and re-oiled as necessary.

### Weighted Polishers:

- (1) A brick folded in burlap and clamped into a mop handle at the upper edge of the brick.
- (2) A heavy block of wood with carpet or heavy wool material tacked over the bottom, and preferably adjusted on a handle.
- (3) A sturdy box built with an inside size to hold exactly two bricks. Bottom is covered with carpeting. Adjustable handle is made by placing a pipe clamp at center of each side, fitting piece of pipe or broom-handle between these across the box. The long handle is then fastened to the center of this by means of bolts and two metal strips. This allows the handle to be turned in all four directions.

## TO PATCH A WORN FLOOR

1. Sandpaper the spot overlapping the old finish. Use number one sandpaper over a block of wood and sand with the graining of the floor.
2. Go over the spot with one thin coat of filler or stain or whatever treatment was used first in the original finish of the floor. Allow to dry thoroughly.

3. Thin the first coat of finish slightly and brush well into the wood. Let dry.
4. Apply a second coat of material as it comes from the can. When dry rub hard with a tightly-rolled piece of burlap, following the grain of the wood.
5. Apply a final coat overlapping the old finish about 10 inches.
6. Make a tight roll of soft clean cloth. Wipe the brush on the roll and rub the floor connecting the spots. Add more paint or varnish to the roll as needed. This gives the whole floor a fresh new look and connects the patches. Waxing the floor may give a similar result. Avoid using too much wax.



U. S. DEPARTMENT OF  
AGRICULTURE

FARMERS' BULLETIN No. 1219

FLOORS  
AND  
FLOOR  
COVERINGS



**B**EING a permanent part of the house, a floor should be of durable materials, well laid, and suited to the purposes for which the particular room is used. Moreover, well-chosen materials, proper finishes, and good methods of cleaning make a great difference in the cost, time, and labor required to keep a house in order. This bulletin gives information regarding the character and qualities of different sorts of floors and floor coverings with reference to their suitability, durability, economy, and care.

Washington, D. C.

Issued September, 1921

## FLOORS AND FLOOR COVERINGS

PREPARED IN THE BUREAU OF HOME ECONOMICS

### CONTENTS

	Page		Page
Floors-----	2	Floor coverings—Continued.	
Woods suitable for flooring-----	3	Common types of rugs and car-	
Finishing new wood floors-----	4	pets—Continued.	
Tools needed in finishing		Velvets-----	17
floors-----	4	Axminster-----	17
Staining-----	5	Oriental rugs-----	18
Filling-----	6	Rag carpets and rugs-----	19
Varnishing-----	7	Fiber and grass rugs and	
Waxing-----	8	mattings-----	19
Oiling-----	9	Utilizing old carpets and rugs-----	20
Painting-----	9	Care of rugs, carpets, and mat-	
Stone, concrete, composition, and		tings-----	21
tile floors-----	10	Cleaning equipment-----	21
Treating old wood floors-----	10	Methods of cleaning-----	22
Care of floors-----	12	Resizing-----	23
Floor coverings-----	14	Removing spots and stains-----	23
Common types of rugs and car-		Mending-----	24
pets-----	14	Storing-----	25
Ingrain-----	15	Linoleum and similar materials.	
Brussels-----	16	How to lay and care for lin-	
Wilton-----	16	oleum-----	27
		Summary-----	28

**F**LOORS AND FLOOR COVERINGS are often a perplexing problem. Fifty years ago little attention was given to the floors themselves having them level, fairly tight, and of sound lumber, for they were usually covered entirely with carpet or matting in the living rooms, and left bare and unfinished or at most painted in the kitchens and pantries.

Practices, however, have changed; to-day, smoothly finished floors and removable rugs are the pride of many housewives. In fact, the housekeeper finds herself almost bewildered by the variety of finishes and materials on the market. Moreover, the increased cost of materials and the high value placed on labor makes her doubly eager to spend her money wisely and to choose what will wear well and can be kept in order with the least effort. Saving needless labor is just as true economy as careful spending of money. Fortunately, there are sound principles to guide her choice, though they must be modified somewhat to meet each case.

As a general rule, it is most satisfactory to make the floor—which in this sense includes rugs or any other coverings—neutral in color, inconspicuous in design, and darker than the surrounding walls. Nor is the reason for this hard to find. The floor is the foundation and in many cases part of the background of the room and its furnishings. Despite this fact, interest in the smoothness of a finish or the sheen of a particular rug sometimes leads to a choice of colors

and designs that make the floor the most conspicuous part of the room and even give it an upside-down effect.

Color is to many persons the most interesting subject of all in choosing such furnishings as floor coverings. Talk of color schemes is heard at every turn, but not all realize how many-sided is this question of color and color harmony. Too often because blue or green or rose is her favorite color the housekeeper buys that kind of rug, not stopping to think how wear will affect it, how it will look with the room as a whole, or whether the room is too dark or too light for such a color. For instance, the soft blue rug of Chinese design may show to perfection in the strong light of the shop window and may be a beautiful thing in itself, but whether the room is sunny enough, whether the floor is stained the right color, and how it will harmonize with the furniture and hangings are questions the purchaser should ask herself before making her decision.

To put it briefly, then, the rug or covering should harmonize in color with the parts of the floor that show, and both these in turn with the walls, the furniture, and the curtains. Of course, this does not mean that all these must be shades of one color, for such an arrangement would soon become monotonous, but simply that they should be colors that look well together and are so used that the floor is darkest, the walls lighter, and the ceiling lightest of all.

At the time the housekeeper is deciding on color and design she must also be gathering information about wearing quality and cost. A floor is made to be walked on, and no matter how attractive the finish or excellent the color and design of a material it can not be considered satisfactory if it does not wear well and is not easy to clean.

## FLOORS

Floors need to be strong, comfortable to walk and stand on, and easy to care for, as well as attractive in appearance.

A floor should be firm enough to bear without yielding the strain that it receives; if it is not, other parts of the structure will be strained unduly and in extreme cases may even be thrown out of plumb. Extra support is sometimes necessary underneath a floor, especially an old or badly built one, over which there is constant heavy passing or on which is kept a heavy object such as a safe or a cabinet.

A floor should be level. Uneven floors are uncomfortable to walk and stand on, do not allow the furniture to rest firmly and squarely, and bring harder wear on some parts of the floor covering. Padding underneath the floor covering will make these defects less noticeable, but is at best only a makeshift.

A floor should be tight, without open spaces between the boards or around the edges, because cracks let in dirt, drafts, and vermin, and are hard to keep clean.

The appearance of the floor has much to do with the general attractiveness of a room. In color and in finish the floor should harmonize with the other features of the room.

The qualities in a floor that make for comfort and ease of care vary with the use. For example, the kind of floor desirable in the living room may be unsuitable in the kitchen, where the wear is



heavier and more cleaning is necessary. With this question of care is coupled that of cost, which includes not only the original outlay for the floor itself but also the expense of upkeep and of providing and caring for whatever coverings are used. The labor of routine cleaning is a part of the cost of the upkeep, though done by a member of the family who receives no pay for the work. A rather large investment in floors may in many cases be justified, for good floors add to the market value as well as to the comfort and attractiveness of a house.

#### WOODS SUITABLE FOR FLOORING

In this country wood has been by far the most popular material for floors in private houses, and has been used in forms varying from the rough-hewn puncheons of pioneer days to the small, carefully fitted strips in parquetry. The floor of well-matched boards of good wood is generally considered standard for household use to-day, though special materials, such as concrete, tile, and composition, are sometimes preferred for floors in kitchens, bathrooms, basements, entries, and porches.

In laying new wooden floors questions arise as to relative merits and costs of various woods and how they shall be treated, whether merely planed smooth and left unfinished, or what kind of finish shall be used. Woods for flooring are commonly classified as hardwoods and softwoods. These are trade terms and may be misleading, for some of the so-called softwoods are harder than some of those classed as hardwoods.

In general, the hardwoods make better floors than the softwoods. They wear more evenly, are less likely to sliver, take a more durable finish, and are more attractive in appearance. They are usually more expensive than softwoods, but this is somewhat offset by their good wearing qualities. Of the hardwoods, oak and maple are the most used, and birch, beech, and others to a limited extent.

The so-called softwoods include the various kinds of conifers. Of these, long-leaf pine and Douglas fir, or red spruce, as it is sometimes called, are perhaps the most durable for floors.

Whatever kind of wood is chosen, certain general points should be considered. The way in which flooring is sawed has much to do with the beauty of the grain and the durability of the surface. In general, quarter-sawed flooring is best. The boards are less likely to shrink and swell, the surface is more durable than in plain-sawed lumber, and in oak especially the grain is shown to the best advantage. All flooring should be properly dried so that it will not be seriously affected by heat and moisture after it is laid. The thickness and the width of flooring vary;  $\frac{7}{8}$  inch thick by  $2\frac{1}{4}$  inches wide is a good size to use.

Both hardwood and softwood floors may be used either with or without finish and with or without covering. Hardwoods are usually finished and partly covered with rugs or left bare, and softwoods are generally used for floors that are to be covered entirely. Some of the more durable softwoods may, however, be successfully finished and used either with or without rugs.

The finished floor with removable coverings has much to recommend it; it is easily cleaned, sanitary, and simplifies many problems in house furnishing. Leaving wooden floors both unfinished and un-

covered is not considered satisfactory, except occasionally in kitchen or bathroom. Even in these cases finishing or covering the floor with some washable material would probably be economy, because it would be easier to clean.

#### FINISHING NEW WOOD FLOORS

New wood floors may be finished in a variety of ways, depending partly on the kind of wood and partly on individual preference. Wood finishers themselves often disagree about the best method of treating floors, but all agree that it is economy to use the best materials. The present tendency, for hardwood floors particularly, is to keep the natural color of the wood and at the same time give it a smooth, durable finish that can be cleaned and renewed with the minimum of effort. Though darker-colored floors generally give the best effects, light-colored floors have the advantage of showing dust and footprints less readily.

Stain, filler, oil, paint, varnish, shellac, and wax, or a combination of two or more of these materials, may be used. Oak and maple floors, for example, are often finished with a colorless filler, white shellac, and light-colored wax or pale varnish, a treatment that preserves the natural color of the wood with little change. A somewhat golden tone can be obtained by using orange shellac or dark varnish.

Before any finish is applied, the floor should be made smooth by planing and sandpapering parallel with the grain of the wood, and then swept and dusted with a soft cloth. If the sandpaper is fastened on the bottom of a heavy block of wood to which a handle is attached, or better still, on the bottom of a weighted polishing brush, this work will be easier.

#### TOOLS NEEDED IN FINISHING FLOORS

Good tools are essential. Brushes for applying stain, varnish, paint, and oil are manufactured in various sizes and qualities. In general, a wide brush of good quality will be found most convenient and economical, and if properly cared for can be used over and over again.

A varnish brush may be kept in the varnish in which it is used or in case of shellac varnish in alcohol; but brushes used in oil paint and oil stain, unless they are to be used again within a few days, should be thoroughly washed in turpentine or kerosene, rinsed in gasoline or benzine, washed again in warm soapsuds, thoroughly shaken, and hung up to dry with the bristles down. Paintbrushes that are to be used again the next day may simply be wrapped in several thicknesses of paper, or they may be kept for several days with the bristles submerged in turpentine or kerosene. If kerosene is used, the brush must be shaken and rinsed in turpentine before it is put into paint again. Brushes used in water stain may be washed and rinsed in clear water.

For polishing a waxed floor, a long-handled weighted brush is the most convenient tool. For best results it must be clean, and under no circumstances should it be allowed to come in contact with oil. A slip-on cloth cover will be found convenient to protect it when not in use. Occasionally the brush should be soaked and washed thor-

oughly in lukewarm water to which a little household ammonia has been added (about 3 teaspoons to a quart of water), rinsed in clear water, turned on its side, and dried in a current of air, but not near a hot stove or radiator.

Clean cotton and woolen cloths or pieces of woolen carpet are also needed in finishing and polishing floors. The woolen cloths are in many cases too valuable to throw away when they become soiled and may be cleaned in the following way: Soak them for about one hour in hot water containing about 3 tablespoons of washing soda to the gallon, stir and work them occasionally with a stick, wash clean in hot soapsuds, and rinse in hot water to which has been added a little kerosene or floor oil. When not in use, cloths saturated in oil or wax should be kept in a tightly covered earthenware or metal container, which not only prevents them from becoming stiff but reduces to a minimum the danger from spontaneous combustion.

#### STAINING

Stains are used on floors to bring out the grain of the wood, or to make them harmonize in color with other woodwork or with furnishings, or to give certain softwoods tones similar to hardwoods.

Oil and water stains, so called because of the solvent used, are the common kinds. Oil stains are easy to apply evenly and do not raise the grain of the wood, but they do not penetrate very deeply and are likely to give a muddy effect. Water stains, on the other hand, soak in readily, give a clear color, and are cheaper than oil stains, but raise the grain of the wood so that sandpapering a second time may be necessary. Water stains may be used on either hardwoods or softwoods, but as a rule oil stains are not so successful on hardwoods.

Both water and oil stains may be bought ready mixed, or some of the simple ones can be made at home. In any case, before using, the stain should be tested on an inconspicuous part of the floor or on a sample of the same kind of wood. If the color is too intense, the stain should be diluted with the kind of solvent with which it is mixed or with other suitable liquid. For example, an oil stain may be diluted with turpentine, and a water stain with water.

The following formulas have been tested by the Bureau of Chemistry of this department:

#### HOMEMADE FLOOR STAIN NO. 1

1 ounce permanganate of potash. | 1 quart warm water.

The solution made by dissolving the permanganate of potash in the water is violet colored, but when it is applied to wood a chemical action results and the wood is stained brown. This stain gives better results on pine than on oak flooring.

#### HOMEMADE FLOOR STAIN NO. 2

1¼ ounces pulverized gilsonite. | 1 quart turpentine.

This is a brown stain that can be used on either softwoods or hardwoods.

#### HOMEMADE FLOOR STAIN NO. 3.

½ pound raw sienna (ground in oil).	½ pint ground japan drier.
2 ounces raw umber (ground in oil).	1 pint turpentine.
1 pint boiled linseed oil.	



Putting these materials into a bottle and shaking vigorously is perhaps the best way of mixing this stain. It has been found to give excellent results on oak.

A strong decoction of walnut or butternut hulls may be used as a brown stain on woods containing tannin, such as oak or chestnut, and repeated applications of ammonia water will also darken these woods.

If an oak floor is to be water-stained, coating it first with clear water and sandpapering it smooth after it is dry will lessen the tendency of the stain to raise the grain of the wood. Oil stains will be absorbed more evenly by pine or maple floors if the wood is first coated with a mixture of 3 parts turpentine and 1 part linseed oil and the surface sandpapered smooth after it is dry.

Stains should be applied rather thinly with a clean brush or a sponge with even strokes taken parallel with the grain of the wood. With water stains especially, care should be taken not to let the strokes overlap, and the stained surface should be wiped at once with a soft cloth or cotton waste. Oil stains should be allowed to set for a few minutes before the surface is wiped. Two coats of light stain generally give a better effect than one coat of heavy stain. In general, 1 gallon of oil stain will coat about 400 square feet of floor once, depending, of course, on the depth of color desired and the texture of the wood.

After a floor is stained, it should be allowed to dry for at least 24 hours, and dust kept from it as much as possible. When thoroughly dry, it should be polished with a weighted brush covered with carpet, after which it is ready for the filler and wax or varnish.

Some of the very porous woods may be filled and stained at the same time by combining the stain and the filler, but generally a better effect is obtained by applying them separately.

#### FILLING

Porous woods, such as oak and ash, take a smoother and more durable finish if a good paste filler is rubbed into them before the varnish, wax, or shellac is applied. Maple, pine, and other nonporous woods do not need such treatment and in fact will not absorb some kinds of fillers.

The best paste fillers are made of silex (silica), linseed oil, turpentine, japan, and coloring matter to match the wood. Cornstarch and whiting are also used as the base of paste fillers, but are less transparent than silex and can not be worked into the pores of the wood so thoroughly. They are generally used in homemade fillers, however, for silex is difficult to obtain in the retail trade. Oil has a tendency to darken wood, so it is sometimes omitted from the filler if a very light finish is desired.

A filler should be about the consistency of varnish when applied. If too thick, it can be thinned with turpentine for use on natural-colored woods, or with boiled linseed oil on stained woods. After the floor has been dusted, the filler is generously applied lengthwise of the grain with a clean stiff brush. This coating is allowed to set for 15 or 20 minutes, or until it turns gray, and is then rubbed in with cotton waste or burlap crosswise, not lengthwise, of the grain. A coarser material will drag the filler out of the pores instead of



forcing it in. Several days later the floor is rubbed smooth with No. 0 sandpaper slightly dampened on the back. Ordinary oak will take up about 5 pounds of filler to 250 square feet of floor. If a very high polish is desired, a second coat of filler containing less oil and more turpentine may be applied and rubbed down as in the first case.

Liquid fillers are sometimes used on close-grained woods to fill up the pores and prevent the absorption of the more expensive varnish. A pure shellac varnish made by dissolving gum shellac in alcohol is recommended by some authorities for this purpose. The ready-mixed liquid fillers, which are brushed on and permitted to remain on the surface without being rubbed off, are in many cases little better than cheap varnishes.

#### VARNISHING

Varnish gives floors a hard, smooth, glossy finish, and is easy to apply and to clean. Under hard usage, however, it is likely to wear off, leaving patches of bare wood that remain unsightly even after revarnishing. Successive coats tend to darken the floor. Varnish is a common finish for softwood floors, but wax is preferred by many for hardwood.

Manufacturers have tested and put on the market an assortment of varnishes adapted to special uses, and it is often better to buy one of these ready-made standard floor varnishes than to attempt to mix one at home.

Varnishes are roughly classified into two groups, spirit and oil. The spirit varnishes are made by dissolving a resinous substance, such as gum shellac, in alcohol or some other volatile liquid. They dry quickly, leaving a hard, brittle coating on the wood, and, with the exception of shellac varnish, are not commonly used on floors.

#### SHELLAC VARNISH

2 pounds gum shellac.  
½ pound castor oil.

1 gallon alcohol, denatured according  
to United States Internal Revenue  
formula No. 1.

Put these ingredients into a well-stoppered bottle in a warm place, and shake the mixture frequently until the shellac is dissolved. The alcohol should contain not more than 5 per cent of water, and care should be taken not to drop any water into it as it is being mixed with the dry shellac. The castor oil aids in making the varnish flexible and less brittle when dry, but may be omitted; in that case, the quantity of gum shellac should be increased to 2½ pounds. If too thick, this varnish may be thinned by the addition of more alcohol.

Successive coats of shellac varnish well rubbed down may be used alone on a floor, or one coat may be used as a surfacer on a paste-filled hardwood floor that is to be waxed. For the first coat, 1 gallon of shellac will cover 300 to 400 square feet of floor, and additional coats will of course require less. Parquetry floors are generally shellacked in order to preserve the light color of the wood.

The oil varnishes contain resinous gum, oil, and driers, carefully heated and blended so as to bring out certain properties. Most of the floor varnishes are of this type and of the kind known in trade as "medium oil." They dry more slowly than the spirit varnishes,

but have luster, hardness, and greater durability. Spar varnishes belong to the kind known as "long-oil" and contain an even larger proportion of oil, which makes them more durable and impervious to water. They are sometimes used on kitchen and bathroom floors, where those characteristics are of particular importance.

The first rule of varnishing is to have the surface of the wood and the air in the room as free from dust as possible and to use only scrupulously clean brushes. Varnish brushes are chisel shaped or slightly tapering; a rather wide one will be most convenient for this work. The varnish should be brushed on lengthwise of the grain in a smooth, thin coat without laps or brush marks and allowed to dry for at least two days. If possible, the temperature of the room should be 70° F. or higher and the varnish should be applied in the morning, for it dries better during daylight. When the first coat is thoroughly dry another coat or perhaps several more coats should be applied in the same way as the first. The more coats of varnish put on a floor, the more durable the finish. One gallon of floor varnish is enough for two coats on about 300 square feet of oak floor or about 200 square feet of pine.

#### WAXING

Waxing is considered by many the most attractive and practicable finish for hardwood floors. It preserves the natural color of the wood, brings out the beauty of the grain, and is easily revived and renewed. Given the proper care, waxed floors improve with age, even under hard usage. In some of the European palaces, for instance, floors that have been polished for centuries with nothing but wax are still bright and beautiful in color though now worn thin by use. The chief objections to waxed floors are the amount of labor required to polish them and the fact that water turns the finish white. These water spots, however, may be quickly removed by rubbing on a little wax with a woolen cloth or a weighted brush.

Wax of various kinds dissolved in turpentine is the basis of all floor waxes. Beeswax, carnauba, ceresin, or paraffin, or a combination of these may be used, and gasoline, ammonia, or some other volatile solvent is often used in addition to the turpentine.

Floor wax may be bought ready mixed or made at home. The first of the following formulas has been worked out by the United States Bureau of Standards<sup>1</sup>; the second by Dr. A. T. Kerr, of Cornell University.

#### HOMEMADE FLOOR WAX NO. 1

1 pint turpentine.  
4 ounces beeswax.

3 ounces aqua ammonia (strength, 10 per cent).  
1 pint water.

Mix the beeswax and the turpentine and heat them by placing the vessel in hot water until the wax dissolves. Remove the mixture from the source of heat, add the ammonia and the water, and stir vigorously until the mass becomes creamy.

On varnished or shellacked floors this wax should be applied lightly and any excess wiped off at once, because ammonia dissolves varnish and shellac. Unfinished oak flooring polished with this wax will be darkened somewhat as a result of the chemical action of the ammonia.

<sup>1</sup> U. S. Dept. Commerce, Bureau of Standards, Circular 70, Materials for the Household.

## HOMEMADE FLOOR WAX NO. 2

$\frac{1}{4}$  pound beeswax.  
1 pound paraffin.

$\frac{1}{4}$  pint raw linseed oil.  
 $1\frac{1}{4}$  pints turpentine.

Melt the beeswax and the paraffin, add the linseed oil and turpentine, and stir the mixture vigorously. Unfinished wood will be darkened somewhat by this wax as a result of the absorption of the linseed oil.

Turpentine is highly inflammable; therefore care must be taken in making these waxes to heat the ingredients only by setting them in hot water and to have no flames in the room.

Wax may be applied to a floor that has been stained, painted, or varnished, or directly on the bare wood. Hardwood floors are generally paste filled and in many cases surfaced with shellac varnish before being waxed. The paste fills up the pores, and the shellac varnish makes a hard foundation for the wax and prevents grease from penetrating and staining the wood. A waxed floor will be less slippery, however, if the shellac is omitted or if only a very thin coat is applied and well sandpapered.

Success in waxing floors lies in applying the wax in thin coats and rubbing it a great deal. One pound will coat about 250 square feet of floor. After the preliminary coats of filler or varnish are thoroughly dry, the wax should be rubbed on with a woolen cloth, a piece of old carpet, or a brush, and allowed to harden overnight. The next morning the floor should be polished lengthwise of the grain with a weighted brush or a heavy block wrapped in woolen cloth, burlap, or old carpet. Then one or perhaps two more coats of wax should be applied and rubbed down in the same way as the first.

## OILING

Oiling is a rather common and economical way of finishing kitchen, pantry, bathroom, and porch floors and is by many considered more satisfactory for pine floors than varnishing. Oil is easy to apply, gives a finish that is durable and not slippery, and penetrates the pores of the wood so that it is proof against grease and water spots. Oiled floors, however, darken with use and in time become dingy because dust clings to them and unites with the oil on the surface.

Boiled linseed oil is the kind most commonly used and may be applied clear, either hot or cold, or combined with turpentine, which makes it penetrate the wood better and leave a thinner film on the surface. A mixture of equal parts of oil and turpentine is recommended for pine floors.

If desired, a floor may be stained before it is oiled, but in any case it should be clean, dry, and free from dust when the oil is applied. The oil should be brushed on lengthwise of the grain of the wood, rubbed in with a soft oily cloth, and any excess wiped off with a dry cloth. After the oil has dried for a few hours, the floor may be polished with a weighted brush covered with a clean woolen cloth or piece of carpet. Most floors will absorb two coats of oil.

## PAINTING

Paint is very commonly used on softwood floors, but is not a very durable finish, and worn places can seldom be satisfactorily patched. Painted floors are, however, easy to clean, for the paint forms a coat



impervious to water and grease, and they can be made to match or harmonize with woodwork or furnishings.

Paints, like varnishes, vary in durability according to the materials in them. Special floor paints of good quality are on the market, or they may be mixed at home. If only one or two floors are to be painted, one of the ready-mixed kinds will be found more economical and convenient, and 1 gallon will generally be enough for three coats on about 200 to 300 square feet of floor. White lead, zinc white, linseed oil, drier, and coloring matter are the chief ingredients in a good floor paint.

A kitchen floor should have three coats of paint, and the wood should be clean, dry, and free from dust before the paint is applied. According to the United States Bureau of Standards,<sup>2</sup> the first coat should consist of white lead in linseed oil, with a little drier; the second coat, of equal parts of white lead and zinc white in oil, coloring matter as desired, and drier and turpentine to give a flat finish; and the third coat, of the same materials as the second, except that instead of turpentine good floor varnish should be added in the proportion of 1 to 4 pints to a gallon of paint. Each coat of paint should be thoroughly brushed into the wood, lengthwise of the grain, and allowed ample time to dry. If desired, a coating of equal parts turpentine and linseed oil may be rubbed on with a soft cloth after the last coat of paint has dried thoroughly, and the floor then polished with a woolen cloth. This gives a soft lustrous finish and makes the paint wear longer.

#### STONE, CONCRETE, COMPOSITION, AND TILE FLOORS

Stone and marble floors have been in use since olden times and are desirable for certain purposes, especially in public buildings.

Concrete, composition, and tile are in some cases used as flooring in all the rooms of a house, but more commonly only where the floors receive the hardest wear, such as in entry, kitchen, bathroom, laundry, and cellar. These materials are now manufactured in a variety of soft, pleasing colors, and when properly laid make very attractive floors that are in addition durable, sanitary, and easily cleaned. They have the disadvantage of being so hard that walking or standing on them for any length of time is fatiguing, though this may be overcome somewhat by using rugs and rubber and cork mats.

Cement floors may be painted, thus making them smoother and more impervious to moisture. For some time after it is laid, cement contains lime in a form injurious to ordinary paint; therefore the surface should be thoroughly washed with a solution of 3 to 4 pounds of zinc sulphate to 1 gallon of water to render the lime insoluble before paint is applied. Specially prepared paints for use on cement are now on the market, or the paint may be prepared at home in the same way as for a wooden floor except that a larger proportion of varnish is used in the last coat.

#### TREATING OLD WOOD FLOORS

How to finish old wood floors or to restore the color and luster to those that have become dingy and worn is a problem that often per-

---

<sup>2</sup> U. S. Dept. of Commerce, Bureau of Standards, Circular 69, Paint and Varnish.



plexes the housewife. With the discarding of heavy carpets fastened in place has come the problem of finishing the floor underneath so that rugs can be used. Floors that have been covered with carpet are in most cases of softwood and have had no finish of any kind applied to them.

First of all, the floor is made as tight, level, and smooth as possible. It may need to be planed or sandpapered. All remnants of tacks are drawn or driven below the surface with a nail set. The wood is then scrubbed clean with hot soapsuds or some other cleansing agent and rinsed with clear water. Stains may in many cases be bleached out with a solution made by dissolving 1 teaspoon of oxalic acid in 1 cup of hot water. This liquid, which is poisonous and must be carefully handled, is spread on the wood and allowed to stand overnight. All traces of both cleansing agent and acid must be removed, otherwise they will injure the finish later. The floor when thoroughly dry may be stained, varnished, oiled, or painted as though it were new. After the first coat of finish has been applied and allowed to dry, cracks and holes should be filled with crack filler colored to match the floor.

Various kinds of crack fillers are used, but a simple and satisfactory one may be made of genuine whiting and linseed-oil putty into which is thoroughly worked about 10 per cent of dry white lead and coloring matter to match the floor. Another good filler may be made of cabinet glue melted with a little water in a double boiler, thickened with fine sawdust, and colored to match the wood. This must be used while hot and can be worked smoothly into cracks with a small knife.

A slightly worn varnished floor can generally be satisfactorily renovated by rubbing the scratches with a soft cloth dampened with linseed oil or if necessary sandpapering them out, and brushing on a fresh coat of varnish. If a varnished floor is badly worn, the best way is to remove all the old finish possible and start anew.

Varnish or paint can be removed from a floor by scraping and planing, or by applying a chemical varnish remover. The first method, although tedious and laborious, especially for an inexperienced worker, is better, and is the only one that will give good results if the floor has been stained. In many cases it pays to have floors scraped by an expert, who has the proper tools and knows just how to treat different woods. After a floor has been scraped, planed, and sandpapered, it can be finished as though it were new.

Removing varnish or paint from floors with chemicals is also hard work and must be done carefully so as not to spoil the finish on baseboards and moldings. Commercial varnish and paint removers may be bought but are rather expensive, and satisfactory removers may be mixed at home. The following mixture dissolves varnish quickly without darkening the wood or raising the grain:

#### VARNISH REMOVER

4 parts benzol.  
3 parts amyl acetate or fusel oil.

1 part carbon tetrachloride or chloroform.

After this mixture has been applied to the wood and allowed to stand for a few minutes, the old varnish may be scraped or rubbed off with a dull knife, steel wool, or excelsior. This varnish remover and others of this type should be used only where there is good ventilation and no open flame of any kind, for they contain anæsthetic and inflammable materials.

Caustic soda or household lye solutions are also used in removing paint or varnish, but they darken oak flooring, so that treatments with acids and alkali are necessary to bring back the natural light color of the wood, and they are such strong reagents that the hands and clothing must be carefully protected.

The caustic soda or lye may be dissolved in hot water, but gives better results if mixed with hot boiled starch solution, such as is used in starching clothes. About 3 tablespoons of the soda should be used to 1 quart of the starch solution. This should be applied to the floor with a cotton swab or a vegetable fiber (not bristle) brush. A long-handled scrubbing brush makes the work much easier. After a few minutes the softened varnish may be scraped or rubbed off. The floor should then be washed several times with clear water, allowed to dry thoroughly, sandpapered smooth, and carefully dusted before it is refinished.

If shellac varnish alone has been used on a floor, it can be removed by flooding a small area at a time with denatured alcohol and after a few minutes scouring with steel wool.

A soiled waxed floor can be more easily renovated. If it is not in bad condition, rubbing with a cloth saturated with turpentine or gasoline will brighten it so that a fresh coat of wax may be applied. If necessary, however, the old coating of wax and dirt may be entirely removed by rubbing first with No. 1 steel wool dipped in turpentine and then with a soft cloth, after which the floor may be refinished with varnish or wax.

An oiled floor that has become dark and grimy with use may be renovated by applying a coat of varnish remover as already described, and then bleaching it with a strong solution of oxalic acid. So far as possible all traces of these materials should be removed before a new finish is applied.

Fresh coats of paint may be applied to a worn painted floor or the paint may be removed in the same way as varnish, and the wood finished in some other way if desired.

#### CARE OF FLOORS

Finished floors can be kept in good condition with a comparatively small outlay of time and strength, but the method must be adapted to the kind of finish. Only too often an expensive and carefully applied finish is spoiled by neglect or lack of knowledge of the best methods and materials to use in cleaning.

Durable tools kept in good order are needed for this work and suggestions for the selection and arrangement of them in a cleaning closet are given in another publication of this department.<sup>3</sup> The oily cloths used in cleaning floors are a serious fire hazard, and should be kept, when not in use, in a closed metal or earthenware container.

The parts of a floor that receive hardest wear, near doors, for instance, or in halls, can be protected by small rugs, and coconut fiber or other mats placed at all entrances to the house will reduce the mud and dirt which are carried in on shoes and which help to wear down all floor finishes.

---

<sup>3</sup> Farmers' Bul. 1180, Housecleaning Made Easier.

Unfinished wood floors should be mopped or scrubbed with warm water and mild soap, scoured if necessary with powdered pumice, clean beach sand, or fine steel wool, rinsed with clear water, and wiped as dry as possible. Strong soaps, alkalis, and too free use of water darken wood and may in time soften it. Ink or iron stains may be bleached out with an oxalic-acid solution (p. 11).

Varnished floors should be swept with a soft brush, a mop, or a broom covered with a cotton-flannel bag, and then rubbed with a cloth or mop slightly moistened with floor oil or kerosene. The oil gradually dries out of varnish after it has been applied to wood, and unless restored by an occasional rubbing with an oiled cloth the varnish becomes exceedingly hard and brittle. Only enough oil to moisten the cloth or mop should be used, however, for if any remains on the surface it catches dust and darkens the wood. Good floor oils can easily be mixed at home. One part boiled linseed oil thinned with three parts turpentine makes an excellent floor oil, while one part light motor or engine oil combined with four parts kerosene gives results similar to those from commercial kinds. The light motor oil recommended must not be confused with the heavy, less highly refined kinds that contain dark sediment.

In general, varnished floors retain their color and luster better if no water is used on them, but if very dirty they may be wiped with a cloth or mop wrung out of warm soapy water, wiped dry at once, and polished with an oiled cloth or mop. White spots made by water and light scratches can generally be removed by rubbing with a cloth moistened with floor oil, kerosene, or furniture polish. As soon as a varnished floor can be no longer revived by this method, a fresh coat of varnish should be brushed on, for if the finish wears down to the bare wood it can seldom be patched successfully.

Waxed floors should be swept with a soft brush or mop entirely free from oil. Oil softens wax and should never be used on it in any way. About once a week a waxed floor should be given a more thorough cleaning with a cloth wrung out of warm soapy water, or, better still, moistened with turpentine or gasoline. Water dulls and whitens a waxed floor and though the color and luster may be restored by polishing, labor may be saved by using turpentine or gasoline, for they dissolve the film of dirty wax on the surface and leave it bright. Both these liquids, however, are very inflammable and are not to be used in a room where there is an open flame of any kind; also, they should be kept in a tightly corked bottle from which a little is poured onto the cloth as needed. Parts of the floor that have the hardest wear should be refinished with a thin coating of wax and then polished; or occasionally after cleaning, the entire floor may be given a very thin coat of wax and polished with a weighted brush or wooden cloth.

Under moderate use, however, a floor needs rewaxing only two or three times a year. Applying too much wax is a common mistake; the surplus simply lies on the surface in a soft coat that collects dust and is easily marred. Ink or iron rust stains may be removed with oxalic-acid solution in the same way as from an unfinished wood floor (p. 11), and after all traces of the acid have been removed and the spot dried it can be rewaxed and polished. White spots made by water will generally disappear if rubbed with a woolen cloth or weighted brush; if necessary, a little wax may be applied.



Oiled floors should be swept with a soft brush and dusted with an oiled cloth or mop. Occasionally, they need a more thorough cleaning with a cloth wrung out of warm, soapy water, followed by polishing with a cloth moistened with kerosene or a good floor oil. Water and soap should be used very sparingly on oiled floors.

Painted floors also should be swept with a soft brush and dusted with a dry or oiled mop. About once a week, or more often if necessary, they need to be wiped or mopped with a wet cloth, and rubbed with an oiled cloth or mop. Scrubbing with strong soap or other alkali will soon ruin a painted floor, and allowing water to remain on it is also injurious.

Cement floors should be swept with a broom and occasionally mopped, scrubbed, or flushed with water. They are usually equipped with a drain to carry off the excess. Composition and tiled floors should be swept with a soft brush and dusted with a dry mop. When necessary, they may be washed with a cloth wrung out of warm, soapy water and wiped dry as soon as possible. If water is left standing on a composition floor it may destroy the smooth surface, and in the case of a tiled floor is likely to loosen the cement that holds the tiles in place.

## FLOOR COVERINGS

Floor coverings when well chosen and properly laid are one of the most attractive and useful features of the furnishings of a home. They make floors warmer and more comfortable to walk on, protect them from hard wear, deaden sound, and may cover rough, unsightly places, and make part of the general scheme of decoration. To buy wisely as well as to obtain the best service from what she already has, the housekeeper needs to know what are the various kinds of floor coverings on the market and something about their wearing qualities and special uses. It is as poor economy and taste to put a delicately colored rug or carpet with soft pile that is easily crushed in a room where there is constant passing and things are likely to be spilled on it as to furnish a living room with a combination of gilt and mission-style furniture. Neutral colors and inconspicuous designs that give floors a flat effect are considered in best taste. Quality is a point that should not be sacrificed to anything else, for floor coverings of good quality, if properly cared for, will usually be found most durable and economical.

### COMMON TYPES OF RUGS AND CARPETS

The majority of modern textile rugs and carpets are woven on power looms perfected by American manufacturers. Ingrain, Brussels, Wilton, Velvet, and Axminster are the most common kinds. In addition to these, there are oriental rugs and various adaptations of the old-fashioned rag rug now manufactured on a large scale in factories, as well as fiber and grass rugs and mattings.

All carpets and rugs, whether they have a pile, as in Brussels, Wilton, or Axminster, or a plain weave like ingrains, are made up of warp and weft threads. The warp threads, or chains, as they are often called, are those that run lengthwise and are set in the loom; the woof, weft, or filling threads run crosswise through the warp.



Worsted, woolen, cotton, linen, hemp, and jute are all used for carpet yarns. In general, the best pile carpets have a worsted surface and a clean, smooth linen or hemp backing. When woven the difference between worsted and woolen for carpets is hard to detect, but worsted wears better and is made of coarse, hairlike wools doubled and twisted after spinning, while woolen is softer and less lustrous and durable.

#### INGRAIN

Ingrain carpet is woven like plain cloth from 2-ply or 3-ply yarn dyed before weaving. The warp, often made up of threads of various colors, forms the design and is so handled that the ground color of the design on the face becomes the color of the figure on the reverse, and an ingrain carpet can therefore be used on either side. The mixing and weaving of these threads of different colors is called *ingraining*, and the more closely it is done, or, in other words, the greater the number of warp and filling threads to the inch, the more durable is the carpet, provided good materials are used.

Many grades of ingrains are on the market, and material, weave, and weight should all be carefully considered before a choice is made, because they affect the wearing quality. The all-wool kinds with worsted warp and woolen or worsted filling are best and at the same time most expensive, while those with cotton warp, or chain, and woolen filling are cheaper but less desirable, because they will not hold their color so well and are likely to shrink. A light-colored wool or wool-filled carpet is likely to contain more pure wool than a dark one, for the dark colored wools can be more easily adulterated with animal hair.

Ingrain carpets and rugs are particularly good for use in bedrooms, for they are easy to clean, moderate in cost, and not heavy. The plain colors now made in the all-wool grades are especially attractive. Where a floor can not be finished and left bare, these plain ingrains are excellent as a background for small rugs or to cover the space around the edges of a large one. Ingrain carpets and rugs wear better and look better if well padded with a layer of good-quality carpet lining or several thicknesses of newspapers tacked to the floor. On account of their light weight, ingrain rugs are hard to clean on the floor unless they are tacked down.

There are also modifications of the ingrain carpet sold under a variety of names. The Kidderminster is woven on an ingrain loom and gets its name from the city in which it was originally manufactured. Venetian is also an ingrain with a colored worsted or cotton warp, which forms the figure, and with a jute filling. Pro-Brussels is still another grade with a jute warp and a wool weft.

Art squares are seamless ingrain rugs, often oblong in shape and with fringe on the ends and are sometimes called *druggets*, referring probably to their use as a protective covering for more expensive carpets. Scotch wool rugs are also ingrains, but the wool yarn used is very heavy and the finished rug is more firmly bound than an art square.

All these reversible wool rugs give good service in proportion to their cost.

## BRUSSELS

Brussels carpet, so called because it was first extensively manufactured on Flemish looms in and around the city of Brussels, is a loop-pile carpet with two or more warps and one or two fillings. One warp is always colored worsted yarn raised in rows of loops to form the surface pile by being thrown over wire inserted with each filling thread. These loops are held in place by the other warp and the filling, which form the back and may be of linen, hemp, cotton, or jute. The wires are set from 7 to 10 to the inch, and are drawn from the fabric after several inches have been woven. The closer these wires are, the heavier and more durable the carpet woven.

In genuine Brussels each color of the worsted warp is dyed separately in the yarn, and in weaving is carried on a separate frame. As many as six frames may be used in the best grades. The number of colors is limited therefore to six in any straight line running lengthwise of the carpet, and whenever one of them is not needed in the design on the surface, it is buried in the body of the carpet and may be seen on the wrong side among the backing threads. From this has come the name body Brussels. In judging the quality of a Brussels carpet, the housekeeper should note how close the rows of loops are together on the surface, whether the colored warp shows on the wrong side, and whether the thread used for the backing is clean and smooth. Dirty, lumpy backing thread generally indicates poor quality.

Tapestry Brussels is an imitation of body Brussels and is inferior to it in both appearance and durability. The design is not woven in with several warps each of a different color as in body Brussels, but is either printed on one warp before it is woven or is printed on a plain-colored carpet after weaving. Less worsted yarn is therefore used, the design is not so distinct, more colors are used, and no color appears on the back unless stamped there after weaving. The worsted yarn is generally of poor grade, and jute or some inexpensive fiber is used for the backing. Also, the rows of loops are farther apart than in real Brussels, and often only one thread is used in a loop. Tapestry Brussels generally, however, costs only about half as much as body Brussels.

Brussels carpet is about 27 inches wide as sold to the general trade, but is often sewed into rugs with borders to correspond. The surface is free from lint and rather easy to clean, and for this reason many housekeepers prefer Brussels to the cut-pile carpetings. Special care should be taken in sweeping Brussels to avoid "sprouting" (p. 22).

Brussels rugs and carpets are suitable for any room in the house where such coverings are used, and the good qualities will stand years of hard wear. Just at present, comparatively little Brussels carpet is on the market, for the cut-pile types can be more easily and cheaply manufactured, but there is every indication that its popularity will return.

## WILTON

Wilton carpet is woven in the same way as Brussels, except that the loops are cut by a knife attachment on the wires that raise the pile in weaving, thus giving a plushlike surface. The pile is higher than the

loops of a Brussels, the yarn for both surface and back is generally of better grade, and the Wilton is more firmly woven and contains about 50 per cent more yarn than a Brussels. The more wires there are to the inch in weaving Wilton carpet, the better the quality. Wilton carpet is woven in several widths, varying from  $\frac{3}{4}$  to 1 yard. The large Wilton rugs are woven in strips, which are accurately matched in design and so firmly sewed together that unless closely examined the rug looks as though it were woven in one piece. The designs are in many cases skillfully worked out in soft harmonious colors from oriental rugs and carpets as patterns.

There are two general types of Wilton, worsted and woolen, so called because of the kind of material used in the warp that forms the pile. The worsted Wiltons are more expensive than the woolen, but will withstand harder wear and are generally made in more attractive colorings and designs.

Wiltons are especially suitable for use in living rooms and halls and on stairs, though they will give good service wherever placed.

#### VELVETS

Many persons in this country call all machine-made cut-pile carpets and rugs velvets, but this encroaches on a commercial name given to an imitation Wilton, and in buying a so-called velvet rug this distinction should be remembered. Velvet carpet and rugs are made in the same way as tapestry Brussels, except that the loops are cut, but on account of the longer pile they contain more wool. Velvets should be cheaper than Wiltons for the same reasons that tapestry Brussels should be cheaper than body Brussels; that is, they contain less worsted yarn.

The heaviest qualities of velvets are said to wear almost as well as good-quality Wiltons, and may be used to advantage in living rooms, dining rooms, and halls, while the lighter grades are better in bedrooms. The plain soft colors make a good background for other furnishings, but are not practicable for halls and dining rooms and other places where they get particularly hard use, for they show spots and dust much more than figured floor coverings. Some kinds show dust and footprints more than others, and it is well to test this point in the store by walking across a rug before buying it.

#### AXMINSTER

Axminster carpets and rugs have a thick, cut pile and somewhat resemble Wiltons, though the method of weaving is quite different and a greater range of colors is possible. They have two warps and two fillings and hence are not so heavy and are less closely woven than Brussels and Wilton. For these reasons, they require less material and less time to manufacture. The pile is made by fastening tufts of woolen yarn into the warp, and in this respect an Axminster is woven like a handmade oriental rug, except that on the power loom ingenious nippers take the place of the deft fingers of the oriental weaver. This woolen tufting is sometimes adulterated with jute and coarse animal hair, and before buying an Axminster it should be carefully examined at close range on both front and back. These inferior materials generally feel harsh or fibrous to the



touch. The more closely the back is woven the better the carpet will wear.

The best Axminsters are very durable and with their wide range of design and coloring and depth of pile give a luxurious effect for fairly moderate cost, making them especially popular for use in hotels, clubs, and other public buildings. The cheaper grades of Axminsters are not considered so durable as Wiltons and Brussels, and will show the effects of hard service rather soon. The housekeeper will find that it pays to compare weights as well as prices before making her purchase.

The chenille rugs and carpetings having a wool backing and a weft of tufted cord, which is woven separately, are a modification of the Axminster. They can be woven any length and as wide as 30 feet without seams and any shape desired. Many of them have two-toned borders and centers, either plain or broken by inconspicuous conventional designs, thus making them suitable to use in many rooms and with many kinds of furnishings. Though expensive, these chenille rugs are said to be exceptionally durable.

#### ORIENTAL RUGS

Oriental rugs are those woven in one piece on hand looms in eastern countries, and as a whole are the most beautiful and sought after of all floor coverings. They have a linen, hemp, or wool warp and filling and a pile of tufts of woolen or occasionally silk yarn knotted into the warp by hand and evened with scissors. Weaving rugs in this way is, of course, a laborious process, requiring great dexterity and skill, and only after the rugs have lain on the floor for a long time and been polished by the wear of oriental sandals do they attain their greatest beauty and value. The value of a genuine oriental rug depends on the design, the fastness of color, the compactness and evenness of the weave, the number of knots to the square inch, and the care that has been taken of it. From the housekeeper's point of view the value depends also on whether the rug harmonizes with other furnishings in the house.

Formerly beautiful old rugs could be bought at fairly reasonable prices, but during recent years the demand has increased to such an extent that good genuine ones are out of reach of all except those who can pay high prices. To meet this demand quantities of rugs are being woven in oriental countries, in some cases under factory conditions, in imitation of the antiques. These do not have the quality that comes with age and wear, but if well made they are worth buying and will give good service. Modern Chinese rugs, copying the designs and colors of the old ones, are especially popular at present.

In some cases, however, oriental rugs are bleached and treated with chemicals in order to soften the garish colors resulting from aniline dyes and to give them sheen, and such rugs are likely to wear out quickly. Sometimes this bleaching is so skillfully done that even expert judges of rugs are deceived, but there are a few signs that even an amateur can recognize. If cheap, crude dyes have been used, the darker colors generally run into the lighter, making the design blurred. If the rug has been very much bleached, the colors on the surface of the pile will be soft and dull, while by



separating the threads and looking closely the colors at the base will be found to be clear and bright. Rubbing the surface briskly with a damp cloth will bring out the odor of chloride of lime with which the rug has been bleached, and very often the cloth will be stained with the colors. As a general rule, it is safe to buy oriental rugs only from reliable dealers.

#### RAG CARPETS AND RUGS

Probably the first carpet made in this country had a linen or canvas foundation with the design worked in cross-stitch or some similar way, but the first woven carpet was probably made on a hand loom and had a warp of cotton string and a filling of narrow strips of cotton or woolen rags sewed together by hand and sometimes dyed at home. For years this weaving was a common household industry, and in fact still is to some extent, but it has also become a factory enterprise, especially for the making of rugs. New cotton rags uniform in color and texture are used in these instead of the miscellaneous sorts seen in the old-fashioned rag carpet, and often ingeniously combined in simple but attractive border designs. These rugs are suitable for summer cottages, bedrooms, and bathrooms, but many of them have the disadvantage of being so light in weight that they are easily wrinkled and moved out of place by the walking over them, and are also of colors that soil quickly. The housekeeper will do well to choose the darker colors and the heavier weights.

Braiding rags and sewing these strips into oval or round rugs is another home industry of colonial days that is now being revived under factory conditions, as is also the making of the old-fashioned hooked rugs, which have a canvas foundation through which colored rags are drawn to form the pile. Also cut rags are sometimes sewed to the canvas foundation and the ends sheared to make a soft, even surface.

Crocheted and knitted rag rugs in various shapes and designs are also made in homes and to some extent commercially. When made firmly these are heavier than most rag rugs and stay in place better.

Rugs woven of strips of firm cloth in a check or similar pattern are still another old form of floor covering that has had commercial revival.

#### FIBER AND GRASS RUGS AND MATTINGS

Fiber and grass rugs have been very popular during the last few years, especially for use in summer cottages, on porches, and in other places where pile rugs would not be appropriate. They are cheaper than many other kinds, are fairly durable under moderate use, and are generally not obtrusive in design and color.

Mattings, while perhaps not so popular as formerly, are still in demand as all-over coverings on floors that are not suitable to finish. Mattings are generally light in color and not suited to hard wear.

Most fiber and grass rugs and mattings are more or less open in weave and permit dirt to sift through and accumulate on the under side.

**Fiber.**—Many of the rugs known commercially as fiber have a cotton warp and a filling of twisted paper and some have both warp and filling of twisted paper. Such rugs are put through a sizing process after weaving, in order to make them firmer and water-

resistant. In some cases, wool is used with the paper, and the rug is then known as wool-fiber. The wool adds warmth to the rug and increases the durability, which is an important factor. A design is woven into some of these fiber rugs and stenciled on others.

Another type of fiber rug is made of flax that has been colored and spun into a heavy yarn. Rugs of this type are plain in color and reversible, are made in a variety of attractive shades suitable for all rooms in the house, and are more durable than most fiber or grass rugs and mattings.

Grass.—Certain kinds of wild grasses in the Middle Western and Western States are harvested and twisted into threadlike ropes and woven into rugs and mattings much like those of fiber in wearing qualities. These grasses are neutral in tone, and the rugs depend for their color on the heavy cotton threads used either for warp or filling. Some of these grass rugs have designs stenciled on them, while others are plain. They are used on porches and in summer cottages, and sometimes for general use in living rooms and bedrooms.

Mattings.—All straw mattings are imported from China, Japan, and other oriental countries, and are woven on hand looms. Some of the best qualities have a hemp warp, though cotton is more commonly used, and all of them have a filling of straw made from the native grasses. The designs are very simple, and little attempt is made at color effects except stripes and checks on a natural-colored background. If the design appears only on one side then it has been stenciled; if it is alike on both sides the straws have been dyed before weaving. Reversible mattings are, of course, more serviceable, and the natural-colored ones are often of better quality than those that have been dyed. The firmer and closer the weave, of course, the better the matting will wear.

Coconut-palm fiber is woven into a tough matting that looks not unlike coarse roller toweling with a yellowish tinge and a red border. It is generally used to protect more expensive floor coverings or in hallways and on stairs or porches where there is a great deal of wear.

#### UTILIZING OLD CARPETS AND RUGS

It is often a question of making the best of the materials at hand when providing floor coverings for the home. One way of doing this is to have new rugs woven from old woolen carpets and rugs too shabby to be used as such. The old material is cut into strips about three-fourths inch wide, which when sewed together and twisted make a cord somewhat like chenille and form the filling of the new rug. Cotton string is used for the warp. These rugs are heavy and soft, alike on both sides, and durable, provided they are cleaned carefully. They are generally rather neutral in color and without a definite design; borders, however, may be woven from strips of carpet of solid color, or figured carpet may be dyed for this purpose. In general, about 6½ pounds of old carpet is required to make a square yard of the rewoven fabric, depending, of course, on the weight of the old material.

Worn Brussels, Wilton, or velvet carpet turned face down is sometimes used to cover an unfinished floor. The old carpet should be thoroughly cleaned before it is tacked down and may be painted and varnished.

## CARE OF RUGS, CARPETS, AND MATTINGS

First of all, rugs, carpets, and matting should be carefully laid. As already stated, they wear best on smooth, level floors, and if defects in the floors themselves can not be remedied, they should at least be covered up so far as possible by padding with material made for the purpose or with carefully arranged layers of newspapers. Under mattings and grass and fiber rugs, newspapers make especially good padding because, despite the best daily care, much dirt sifts through and can be removed by simply folding and destroying the papers when the matting or rugs are taken up for thorough cleaning. If possible, in the case of matting the edges of the padding should not coincide with the seams in the matting, thus allowing the dirt to sift through to the floor underneath. Where a large removable rug is used with ingrain or other carpet tacked down around the edges of the floor, the padding in the middle of the room may be covered with carefully laid, overlapping strips of heavy manila paper held in place by the carpeting. This prevents dirt from getting into the padding and provides a smooth surface easily brushed when the rug is taken up. The tacks used to fasten carpets and rugs should be rust proof.

A carpet should be carefully fitted to the space over which it is to be tacked. If it is so large that it wrinkles and shifts in use, it will be uncomfortable underfoot and may be torn by heavy furniture. If it is stretched too tight, the threads may break from the constant strain. When a carpet or rug is too large for the space for which it is desired, turning one edge under often seems a convenient way out of the difficulty. This should be avoided, if possible, especially if this double fold comes where it will get hard wear, for the ridge thus formed not only looks clumsy but also wears and soils more quickly than the rest.

Matting lies much flatter and wears better if laid with the edges of adjoining widths close together and tacked near the edge with brads or small single tacks. Cut edges of matting should be either bound or turned under at once to prevent fraying.

After carpets and rugs have been properly laid, the next question is how to clean and keep them in good condition so that they will wear longest, but without using any more labor and energy than is necessary. So far as possible dirt should be kept out of the house by placing fiber mats at the entrances, by insisting that muddy shoes be cleaned outside, and by keeping walks and porches clean. Frequent and systematic cleaning will keep floor coverings bright and fresh, will prevent dirt from weakening and discoloring the fibers, and will keep moths from the woolen kinds. Many housekeepers have little idea how much furnishings are injured by being allowed to become too dirty. A few good tools are needed for this work.

## CLEANING EQUIPMENT

The broom with which rugs and carpets are swept should be stiff and moderately heavy, and should be discarded for this purpose as soon as it becomes one-sided. When not in use the broom should be hung up so that the weight does not rest on the straws.

Carpet sweepers are excellent and almost indispensable for the daily cleaning. They pick up surface dust, threads, and lint without



scattering dust, and are in fact a combination of mechanical broom and dustpan. Best results are usually obtained by running them with a smooth, steady motion rather than in quick jerks. Two types are now on the market—the older kind fitted with revolving brushes and the newer models called “vacuum sweepers,” which have in addition to the revolving brush a bellows to draw up the dust below the surface. The efficiency of a carpet sweeper depends in part on how clean it is kept. It should be emptied frequently and the hair and threads cleaned from the brush with a wire hairbrush, old scissors, a currycomb, a buttonhook, or an old coarse comb. Old carpet sweepers can often be supplied with new brushes and rubber tires and made as good as new.

For more thorough cleaning, a vacuum cleaner is the best tool to use on rugs and carpets, for it sucks up, without scattering, the fine particles of dirt from the depth of the fabric as well as surface dust. A number of vacuum cleaners for household use are now on the market, and before buying, the housekeeper should, if possible, look them over and consider such points as efficiency in removing dirt, cost and ease of operating, and amount of storage space needed, as well as initial cost.

#### METHODS OF CLEANING

Rugs and carpets in rooms in constant use need to be brushed or cleaned with the carpet sweeper every day or two; and once a week thoroughly swept or gone over with a vacuum cleaner, or in the case of small rugs beaten out of doors.

In sweeping, the broom should be held nearly upright and the strokes should be short, in one direction, and with the nap of the carpet. Oriental rugs, especially, should be swept with the nap, not against it, and care should be taken not to sweep any kind of a pile rug or carpet with a digging motion of the broom. The so-called “sprouting” of Brussels carpet, by which is meant the appearance of broken ends of yarn on the surface, is often caused by wrong methods of sweeping. The broken ends of yarn should be clipped off with scissors as soon as they appear and should in no case be pulled out. The lint that comes from Axminsters is composed of the short clippings that settle into the nap as the carpet is being woven and is not a defect.

Sweeping should be made as dustless as possible by dampening the broom or scattering crumpled, dampened bits of newspaper, moist tea leaves, or one of the commercial sweeping preparations on the surface of the carpet. These methods must be used with care, however, for delicately colored carpetings are especially likely to be streaked by moisture. If a carpet or rug still seems very dusty after cleaning, the surface may be wiped with a cloth wrung as dry as possible from clear water.

One of the great advantages of rugs over carpets is that they can be taken out-of-doors more easily and often to be cleaned, thus removing the dirt from the house with them and lessening noise and confusion within. They should be turned face down on dry snow or grass, beaten with a flat carpet beater, and swept thoroughly on both sides. In some houses an electric plug is so placed that the vacuum cleaner can be used on the porch and the rugs cleaned there in the open air and sunshine. Beating or brushing rugs or carpets



hung over a line or shaking them is likely to strain or break the threads and loosen bindings. Pile rugs and carpets, whether made by hand or machine, should be rolled rather than folded while they are being carried from place to place.

Rag and light-weight cotton rugs may be washed in the tub like any other heavy colored material, but must be rinsed thoroughly in order to prevent them from looking grimy. Turning the hose on a rug or dashing pails of water over it is sometimes the easiest and most effective way of rinsing.

Other textile rugs and carpets when badly soiled may be placed on a table or other flat surface of convenient height and scrubbed with a heavy lather of mild soap and water, using either a brush or a sponge. As soon as a section is scrubbed clean, it should be rinsed thoroughly with water changed as often as it becomes discolored. This is a thorough method of cleaning, but may cause the rugs to shrink or change color, and therefore should be used with caution. It should not be tried for very thick-piled rugs unless one is sure the rug can be thoroughly and quickly dried; moisture left at the bottom of the pile may rot the threads. If possible, it is better to send valuable rugs to a good professional cleaner who has special apparatus for this work.

Fiber and grass rugs and mattings should be swept with a soft brush and may occasionally be wiped with a slightly damp cloth, or they may be cleaned with a vacuum machine. Water is likely to discolor floor coverings of this kind and must be used very sparingly if at all. When taken out of doors for more thorough cleaning they should be laid flat and swept on both sides but not beaten nor shaken. Grease and other stains may be removed in much the same way as from carpets.

#### RESIZING

After cleaning, a machine-made pile rug sometimes loses its shape, or wrinkles and curls up because the sizing on the back has worn off. Resizing will pay for itself in adding to the durability of the rug as well as making it look much better and can be done at home or by a carpet dealer. The rug should be stretched tight and true and tacked at frequent intervals face down on a floor or some other flat surface where it can remain undisturbed. It should then be sprinkled generously with a solution made by soaking and dissolving  $\frac{1}{4}$  pound of flake glue in  $\frac{1}{2}$  gallon of water in a double boiler or a container surrounded by hot water. The rug should be allowed to dry for at least 24 hours. If it is light weight, care should be taken not to put on so much glue that it penetrates to the right side.

#### REMOVING SPOTS AND STAINS

Spots and stains can be removed from rugs and carpets as from other textiles of similar material and color except that the process is more tedious because the fabric is heavy and sometimes clumsy to handle. All stains are of course easier to remove while fresh. Grease stains into which dust has settled are perhaps the commonest. Sometimes part of the grease and dirt can be scraped off with a dull knife and the rest scrubbed off with a soft brush and warm soapsuds, or absorbed by one or more applications of fuller's earth, French chalk, or

talcum powder, or by blotting paper and a warm iron. Or a solvent such as carbon tetrachloride, gasoline, or benzol may be used; the latter two are very inflammable and must not be used in the same room with an open fire or flame of any kind.

A freshly spilled liquid should not be rubbed from a carpet or rug, because this tends to drive it into the fabric. If possible, it should be covered at once with corn meal, talcum powder, blotting paper torn into bits, or any other absorbent material which will take it up and prevent its spreading.

Detailed directions for removing all kinds of stains are given in another bulletin of this series.<sup>4</sup>

#### MENDING

Mending holes, reinforcing worn places, or rebinding rugs or carpets will often add greatly to their appearance and serviceability. Different stitches, of course, are needed on the different weaves, but the housekeeper can learn them all with a little practice. The carpet to be mended should be carefully examined to see whether the warp or the filling threads, or both, need renewing or strengthening, and materials for mending should then be chosen that match the old ones in color and texture as nearly as possible. If colors can not be matched, neutral shades corresponding in tone may be used, or it might even pay to dye yarns.

Ingrains may be darned with the ordinary over-and-under stitch used on stockings and the pattern worked in afterwards, but Brussels, Axminsters, Wiltons, or any of the pile carpetings require a little

more complicated method. The linen, jute, or cotton back should first be darned in and then the pile made with loops of colored worsted yarn left uncut in Brussels and clipped in those with velvety surface (fig. 1). Curved scissors are especially convenient for this work. The pile stitch has to be adapted to the kind

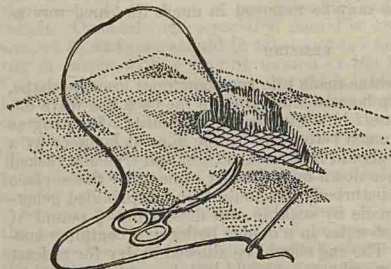


FIG. 1.—Mending a rug with the pile stitch

of carpet, but in each case should be securely anchored to the backing. Designs can be replaced so skillfully that mended places can hardly be detected. Oriental workers are particularly clever in mending handmade rugs and are employed in the workshops of all the large rug and carpet dealers, but equally satisfactory work can be done at home if plenty of time can be given to it.

Seams in carpets should be made on the wrong side by overhanding the two edges firmly together with strong linen thread. The seam is likely to be more even if sewn over a thick pole, as is done in

<sup>4</sup> Farmers' Bul. 1474. Stain Removal from Fabrics: Home Methods.

commercial establishments. Special carpet needles are on the market and will be found much more convenient for this work than ordinary ones.

Reinforcing small rugs with braid, binding rugs and carpets, and sewing on fringes can generally be done more satisfactorily by the sewing machine than by hand. A selvage similar to that on oriental rugs can be made by laying two or three rather heavy cords along the edge and darning them to the rug or carpet with over-and-under stitches set so close together that the cords are entirely covered and a flat narrow strip is formed (fig. 2). Black or neutral-colored wool and a strong needle with a large eye should be used. If the edge is very worn and ragged, it may first be reinforced by overcasting or whipping braid to the underside.

#### STORING

Carpets or rugs to be stored should first be thoroughly cleaned. They should then be spread out, covered with clean newspapers that

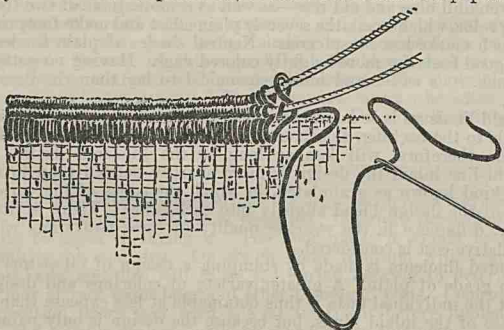


FIG. 2.—Wrong side of rug, showing method of weaving new edge

have been sprinkled with turpentine, gasoline, or benzine as a protection against moths, and before the liquid evaporates rolled tightly, on poles if possible, tied securely, wrapped in heavy paper, and the overlapping edges of the paper sealed with liquid glue. The rugs should then be stored in a clean, dry, cool place. If the cellar is the only storage place available the packages should be suspended from the joists, not allowed to lie on or near the floor where they will absorb dampness.

Fumigation by carbon disulphid, an excellent method of freeing carpets and rugs of moths or other insect pests, is described in another bulletin of this department.<sup>5</sup>

#### LINOLEUM AND SIMILAR MATERIALS

Linoleum is one of the best and most serviceable of all coverings for floors in kitchens, pantries, and bathrooms, and is being more

<sup>5</sup> Farmers' Bul. 799, Carbon Disulphid as an Insecticide.



and more widely used in combination with textile rugs in all the rooms of the house. It wears well, is easily cleaned, is impervious to grease and water spots, and has a smooth resilient surface comfortable to walk and stand on.

Linoleum is made by mixing together ground cork, oxidized linseed oil, and various gums into a plastic mass, and pressing, or "keying," as the manufacturers say, this onto a backing of jute burlap. "Green" linoleum is the term used for it at this stage, and in order to season it it is sent to drying rooms for from 1 to 6 weeks, depending on the thickness.

There are three general types of linoleum on the market: Plain, inlaid, and printed. The plain, as the name implies, has no design and the coloring matter is added to the plastic mass, or "mix," as it is technically called, before it is applied to the burlap backing. This kind of linoleum gives the floor an unobtrusive flat appearance that is restful and pleasing, and the good grades are extremely durable. It is made in a variety of colors—browns, grays, greens, and even dull blue and old rose—as well as combinations of two tones of one color, which break the severely plain effect and make footprints and such marks less conspicuous. Neutral shades of plain linoleum are a good basis for more brightly colored rugs. Having no pattern to match, it is easier and more economical to lay than the figured kinds.

Inlaid linoleum is so made that the color in each part of the design extends to the backing, as can be seen by examining the edge. The pattern, therefore, will last as long as the linoleum itself. In straight-line inlaid the design is more sharply defined than in the other kind known as granulated, in which the edges of the various parts of the design blend slightly into each other. There is little, if any, difference in the wearing quality of these two kinds when the relative cost is considered.

Printed linoleum is made by stamping a design of oil paints on a thin grade of plain. A greater variety of colorings and designs to suit the individual taste is thus obtainable at less expense than in the case of the inlaid kinds, but because the design is only painted on the surface and does not go through to the base, printed linoleums can not be expected to give such lasting service. They are, however, relatively inexpensive and are satisfactory in places where the wear is not excessive.

In general, the quality or grade of all linoleum depends on the proper seasoning and the thickness. The housekeeper must depend on the manufacturer and the dealer to judge the first point, but she herself before making a selection should look at the edges of the various pieces on sale and choose one of proper thickness for her purpose. Naturally, the thicker the material the more wear it will give, and where traffic is heavy the thicker will be found more economical in the long run. Smoothness of finish, which can be judged by the touch with a fair degree of accuracy, is another characteristic worth considering because it affects cleaning. The dirt does not grind into the smoother finished linoleums, and they are easier to clean than those with a rougher surface.

Plain linoleum is usually made in strips 6 feet wide, and inlaid and printed in strips 2, 2½, 3, and 4 yards wide, though the 2 and 4



yard widths are most common. The price of linoleum is generally given by the square yard, and the amount needed for a given space should be reckoned in square yards.

There are several types of floor coverings on the market somewhat similar in appearance to linoleum but manufactured differently. Among these is floor oilcloth which was formerly in very common use as an inexpensive floor covering but is not so often seen at present. It has a foundation of canvas, burlap, or similar material to which successive coats of waterproof paint are applied. The design is stamped on after the last coat of paint has dried and been rubbed smooth. Floor oilcloth is less expensive and also less durable than linoleum. It should not be confused with enameled oilcloth used for covering tables and shelves; the latter is made of other materials and by an entirely different process.

A much more common kind of floor covering to-day is that frequently designated as asphalt felt floor covering. This has a base of "felt or paper" which is saturated with asphaltum or similar material to make it waterproof, covered with several coats of paint or other protective and coloring materials, and finally printed on the upper surface with some design similar to those used on printed linoleums. Because of this superficial resemblance such products are sometimes confused with printed linoleums. The materials and processes used vary among different manufacturers who often market their goods under special trade names. The floor coverings are sometimes sold in the form of rugs as well as by the yard.

#### HOW TO LAY AND CARE FOR LINOLEUM

Unlike most other floor coverings, linoleum when once laid usually remains undisturbed until it is worn out; therefore particular care should be taken in laying it. The floor under it should be level, smooth, tight, and dry. On rough floors linoleum will wear unevenly, and moisture will cause the burlap backing to deteriorate and may attract water bugs and other household pests. Cement and composition floors may need special treatment before linoleum is laid, and reliable dealers should be consulted on this point.

In cold weather linoleum should be placed in a warm room for at least 48 hours before it is unrolled. If this precaution is not taken, the linoleum is likely to crack, because cold makes it brittle.

To lay linoleum properly requires some skill, and if the work is not properly done it may buckle and crack. Dealers can often give reliable directions, or, if possible, it is well to employ a trained worker who charges by the square yard and brings with him the needed tools and materials.

There are two ways of fastening linoleum to wood floors—tacking and cementing. The first is the simpler method, but by the second the seams and edges are made water-tight and the linoleum is said to give longer service. First of all, the quarter-round molding along the foot of the baseboard should be removed and the linoleum cut in strips running crosswise of the floor boards if possible. If it is to be tacked, the strips should be fitted snugly together along the seams but should not be fastened for three or four weeks, for linoleum usually expands when laid on a floor and if tacked down at once will buckle. To give plenty of room for this expansion it is a

good plan to trim back the edges next the baseboard for one-fourth or one-half inch or just enough so that the molding will cover the edge. The molding should then be nailed directly to the baseboard, leaving the linoleum free to expand and to be trimmed more next to the baseboard if necessary. The linoleum may be so perfectly held in place that it will not need to be tacked, but if it does, brads should be set one-eighth to one-fourth inch from the edge, about 3 to 4 inches apart, and driven well below the surface.

Linoleum may be cemented at the seams and edges directly to a wood floor or permanently cemented down firmly over a layer of deadening felt paper that has itself been pasted to the floor. Some manufacturers and dealers furnish printed directions for this method. The cement used should be waterproof and contain no silicate of soda (water glass), because this is injurious to the linoleum when moisture comes in contact with it.

Waxing or varnishing is said to improve the appearance of linoleum and to make it last longer. Wax should be used on the inlaid and plain kinds and varnish on the printed ones, for wax sometimes tends to soften the printed surface. If either of these finishes is applied, the linoleum is then cleaned and cared for like a wood floor so finished. If not given a special finish linoleum should be swept with a soft brush and dusted with an oiled or dry mop. Occasionally it should be cleaned more thoroughly with a cloth wrung out of suds made with lukewarm water and neutral soap, rinsed with clear water, and wiped dry with another cloth. Only a small space should be wet at a time, and a linoleum-covered floor should never be flooded. Strong soaps and cleaning powders that contain alkali injure linoleum and should never be used on it. Whenever any kind of cleaning powder is used on a particularly dirty spot care should be taken to remove any trace of the water in which the powder was dissolved.

Castors on heavy furniture are likely to cut into linoleum and should be replaced by glass or metal shoes having a wide bearing surface and no rough edges. In moving heavy pieces across linoleum the added precaution should be taken to place an old rug or carpet under them.

Floor oilcloth and the so-called asphalt felt floor coverings should be cleaned and cared for like printed linoleums.

### SUMMARY

Finished floors partly covered with rugs have made cleaning easier in many households. Also they are much more sanitary than carpeted floors, for the rugs can in most cases be taken out of doors frequently and cleaned, aired, and sunned. Much dust is thus taken out of the house instead of being scattered to settle again on furnishings and woodwork.

For the kitchen the ideal floor is easy to clean, attractive, durable, noiseless, odorless, comfortable to walk and stand on, not spoiled by water, and nonslippery when either wet or dry. Though all these points are difficult to combine in one material or finish, the housekeeper should keep them in mind in making a choice.

Varnish, shellac, wax, oil, and paint are used in finishing floors and vary not only in appearance but in the way they wear and the

amount of labor needed to apply and keep them in order. It pays to study these points before choosing the finish for a floor.

In general, wax and varnish are more suitable to use in living room, dining room, and bedroom, while oil and paint, being less likely to be damaged by water, are better for kitchen, pantries, and other places where water is likely to be spilled.

No matter what finish is chosen, the best materials are none too good to use and should be applied with suitable tools. A professional wood finisher would not attempt to paint or varnish a floor without the proper brushes, and the housekeeper should not expect to get good results with poor equipment and materials.

A neutral color darker in tone than the walls makes the floor look like what it really is, the foundation and often part of the background of a room.

Proper care of a finished floor is economy. Many times finishes applied at considerable outlay have been spoiled by neglect or because wrong cleaning materials were used on them.

Rugs and other floor coverings that are plain in color or inconspicuous in design are best for general use. Kinds that do not show footprints and are not soiled easily will generally give the most satisfactory service.

All rugs and carpets should be cleaned frequently and thoroughly. Dirt that is allowed to remain wears the fibers and becomes increasingly hard to remove.

Linoleum is widely used, especially on kitchen and pantry floors, and seems to give general satisfaction. In order to get the best service from it it must be laid over a smooth floor in such a way that it does not buckle and should be cleaned with a damp cloth wrung out of suds made with mild soap. Alkalis, strong soap, or the use of too much water will ruin linoleum.

The so-called asphalt felt floor coverings which bear a superficial resemblance to printed linoleum are widely used; they should be given the same general care as linoleum.

Every household should have a set of durable, carefully chosen tools for cleaning the floors and floor coverings. It saves the housekeeper's time and makes the house more orderly if these tools are neatly arranged in a convenient closet.

**ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE  
WHEN THIS PUBLICATION WAS LAST PRINTED**

---

<i>Secretary of Agriculture</i> .....	HENRY A. WALLACE.
<i>Under Secretary</i> .....	REXFORD G. TUGWELL.
<i>Assistant Secretary</i> .....	M. L. WILSON.
<i>Director of Extension Work</i> .....	C. W. WARBURTON.
<i>Director of Personnel</i> .....	W. W. STOCKBERGER.
<i>Director of Information</i> .....	M. S. EISENHOWER.
<i>Director of Finance</i> .....	W. A. JUMP.
<i>Solicitor</i> .....	MARTIN G. WHITE.
<i>Agricultural Adjustment Administration</i> ....	CHESTER C. DAVIS, <i>Administrator</i> .
<i>Bureau of Agricultural Economics</i> .....	A. G. BLACK, <i>Chief</i> .
<i>Bureau of Agricultural Engineering</i> .....	S. H. MCCRORY, <i>Chief</i> .
<i>Bureau of Animal Industry</i> .....	JOHN R. MOHLER, <i>Chief</i> .
<i>Bureau of Biological Survey</i> .....	IRA N. GABRIELSON, <i>Chief</i> .
<i>Bureau of Chemistry and Soils</i> .....	H. G. KNIGHT, <i>Chief</i> .
<i>Bureau of Dairy Industry</i> .....	O. E. REED, <i>Chief</i> .
<i>Bureau of Entomology and Plant Quarantine</i> ..	LEE A. STRONG, <i>Chief</i> .
<i>Office of Experiment Stations</i> .....	JAMES T. JARDINE, <i>Chief</i> .
<i>Food and Drug Administration</i> .....	WALTER G. CAMPBELL, <i>Chief</i> .
<i>Forest Service</i> .....	FERDINAND A. SILCOX, <i>Chief</i> .
<i>Grain Futures Administration</i> .....	J. W. T. DUVEL, <i>Chief</i> .
<i>Bureau of Home Economics</i> .....	LOUISE STANLEY, <i>Chief</i> .
<i>Library</i> .....	CLARIBEL R. BARNETT, <i>Librarian</i> .
<i>Bureau of Plant Industry</i> .....	FREDERICK D. RICHEY, <i>Chief</i> .
<i>Bureau of Public Roads</i> .....	THOMAS H. MACDONALD, <i>Chief</i> .
<i>Soil Conservation Service</i> .....	H. H. BENNETT, <i>Chief</i> .
<i>Weather Bureau</i> .....	WILLIS R. GREGG, <i>Chief</i> .



## DURABLE FLOOR FINISHES

*Extension Home Management Specialists*

Floor finishes which are attractive in appearance, durable to wear, and easy to repair and care for may be had for small money expenditure.

An attractive floor will be dark enough in color to act as a supporting background for the rest of the room, and will present an unbroken finish of uniform color and texture.

The durability of a floor is influenced by the amount of wear it will receive. Finishes which will penetrate into the wood before hardening will withstand wear better than those finishes which harden as a film on top of the wood. Likewise the hard woods wear better than the soft woods. The pine most used for flooring in this state is sufficiently hard to make satisfactory floors. Long-leaf and red spruce are specified as the best varieties in *Farmers' Bulletin 1219* which contains a complete discussion of Floors and Floor Coverings, and which may be had upon request from U. S. Department of Agriculture, Washington, D. C.

Unfinished floors require scrubbing, which makes caring for these floors very costly in human energy. The continued use of water on floors produces cracks, causes the boards to warp, and finally to splinter. All floors should be finished to protect the wood and to make care easier. The following methods have been found satisfactory under varying conditions but care must be exercised in selecting the one best suited to your situation:

### OILED FINISH

This is one of the least expensive penetrating finishes and is especially satisfactory on pine and other close-grained woods.

**Mixture for Oiling:** Only boiled linseed oil should be used. Oil will darken the wood, therefore some people prefer to use part turpentine, one-third or one-half of turpentine being satisfactory proportions. A suggested mixture might be 4 quarts boiled linseed oil, 2 quarts turpentine, and 1 pint Japan drier. Synthetic turpentine is satisfactory. A small amount of Japan drier hastens the drying but is optional.

#### Directions for Oiling a Floor:

1. Plane if necessary to make the floor level. Set or remove all nails protruding above the surface. If necessary to do so, fill the cracks.
2. Sandpaper to obtain a hard, smooth surface. This is especially desirable if the oil is to be followed with wax. Dust very thoroughly.
3. Apply hot boiled linseed oil or the oil mixture, using a paint brush.

**Note:** Linseed oil may be heated over a fire. A mixture of oil and turpentine must be heated in a double boiler because turpentine is inflammable. All cloths upon which floor finishes are used should be kept in tin boxes open to the air, because of fire hazard.

4. Allow to dry 30-45 minutes and wipe up any excess oil with a dry cloth. Allow to dry for 24 hours.
5. If wood is not thoroughly filled with oil, repeat steps 3 and 4. Most floors will absorb two coats of oil.
6. Polish with a weighted brush.

**Cautions:** This finish cannot be used on floors previously finished with shellac, varnish, or paint unless all traces of these finishes are first removed.

#### **WAXED FLOOR—Pine or Other Close-grained Wood**

**An Old Floor:** Follow steps 1 to 4 under Directions for Oiling a Floor.

5. Apply a thin coat of paste wax crosswise of the grain of wood. This is best done by wrapping the wax in several layers of cheesecloth. A very thin coat wears better than a thicker one. Also it will not be slippery.
6. Polish with a weighted brush.
7. Repeat 5 and 6 until the desired surface is obtained and as often thereafter as wear necessitates.

**A New Floor:** Oil darkens new wood slowly so it may be desirable to substitute a coat of stain for the oil mixture in step 3 above, or add the stain to the oil mixture. Amounts should be measured carefully and the mixture should first be tried out on a sample of the new flooring until a satisfactory color of stain is secured. Stain may be commercial or home-made.

#### **WAXED FLOOR—Oak and Other Coarse-grained Wood**

Because of the large pores of oak wood, a smooth, hard finish is best obtained by using a paste wood filler as directed on the can. Unless a floor of extremely light color is desired, oak must also be stained.

**To Wax an Oak Floor:**

1. Have floor smooth, dry and clean.
2. Apply paste wood filler as directed on container.
3. Brush in a stain of desired color, as directed on container.
4. When dry apply thin coat of sealer.
5. After drying at least 12 hours, sandpaper lightly.
6. Apply a waxed finish as directed above.

#### **REPAIR OF OILED AND WAXED FLOORS**

The fact that oil and wax penetrate into the pores of the wood prevents the finish presenting a scratched surface but hard wear makes repair necessary. For an oiled floor this consists of polishing the worn spot with a cloth wet with hot oil, or if the spot is very worn, oil is brushed on as in the original finish.

For a waxed floor the spot is rubbed with turpentine and fine steel wool, all soil so loosened is wiped up, and a new coat of wax applied and polished.

**Advantages and Disadvantages:** An oiled floor is especially suitable for those rooms into which there is heavy traffic so that occasional mopping is necessary. The oil protects the wood from injury and itself is not materially injured by water. Oiled floors do darken with age although they can

easily be made lighter by mopping with soap powder. If properly finished they will not track or hold dust.

A floor finished with wax presents a finer, softer luster and will remain somewhat lighter in color than an oiled floor. A waxed finish is preferable to oil for coarse-grained hard woods, such as oak.

**Note:** There are available commercial penetrating finishes which are very satisfactory, although more expensive than the above suggestions.

### VARNISHED FLOORS

Use only the best grade of clear floor varnish and apply three coats as the original finish. Floor varnish is elastic and therefore wears better than other finishes which remain on the surface of the wood.

1. Have floor clean, smooth, and dry.
2. For oak or coarse-grained wood, apply a paste wood filler.
3. Apply a stain of color desired and allow to dry.
4. When dry apply one thin coat of varnish. Allow to dry 48 hours. Sandpaper lightly.
5. Apply second coat, allow to dry, sandpaper, and—
6. Apply third coat.

### PAINTED FLOORS

Paint, being an opaque substance, is used when desirable to hide the quality of the wood beneath. Select a floor enamel or floor and deck paint of good color. Any floor finish should be tried out first, where possible, on a sample or on an inconspicuous part of the floor. Apply three thin coats, or apply two coats of paint and finish with a coat of the best grade of floor varnish.

**Cautions:** Avoid ground color paint on floors;

Avoid all colored or stained varnishes; and

Avoid shellac as a floor finish.

### TO REMOVE THE OLD FINISHES

If paint or varnish is worn off so that the wood shows in many places, the old finish should be removed.

Paint, varnish, and shellac may be removed with commercial varnish remover or with lye paste. Lye paste is made by adding 5 tablespoons of lye to a quart of thick boiled starch solution. Thick starch proportions are: four level tablespoons flour to each cup of water. To use:

(1) Apply to the floor with a cotton swab or a vegetable fiber brush. Work on a small area (about 3 square feet) at a time. This is very important!

(2) Allow to stand until finish is softened. This may be about 25 minutes for paint, less for varnish.

(3) Scrape off the softened finish with a broad-edged paint scraper and wipe up with coarse burlap.

(4) Rinse the cleaned spot with water containing 1 cup vinegar to a gallon of water, and then rinse several times with clear water.

**Note:** Floors from which the old finish is so removed should be sandpapered before refinishing.

There are commercial preparations less expensive than varnish remover on the market which will remove the finish from floors without raising the grain of the wood as the lye solution will do.

### HOME-MADE FINISHES

#### Paste Floor Wax:

$\frac{1}{4}$ lb. beeswax	$\frac{1}{2}$ cup raw linseed oil
1 lb. paraffin	$2\frac{1}{2}$ cups turpentine

Melt the beeswax and the paraffin, remove from heat and add the linseed oil and turpentine and stir vigorously. Turpentine is highly inflammable, therefore, care must be taken to heat ingredients only by setting over hot water and to have no flames in the room.

**Stains:** Care should be taken to apply even coats of oil stain. When a darker color is desired, use two coats of stain rather than one heavy coat. Water stains penetrate rapidly and the floor should be wet with water before the stain is applied. Use a fairly dry brush in applying stains.

**Oil Stain for Pine:** Thin 1 teaspoonful of burnt umber in oil and add turpentine to make one pint. Brush onto the floor until of the tone desired.

#### Oak Stain:

$\frac{1}{2}$ lb. raw sienna (ground in oil)	1 pint ground Japan drier
2 oz. raw umber (ground in oil)	1 pint turpentine
1 pint boiled linseed oil	

Place ingredients in bottle and shake vigorously.

#### Walnut Hull Stain:

Soak 1 peck of green, matured walnut hulls in 1 gallon of water for 48 hours. Strain. Test to see that color is not too dark. This stain may be used on oak or chestnut. For pine, add 1 teaspoonful of permanganate of potash dissolved in small amount of water.

#### Crack Fillers:

Crack filler may be made by soaking blotting or newspaper in boiling water to make a thick pulp. Melt some cabinet glue in a little water and combine the mixture. Add whiting to make stiff paste. Stain to match the floor. Mix thoroughly and press into the cracks while warm. Smooth off with a putty knife. Newspaper may need to be run through a food chopper to make a pulp. Fine, clean sawdust may be substituted for the paper in this recipe.



### IMPROVING INTERIOR WALLS

My dear Home Demonstration Club Member:

Your study sheet this month is coming in the form of a letter because I want you to write me your experience regarding the points I'm going to discuss with you.

Last year when 28,000 house occupants were asked what improvements they desired most to make, or have made, in these houses about 2/3 replied "interior walls." I am outlining below such facts about successful experience in wall finishing as I have at hand, but we need to know satisfactory methods you have used, especially with the lower-cost finishes.

I - Types of Walls and Finishes for each Type:

Plaster walls may be wall papered or painted with either oil or water paint.

Composition Boards may be finished as for plastered walls.

Ceiled Walls may be finished to preserve the grain of the wood. They may also be painted with oil or water paint or finished with wall oilcloth or wallpaper.

II - Types of Wall Paints and Their Uses:

Oil Paints may be had in a flat satin finish, in semi-gloss, in enamel Water Paints, or variations of whitewash.

All oil paints are washable. Water paint is not and must be removed before repainting or applying any other type of finish. Water Paint is used only on wall surfaces, not for woodwork.

Flat or Satin finished oil paint is used for walls and semi-gloss for the woodwork.

Semi-gloss (or enamel) is used for kitchen walls as it washes more readily than flat paint.

III - Notes on Finishing Plastered Walls with Paint:

To Fill Cracks: Clean cracks so that they are V-shaped with the narrower opening at the surface. Use patching plaster as directed on container. (We may well give attention to faulty foundations and other reasons for cracked plaster). Allow new plaster to become thoroughly dry before applying finish. Also size and patch before finishing.

Sizing: A sizing coat is necessary to fill up the pores in the plaster and make a base for the finishing coats. For Oil Paint - use a commercial sizing or equal parts of interior varnish and turpentine. For Water Paint or Wallpaper use 1 oz. of pulverized glue dissolved in each quart of water.

Rough Plastered Walls should be gone over with a block of wood or brick to remove any loose pieces and to make as smooth as possible.

Previously Finished Walls: If water paint, wash off thoroughly with warm water and size. If oil painted, wash with a light soap powder suds to remove all smoke and greasy deposit. Sizing is not necessary to repaint oil painted walls. If wall papered, remove the paper by moistening with warm water, and then wash walls to remove traces of paste before painting and size if walls are to be painted. Any stains or patches in the plaster should be shellaced before painting.

Water finishes on Plaster: Size wall. Apply finish with a wide brush in large irregular overlapping strokes.

Oil Finish on Plaster: Prepare walls as suggested and size. Three coats of oil paint are necessary to a perfect finish - a priming coat, a body coat, and a finishing coat. The priming and sizing may be applied at one time by adding enough paint to the varnish sizing to color it. In case only two coats are used the body coat is omitted. Unless there is a decided change in color one coat gives a satisfactory re-painting job.

Method of Applying Oil Paint: Use a flat brush for wall work. Begin opposite the strongest light. Work from ceiling to floor in narrow strips so that joinings may be made before paint begins to set. Apply paint quickly to cover all surfaces, then go over it immediately with very light vertical strokes made in a slightly semi-circular shape.

#### IV - WATER PAINTS - Types and Uses

Many brands of water paints are on the market, some seemingly more durable than others. On the whole they show less tendency to rub off and water spot than homemade ones. However, many walls have been satisfactorily finished with clay similar to that used for fireplaces, with the carbide residue from acetylene lighting plants, and with whitewash.

Clay washes are the least expensive when the clay is at hand. One cup of kerosene may be added to each gallon of wash. This is used chiefly upon wood walls.

Carbide residue is mixed with the desired amount of powdered color, as yellow ochre, and then thinned with a glue sizing mixture. The glue acts as a binder to prevent lime from rubbing off.

A whitewash recommended by the Dept. of Lighthouse, for wood, brick, and stone is:

"Slake half a bushel of unslaked lime with boiling water, keeping it covered during the process. Strain it and add a peck of salt dissolved in warm water; 3 pounds of ground rice put in boiling water and boiled to a thin paste; half a pound of powdered Spanish Whiting and a pound of clear glue dissolved in warm water; mix these well together and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and when used put it on as hot as possible with painter's or whitewash brushes."

Another government formula for interior work is:

(a) Carefully slake half of a bushel (38 pounds) of good quicklime, strain the paste, while still thick, through wire fly screen, add about 4 gallons of water and allow to cool.

(b) Dissolve 3 pounds of borax (better trisodium phosphate) in about 3 gallons of skimmed milk (better in 1 gallon of water, which is afterwards added to 5 pounds of casein previously softened for 2 hours in 2 gallons of hot water).

(c) Dissolve 3 pints of formaldehyde in about 3 gallons of water. When the lime paste (a) and the milk (or casein solution (b) are thoroughly cool, slowly add the milk (or casein solution (b) to the lime (a) stirring constantly. Just before using slowly add the formaldehyde solution (c) to the batch, stirring constantly and vigorously. Adding the formaldehyde too rapidly may cause the casein to jelly, thus spoiling the mixture.

Caution: If all of this mixture cannot be used in one day, use only half, or third, or other fractional part of each of the three parts (a, b, and c), and mix the rest as required. One sack (50 pounds) of hydrated lime, which has been well protected from the air, can be used in place of the freshly slaked lime. It should first be made into a paste by mixing it thoroughly with about 7 gallons of water.

V - CEILED WALLS:

Finishing ceiled walls with paint obscures the grain of the wood and makes the cracks conspicuous. Therefore, a finish which retains the grain of the wood is preferable. This may be an oil or acid stain in any desired color or one of the newer wood finishes which combines a stain and wax.

Water Paint - Whitewash, Clay or Water Paints may be used on wood walls and ceilings without sizing.

For Oil Paint the first coat should be a priming coat of paint thinned with turpentine. Before painting all knot holes should be shellaced to prevent resin staining the paint.

To Wall Paper - Wall oilcloth with its cloth back may be applied directly to ceiled walls. In other cases ceiling must first be covered with unbleached muslin of fair quality. Shrink this, remove selvages and sew into a sheet 6" longer than wall space to be covered. Dip in glue sizing and wring. Tack to one side of space with copper or galvanized tacks, stretch tight on wall and tack at opposite side. When dry proceed with papering as usual.

Obtain tools and instructions for hanging wallpaper when the same is purchased.

VI - Choosing Color and Design for Walls:

To be friendly and artistic rooms need color and design. The proportion of designed to plain surface should be about 2 to 3. The need of plain or figured surface should be taken into consideration in choosing type of wall finish. The color or colors chosen for the wall should be part of the color plan for the entire room.

Two characteristics especially desirable in wall color are lightness and low intensity - soft, well neutralized colors. Ivory, cream, buff, beige and other yellowish tones are general favorites as they are considered safe choices. They add a feeling of sunlight in rooms of cool exposure but may be too warm for warm exposures. Gray is an excellent choice if used very light in value. Warm grays are preferable to cold grays. Green is another color which lends itself graciously to many exposures and color schemes. There are warm greens tinged with yellow and cool greens containing some blue. All wall colors should be light and very subdued in intensity.



To increase appearance of room size or for restful backgrounds it is desirable to avoid wide differences in value (light and dark). Wood trims will be painted with semi-gloss paint and walls with flat, but they may be the same color and value, or the woodwork may be two tones lighter or darker. Avoid all papers having very light and very dark colors as part of the design.

Design - What has been said about intensity and value of a color applies also to designed surfaces. In considering designs, the size of the design should be in scale to size of the room. Designs in backgrounds should be conventionalized. Formal designs should be chosen for formal rooms in the house. Rooms in which little time is spent, as hall and dining room, may have bold, cheerful designs. Living rooms and bed rooms should have restful, inconspicuous designs, the formal and informal respectively.

Lines and designs may also be used to change the apparent size and shape of a room:

1. To make a room appear larger, use lines and designs that lead the eye to the corners and away from the center. Use light colors and avoid dark, heavy lines.

2. To make a room appear smaller, use lines and designs that lead the eye to the center and away from the corners. Use dark colors and avoid light, airy lines.

3. To make a room appear taller, use vertical lines and designs. Avoid horizontal lines and designs. Use light colors and avoid dark, heavy lines.

4. To make a room appear wider, use horizontal lines and designs. Avoid vertical lines and designs. Use light colors and avoid dark, heavy lines.



---

## COMMERCIAL RUGS

### What to Look for In Choosing

In choosing rugs one should consider:

1. Purpose of rugs in general.
2. Purpose of the particular rug one plans to buy.
3. Place the rug is to be used.
4. The wear it will probably get.
5. Suitability of Design and Color as a background for furnishings.
6. Durability and ease of cleaning.

The quality of rugs may vary with the rooms in which they are to be used. Since the living room is the most used room, it should have a strong durable rug. The parlor or bedroom rug might be a little less durable, although a good rug in any case is economy in the long run.

The colors and durability of a rug depend to a great extent upon the raw material of which it is made. Worsted, woolen, linen, cotton, hemp and jute are most commonly used in rug making. Worsted rugs with linen warp wear best but have the largest initial cost.

The wearing quality of a rug depends also on the way it is made. It may be woven as ordinary cloth or woven with a pile weave. The pile weave produces a raised surface of tiny loops which may or may not be cut. A short thick pile will give long wear, a cut pile gives a richer effect than the uncut but is much harder to keep clean especially where a good vacuum cleaner is not available.

With so many names and makes on the market today, it is almost impossible for the homemaker to become an expert judge of rugs without intensive study and experience, but every one can learn to distinguish the more common kinds and know their chief characteristics. There are many types of domestic carpets on the market today and are known by many varying trade names. Most of them belong to one or the other of the following groups: Wilton, Brussels, Axminster, Velvet and Chenille. The quality of the carpet or rug depends on:

1. The quality of wool used. Worsted wool is best.
2. The number of shots per loop of pile.
3. The number of tufts per pile per square inch.
4. The type of rug or carpet.

The Wilton is a closely woven heavy rug, with short cut pile which gives a plush-like appearance. Colors are deep and rich. It is expensive, but very serviceable.

The pile of the Brussels is uncut, and the loops of worsted yarn form ribs across the surface. The more ribs to the inch the better the quality of the carpet. This type is comparatively inexpensive, gives good wear for the price and is easier to clean than the cut pile, but lacks the beautiful and rich appearance of the cut pile rugs.

The Administer has a long, soft pile which is more likely to wear off and pull out than the shorter pile rugs. Designs and colors are usually poor except in the "Early American" or hooked rug patterns.

Chenilles are the most expensive and luxurious of all domestic carpets. They are not made of yarn, but thick chenille cord of wool or rayon. The background is wool instead of linen. This makes a softer but less durable carpet. They are usually made to order in any size or color, and do not give proportionate value for their cost.

Ingrain is an inexpensive, reversible material for carpets or rugs in which the pattern is produced by the interlacing of threads and it has no pile. Those made of all wool give good service, but, as the Brussels, lack the beauty of the cut pile rugs.

Linen rugs are desirable because they are moderately priced, wear well come in a great variety of plain or mixed colors, and are especially good in halls, sunrooms, porches, dining rooms or wherever a plain effect is desired.

Fiber or grass rugs are good for indoor and outdoor porches. Plain, geometric designs, stripes or plaids are best. Natural or realistic floral designs are very poor and should be avoided in any kind of floor covering.

Linoleum is made of ground cork and boiled linseed oil and has a backing of burlap or felt paper. It varies in cost and quality, is very comfortable to walk on, and is excellent for kitchens, bathrooms, and in some cases, dining rooms where plain, subdued colors should be used. Imitations of wood grains, marble or tile should be avoided. They are not desirable. Because of its coldness linoleum should not be used in living rooms or bed rooms. If a large fabric rug can't be afforded for these rooms, several small throw rugs, such as homemade rugs, are much to be preferred. Printed linoleum has the design only on the surface; the inlaid patterns and the jaspé effects extend all the way through the linoleum to the backing. This latter type is very expensive but no more expensive in the long run than the printed and at the same time gives more satisfaction. Linoleums should be waxed, varnished with high quality clear floor varnish, or treated with preparations made especially for that purpose. This certainly prolongs the life of any linoleum.

Rugs will last much longer if good care is taken of them while in use. The most satisfactory method of cleaning is with a vacuum cleaner. Beating is injurious to nap and fiber and should not be done especially with metal or extremely hard, stiff rods. In sweeping a rug or carpet we should sweep with the nap and not against it.

In a sunny room move the rug occasionally so that all parts will be exposed evenly. Move large pieces of furniture also occasionally to avoid mashed, shiny streaks.

Pads should be used under good pile rugs. They add greatly to the life of rugs and the cost varies according to the quality and thickness. If rugs must be laid over uneven floor boards, fill in the low places, at least, with good heavy paper. This makes for less wear on the rug and more comfort in walking on it. There is a special non-skid pad material on the market for small rugs.

Look for quality in rugs.

# LEADER'S OUTLINE IN RUG MAKING

Facts	What to say	What to show
<b><u>BURLAP RUGS:</u></b>		
1. Types	There are two types of burlap rugs. Fringed and Braided.	Show each.
2. Uses of each	Braided burlap will stand hard wear and has a rather coarse texture. Fringed burlap has a soft, slightly silky looking pile. Care should be taken to use them in a room with similar textures and in good color combinations.	If possible have a piece of upholstery and curtain material that is good with each type of rug you show.
3. To make a Fringed Rug.	<p>(a) Prepare a foundation of burlap the desired size by turning raw edges in 2 inches to upper side and stitching. Proportions: 2x3; 3x5 or 5x7 are good.</p> <p>(b) Have burlap clean and dyed if color is desired. Cut into 2 inch bias strips or 2½ inch straight strips. (In fringing straight strips one half the threads are lost). Average sized rug requires about 6 sacks.</p> <p>(c) Strips may be stitched across the foundation from end to end or round and round from the outside in. For bias strips stitch first strip through the center so that stitching comes on the edge of the foundation. Turn raw edges out and stitch the next strip ½ inch inside the first strip. Comb out the bias leaving single threads brushed even and parallel toward outside of the rug. Continue until foundation is covered.</p> <p>For straight strips fringe out each side leaving ¾ inch in center, fold and stitch to foundation 1 inch apart until the foundation is covered. Fringed edge turned to outside, stitching done on folded center</p>	<p>Have paper foundations to show in good and poor proportions.</p> <p>Show finished rugs or sample of fringed rugs made with straight and bias pieces.</p>
4. To make a Braided Rug.	Cut straight strips 3 inches wide. Fold raw edges to center, fold again and press, leaving strips ¾ inches wide for braiding. Join strips as you braid.	Show how to fold and press by drawing under an inch and half stitch made by placing large pin in ironing board cover.

AGRICULTURE AND HOME ECONOMICS EXTENSION  
 DIVISION OF HOME DEMONSTRATION WORK  
 State College, Raleigh, N. C.  
 HELEN N. ESTABROOK  
 Home Management and House Furnishings  
 Specialist

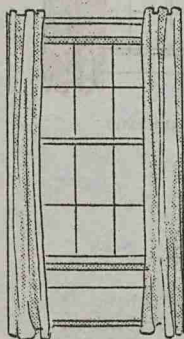


Facts	What to Say	What to Show
Proportions	<u>To braid</u> fold the edge strands in at an angle of 45 degrees so that braid is perfectly flat, even and firm.	Demonstrate braiding with 3 strands till turning of strand is understood. Then teach 4 and 5 strand if desired.
	<u>To join strips</u> sew on the true bias, opening raw edges out before refolding the strips. Do not join more than one strand at the same place in the braid.	
	<u>Sew rug</u> as you braid in order that braid may be curved smoothly at the ends and straight edges of braids brought parallel for sewing. Sew with heavy cord and invisible stitching so that rug will be double faced.	Demonstrate how needle is slid under alternate strands of braid to be joined.
Proportions	Pleasing proportions are suggested above. To get these subtract the desired width from the desired length and start rug with center braid of this length.	



## DRAPERIES

Over-curtains or draperies are those which are placed about the window, usually covering the casing. They may be used with or without glass curtains. The present vogue for light and air and garden views creates a tendency toward omitting glass curtains. Over-curtains may be hung to draw over window, thus taking the place of window shades.

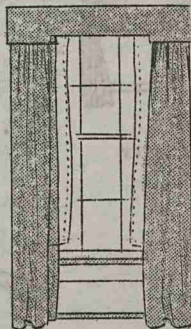


Draperies well hung. Simple and dignified.

Materials: Chintz, cretonne, damask, brocade, printed linen, tapestry, casement cloth, Japanese crepe, sateen, terry cloth, osnaburg, etc.

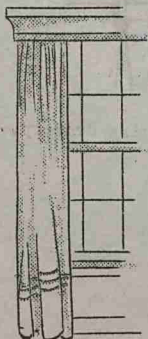
Points in Selecting: Following points should be carefully considered in making a selection:

1. Does the color suit the color of walls, rugs and furniture?
2. Does the texture harmonize with the style of the room?
3. Does the design suit the type of furniture and the size of the room?
4. Is the selection harmonious with other rooms opening together?



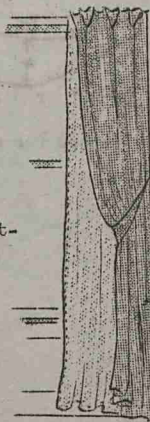
Curtains, draperies and valance.

Length: Draperies are hung to just clear the floor. Informality or usefulness may be a reason for hanging draperies only to the bottom of the apron (wood under window sill). The length of drapery and the valance arrangement may also be used to affect the apparent proportions of a window.



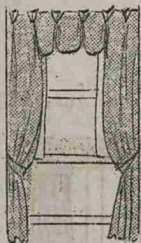
Wood cornice as finish for window draperies.

Making: Care and accuracy are essential in making draperies. Place material full length upon a flat surface while working. Draperies may be lined to protect from sun and add to opaqueness, the much of the material available at present is sun-fast and of quality rendering lining unnecessary. To line, make the lining 2 inches narrower than the material, thus allowing an inch turn back of material at either edge. Hem drapery and lining separately at the bottom. Edge finish for printed, informal material is often a binding of contrasting or harmonizing color. Silky and dressy textures may be finished plain or with shaped edges, while brocades and damask call for gimp fringe or invisible hems.

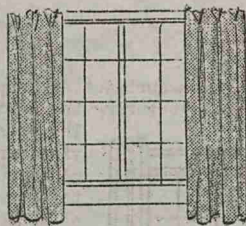


Draperies hung with French plait and tieback.

Hanging: Draperies should be hung so they will fall in graceful folds. This may be accomplished by hanging on a pole with rings or straps of material placed behind either box or French plaits. Draperies hang straight unless special conditions call for tiebacks. If tiebacks are used, they should be generous in length.

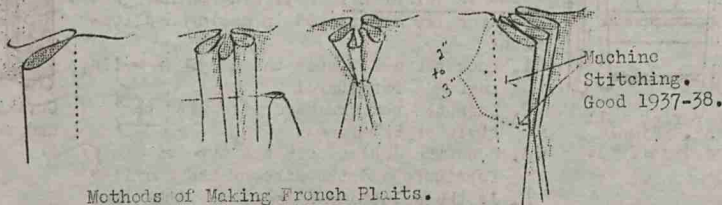


Shaped Drapery



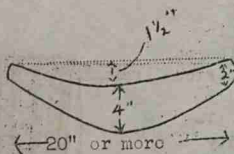
Draw Curtains

Note: Problems regarding window curtaining are fully discussed in Farmers' Bulletin No. 1633, "Window Curtaining." Write your representative at Washington, D. C., for a copy.

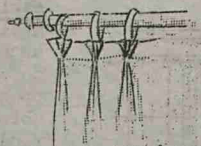


Methods of Making French Plaits.

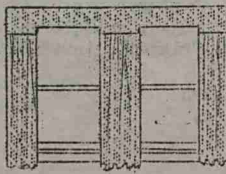
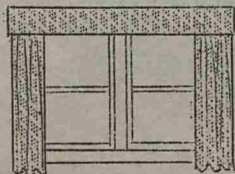
If draperies are to be French plaited, crinoline or a strip of window shade fabric the width of the top hem (2" to 3½") should be enclosed in the hem. This makes the French plaits stand nice and rigid and prevents drooping.



Pattern for a tieback.



Loops for hanging drapery.



Drapery arrangements for groups of windows.

U.S. DEPARTMENT OF AGRICULTURE  
FARMER'S BULLETIN No. 1633

# WINDOW CURTAINING



## TYPICAL CURTAIN FABRICS

**C**URTAIN FABRICS for every type of house and window can be found in 100 or more standard and novelty materials on the market. This brief list merely suggests the range of cottons, silks, wools, and rayons suitable for glass curtains and draperies:

### FOR GLASS CURTAINS

Batiste.	Marquissette.	Pongee.
Cheesecloth.	Mull.	Scrim.
Dimity.	Nets and laces.	Swiss.
Lawn.	Organdie.	Theatrical gauze.
Madras.	Pineapple cloth.	Voile.

### FOR SIDE DRAPERIES AND DRAW CURTAINS

Armure.	Damask.	Prints.
Brocade.	Drapery denim.	Rep.
Burlap.	Gingham.	Satin.
Casement cloth.	Japanese crêpe.	Showerproof fabrics (for bathroom and kitchen).
Challie.	Madras.	Taffeta.
Chintz.	Mohair.	Terry cloth.
Corduroy.	Monk's cloth.	Velour.
Cotton homespun.	Osnaburg.	Velvet.
Crash.	Percale.	Velveteen.
Cretonne.	Poplin.	

---

This bulletin is a revision of and supersedes Farmers' Bulletin 1516, Principles of Window Curtaining.

Washington, D. C.

September, 1930



# WINDOW CURTAINING<sup>1</sup>

By BESS M. VIEMONT, *Assistant Specialist in Textiles and Clothing, Textiles and Clothing Division, Bureau of Home Economics*

## CONTENTS

	Page		Page
Art principles applied to window curtaining.....	1	Curtains for different rooms.....	14
Proportion.....	2	Living room.....	16
Line.....	2	Dining room and sun room.....	17
Color.....	3	Bedrooms.....	17
Fabric texture and pattern.....	6	Kitchen.....	19
Kinds and uses of window curtains.....	8	Methods of making and hanging curtains.....	19
Glass curtains.....	8	Types of curtain rods and valance boards.....	20
Side draperies.....	9	Glass curtains and draw curtains.....	21
Valances.....	9	Side draperies.....	25
Draw curtains.....	10	Valances.....	27
Shades.....	10	Shades.....	28
Curtains for special types of windows.....	12		
Group and bay windows.....	12		
Casement windows.....	13		
Arched windows, doors, and side lights.....	13		

CURTAINS are one of the leading items in the outlay for household textiles. To curtain the windows of even a 5-room house about 60 yards of material are needed, and every few years curtains must be replaced. Since the attractiveness of a house depends in large measure on the success of the curtains, this bulletin has been planned as a guide for the home maker in selecting, making, and hanging curtains suitable for the average home.

The type of window treatment to choose depends upon the part it is to play in the decorative scheme as a whole and upon the purposes it must serve. Curtains may be used to exclude an unpleasant view, to soften and diffuse the light coming through the window, or to frame an attractive outlook. Through careful choice of colors and textures, draperies may also serve as a connecting link between the walls and other furnishings.

Making curtains and draperies is not difficult. It is more economical in the long run to select durable material that will withstand sunlight and tubbing and make curtains at home than to expend the same amount of money for ready-made curtains of poorer quality. Careful measurements and accurate cutting are most important for good results. Detailed directions for making different kinds of curtains are given on pages 19 to 29.

## ART PRINCIPLES APPLIED TO WINDOW CURTAINING

Planning curtains is not a matter of inspiration alone. There are definite laws to aid in deciding what kind of curtains should be used in various rooms and with different types of furnishings. An understanding of these design principles simplifies planning of draperies and makes it possible to tell ahead of time what will be the effect of certain arrangements (Fig. 1).

<sup>1</sup> This bulletin is a revision of Farmers' Bulletin 1516, Principles of Window Curtaining, by Mary Aileen Davis, formerly Junior Specialist in Textiles and Clothing, and acknowledgment is hereby made for the portions of text and the illustrations that appeared in the earlier publication.

Window curtains, together with walls, floor, and ceiling, form the background for the furniture and occupants of a room. Curtains may give accent to the room through appropriate choice of color and line, but in most cases they should be subordinate in interest. Any room generally needs two or more centers of interest, but they must be so planned as to balance each other. If the curtains vie with the rugs, the rugs with the davenport, and the davenport with the pictures for dominance, there is lack of repose. The lines, mass, color, and texture of the draperies must be so carefully planned that they blend quietly into the rest of the room.

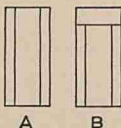


FIGURE 1.—The lengthening effect of vertical lines and the broadening effect of horizontal lines in curtaining windows. B appears shorter and wider than A because of the horizontal line at the top

### PROPORTION

Proportion is the relationship of all parts of an object to the whole and to each other. In planning window curtains, problems in proportion arise when the width of valances, the width and position of side draperies and trimming bands, and the size of pattern in the fabric are being considered. According to the Greek law of proportion, the ratio between units should be approximately 3 to 5, 5 to 8, 8 to 13, and so on. In other words, equal spaces are uninteresting and mechanical and are to be avoided. Interest is created only when the spaces or masses are so well proportioned that they are not immediately evident, and the eye is led to calculate the relation of one to the other.

The lower edge of curtains and draperies should be in a line with some structural part of the wall. Glass curtains usually reach to the sill, but side draperies should come to the sill, to the bottom of the apron, to the top of the baseboard, or should barely escape the floor.

Oftentimes the unsightly effect of a poorly proportioned window may be overcome through choice of materials and arrangement of side draperies and valances. Thus, if a window is too broad and low, the side draperies may be of a fabric with vertical stripes, and spread over part of the window to reduce the expanse of glass. The valance can be placed above the casing so as just to reach the glass; or it may be reduced to a mere ruffle, or omitted entirely.

To make a tall, narrow window appear average in height and width the rods may be mounted on the wall instead of on the casing so that the draperies come just to the glass. (Fig. 2.) Sill-length draperies lessen the apparent height still more. To give the same effect, material with a large sprawling design or horizontal stripes may be chosen.

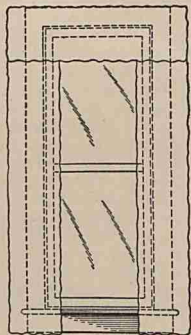


FIGURE 2.—Proportions of a tall window modified by placing the curtain rod out on the wall

### LINE

Line has been defined as the direction in which the eye is carried by prominent structural or decorative parts of an object. Thus the lines

of a curtain are determined by the way the curtain is made and hung, by the design in the fabric, and by the trimming. A good window treatment has lines that suggest the spirit of the room and that conform to its general proportions. If these proportions are poor, then well-planned curtains may help to conceal some of the defects.

Vertical lines are formal and dignified and give an effect of height. They are particularly desirable in public halls and reception rooms and when wisely used are suitable in the more formal rooms of a private house.

Horizontal lines are formed by valances, tie-backs, trimming bands, and double-sash curtains. They tend to decrease the height of a room and give an informal effect. When used in the form of a valance, cornice, or pole with vertical side draperies, the most pleasing window treatments are obtained, because the eye, instead of stopping at the top of the side draperies, is carried across the top and around to the sill without a break.

Apparent height may be increased by the use of vertical lines, or it may be reduced by horizontal lines, as shown in Figure 1. The outside measurements of A and B are the same, the spacing of the vertical lines is identical, yet B appears much wider and not so tall as A, because of the horizontal line at the top.

Curved lines are graceful and may be interesting, but they have a tendency to make a window appear large. Good and poor uses of curved lines are illustrated in Figure 3. The draperies in A and B are evenly balanced. They have strength

and dignity combined with charm and variety of line. Such uneven balance as Figure 3, C, is faddish for window decoration and should be used sparingly. An example of the way in which the symmetry of the window frame is sacrificed to superfluous lines and heavy fabrics is shown in D.

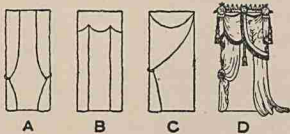


FIGURE 3.—Effect of curved lines in window treatments: A and B conform to the general outline of the window; C, curves that weaken structural lines; D, an overelaborate arrangement of curves

### COLOR

Color has an impelling force and is perhaps the most important single factor in window decoration. Artistic color selections can correct bad proportions, strengthen weak lines, or modify the quality of light entering the room.

### COLOR QUALITIES

There are five principal hues or colors—red, yellow, green, blue, and purple. A countless number of intermediate hues may be obtained by mixing two or more of these basic colors together in varying proportions. The brightness of these hues is designated in terms of light and dark. By mixing with white the higher values, or tints, are obtained; and by blending with black, lower values, or shades, are produced. Of the two, shades are more subtle and are generally preferable for use in living rooms. Tints are more appropriate in bedrooms. There, draperies light both in color and in weight, are attractive when the woodwork and furniture are tinted; but in a room with dark oak panels and ponderous dark furniture, such draperies

seem weak and trivial. Large pieces of furniture and dark woodwork require colors low in value and intensity, and a curtain heavy enough in weight to balance them. Dark rich colors and heavy fabrics give an effect of luxury and are appropriate in formal rooms but are not suitable in an informal decorative plan. Small amounts of intense colors are sometimes needed to give accent to an otherwise monotonous combination. They may be introduced in bindings and facings on side draperies or in tie-backs. Solid intense colors for window draperies should be confined to the sun room or possibly the breakfast alcove. Even in these rooms a figured material with a neutral background and a predominance of grayed hues relieved by some intense color would be more pleasing.

Red, yellow, and hues related to them are classed as the advancing colors. Red is the most stimulating and yellow the most luminous. Since these are colors associated with sun and fire, draperies of them counteract the gloom in a dark, cheerless room. They must be used judiciously if the room is small, or their effect will be overpowering. For glass curtains, soft orange, pale yellow, pinkish cream, rose, or mulberry will give a warm cast to the light coming through the window; but as a general thing, cream color, *écru*, or a warm tan is a more satisfactory choice. Pure white curtains are only appropriate with white woodwork and very light-colored wall paper.

Blues, greens, and violets suggest distance and coolness and are called the receding colors. In climates where the sunlight is intense most of the year, these colors are restful in any room regardless of exposure. Greens and blues, however, must be used cautiously in glass curtains, because the transmitted light may be unpleasant. In moderate climates, warm colors, rightly used, are successful for any season.

#### COLOR PLANS

In choosing the color for curtains, as in applying the various other principles of art, the room as a whole should be studied. When draperies are figured a more harmonious effect is gained by selecting a fabric in which the background is the same color or slightly darker than the walls and in which the principal color in the design repeats the color of the rug or the upholstery. Decided contrasts in color and value are permissible if repeated in some other furnishing of the room.

A distinctive color plan for a sunny room may be worked out in shades, tints, and grayed tones of one color. Interest is then created through contrasts in texture. The walls and woodwork may be a very light value of soft, grayed blue-green and the rugs a lower value of the same color. Against this background almost any color could be used in the curtains and furnishings. A creamy tan cretonne with yellow, blue-green, and red-purple predominant in the design would be interesting. If this were used for side draperies, glass curtains of square-meshed net or a similar plain, thin fabric would be necessary. However, if the cretonne were used for upholstering or for slip covers, glass curtains of maize-colored theatrical gauze, cream-colored scrim, or marquisette would make a pleasing contrast. The design in the cretonne should govern the type of curtain. For example, if the cretonne were striped, the glass curtains should hang straight, and blue-green crossbars should be used in the scrim or marquisette. But if the cretonne design suggested curves, soft material with blue-



green dots would be a good choice for the glass curtains, and they might be finished with ruffles of the same material and held with tie-backs of blue-green.

For the room that receives a cool north light, cream-colored walls, printed linen or cretonne draperies with orange on a soft, warm, brown background, combined with sheer orange-colored glass curtains would furnish the necessary brightness.

A more subtle color scheme and one handled with little difficulty, combines two or more colors having one hue in common. Pure green, blue-green, and yellow-green in varying proportions, values, and degrees of brilliance would compose a harmony with the two components of the colors, blue and yellow. Interest is added by a note of a color in contrast, such as a pillow, a bowl, or book bindings of red-violet.

Another type of harmony is produced by combining complementary colors or those opposite each other in the color wheel. Such combinations as yellow and blue-purple, blue and orange, red and blue-green, red-purple and green, yellow-green and purple are the strongest contrasts possible, and the colors should never be used in equal quantities or in equal values. But when a green is decidedly gray and very light in value it makes a

delightful background for deeper green and mulberry striped draperies.

No color system has been generally accepted by which the hue, value, or intensity of a particular color can be indicated, and definite impressions are difficult to carry in the mind. For these reasons draperies should not be purchased without first seeing a large sample of the material in the room against the walls and furnishings, in order to study the effect of natural and artificial light on the combinations as well as the effect of light shining through the fabric.

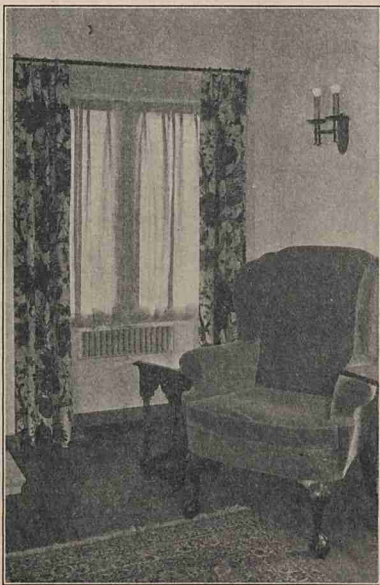


FIGURE 4.—Boldly patterned side draperies hung from a wrought-iron rod placed well above the window opening give height and dignity to a short wide window

The color scheme of the draperies should be planned with the whole house in mind so that the dominant colors in adjacent rooms harmonize. Many persons find it disturbing to go from a rose-and-blue living room through a green hall into an orange dining room, or to look up from the street at an otherwise attractive house and see different colored curtains in nearly every window. A checkered appearance on the outside can be prevented by using uniform glass curtains and cream-colored linings in all the draperies. Or if colored glass curtains are chosen, they should be alike at all windows on the same wall elevation.

#### FABRIC TEXTURE AND PATTERN

Not only do color, line, and proportion play an important part in window curtaining, but texture and pattern of the fabric need as

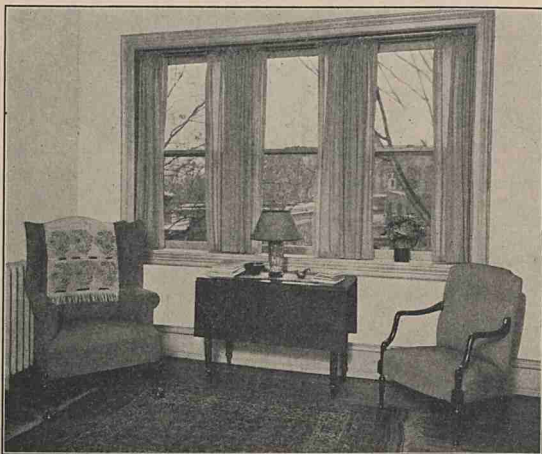


FIGURE 5.—Novelty casement cloth draw curtains of cotton, finished with a French heading. They supply an excellent background for the colorful rugs and pictures, and diffuse but do not cut out the light.

careful thought. By texture is meant the effect of weave and fiber on the appearance of the fabric. Textures are thick and thin, smooth and rough, stiff and soft, lustrous and dull, clinging and fluffy.

The spirit and the character of the room determine to a large extent the texture that should be used. Lustrous satin draperies are out of keeping in a rough plastered room with a huge stone fireplace, beamed ceiling, and small casement windows, whereas a rough-textured fabric, such as burlap, osnaburg, or cretonne, harmonizes. Organdie, swiss, or voile curtains are suitable with dainty, painted furniture. Tapestries, velours, or other heavy fabrics are needed to balance massive pieces. With less elaborate furnishings, a cotton novelty such as is shown in Figure 5, or printed linen, rayon, or lightweight silk is appropriate.

Textures to be used together at the same window must also be chosen carefully. With cretonne draperies, glass curtains of scrim, marquissette, or linen gauze are pleasing, but silks call for fine net, lace, or silk gauze. Denim, monk's cloth, and crash may be combined with theatrical gauze, fish net, and other coarse-meshed materials.

The textures used for draperies tend to modify the proportions of the window. Heavy, coarse materials and lustrous, deep-piled fabrics such as velvet, velour, and corduroy, seemingly increase the size of the window and decrease the size of the room. Filmy, light-colored glass curtains used alone at windows have the opposite effect.

The design of the fabric likewise should be in scale with the room and window. Small patterns belong in small rooms at small windows, and large patterns in large rooms at large windows. If reversed, large patterns seem to fill a small room and make small windows seem smaller. Also small designs at large windows may seem trivial and the beauty of a small pattern may be lost in a large room. Like color, richness of design catches the interest and seems to increase the bulk of any object. The large formal designs

of many damasks belong in spacious, formal rooms, but small-patterned chintzes or cretonnes produce a friendly atmosphere.

Curtains may be tied to the rest of the furnishings by making slip covers or by upholstering one or two chairs in the same material if it is suitable. However, too frequent repetition of much pattern is distracting. Figured wall paper calls for plain curtains, and the monotony of plain walls may be relieved by a fabric of appropriate pattern. (Figs. 6 and 7.)

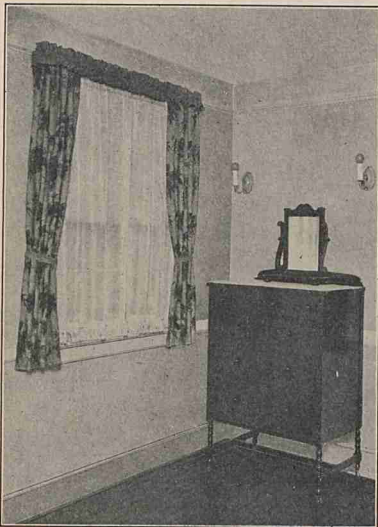


FIGURE 6.—Figured draperies form interesting contrasts with plain walls

## KINDS AND USES OF WINDOW CURTAINS

The recognized curtains for windows are generally classified as glass curtains, side draperies, valances, draw curtains, and shades. All may be used at one window, or they may be combined in various ways. Thus side draperies, glass curtains, and a shade may be sufficient for a living-room window. Ruffled glass curtains with a valance of the same material and a shade are perhaps more appropriate for a bedroom window, and casements are attractive when curtained with draw curtains alone.

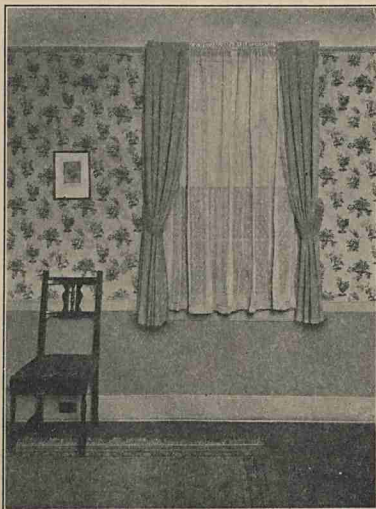


FIGURE 7.—Curtains of plain material should be used with figured wall paper

### GLASS CURTAINS

Glass curtains are made of thin, translucent fabrics. They may cover all or part of the glass of the windows. Such curtains generally come only to the sill, but the appearance of a short, wide window may be improved by extending them to the lower edge of the apron. (Fig. 8.)

As a rule, glass curtains are desirable at all windows, although small-paned casements and those that open out on a beautiful landscape may be the exception. Glass curtains diffuse and modify the color

of light as it shines through, protect side draperies, lend a feeling of privacy, and give a unified effect to the exterior of a house when the same type is used at all the windows.

Materials commonly used for glass curtains are net, marquisette, scrim, voile, theatrical and silk gauze, and lace. Net transmits the most light, but when laundered should be dried on stretchers to prevent excessive shrinkage. All of these thin materials are likely to shrink some in either washing or dry cleaning. Cloth woven evenly from tightly twisted yarns will shrink less and give better service than fabric made from soft, loose yarns. Since every imperfection in weave is brought out by the direct light shining through the curtain, the material should be carefully examined for knots and weaknesses before it is purchased.



## SIDE DRAPERIES

Side draperies are usually of heavier material than glass curtains. They subdue the light in a room, are a substitute for shades if arranged to draw, give a finished appearance to the window, and serve to unify the color scheme.

In rooms where the window proportions are good, the length of side draperies should be determined by the style of the season, the fabric, and the effect desired. Some years decorators advocate floor length for all side draperies, and other seasons the shorter length is more popular.

Fine, firm, pliable material hangs and looks best for draperies, and there is a wide range of fabrics from which to choose. At present some of the most popular are cretonnes in plain, twill, and novelty weaves, printed linens, and glazed chintzes, which have the added advantage of shedding dust.

When purchasing drapery materials, in addition to their decorative value, consider the kind and quality of the fiber and yarn, how the fabric is woven, the number of threads to the inch, the finish, and the fastness of the dye. The initial expense of good material may be justified by longer wear and permanent beauty. Cheap, clay-filled cretonnes that become stringy and faded after the first washing, or shiny gauzes that lose their luster, are expensive selections.

Reliable information on the action of light and air on curtain fabrics is meager. Weighted silk has been known to rot at a window in less than a year. Pure silk seems more resistant, but for curtains it does not compare in durability with cotton and linen.

## VALANCES

The valance is the part of the drapery that is placed across the top of the window. Good decoration demands that side draperies accompany the valance, and that it never be used alone. Full valances may be gathered, plaited, or shirred; others may be fitted or draped. In any case they should unify the color scheme, give a finish to the window treatment by carrying the eye across the top, and counteract the stiff uncomfortable effect given by the parallel vertical lines of side draperies alone.

Plain gathered valances are the easiest to make, and are the best kind to use if curtains must be laundered frequently. Fitted valances suggest stability and dignity and are suited to formal rooms. Midway between are those with box plaits and French headings. Valances may be trimmed with fringe, bands of contrasting material, ruffles, galloons, cords, and tassels, or they may have stenciled, appliquéd, or embroidered designs.

Valances have a lowering effect on room and window height. This can be partly overcome by modifying the width and the position from which they are hung. Ordinarily, valances are hung from the top of the casing and are approximately one-sixth of the length of the side draperies, or an average of 8, 12, or 15 inches. Greater height can be given in extreme cases by placing the valance up on the wall or so that it just covers the casing, or by hanging it in its normal position and reducing the width to a mere ruffle (figs. 6 and 17), or by introducing different shaped arrangements. A wrought-iron rod (fig. 4),

a painted pole (fig. 8), or a cornice board decorated to harmonize with the draperies, is often substituted for the narrow valance.

### DRAW CURTAINS

Draw curtains, or traverse curtains as they are sometimes called, were primarily intended as a substitute for window shades, but they have come to have a wider use. In some decorative plans they are used alone at windows (figs. 5, 10, and 13); in others, they are combined with glass curtains and when pulled back form side draperies. Sometimes in rather elaborate window treatments they are an extra set

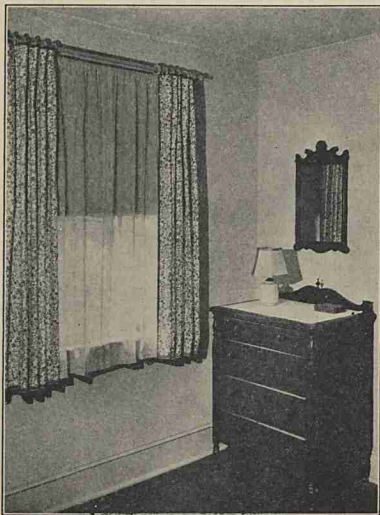


FIGURE 8.—Gaily colored chintzes are always appropriate in the colonial bedroom. The painted wooden pole and rings add interest and assist in carrying out the color scheme

of curtains hung between side draperies and glass curtains and are drawn together only at night. Occasionally glass curtains are arranged to draw, as in Figure 4; but for draw curtains heavier fabrics such as cretonne, casement cloth, mohair, linen, silk, and rayon are preferable. Draw curtains may reach the lower line of the apron or the floor, but in deep-set windows they should extend only to the sill.

### SHADES

Shades serve to exclude glare in daytime, maintain privacy at night, and give decorative value to windows. They should be chosen for their opaqueness, durability, and color.

Their durability depends upon resistance to cracking and breaking, the success with which they may be cleaned, and the effect of sunlight on fabric and color.

A commercial shade may be used; or linen, glazed chintz, Austrian cloth, or oilcloth may be substituted on the roller for the usual material. (Fig. 9.) The three general types of commercial shades are Holland, painted cloth, and pyroxylin impregnated. All of these are made with a foundation of cotton fabric, either muslin or cambric. Holland cloth is prepared by filling the dyed cotton fabric with a heavy sizing mixture and then passing it between friction rolls to give

it a smooth, glossy appearance. Such shades are available in different grades that vary in quality of both foundation cloth and finish. Painted shades are made by applying a mixture of sizing and either water-color or oil paint to the fabric base. In some of the better qualities the sizing mixture is applied first and an oil paint put on as a top coat. In a "tint" cloth, cambric is the usual foundation, and just enough paint is applied to tint the material. This type is often called the translucent cambric shade. A pyroxylin shade has a muslin base that has been impregnated with a substance known as pyroxylin, which hardens when dry and makes the fabric waterproof.

As there are so many qualities available, it is well to purchase shades from a merchant who can give samples for testing. By rub-

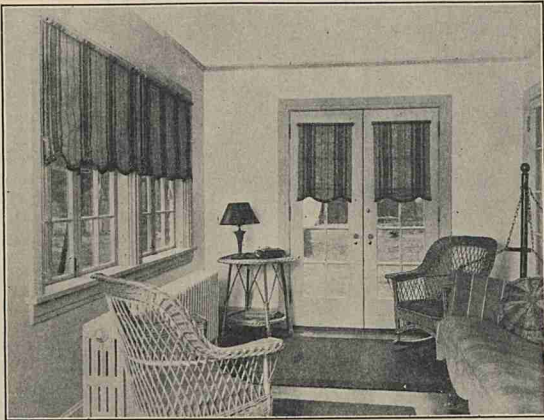


FIGURE 9.—Awning cloth shades for the sun room

bing a piece of fabric between the hands and holding it before a light where any breaks or splits can be seen, wearing quality can be judged somewhat. A good shade should withstand pinholing, cracking, and breaking when folded or in use. The fabric should be evenly woven and free from imperfections, and the entire length of every shade should be examined carefully before purchase. If shades are not cleanable, they must soon be discarded. A simple test is to place a sample flat on a table and scrub it with warm suds. Resistance to sunlight may be tested to a slight extent by exposing a sample at a window for a week or 10 days. A fabric that shows signs of burning or fading in this time is an inferior quality and a poor buy.

The selection of the roller is also important. One at least an inch in diameter is usually the most satisfactory. Every shade should roll and unroll easily. The spring in the roller should be strong enough to withstand ordinary usage and be adjustable for the tension

required. It should catch readily at every turn of the roller and release easily when pulled.

Shades should harmonize with the color and general style of the house and should give a uniform appearance from the exterior, except perhaps in the sun room. On the interior, the shades should blend unobtrusively with the window casing. Duplex shades with a different color on each side eliminate the necessity of having them uniformly colored in all rooms. Those with dark color on one side are preferable for bedrooms because they transmit less light than those of light color. If desired combinations are not obtainable in duplex shades, two may be used, the decorative one on the inside and the plain one next to the window, to keep the effect uniform from outside.

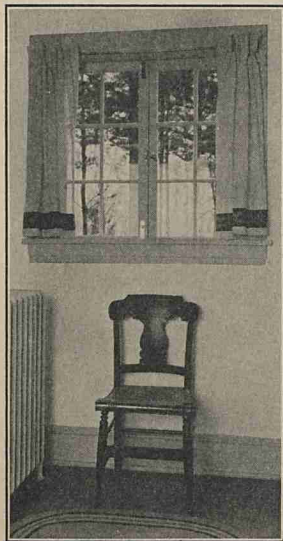


FIGURE 10.—Unbleached lawn draw curtains with a colorful border at a hall casement window

## CURTAINS FOR SPECIAL TYPES OF WINDOWS

### GROUP AND BAY WINDOWS

Modern architecture uses groups of two, three, or more windows. Appropriately curtained, these are a decorative asset to any room. Group and bay windows are interesting in themselves and should be curtained in the simplest possible manner. Draw curtains in lovely textures make a dignified and charming treatment. If more color or a more elaborate arrangement is desired, a valance with side draperies may be used with glass or draw curtains. Group windows separated only by the casing are usually curtained as a single unit. Side draperies alone may be hung at either end of the group or they may be combined with a continuous valance.

When the lowering effect of such a valance is undesirable, a painted pole, a wrought-iron rod, or a cornice board may be substituted. In groups of several windows, as in the sun room, side draperies may be hung over the mullions which separate the windows. (Fig. 14.) Too many vertical lines may disturb the proportions of the room and this treatment must be used cautiously.

Windows placed close together yet separated by wall space also may be treated as one unit if that space is a mere strip. When this treatment is used, the drapery material must blend closely with the wall paper, so that the large mass needed to cover the wall space will not disturb the balance of the room. A mirror, a small table and



a lamp, or a vase of flowers may be placed between the windows to form a group when they are too far apart to be treated as a single unit.

### CASEMENT WINDOWS

Draw curtains are especially appropriate for casement windows, with or without side draperies and valances. (Figs. 4 and 10.) If the casement opens in, the valance must be placed high enough on the wall so that the window, as it swings in, just clears the edge of the valance.

Glass curtains are generally unnecessary on casement windows unless the outlook is unpleasant. If used on casements opening in, the curtains may be shirred over a rod at the top and bottom of the frame, or hung with rings at the top, so that they swing with the window. Glass curtains are not desirable on windows that open out, and if used they must be hung on the casing, since they would be ruined by the weather if attached to the window frame.

### ARCHED WINDOWS, DOORS, AND SIDE LIGHTS

Arched windows are the most difficult of all to curtain. Shaped rods made to order are necessarily expensive, but some arched windows may be curtained without them. One way is to place screw eyes in the framework of the arch, 2 or 3 inches apart. The curtains are then shirred and run on a cord. A tape is stitched to the back of the curtain to hold this fullness in place and to carry hooks that fit into the screw eyes. With this method, effects as in Figure 11 A, B, and C, may be obtained. Another and even simpler method is to ignore the arch and curtain it as a rectangular window with a valance that conceals the arch.

The curtaining for glass-paneled doors and side lights should be simple. Usually net, silk gauze, marquisette, or material of that type is shirred on rods at the top and bottom. For a more elaborate effect weighted fringe may be put on the bottom and the curtain allowed to hang loose. Natural-colored linen with insertions of filet or other heavy lace mounted on a roller is dignified and charming for a door panel in a formal city house.

Side lights, transoms, and fanlights should be curtained to carry out the same scheme used on the door. The side lights should duplicate it exactly. The transom should be covered by the same material drawn on rods top and bottom, regardless of the way the door curtain is hung. A fanlight is curtained like an arch. (Fig. 11, A or B.)

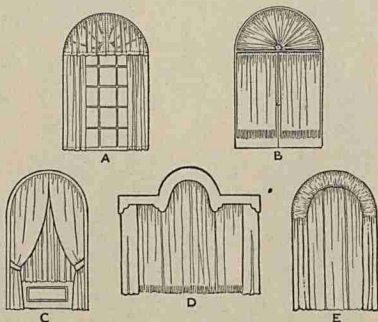


FIGURE 11.—Curtains for arched windows. A and B, suitable treatments for the fanlight over doors or windows. The short curtain in A is shaped at the top to match the curve of the window. The fan in B is made from a straight piece shirred to fit the arch, drawn tightly at the center, and finished with a rosette of the material. C and E, elaborate curtains for which curved rods are almost necessary. D, a curtained Palladian window

On French doors between living rooms the same fabric used in glass curtains at the windows may be shirred at the top and bottom on small brass rods and tightly stretched over the glass so that the curtains fall in well-defined plaits, or it may be allowed to hang loose at the lower edge like a curtain. If there are no glass curtains, net, gauze, casement cloth, pongee, or similar fabrics may be used.

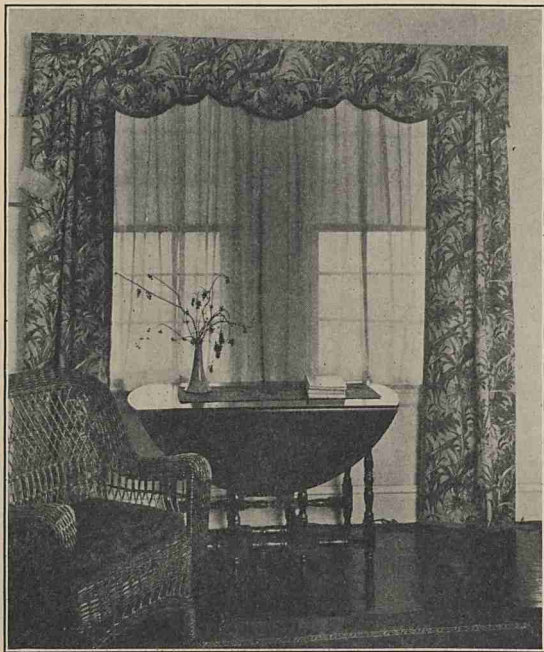


FIGURE 12.—Floor-length side draperies with a fitted valance and ecru marquisette glass curtains, for the large living room

French doors that lead into sleeping rooms must be screened more completely. Sheer curtains may be mounted on either or both sides of the door with, if need be, a plain or decorative shade underneath.

### CURTAINS FOR DIFFERENT ROOMS

Curtains for different rooms, like clothes for different occasions, are most successful when chosen to fit into a particular setting. Many people prefer the simplicity and economy of but one curtain at a

window and the same kind for all rooms. The slight loss in individuality is offset by the harmonious and unified appearance of the windows from both outside and inside. In country homes and small houses, colonial ruffled tie-back curtains or draw curtains are effective throughout the house.

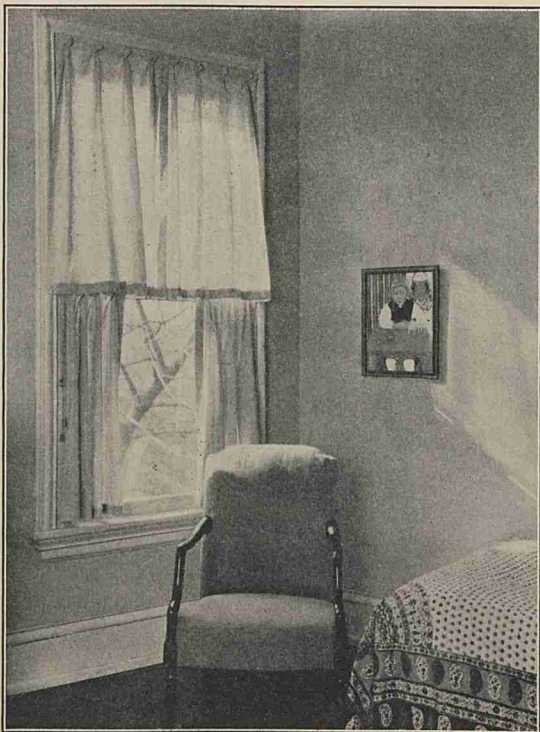


FIGURE 13.—Double Dutch draw curtains break the lines of long narrow windows and allow light and ventilation through either sash

In some regions curtains are dispensed with during hot weather. Silks are rotted by the sun, and heavy draperies make rooms seem stuffy; but cretonnes, printed linens, glazed chintzes, and novelty cottons are suitable the year around. If winter draperies must be taken down, it seems inexcusable to leave the windows bare in summer

when curtains are especially useful in subduing light and keeping out dust. With simple furnishings, even cotton crêpe or gingham, will relieve the stark bareness of uncurtained windows. Or awning striped linen or flowered chintz mounted on rollers makes a decorative and serviceable window treatment for summer. (Figs. 9 and 16.)

### LIVING ROOM

The living room is the place where family and friends gather. Since draperies and accessories are largely responsible for creating a restful, cheery, homelike atmosphere in this room, they should be dignified yet simple enough to make everybody feel at home. (Figs. 4, 5, 12, and 14.) Extreme and faddish window decorations are out of place in



FIGURE 14.—Soft translucent fabric arranged in straight draperies and gathered valance makes this group of windows a decorative feature of the living room. Rather wide but inconspicuous stripes of two colors in the fabric emphasize the vertical lines and prevent the group of windows from appearing too broad

a room that reflects the interests and furnishes the background for so many people.

Warm colorful cretonnes and patterned fabrics are generally a good choice for the living room, but the design should have dignity. (Figs. 4 and 12.) Patterns with roses natural enough to pick and birds ready to burst into song grow tiresome when looked at month after month. Nor is the extreme formality of damasks, brocades, and tapestries appropriate in the average home. Deep-toned richly patterned cretonnes or hand-blocked linens with backgrounds to match the color of the walls, are far more pleasing, and there are innumerable designs that express individuality. Pronounced stripes are suitable though rather severe for the living room, but are sometimes useful in giving definite heightening or broadening effect. Although plain materials may border on the commonplace, they are sometimes



a wiser choice than highly figured fabrics. Portières should be of the same material as the side draperies or of plain material the same color or slightly darker than the walls. The fabric should be reversible, or the portières should be lined so that they will be equally pleasing from both sides.

#### DINING ROOM AND SUN ROOM

If the dining room connects with the living room a more spacious effect is gained in the small home by using the same kind of draperies in both rooms. Or, in order to give an atmosphere of freedom and gaiety that many enjoy in the dining room, animated designs may repeat the colors predominating in the living-room curtains.

If there is a breakfast room or a sun room, it may be even more gay and refreshing than the dining room. Colors there may be almost at their fullest intensity. Materials appropriate for the breakfast room or alcove are checked or striped gingham, English print, voile, dotted swiss, cretonne, or muslin banded with color. For the sun room particular care should be taken to select colors and fabrics that will not fade or be affected by the intense light. Strongly patterned cretonne and vivid awning stripes look well and are effective, but to avoid the unpleasant possibility of faded colors many people prefer to use natural-colored curtains.

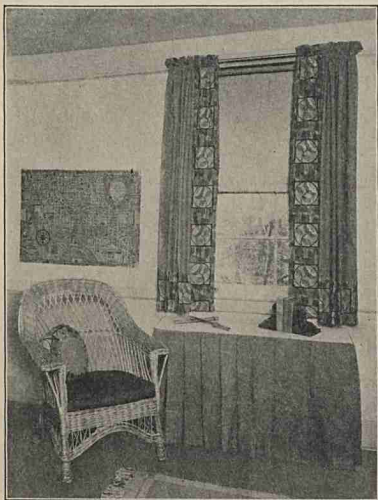


FIGURE 15.—Osnaburg dyed the boy's favorite color and banded with boldly patterned cretonne makes attractive and substantial hangings for his room

to avoid the unpleasant possibility of faded colors many people prefer to use natural-colored curtains.

#### BEDROOMS

For inexpensive curtains in the bedroom, daintily colored, dotted swiss is attractive, and unbleached muslin bound, banded, or appliquéd with color is always good. Appliquéd or embroidery motifs may be taken from cretonne or from commercial transfer patterns, but they should be used with discretion to avoid a spotty effect. Unless the same kind of window treatment is used throughout the house, personal preferences should be consulted in selecting bedroom curtains.

Simple lines, rough textures, and decided colors appeal more to men and boys. (Fig. 15.) Floral motifs often seem feminine to them,

and they are more likely to be attracted by stripes, checks, or some of the modernistic geometric designs. Side draperies of osnaburg, monk's cloth, cotton homespun, rep, or hand-blocked linen combined with marquissette or theatrical-gauze glass curtains satisfy the masculine taste; and oftentimes draw curtains of plain-colored mohair or linen crash alone are sufficient.

The young girl's room should also express her individuality. If she is a hearty out-of-doors girl who enjoys the same things as her brother, she wants strong colors, straight lines, and vigorous patterns. But if she likes ruffles and dainty colors, she will prefer filmy curtains



FIGURE 16.—Ruffled tie-back curtains of cream voile over a glazed chintz shade are suitable for a girl's room

of dotted swiss, or-gandie, voile, marquissette, or net. Curtains of these materials may be hung straight and used alone or with a valance and side draperies of cretonne, poplin, or glazed chintz. Instead of side draperies interesting color effects can be obtained by hanging two thin fabrics of different hue together. Thus blue hung over rose gives a mauve effect, and blue over yellow appears green.

Ruffled curtains are informal and particularly suitable in the bedroom. They may be used alone with tie-backs of the same fabric, combined with side draperies and a valance, or crossed in the middle. When

hung over shades of glazed chintz they provide charming variety. (Fig. 16.) Cream color is generally best, though white curtains may be used with white woodwork. In any case, curtains and ruffles should match in color. Sometimes colored bindings which match figures in the curtains are effective.

The nursery needs plenty of sunlight and air. Sturdy, simple curtains with rather bright colors are best. English prints, gayly checked gingham, brightly colored Japanese crêpe, and appliquéd unbleached muslin offer many possibilities. Suggestions for decorative motifs may be taken from the child's favorite story book. Glass curtains may be omitted entirely, but because of the child's daytime nap some means of excluding light is necessary. Duplex shades, dark on one side, or lined draw curtains are satisfactory.

The adult's room should have dignity and repose. If occupied by two persons, an attempt to satisfy both should be made. This

often means a compromise toward something less personal. A man usually prefers dark polished wood to pastel painted furniture for his room. This implies that he would also enjoy substantial curtains more than he would pale colors and delicate fabrics. The India print in Figure 13 suggests the color scheme of red and blue for this room. The curtains are the same color as the background of the print, and the soft rich colors are repeated in the rugs.

### KITCHEN

It is unnecessary to leave the kitchen windows uncurtained even though the view is especially pleasant, or the room is rather dark.

Side draperies of gingham, glass towel-ing, muslin, or some other durable material easy to launder, make the work room more livable. A valance, if used, should be reduced to a mere ruffle so that it will not interfere with ventilation. (Fig. 17.) If kitchen windows must have glass curtains, a thin material, banded with bright color, or appliquéd with a few motifs may be used and side draperies omitted. At the standard double-hung window, the so-called Dutch or double-sash curtains shirred on rods are practical and make it possible to regulate ventilation easily.

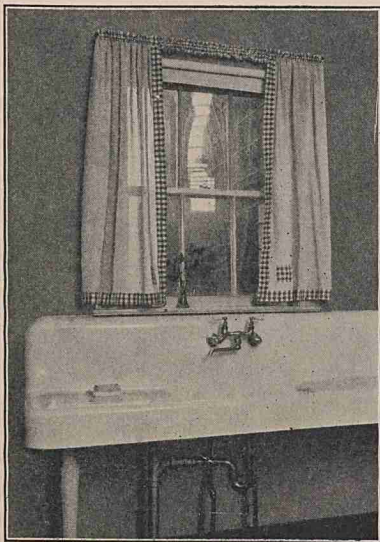


FIGURE 17.—Kitchen curtains of unbleached muslin and checked gingham. The valance reduced to a double ruffle permits ventilation at the top of the window

### METHODS OF MAKING AND HANGING CURTAINS

An accurate though quickly made drawing of the window is the greatest help in deciding which of a number of curtain arrangements to choose, and it is practically a necessity in calculating the exact quantity of material to buy.

Use a yardstick or ruler for taking measurements; a tapeline may stretch and cause inaccuracies. As the measurements are taken, write them down and make a drawing of the window to scale. In making this drawing, if 1 inch is used for each foot, a window 72 by 36 inches would be drawn 6 by 3 inches. Make a number of tracings of this drawing and on them sketch in and study the lines for various

types of curtains. Illustrations of window treatments clipped from magazines and advertising circulars offer many suggestions. As a help in deciding which to choose, calculate the quantity of material needed. Write down the needed amounts, not forgetting allowance for shrinkage and for hems, on the same paper with the sketch and window measurements, so that all the information concerning each window is together. In calculating the quantity of a boldly patterned material, make sure that the patterns balance on both sides of the window. If two or more windows are to be curtained, thus calling for four or more curtain lengths, experiment with the goods while in the bolt so as to avoid waste. Often it will be found that though the first and second lengths will not match, the first and third will, with little loss.

#### TYPES OF CURTAIN RODS AND VALANCE BOARDS

Personal preference and the type of curtain determine the kind of curtain rod to choose. Solid round rods that fit into sockets screwed

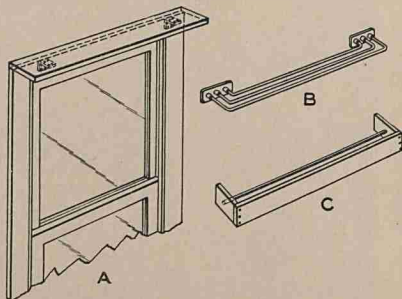


FIGURE 18.—Fixtures for hanging overdraperies: A and C, types of valance boards; B, a triple rod bracket for draperies, glass curtains, and gathered valance

to the inner side of the casings are best for glass curtains that are hung with draw curtains, side draperies, and a valance. But if glass curtains are used alone and cover the casing, flat curved or round rods may be chosen. When the windows are unusually wide, the rod may need a support in the middle to keep it from sagging.

Flat or round rods with extension ends may be used when glass curtains, side draperies, and a valance are hung at the same window. (Fig. 18, B.) Casings should be wide enough to fit easily over the rod. Rings, hooks, or pin attachments may be used instead of casings to suspend the curtain from the rod and are essential when the curtains are plaited.

Improvements in rods are made from year to year, and styles in curtains change. Before purchasing rods it would be advisable to see the newest kinds on the market, compare the relative merits of all types, and then choose the one that best meets the requirements of the particular window treatment desired.

Sometimes a decorative pole and rings sewed to the top of the curtain are substituted for the valance. (Figs. 4 and 8.) These may assist in carrying out the color scheme and are effective with cretonnes, hand-blocked linen, or striped novelties.

All types of valances, except possibly the shirred valance, hang better when supported by a valance board. The simplest form is a wooden shelf, 3 or 4 inches deep and  $\frac{1}{2}$  inch thick, which rests on the top of the window casing. Such a valance board may be nailed



or screwed into place, or if there is no ledge at the top of the window, it may be held in place by a pair of angle irons. (Fig. 18, A.)

A second type of valance board (fig. 18, C) is 4 to 5 inches wide, with a piece 3 inches long nailed at right angles to each end. A rod for the side draperies may be put inside the 3-inch returns. The board is held in place by screw eyes in the end pieces which catch into hooks in the extreme outer part of the window casing. This type is preferable for a fitted valance, and is called a cornice board when decorated or made from a decorative molding and substituted for a valance.

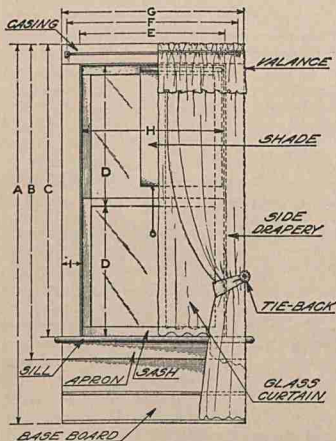


FIGURE 19.—Double-hung window drawn to scale, showing the lines on which measurements for different types of curtains should be made: A, side draperies in a formal room; B, side draperies and draw curtains for less formal effect; C, glass curtains and draw curtains; D, draw curtains and preferred length for glass curtains; E, width for glass curtains and draw curtains when the length is measured on D; F, usual length of rod; G, width used for valances and all curtains hung outside the casing; H, shade hung inside the casing; I, face of the casing

## GLASS CURTAINS AND DRAW CURTAINS

### CALCULATING MATERIAL NEEDED

Measure for the width of glass curtains on the trim nearest the glass (fig. 19, line H) and on line D for their length. They should be just long enough to escape the sill. If they are to be hung without overdraperies and the casing is not attractive, take the measurements on lines G and B. For double Dutch curtains measure on line D; the measurement for the top curtain is to the bottom of the meeting rail, and for the lower one from the top of the meeting rail to the sill.

Draw curtains may replace side draperies or they may be used in combination with them. If used alone, measurements should be taken as for side draperies; the width is taken on line G so as to cover the entire casing and draw curtains usually extend

tend to the lower edge or the apron. When hung under side draperies, they need not cover the entire window casing. In that case the width may be measured on line F, and they may extend only to the sill. Sometimes they are hung entirely within the casing. Then the width is taken on line E, and they must necessarily end at the sill.

Hems  $1\frac{1}{2}$  to 2 inches wide on the inside and lower edges and  $\frac{1}{4}$  inch wide on the outside edges are in good proportion for glass and draw curtains. Handkerchief hems, which derive their name from being made an equal width on all four sides of a curtain, are used occasionally to add to the decorative effect when there are no overdraperies. When either glass or draw curtains are used alone, a heading at

the top makes a neater appearance, and 2 inches must be allowed for it. If side draperies or a valance is used, this allowance is omitted and only  $\frac{3}{4}$  of an inch is added for the casing. French headings (page 23) used on draw curtains require an extra 3 to 6 inches. These headings are made double and are  $1\frac{1}{2}$  to 3 inches wide when finished. An additional allowance of 2 inches or more should be made for shrinkage in cotton fabrics. A common rule is to add 9 inches to the desired length of the finished curtain. This gives sufficient material for shrinkage, hems, and heading.

For example, here is the way to go about calculating the yardage needed to curtain one window:

	Inches
Window, height (fig. 19, line D)-----	72
Window, width (fig. 1,9 line H)-----	31
For 100 per cent fullness:	
Two lengths 36-inch material-----	144
Double hem on bottom, $1\frac{1}{2}$ inches deep (3 inches each)-----	6
Heading and casing ( $3\frac{3}{4}$ inches each)-----	$7\frac{1}{2}$
Shrinkage, 2 or more inches-----	4
Total-----	$161\frac{1}{2}$ (4 $\frac{1}{2}$ yards)

#### MAKING GLASS AND DRAW CURTAINS

Measure and check each curtain length before cutting into the material. If the weave permits, draw a thread and follow this line in cutting. Trim off all selvages, and put in side hems first, then top and bottom hems. Make all turnings the width of the hem so that raw edges will not show when light shines through. (Fig. 20.) If the material has figures in it, match them up in all the thicknesses if possible. Turn the allowance for shrinkage into the bottom hem unless it looks too bulky; or take it in as a tuck just below the casing if the curtain is to be shirred on a rod; or turn it into the French heading (p. 23). In the latter case, all the heading must be taken out when the curtain is let down. Irregularities in length can sometimes be corrected by taking an inconspicuous tuck at the top or by moving the rings, but it is far better to make curtains so accurately that they will need no such adjustment. Hems put in by hand do not draw and they look better than those stitched by machine.

Weighted tape tacked in the bottom hem, tends to prevent curtains from blowing out open windows and makes them hang in more even folds. Fringe is a popular finish for glass curtains and may be used instead of weights. It may be placed on the edge of the curtain, but a more desirable plan from the standpoint of wear and beauty is to set it full depth up on the curtain.

To make the ruffles  $2\frac{1}{2}$  to 4 inches wide used on colonial tie-back curtains (fig. 16), cut and join strips of material until there is one and one-third times the total length and width of the curtain. Finish the ruffles with a narrow hem made with the narrowest hemmer attachment, a machine-picoted edge, or a narrow colored binding. Join the ruffle to the curtain with a French or a lapped seam. A diagram for drafting shaped tie-backs is shown in Figure 22. The length can be adjusted to the particular curtain, and the edge may be finished with a ruffle or braid. Instead of tie-backs, rosettes, bows, or bands may be used.

## FRENCH HEADINGS AND BOX PLAITS

French headings, sometimes called pinch plaits, are grouped plaits and are attractive in almost all materials. (Fig. 21.) They form well-spaced folds in the fabric as it hangs and give a professional touch to glass curtains, draw curtains, valances, and side draperies.

For a French heading in draw curtains fold a double hem according to Figure 20. If the material is very soft a piece of Holland cloth or crinoline the exact width of the hem folded into the top hem gives the necessary stiffness. Measure the width of the hemmed curtain. From this measurement deduct the number of inches to be covered by the curtain when hung (one-half the width of the window), plus the distance from the curve of the rod to the wall, plus  $1\frac{1}{2}$  inches for the curve and one-half inch for a lap in the middle. For example, if the material measures 34 inches after all edges are finished and is to cover a space of 15 inches, and if the distance from the straight portion of the rod back to the wall is 3 inches, subtract 15 inches plus 5 inches, or 20 inches, from 34 inches. The remainder, 14 inches, should be equally divided into the plaits. (Fig. 21.) One group must be placed  $1\frac{1}{2}$  to 2 inches from the inside edge of the curtain and another at the point where the rod curves. The others may be evenly spaced between these two. The groups may be from 3 to 5 inches apart. In the case described, three groups of plaits, with about  $4\frac{1}{2}$  inches for each, will distribute the fullness and make the curtain fall into attractive folds.

Having located the position for each plait, pin, baste, and stitch it down 4 to 6 inches from the top, depending on the weight of the material. (Fig. 21.) Divide each wide plait into three small ones and sew them down tightly about 3 inches from the top with strong thread of matching color. In heavy materials it is difficult to divide the wide plait into smaller ones, and another method is preferable. Locate the position of each plait. Divide the entire space into thirds and mark with pins. Thus if 6 inches is allowed for each group, the pins will be 2 inches apart. Turn to the wrong side, and fold the material along each line of pins so that there are four folds. With

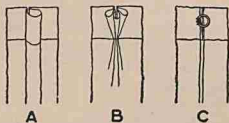


FIGURE 21.—One method of making a French plait. A, first large tuck; B, tuck divided into three parts pinched in, and sewed down; C, ring sewed to back ready for hanging

a heavy linen thread catch the second and third folds together about 2 inches from the top. Starting at the top, sew the first and fourth folds together for about 6 inches. This gives the same effect as is obtained in thin materials when the first method is used. Sew rings to the back of each plait near the top so that the bottom of the curtain will hang exactly to the line intended and so that the rings will not show at the top.

If box plaits are desired, after making the first wide plait for a French heading flatten the wide plait out instead of pinching it into several small ones. Catch each box plait down across the back.

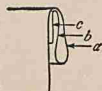


FIGURE 20.—Method of turning curtain hems: a, single turn the depth of the hem; b, the turn under the full depth of the hem; c, allowance for shrinkage

## MOUNTING DRAW CURTAINS

The equipment needed for draw curtains is a smooth round or flat rod that fits securely into a socket at each end, rings large enough to slide easily on the rod, a single and double pulley, curtain cord enough to cross the width of the window twice and to leave ends long enough to be reached, and a pair of weights for the ends of the cord. (Fig. 23.)

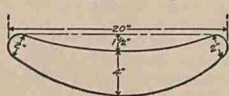


FIGURE 22.—Draft for a shaped tie-back

The types of pulleys, rings, and rods change from year to year, and some kinds are more suitable to one fabric than another. Before mounting, the fullness in the curtain is sewed into plaits so that the space will just be filled. There are two methods of attaching the curtain to the rod. For lightweight glass curtains sew rings to the back of each plait near the top (fig. 21, C) or at intervals of 4 inches and about 1 inch from the outer edge. Although the rod must be taken down each time the curtains are laundered, it is not difficult to manage as the curtains are not bulky. For heavy side-drapery materials such as terry cloth, monk's cloth, or velour, French heading hooks instead of rings may be sewed to the back of each plait.

The manner in which the curtain is attached to the rod does not affect the method of threading the rings. To thread up a curtain that has the rings sewed to it, place the rod and curtain on the table so that the rod is on top. Slip all the rings but one at each outer edge on to the rod. Clamp the pulleys close to the end, leaving just room enough for the end rings and for the rod to fit into the socket. Pull the two center rings (fig. 23, b and c) to the exact center of the rod so that the curtains lap about a half inch. Thread one end of the cord through one side of the double pulley (fig. 23, a), run through the rings, and knot firmly at b. Then thread the cord through the rest of the rings, through the single pulley, and back through the same rings to c, and knot again. From c thread the cord through the remaining rings to a and through the double pulley. Cut the cord that was last knotted at c a foot longer than the other and attach a weight to each end. Slip the two remaining rings on to the rod and fasten it in the sockets.

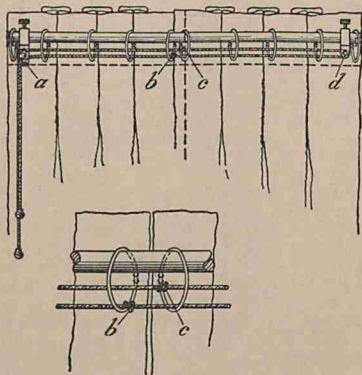


FIGURE 23.—Method of threading a draw curtain: Thread cord through pulley a, knot in center ring b, thread through single pulley d, and knot in center ring c before returning it to double pulley a



For a curtain with the French heading hooks, the method of threading the rings is exactly the same. After the rod and rings are in place the curtain is hooked on. The curtains are opened or closed by pulling the shorter end of the cord.

### SIDE DRAPERIES

#### CALCULATING MATERIAL NEEDED

The finished width of side draperies is calculated on line G, Figure 19. Side draperies should cover the casing and extend to the edge of the glass at least, and in short wide windows they may cover a part of the glass. The average window requires a piece of material 36 inches wide for each side-drapery length, although 50-inch material cut in half and finished with extension hems will oftentimes be wide enough. Draperies that are skimpy are not attractive. The length may be to the apron (line B, fig. 19) or to the floor (line A) for formal effects. The addition of 9 inches to the exact length allows 3 inches for a hem at the bottom and 6 inches for a heading at the top. Variations are possible and more accurate calculation for curtains for special arrangements is advisable. For instance, if the draperies are to be unlined, allow for a 2-inch or a 3-inch hem on the bottom and a 1-inch hem on the sides; if lined, allow for a 1½-inch turn on all sides. For French headings, or pinch plaits, 6 to 16 inches is allowed in side draperies. Six inches is the usual allowance on cretonne, poplin, and other materials of medium weight and is also correct for an ordinary casing and heading.

#### MAKING SIDE DRAPERIES

Use the same care and accuracy in cutting side draperies as glass curtains. Draperies are made unlined, lined, or interlined. It is often economy to line side draperies to protect the fabric from strong light, dampness, and dust. Linings also make the curtains hang better and the pattern show up more clearly. Sateen or unbleached muslin is used for lining and canton flannel for interlining.

#### UNLINED SIDE DRAPERIES

Trim off the selvage of the material or clip it at intervals of 3 or 4 inches. Turn a hem of 1½ inches on each side and a 2 or 3 inch hem at the bottom. If there is no right or wrong side and there is to be a band or border around the curtain, the hem may be turned to the right side and the braid or band placed over the raw edge of the fabric. Frequently this type of curtain is finished with an extension hem of contrasting material.

If there is to be no valance, fold the top into a double hem 1½ inches or wider. To take up the fullness, fold the top into French or box plaits and sew rings on the back to slide over a rod, or run in two rows of stitching to form a casing for the rod. If a valance is to be used, sew rings to the top of the curtain or make a casing without a heading for the rod.

#### INTERLINED AND LINED DRAPERIES

Velour, velvet, tapestry, and many other heavy fabrics require both an interlining and a lining. Remove the selvage or snip it at intervals. Spread the outer fabric right side down on the table.

Turn all four edges the width of their respective hems, miter the corners, pin, and catstitch the hems down with a long stitch. Fasten the fabric securely to the working surface and spread the interlining of single-faced canton flannel over it smoothly. Cut the canton flannel one-half inch smaller than the outside material at the top and side and an inch shorter at the bottom. The edges of the interlining are not to be turned.

Fold back the interlining lengthwise upon itself exactly along the center. With a linen thread tack the interlining loosely to the drapery fabric by taking in it stitches 5 or 6 inches apart that do not show on the right side, and catch the interlining as shown in Figure 24. The thread must lie very loosely between the stitches. If it is drawn tightly the draperies will not hang smoothly.

The number of rows of tacking is governed by the width of the material. If the material is 36 inches wide, fold it on each side of the center so that the width is divided into fourths, and repeat the tacking down these folds. This makes three lengthwise rows of tacking in all. Fifty-two-inch material requires two rows of tacking each side of the center, or a total of five rows.

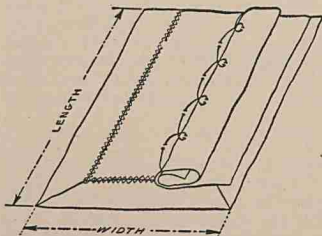


FIGURE 24.—Construction of lined and interlined draperies. The hem is catstitched down and the lining and interlining tacked by a loose stitch to the drapery material.

Next smooth out the edges of the interlining and catch them to the drapery material with long stitches across the top and sides. Leave the bottom loose. Lay the lining in position and tack it to the interlining in the same way that the latter was tacked to the drapery fabric. Turn the edges under and hem or slip-stitch them to the drapery material except across the bottom, which is hemmed separately and left free. The sides may be tacked at intervals of 6

inches instead of being held tightly if the material draws. Braid or ruching sewed on the edge of the drapery should be eased on, as it will shrink more in cleaning or laundering and may cause the curtains to draw. Finish the top with a casing or with rings that slide on a rod. Sew a small brass ring to the back of the outer edge a few inches above the bottom of the drapery, to hook into a screw eye on the window casing to hold the drapery in place. Weighted tape, braid, or coat weights may be tacked into the bottom hem to make the draperies hang straight and keep them in position.

Fabrics of medium weight, such as cretonne, linen, and poplin, need no interlining, but they wear longer and hang better if lined. The method given for interlined draperies may be used by simply omitting the interlining. When a shorter method than this is necessary, trim off all selvages, cut the lining so that it will lie inside the drapery one-half inch on all edges except at the bottom. Hem the bottom of the drapery and lining separately. Then lay them together so that the lining is one-half inch above the drapery at the bottom. Turn the

side hems of the drapery over the lining one-half inch, pin carefully, turn under raw edges, baste, and slip-stitch the side hems, and the top casing, but leave the bottom free.

### VALANCES

#### CALCULATING MATERIAL NEEDED

The basic measurement for the length of the valance is taken across the top of the window on line G, Figure 19, and the depth is approximately one-sixth the length of the side draperies. To this depth the hem, heading, and casing allowances are added. Two times the basic measurement (line G) is used for a plaited valance, and one and one-half times line G for a gathered type. The length of line G plus a 3-inch return on each end is sufficient for a fitted valance. (Fig. 25, A and B.)

With the exception of the straight gathered kind, valances are always lined and in many cases interlined. Buckram or canvas is the foundation material for fitted valances, and they are interlined with canton flannel to keep the light from showing the pores of the buckram and to make the effect a little less stiff. All valances, except the fitted, may be hung on separate rods with extension ends or hooked on to the rod that carries the side draperies. As a rule, separate valances should not be run on the same rod with the side draperies. Fitted or plaited valances hang and look better if they are tacked or snapped on to valance boards.

#### MAKING VALANCES

##### GATHERED VALANCES

Cut off the necessary length of material, and in the sides put a hem the same width as that on the outer edges of the side draperies. Turn and sew a 1½-inch hem in the lower edge, and fold the 6 inches at the top into a double hem and sew it down. Run in another parallel row of stitching to form a casing for the rod. Or instead of running the valance on a rod, three or four cable cords may be run in to form shirring and the valance hung from the rod by rings. Another variation is to stitch a heading and casing into both the top and bottom of the valance and run rods in each. Valances of scrim or net that accompany colonial tie-back curtains may have the heading turned and stitched in one with the curtain so that they may both be run on the same rod and have their fullness evenly adjusted.

##### FITTED VALANCES

Measure off the extreme width of the window on a heavy piece of paper. Fold it in the middle and draw one-half of the pattern for the valance. Several designs that may be used are shown in Figure 25. Cut this out with a 3-inch allowance on each end to extend back to the wall. Unfold, fit it into place, and study the proportions of the valance to be sure they are in harmony with other parts of the window treatment and that the 3-inch allowance is sufficient. Make any changes necessary in the pattern, then pin it to buckram, and cut without a seam allowance. Use the buckram as a pattern, and from this cut out the canton-flannel interlining, allowing a 2-inch extension on all sides. Turn the 2-inch allowance over the edge of the buckram,

slash where necessary to make it lie smoothly, pin, and tack into place. Spread the drapery fabric smoothly on a table with the right side down. Place the flannel-covered side of the buckram next to the wrong side of the fabric and pin the two together. If the drapery material is figured, see that the motifs come in the right place. Cut the drapery fabric, and again allow 2 inches for hems. Turn this allowance over the edge of the buckram, and clip when necessary to make it fit smoothly around the curved edges. Pin and sew to the buckram with long catstitches. Sew on braid or any other trimming.

A strip sewed to the top of the valance is a convenient means of attaching it to the valance board. For this, use a piece of the lining material 8 inches wide and 2 inches longer than the length of the valance. Fold it in fourths lengthwise, so as to make the strip 2 inches wide. Turn 1 inch in at each end and sew the strip to the buckram side of the valance; this allows  $1\frac{1}{2}$  inches to extend beyond the edge.

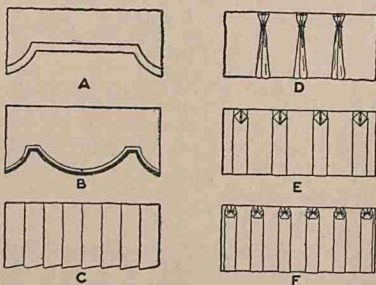


FIGURE 25.—Types of valances and headings. A and B, shaped valances; C, plaited valance; D, French plaits; E and F, variations of double box plaits

Cut out the valance lining, with a 1-inch allowance for seams. Turn this under: pin and slip-stitch it down on all sides. The valance is now ready to be attached to the valance board.

It may be nailed into place, or a tape with snap fasteners may be tacked to the board and the other half of the tape stitched to the band sewed to the top of the valance, so that the two snap together. Still

another method is to sew rings to the tape and catch them over tacks or hooks about  $1\frac{1}{2}$  inches apart near the upper edge of the board. Before the valance is put up, measure the exact width of the window off on the valance and bend back the ends or returns, but do not form a hard square crease.

#### SHADES

Although it is generally more satisfactory to have shades made by a shade specialist or to buy those carried in stock, it is sometimes necessary to make them at home if unusual types of shade cloth are desired.

Measure for a shade according to the place where it is to hang. It may overlap the casing; or if the casing is at least 2 inches deep, the shade may hang within it. The brackets may be mounted on the casing just outside the sash run and just above the sash-weight pulleys. When hung in this way shades do not interfere with curtains, and more attractive arrangements are possible. Shades hung to overlap the casing exclude more light and wear less on the edges. Brackets are then placed on the face of the casing.



All measurements must be accurately made. The finished-length measurement should be about 12 inches greater than the distance from the bottom of the top casing to the sill to allow for a hem and enough to wrap around the roller and give leeway in pulling up or down. For shades hung inside the casing, the roller must exactly fit between the casings. Thus for a window that measures 30 inches between the casings the roller measurement would also be 30 inches. But if the shade overlaps the casings the roller measurement must be 4 inches greater than the distance between, or 34 inches. In either case the shade cloth is about  $1\frac{1}{2}$  inches less than the roller measurement.

When the material is exactly the right width the selvage need not be removed. If the cloth is too wide, such fabrics as glazed chintz and oilcloth may be cut the exact width and the edges left unfinished. Linen or unglazed cloth will ravel, and 2 inches must be allowed in the width for flat hems. On cloth that is too narrow, a lapped seam, with the edges left raw, will make the flattest joining. It may even be wise to have a shade maker sew the seams, for shades will not roll well if they are bulky.

**ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE  
WHEN THIS PUBLICATION WAS LAST PRINTED**

---

<i>Secretary of Agriculture</i> .....	HENRY A. WALLACE.
<i>Under Secretary</i> .....	REXFORD G. TUGWELL.
<i>Assistant Secretary</i> .....	M. L. WILSON.
<i>Director of Extension Work</i> .....	C. W. WARBURTON.
<i>Director of Personnel</i> .....	W. W. STOCKBERGER.
<i>Director of Information</i> .....	M. S. EISENHOWER.
<i>Director of Finance</i> .....	W. A. JUMP.
<i>Solicitor</i> .....	MASTIN G. WHITE.
<i>Agricultural Adjustment Administration</i> .....	CHESTER C. DAVIS, <i>Administrator</i> .
<i>Bureau of Agricultural Economics</i> .....	A. G. BLACK, <i>Chief</i> .
<i>Bureau of Agricultural Engineering</i> .....	S. H. MCCRORY, <i>Chief</i> .
<i>Bureau of Animal Industry</i> .....	JOHN R. MOHLER, <i>Chief</i> .
<i>Bureau of Biological Survey</i> .....	IRA N. GABRIELSON, <i>Chief</i> .
<i>Bureau of Chemistry and Soils</i> .....	H. G. KNIGHT, <i>Chief</i> .
<i>Bureau of Dairy Industry</i> .....	O. E. REED, <i>Chief</i> .
<i>Bureau of Entomology and Plant Quarantine</i> .....	LEE A. STRONG, <i>Chief</i> .
<i>Office of Experiment Stations</i> .....	JAMES T. JARDINE, <i>Chief</i> .
<i>Food and Drug Administration</i> .....	WALTER G. CAMPBELL, <i>Chief</i> .
<i>Forest Service</i> .....	FERDINAND A. SILCOX, <i>Chief</i> .
<i>Grain Futures Administration</i> .....	J. W. T. DUVEL, <i>Chief</i> .
<i>Bureau of Home Economics</i> .....	LOUISE STANLEY, <i>Chief</i> .
<i>Library</i> .....	CLARIBEL R. BARNETT, <i>Librarian</i> .
<i>Bureau of Plant Industry</i> .....	FREDERICK D. RICHEY, <i>Chief</i> .
<i>Bureau of Public Roads</i> .....	THOMAS H. MACDONALD, <i>Chief</i> .
<i>Soil Conservation Service</i> .....	H. H. BENNETT, <i>Chief</i> .
<i>Weather Bureau</i> .....	WILLIS R. GREGG, <i>Chief</i> .

# SLIP COVERS

LEAFLET NUMBER 76  
U.S. DEPARTMENT OF AGRICULTURE



By BESS M. VIEMONT . . . . ASSISTANT SPECIALIST IN TEXTILES  
DIVISION OF TEXTILES AND CLOTHING, BUREAU OF HOME ECONOMICS

SLIP COVERS have become an accepted part of home furnishing and decoration. They may be used throughout the year in almost every room in the house. There was a time when they were used merely as protective coverings in the summer when the rugs and draperies were put away. No thought was then given to their decorative possibilities.

Covers, trimly fitted and in attractive colors, have now replaced the plain, colorless, and often poorly tailored ones. So many materials are available to-day in delightful blues, greens, and violets that the home may be made restful and cool looking in the summer, while the warm reds and yellows give a cozy, friendly atmosphere in winter. One slip cover may be used for all seasons if the design in the material combines both warm and cool colors.

## *Uses of Slip Covers*

Slip covers serve many purposes. They may be purely decorative, but more often they are for furniture protection. Tidies of various materials have been used on the backs and arms of chairs and settees to protect them from soil and wear. They were usually white or a very light color. When placed on dark furniture they were extremely conspicuous and gave the room a spotted appearance. But now that more attention is given to unity in home furnishings, slip covers are replacing the tidies and are serving many more practical purposes.

Simple, washable slip covers on the easy chairs in the present-day living room permit the entire family to share its comforts. In homes where there are small children covers that can be quickly removed and tubbed are almost a necessity and are wise purchases if the furniture is to be kept looking well. Removable coverings will lessen the wear and tear from soiled hands and playthings, from work clothes and everyday use. At the same time they keep in good condition the upholstery and the wood finish of any pieces of furniture that will not withstand hard usage, and make them serve a practical as well as an ornamental purpose.

Slip covers may prolong the life of the comfortable chairs and davenports. The thrifty home maker can make slips to protect them or to cover the worn places. In this way they extend the period of usefulness of furniture already on hand and help to tide over lean periods in the family income when the purchase of new upholstery or new furniture would be entirely out of the question.

When the upholstery of a chair or a davenport is in good condition but out of harmony in color and design with other things in the room, slip covers are sometimes used to produce more attractive combinations. Since the cover will be a permanent part of the furniture, materials that resemble upholstery may be chosen, or a different kind may be selected and used for contrast.

## *Selection of Materials*

The supply of suitable materials, colors, and designs in the stores is so large that it is often difficult to make a selection. Fabrics that harmonize with other furnishings in the room usually cost no more than those that do not; but frequently they look different on the counter from the way they do fitted on a chair. In choosing between two designs of equal price, the home maker should select the one which fits in best with the designs in the rugs and curtains. There are small informal chintz patterns for the bedroom; dignified conventional designs in cretonne and hand-blocked linen for the living room; waterproof gingham and percale for the dining room and the breakfast nook; and bold stripes for the sun parlor or the porch. Whenever it is at all possible samples 1 or 2 yards long should be tried in the room before the material is purchased. If satisfactory figured ones are not obtainable it may be necessary to buy a plain fabric.

Unless the slip cover is to be used only for one season it is usually more economical to buy the best material that can be afforded. The very inexpensive ones fade quickly both in the light and in laundering. As a rule, they are filled with dressing and finishing materials that wash out and leave a coarse, flimsy, loosely woven



cloth. Better colors and designs are found in higher quality fabrics, and although the initial cost may be somewhat greater they are attractive as long as they last. Even though slip covers may be used only during certain seasons it is advisable to buy cretonne, semiglazed or unglazed chintz, gingham, percale, or poplin for them. These materials are easy to work with, moderate in price, suitable in color and design for any room in the house, and they will always look well. If the cover is to be used all year and a material that closely resembles upholstery is desired, rep, crash, cotton damask, galatea, drapery sateen, hand-blocked linen, denim, or tapestry offer a wide range of colors and patterns and suggest interesting possibilities for decorative uses.

Slip covers often wrinkle badly because they can not be as tightly stretched and securely fastened to the furniture

frame as upholstery can be. The heavier and more firmly woven materials, such as denim, galatea, rep, and upholsterer's sateen, will wrinkle less than thinner fabrics. Cretonne, crash, hand-blocked linen, and cotton damask will retain their newness longer than gingham, percale, or chintz. The wrinkling of any material is influenced by the amount of sizing. Those that are filled with starch muss easily, but those with very little dressing look well for a long time. If materials are washable, much of their original freshness can be restored.

Although figured materials will show wrinkles less than plain ones, it may be necessary to choose the plainer fabrics for the same general principles should be followed in selecting slip covers as in choosing curtains. When the walls are figured the furniture coverings must be plain or so finely patterned that the design gives the impression of texture. A very fine, inconspicuous stripe or check is permissible in rooms where definite designs would be entirely out of the question. In rooms with plain walls and floor coverings figured materials are the proper choice and offer unlimited possibilities for individuality. Plain fabrics would be monotonous, but patterned ones will give character.

Besides harmonizing with the walls and floor coverings, materials for furniture covers must be in scale with the room and the piece of furniture on which they are to be used. For example, large rooms and large pieces of furniture need materials sturdy in construction and design and rich in color; small rooms and small pieces of furniture require fabrics of smaller designs and lighter in texture and color. (Fig. 1.)



FIGURE 1. The narrow gathered ruffle finishes the lower edge but in no way interferes with cleaning under the chair

To make satisfactory protective coverings, materials for slip covers must be closely woven and have a smooth surface so that they neither collect dust nor allow it to sift through the meshes. French ticking and upholsterer's sateen are examples of fabrics so woven that they are practically impervious to dirt. Sometimes a surface finish on a cloth that might otherwise be too porous makes it

desirable. Glazed chintz and cambric muslin come in this group, and their bright colors, either figured or plain, lend a cheerful atmosphere to any room.

### Construction of Slip Covers

An estimate of the quantity of material needed should be made before selection, for the total yardage often determines the price range of the fabrics. For the chair shown in Figure 2, where the slip cover is permanent and a substitute for upholstery, fasten one end of the tape measure to the lower edge of the chair frame

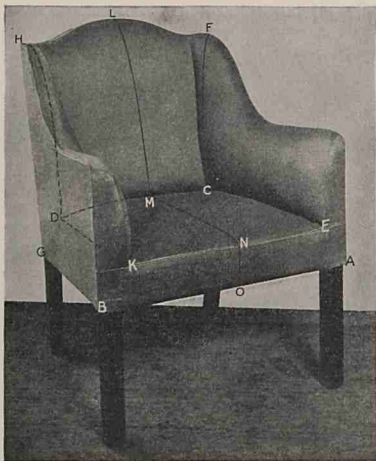


FIGURE 2. When slip covers substitute for upholstery they must be as trimly fitted as the permanent covering

at the center back. Measure to the top of the chair L, across the top and down the front of the back along the line LM, over the seat on MN, and down the front edge NO. Add 4 inches for tucking in along CD and 6 inches for seams and finishing at the lower edge. For the arms, fasten the tape at C and measure to F, across the top of the arm and down to the lower outside edge of the chair. Add 2 inches for a tuck in along CE, and 4 inches for finishing the lower edges. Be sure sufficient allowance is made for all seams. (Fig. 3.) If the material is only 36 inches wide it will require twice the last measurement for the two arms, but if a 60-inch reversible fabric is used one length will be sufficient. The following illustrates the measurements and the quantity of 36-inch material needed for each part:

	Inches
For the back from the lower edge to the top L.....	26
For the front of the back along the line LM.....	24
Seat from the back to the front MN.....	21
Front depth of the chair NO.....	4
For the two arms:	
From C to F (21 inches); for two.....	42
From F to the lower outside edge (24 inches); for two.....	48
For tuck ins, seam allowances, and lower-edge finishes.....	36
Total ( $52\frac{1}{2}$ yards) or.....	201

If the cover is made from material with large designs that have to be centered or that have a definite up and down, additional yardage must be purchased. The quantity depends upon the size of the figure and upon the closeness of the repeat. If the slip cover is finished with a pleated or gathered ruffle as shown on the front page or in Figure 1 more cloth will be needed than for a cover similar to the one in Figure 2.

For the ruffle calculate the number of widths by measuring around the chair at the place where it will join the body of the cover. On Figure 2 this distance is 100 inches. Three widths, therefore, are necessary to reach around the chair. For gathered fullness allow twice that many widths and three times as many for pleating. Multiply the number of widths by the desired depth of the ruffle to obtain the total amount needed and make additional allowance for hemming and matching the pattern. Thus, for a 7-inch gathered valance on this chair, 42 inches are required for the ruffle and at least one-half yard more must be allowed for hems and matching. This means that  $1\frac{1}{2}$  yards more cloth must be bought for this kind of a cover than for the one in Figure 2. Sometimes the ruffle extends just across the two sides and the front, and the back is left plain, which, of course, reduces the amount of material needed.

In general, the procedure just outlined may be followed when estimating the quantity of material required for any slip cover. However, slight variations may be necessary to fit the particular style of furniture and the type of slip cover desired. For the small pads on the chair in Figure 4, short remnants are often obtainable. Both sides may be alike or contrasting material may be used on one side to give variety. In Figure 5 twice the depth of the chair plus the length of the chair cushion from the front to the back equals the quantity of material needed. The side pieces for the seat can be cut from the long strips left after cutting the large ones.

A contrasting color may be used for seam bindings or cordings and repeated on the covers for the removable cushions of chairs and davenports. To conserve

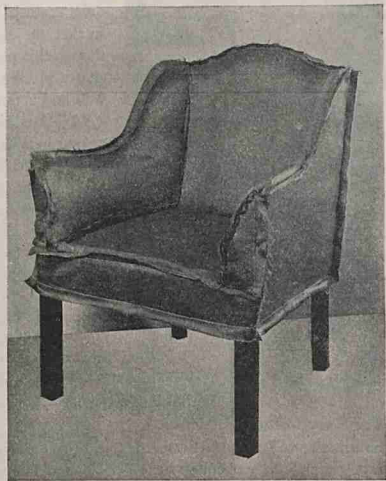


FIGURE 3. Pin fittings and well-marked seam lines insure accurate stitching, well-fitted covers, and eliminate guesswork



FIGURE 4. Small pads of gaily colored material are often more attractive than slip covers on straight chairs. They can be quickly attached by narrow fabric straps which fasten around parts of the chair as shown in the small illustration

the more expensive material a cheaper fabric, such as an unbleached muslin, osnaburg, or percale, is often substituted for the back of the cover and for the part under the loose cushions. The slip-cover material must extend far enough so that the sham does not show. Although this plan is economical, it necessitates placing the furniture against the wall and is not generally recommended.

Well-fitted slip covers require a placket or opening. Its position depends entirely upon the piece of furniture that is being covered and upon the type of fastener that will be used. Snaps, hooks and eyes, or buttons allow an opening to gap if much strain is put upon it. For this reason they are more satisfactory when the cover fits somewhat loosely as in Figures 1 and 6, or where the placket is inconspicuous. (Fig. 5.) When the cover is a substitute for upholstery it must be very

closely fitted. A sliding fastener (fig. 7, A) makes a desirable closing for the cover in Figure 2. It is placed in the seam that joins the outside part of the back to the piece that covers the outside of the arm. Figure 7, B and C, illustrates the necessary openings if a 1-piece slip cover is preferred for a chair similar to the one in Figure 5.

It is always advisable to shrink washable materials before making them into slip covers. The attractiveness of removable coverings is largely dependent upon good fit, and haphazard allowances for shrinkage are never reliable.

When making covers from plain materials or from fabrics with small reversible designs the cloth may be laid over the chair and cut without a pattern. To make the cover in Figure 2, start at the back and let the cut edge of the material come about 3

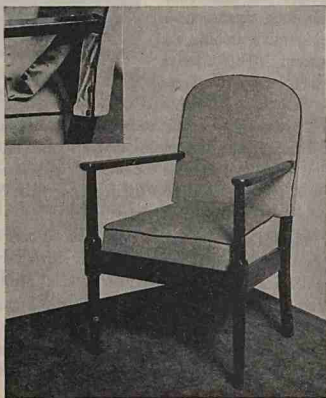


FIGURE 5. Plackets in slip covers must be as inconspicuous as possible. This cover opens under the arms and across the lower edge. The inset shows the details of the closing



inches below the upholstery. At the top of the chair pin the cloth to the permanent covering to hold it firmly in place. Allow a 1-inch tuck at L and smooth the material over the front of the chair. When stretching the material in place make sure that the filling or crosswise threads are kept parallel to the floor; otherwise the cover will be crooked and will fit badly after laundering. Tuck in the 4-inch allowance at CD and bring the material to EK. Mark the seam line with pins and cut off about an inch beyond the mark. Next stretch the material over the inside of the arms. Tuck in the 2-inch allowance at CE and pin to the chair covering along the top of the arm. Fit in the side pieces, allowing 3 inches at the lower edge for finishing. Put in the small pieces on the front of the arm and

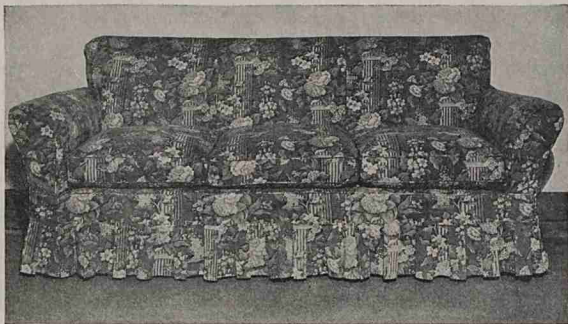


FIGURE 6. This cover illustrates the proper spacing of large design repeats. The pleated ruffle which finishes the lower edge carries out the vertical lines in the figure

across the front of the chair. Trim off any extra material, leaving about 1-inch allowance for all seams. When cutting the seat cover along CE and DK, 2 inches must be allowed so that there will be a total tuck in of 4 inches between the seat and the arm. After all pieces have been modeled and the cover is completely pinned together (fig. 3) it is ready for basting and seaming.

The kind of seams depends largely upon the material and the finished appearance desired, but in any case the construction must be durable enough to withstand the strain put upon it. French seams are preferable to plain ones, because the double stitching increases strength and covers the raw edges. Often seams are stitched on the right side, trimmed to one-fourth inch, and covered with a binding. Cording that contrasts with the slip-cover material (fig. 5) or matches it (fig. 6) may be used as a seam finish. When the material is too heavy for cording seams may be made as on the arm of the chair in Figure 2. They are stitched on the wrong side about three-sixteenths of an inch outside the marked seam line, turned, and stitched again on the right side. This second row comes on the seam line and gives a corded effect. The raw edges are trimmed to one-half inch and overcast.

When making slip covers for the first time or from material with large figures it is advisable to model a pattern from old sheets or from similar large pieces of old

cloth before cutting into the new. The pattern is made in precisely the same manner as outlined for the chair cover. Such a guide will be particularly helpful in calculating yardage and in spacing the designs.

The cover for the davenport in Figure 6 cuts with the least waste from 36-inch cloth. Each of the pieces for the cushions and back sections is cut from one width of material, which leaves a strip wide enough for the boxing around the sides and backs of the cushions. The back sections correspond with the three cushions and are joined by cording of the same fabric, but the actual construction follows the same general plan previously outlined.

Loose cushions should be covered separately, and the covering should be the same style as that of the cushion. For example, covers for boxed cushions must also be boxed and never made merely by sewing two pieces of cloth together. Since covers are taken off frequently one seam should be left open. It may be sewed by hand after the cushion is inserted, or it may be finished as a placket and closed with snaps, hooks and eyes, or buttons. A sliding fastener in the seam provides another very practical method of closing. It eliminates mashed snaps or hooks and broken buttons and closes the opening quickly and securely.

Although making slip covers is by no means a simple task, an amateur can produce attractive results if enough thought is given to the choice of material, proper placing of design repeats, good fitting, and strong seams.

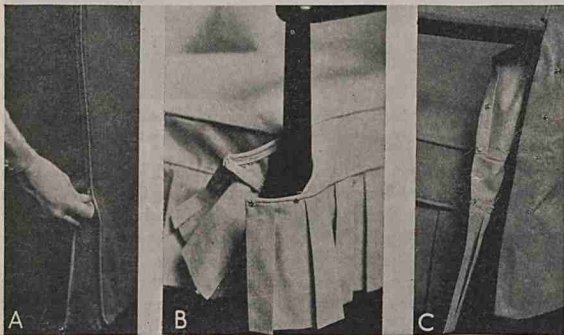


FIGURE 7. An opening is essential in all slip covers to insure close fitting: A, The sliding fastener closes the placket in Figure 2; B and C, uncovered arms require an opening around the post and the side back. Snaps make satisfactory fasteners for these plackets

*S S*

U. S. GOVERNMENT PRINTING OFFICE: 1931

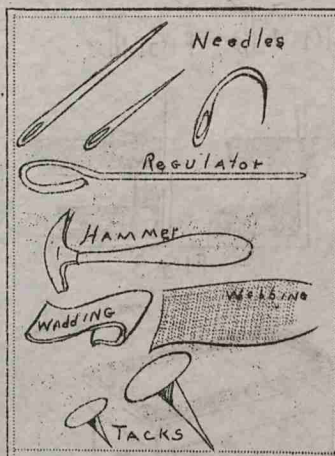
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS  
N.C. STATE COLLEGE OF AGRICULTURE & ENGINEERING AND UNITED STATES DEPARTMENT  
OF AGRICULTURE COOPERATING

Extension Service  
Home Demonstration Work

REUPHOLSTERING

**MATERIALS:**

Many of the necessary materials for ordinary reupholstering are probably on hand. Numerous parts of the old upholstery may be used again. Briefly; the tools needed are as follows: **HAMMER**, medium size or tack hammer. **PINCERS** or tack puller for stretching webbing, etc., and removing old tacks. **SHEARS**, large ones are best. **COMMON TACKS** - two sizes - large No. 8 or No. 10- for fastening webbing bands, bracing cords, etc., and smaller size, No. 2½ to fasten covering. **TWINE**, small linen or waxed - to sew springs to burlap. Strong binding twine - to tie down springs. **UPHOLSTERY NEEDLES** - several large needles - one 12 inches long - one 9 inches and one 6 inch curved needle. the "REGULATOR" sketch above is simply a bent wire of convenient length for re-arranging the stuffing after the first covering is put on. **UPHOLSTERY TACKS OR NAILS** - these may be purchased at any hardware or variety store.



**TOOLS**

**COVERING FOR SPRINGS AND STUFFING**- the springs may be covered with burlap, denim, canvas, or muslin, -burlap is best. **SPRINGS**- the old ones may simply need to be stretched, re-adjusted and be tied down again. New ones, or springs from old automobile cushions can be purchased at small cost. Springs 9 inches high are best for most chairs, larger ones for sofas. **STUFFING**- curled horse hair is best. Other materials often used are: moss, kapok and alva. Layers of wadding in sheets (cost about 40 cents per square yard) may be used for finer jobs where an especially smooth surface is desired.

**TOP COVERING** - this final covering has a wide range of materials to choose from- tapestry, denim, mohair, heavy cretonne, and other sturdy fabrics.

**GIMP OR BRAID** - this is a narrow braid or edging used to cover the common tacks and the edge of the outer covering. Metalline or leather upholstery tacks are best for fastening the braid.

When you remove the old upholstery observe every detail. Note how the braid, outer covering, inner covering, stuffing, springs, and webbing are put on and the size of tacks to use for the various materials. Save the best of the old materials except the outer covering.

**TYPES OF UPHOLSTERY**

Upholstered furniture belongs to one of two groups-upholstery without springs and upholstery with springs. In the latter group are often found such things as foot stools, dining room chairs, etc.



## UPHOLSTERY WITHOUT SPRINGS

### 1. Upholstering a Hard Wooden Edge Seat

This is the simplest type of upholstering. It is made over a flat surface with no springs. The work consists in spreading a layer of stuffing on the board, covering this with muslin, and tacking down a top cover which is finished off with upholstery braid.

#### Directions:

Choose a cover of practical material, select gimp and upholstery nails to match. Fine excelsior or hair may be used for stuffing. Do not use cotton as it will mat down and become hard, but cotton may be used on top of the other stuffing.

Fluff up the stuffing, then spread it out thick on top of the board, leaving a margin at edge as in Fig. 1.

Over the stuffing place a piece of muslin or cotton as in Fig. 2. A. Tack down with small tacks  $\frac{1}{2}$  inch from edge of board. Tack middle of sides of cloth first then work toward corners. The wire or regulator, Fig. 2, is now inserted through muslin to push stuffing well toward edges and even it. Over the tacked muslin may be placed a layer of wadding for greater smoothness. Over all stretch top covering.

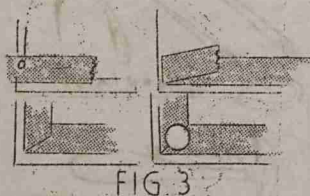
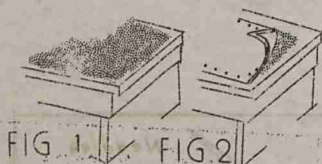
Fasten at even intervals with small-headed tacks and have the row of tacks at least  $\frac{1}{4}$  inch from edge of board. Trim outer covering  $\frac{1}{8}$  inch from edge. Tack gimp over the edges of the covering.

Fold braid as in Fig. 3. The braid is secured at edge of covering, A, with a small tack. Fold braid back over tack as at B. Fold across corner as at C. Put on upholstery, tack as at D. A finished stool is shown in Fig. 4.

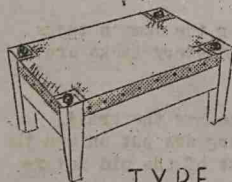
### 2. Upholstering Soft-Seat Chairs or Footstools With Webbing Bottoms

See illustrations at left. Soft chair seats without springs and the backs of many chairs are upholstered according to this type which is quite similar to the foot stool, Fig. A. In upholstering of this type the covering should be extended over the edge as in Fig. 3 to give more strength.

In upholstering a soft seat chair or foot stool it is very essential to stretch the webbing and tack it securely.



TYPE A

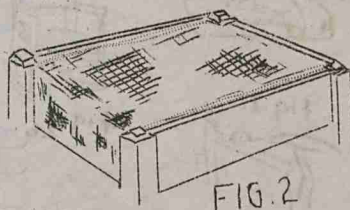
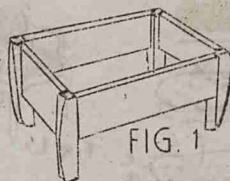


TYPE A



Directions:

The chair seat or foot stool as shown in Figs. 1, 2, and 3 is made over a flat, board frame work. First, nail the webbing on as in Fig. 2. Under this a piece of burlap is tacked to keep stuffing from falling through. Cambric may be tacked under all as a dust preventive. Make a mound of stuffing in the seat space and on top place a layer of wadding or cotton batting, then place a muslin covering over all and tack down. Tack the muslin and top covering down so the final braid will lie flat. Put braid or gimp all around the edge and tack with upholstery tacks at even intervals. The back of this kind of chair is handled in the same way as the seat.



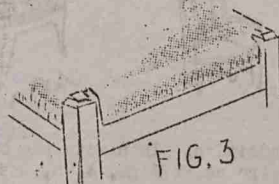
UPHOLSTERY WITH SPRINGS

3. Upholstering a Spring Seat with Hard Edge

This is the most important of all types because most of our upholstered chairs are in this group. Spring seats may be either detachable or part of the chair.

Directions:

In taking the chair apart observe every detail of construction. Save webbing, stuffing and any unworn part. Stretch old springs, if good, to double their height.



First, insert the springs in the chair frame or in the detachable box frame shown in Fig. 1. To do this turn the chair or frame upsidedown and nail on webbing as directed for this type of seat. Arrange so the springs will come at the inter-section of the webbing in case the webbing strips may be any distance apart. The springs should be two or three inches away from the frame work. For four springs there will be two strips going each way as in Figs. 1 and 2.

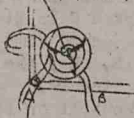


TYPE E.

FIG. 2



C FIG. 4



B FIG. 6

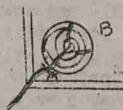


FIG. 3



FIG. 5

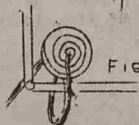
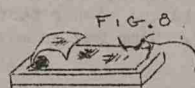
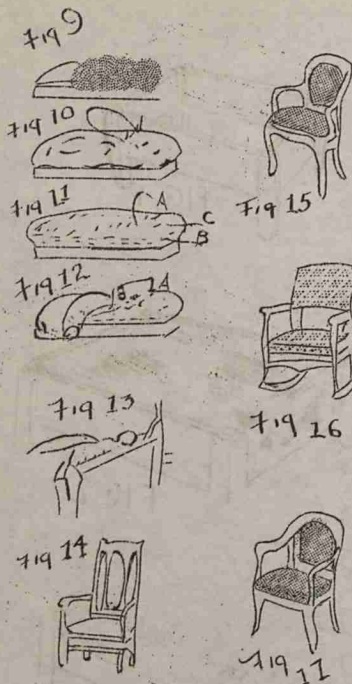


FIG. 7



FIG. 8





For five springs there will be three strips going each way as in Fig. 3. For six springs there will be three strips one way and two the other. Lay the springs on the inner section with the end points of the wire turned down at the top, then with a needle and sewing twine sew springs to webbing as in Fig. 2. Loop the twine several times around the bottom end of the wire and fasten it securely. Tie the spring at the finish. In some chairs there is a wooden base under the springs, the springs are attached to this with strips of cloth nailed over the wires.

Second, tie down the springs with coarse twine. This is the most important step as the twine has all the strain of the chair seat. The cord must, therefore, be strong, 1/8 inch thick and tied according to directions as shown in the illustrations. The cord should be tied eight times across each spring as shown in Fig. 3. The same cord goes across successive springs. Begin at a point on the frame opposite the center of the spring. Make a knot with the end of twine and tack down on frame as at A. Put a second tack close to the first as at B to hold twine better. Pull the twine across the row of springs to opposite side of seat, straighten the springs and pull them down to the required

position. Then with the twine make the knot as follows: The twine goes over the wire as at Figs. 4, 5, and 6. Fasten twine down to opposite side of seat with tacks and knot.

Third, tack down the burlap over springs as in Fig. 8. Stitch burlap down with curved needle and sewing twine as at Fig. 8, A.

Fourth, place the stuffing. Old stuffing should be fluffed up. Put on a generous amount, having it overlap edges as at Fig. 9.

Fifth, tack another piece of burlap over the stuffing as at Fig. 10. Fasten down by stitching all around as shown. The stitches are taken through the burlap and stuffing with the long needle coming out underneath the seat. Go around just at the outside line of springs and take a stitch or two through center part.

Sixth, make a hard edge as at Fig. 11. It is made by stitching up and down through the edge until a firm roll is formed. To do this begin at a corner with a curved needle and sewing twine. The stitches are taken as at A the first time around. The lower stitch-line marked B in Fig. 11 is 1 1/2 inches above the row of tacks and the upper stitch line marked C is midway between the frame edge and the edge of the spring. Go around the second time taking smaller stitches as at D.

Seventh, cover over as at Fig. 12. Lay the muslin, Fig. 12, C, on top of all. Tack down, folding neatly at corners.

Eighth, lay the final covering, put it on like the muslin with neat corner fold and either fasten under frame work as at Fig. 14 or along the sides as Fig. 17. Gimp may or may not be added.

Place stuffing on arm of chair. Arms of chairs are stuffed as at Fig. 13, tack twine in loops several times around arm. Lay on a little wadding and fasten by tacking. Cover with muslin and over all tack down the upholstery material.

Fig. 14 shows the spring seat finished underneath.

Fig. 15 shows the spring seat finished off at upper edge.

Fig. 16 shows the seat made on separate frame work and set in. Morris chairs and big arm chairs have seats like this.

Fig. 17 shows the seat with upholstery coming down on sides of frame work. If chair backs have springs, finish like seat in Fig. 15.

#### 4. Upholstering a Spring Edge Seat

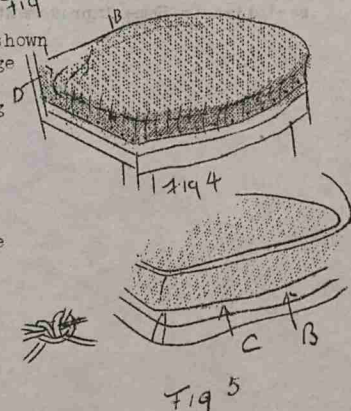
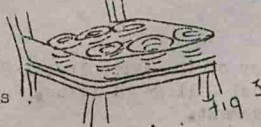
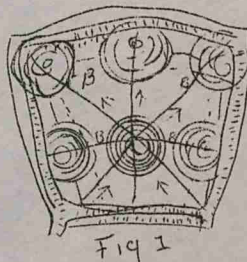
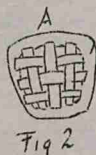
TYPE F

See illustration marked

Type F. This type is quite similar to Type E being a cushion seat with springs but in addition there is a spring edge all around the seat. Many settees, lounges and sofas are upholstered by this method. The upholstering of this type is similar to Type E except for the way in which the springs and spring edge are tied down which is as follows:

First, after tacking webbing with strong tacks, attach springs in position on crossings and sew them to webbing as described under Type E. Tie them down, however, as shown in Type F, Fig. 1. The twine passes from the large top coil Fig. 1, B, to a smaller coil, C, down inside the spring to which it is tied before going down to edge of C. This tying down of the inner coils keeps the springs erect. Second, tie the springs to spring edge as shown in Fig. 3. In between each two springs nail the twine down to seat with a tack through a simple knot as at Fig. 3, B. Third, stretch burlap over spring, see Section at Fig. 4, A.

The remainder of the job is very similar to Type E except for the things illustrated in Figs. 4 and 5.



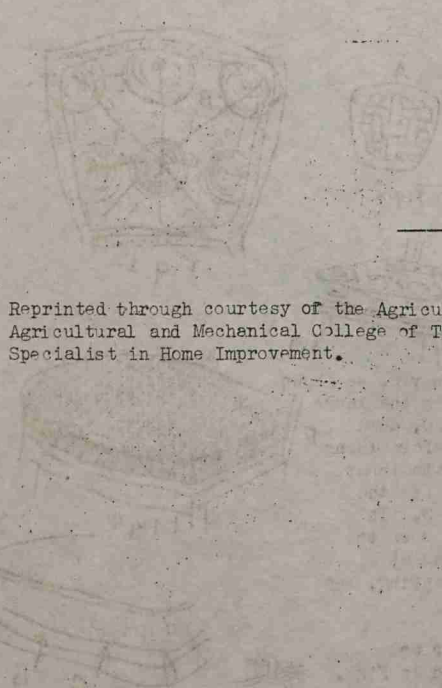


### SUGGESTIONS

Tack the centers of sides of straight materials first, then go toward the corners. If necessary put in temporary tacks until the covering is adjusted properly.

File off sharp wooden edges over which it is necessary to stretch covering or the sharp edge will wear out the material. Allow plenty of material to cover a seat and trim off after it is on. Space webbing bands evenly, putting middle ones on first.

Use your judgment in upholstery problems. Although directions are given here there are steps which may be omitted in your particular case. Be guided by the construction of the seat and the available material.



Reprinted through courtesy of the Agricultural Extension Service of the Agricultural and Mechanical College of Texas. Bernice Claytor, Extension Specialist in Home Improvement.



January, 1939

(Reprint) Extension Circular No. 206

---

# CHAIR CANING

---

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING  
OF THE  
UNIVERSITY OF NORTH CAROLINA  
AND  
U. S. DEPARTMENT OF AGRICULTURE, CO-OPERATING  
N. C. AGRICULTURAL EXTENSION SERVICE  
I. O. SCHAUB, DIRECTOR  
STATE COLLEGE STATION  
RALEIGH

---

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF MAY 8 AND JUNE 30, 1914

# CHAIR CANING

By L. MILDRED WILSON and NORA WORKMAN\*

Many beautiful chairs are carried to the attic or discarded because the cane parts are worn or broken.

Sometimes the work is postponed because of the expense of having it done, but more often, perhaps, because the home-maker does not know how to go about the task. The work requires time and patience, but it is not difficult.

## DESCRIPTION

Cane, the outside part of rattan, a palm, is imported from India, China and some other countries.

All cane has more gloss on one side than the other. It is available in superfine, fine, medium and coarse widths. The width to be used depends on the distance between the holes. Judgment must be exercised in selecting cane.

Cane is sold in bundles of approximately 1,000 feet. The wide cane used for binding is usually sold by the foot.

## EQUIPMENT NEEDED

1. Chair to be caned.
2. Cane.
3. Six or eight wooden pegs. These usually come with the cane. If not, they can be whittled from soft wood or small sticks.
4. Awl, icepick or nutpick.
5. Scissors or knife.
6. Low stool or chair on which to sit while working.
7. Clean cloth or sponge.
8. Pan of water.

## PREPARATION OF THE CHAIR

1. Examine the old cane before removing it from the chair.
  - a. Note the size.
  - b. Clip a short length of the weaving cane to use as a guide when buying new cane.
  - c. Clip a small piece of the wide cane used for binding.
2. Turn the chair upside down and note that the ends are twisted around the cane or the under side of the frame.
3. Remove the old seat by cutting it off close to the wood. Keep this for a pattern.
4. Remove all cane from the holes.
5. If the furniture is to be refinished, complete that work before starting to recane.

---

\*Reprint of publication issued by the Agricultural Extension Service of the Iowa State College, Ames, Iowa.

### PREPARATION OF THE CANE

Be sure the amount on hand is sufficient for the entire chair. One bundle is usually enough for three or four chair seats. If the cane must be stored keep it in a clean place, preferably not too dry. Dampen each piece of cane with a wet sponge or moist cloth before starting to weave. Repeat as needed during the weaving. Do not permit it to become wet, however, until it is actually needed.

### PRECAUTIONS

1. Keep the shiny side of the cane on the top at all times.
2. Do not permit the cane to become twisted while weaving.
3. Keep the cane damp while weaving.
4. Do not draw the weaving of the first four steps too tightly. They tighten up as the weaving progresses and as the cane dries.
5. Passing over a hole on the under side should be avoided if possible as this interferes with the use of the hole.
6. Keep all lines running straight and parallel.
7. Do not try to weave far before pulling the cane through in steps 4, 5 and 6.

### DIRECTIONS

The following directions are for a square seat. Seat frames vary widely in shape, making slight adjustments necessary.

STEP 1: Draw one end of a strand of cane downward through the second hole from the left corner of the back of the chair frame. (See note on page 4.) Allow the end to extend about 3 inches below the frame. This is to be tied onto the cane on the under side of the frame after the weaving is completed. A wooden peg will hold the cane in place. The right side of the cane should appear on both the top and the underside of the frame alike. Draw the strand reasonably tight across the frame and downward through the second hole from the left corner of the front of the chair, that is, the hole exactly opposite on the front part

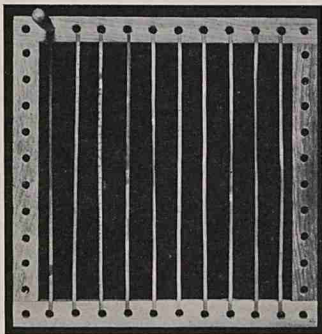


Fig. 1—Step 1

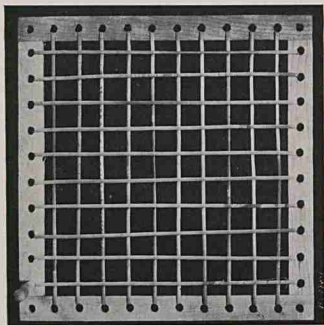


Fig. 2—Step 2

ing from the center to the outside, and then do the other half in the same way.

of the frame. Fasten temporarily with a peg. Draw the cane up through the next hole. Carry it to the back in the same way and repeat from the back to the front and vice versa until all the holes on the two parallel sides have been used. The corner holes are not used in step 1.

NOTE: If the chair seat is round or wider across the front than across the back it is wise to begin with the center hole in the front and the center hole in the back, complete one-half of the seat by work-

STEP 2: The strands are drawn across the frame from the left side to the right side and vice versa. They all run over the strands of step 1.

STEP 3: The third step is an exact repetition of step 1. The cane extends clear across the frame in the same direction and into the same holes. The corner holes are not used until step 5.



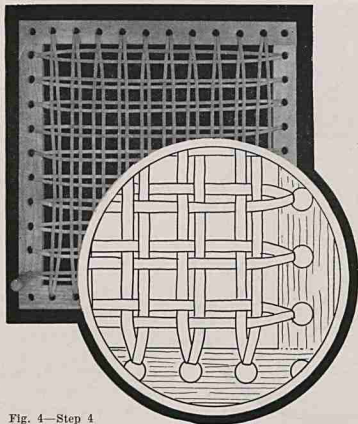


Fig. 4—Step 4

corner of the back of the frame and weave diagonally across to the right-hand corner of the front of the frame. Usually one weaves *under* the groups that run from the back to the front of the chair, and *over* the groups that run crosswise.

The diagonal strands should slip between the strands of the vertical and horizontal pairs at each right angle crossing of the pairs. Repeat until the entire surface is woven.

Two strands run into each corner hole.

STEP 4: The first real weaving begins with this step. The cane must go in the same direction as in step 2. This time it is woven over the strands of step 3 and under the strands of step 1. Always push the strands of step 3 in the same direction, usually to the right. The strands of step 4 may be woven in on either side of the strands of step 2, but all rows of step 4 should be on the same side of step 2.

STEP 5: Start the strand at the left-hand

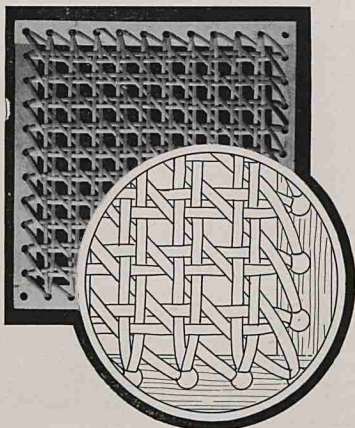


Fig. 5—Step 5

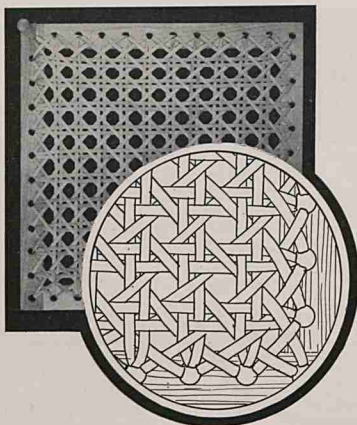


Fig. 6—Step 6

*under* a pair of verticals (steps 1 and 3) or horizontal (steps 2 and 4) the strands of step 6 should *cross over* and vice versa. Two strands run into each corner hole. When the entire surface is woven in this way the weaving is completed and ready for binding.

**STEP 7, BINDING:** Select binding cane wide enough to cover the holes. If the seat is curved at the corners the binding may be one piece. When the corners are square a piece must be used for each side. Fasten one end of the binding strip securely into a corner hole with a wooden peg. Place the remainder over the holes along the edge of the weaving.

**STEP 6:** This set of strands is started from the right-hand corner of the back of the frame, and is woven diagonally across to the left-hand corner of the front of the frame. Usually one passes *over* the groups running from the back to the front and *under* the groups running from side to side.

The same rule applies here as in step 5. The diagonal strands should slip between the horizontal and vertical pairs at each right angle intersection. When the strands of step 5 are

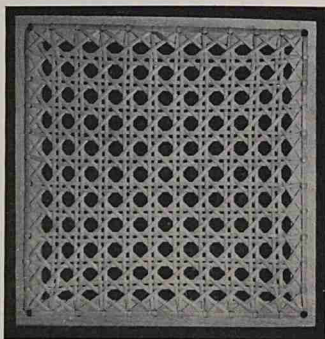


Fig. 7—Binding



Fig. 8—Tying

Fasten the end of a piece of weaving cane securely. Pull it up through the nearest hole, over the binding cane and down through the same hole. The loop formed holds the binding securely. Pull tightly and continue around the chair, going into every hole unless they are extremely close together. The ends of the binding cane may be overlapped and made fast with a loop of cane.

**TYING:** All ends of cane should be tied or wrapped onto the cane on the under side of the frame. It must be very wet and pliable when tied.

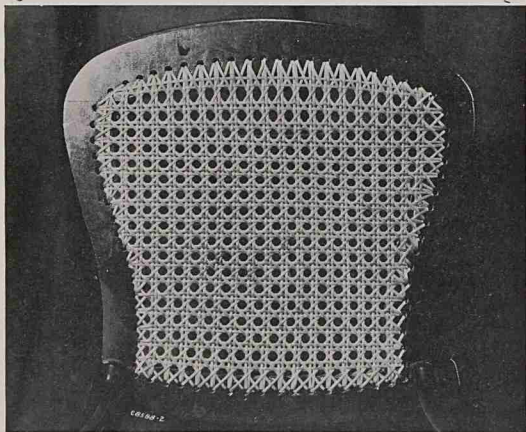


Fig. 9—Chair seat with straight back and curved seat ready for binding

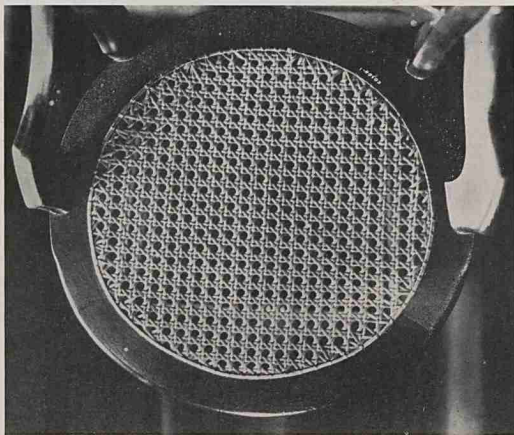


Fig. 10—Round chair seat completed

### VARIATIONS IN SHAPES OF CHAIR SEATS

If the chair seat is not square, it is necessary to adapt these instructions for weaving to the particular chair.

### FINISHES

Cane may be left the natural color or stained. An oil stain is satisfactory and is easy for the amateur to use. A coat of white shellac or clear varnish may be brushed on as a final finish if desired.

Caning is fascinating as well as practical. One must be careful to do each step correctly, but it goes along rapidly, even when the work is carried on at odd times.



LEARN TO WEAVE RUSH SEATS FOR YOUR CHAIRS

Fig 1

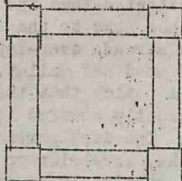


Fig 2

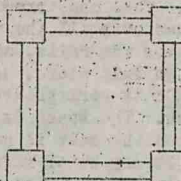
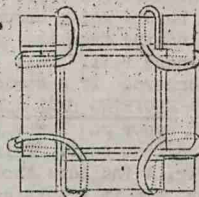


Fig 3



If rushes, cattail flags or corn husks are used, they should be cut in August and the butt ends removed. Dry them in a dark place so as not to bleach out the lively green color. Do not break the stems. When thoroughly dry, tie in bundles and store away for future use. Before working allow them to lie in a wet cloth to soften. As each leaf is needed take its tip between thumb and first finger and squeeze downward to press out air and water. Fibre cord twine or hemp is very pliable and requires no soaking. To make these fit more tightly when going around a corner they may be run through a damp cloth. Raffia should be kept moist but not wet. A good plan is to keep a damp cloth in the box with the raffia or store it in a damp cellar. Raffia should not be soaked in water just before working. Use a damp cloth or a sponge to moisten the surface of the strands and the finger tips occasionally while twisting the strands.

**DIRECTIONS FOR RESEATING:** The raffia, cattails, rush and cornhusks come in short pieces and must therefore be twisted together into cords as one progresses. Other materials can be used in a continuous length.

**SPlicing AND TWISTING THE RUSH:** Twisting is done by rubbing the rushes or raffia against the thigh with the palm of the hand. As several strands are used in making the cord, different lengths are chosen for each strand, thus causing the piecing to be done by installments while the cord remains of the same general thickness. Three or four strands are usually twisted together to form a cord. Always twist in the same direction. As a strand gives out add a new one. The point of joining should be carefully selected as the new ends should not show. The best place to join is at the corners where the coil turns back for a new direction or concealed under the chair seat.

The frame for wrapping a rush seat is such as you will see on any rush-bottomed chair, having four rounded side pieces fitting into corners that are square and slightly higher than the side pieces. A regular chair frame is shown in Fig. 1. Sometimes the side pieces are round as in Fig. 2. Sometimes the chair frame is irregular (Fig. 5), or rectangular, (Fig. 6). For all shapes and sizes the same course is followed by the winding material.

Begin with upper right-hand corner, as in Fig. 3. Lay end of material on top of rail A, allowing several inches of cord to spare at end. The cord now passes over edge and under rail at A; then over the end of the corn and over cord and rail at A; then over the end of the corn and over top edge of rail B.

Pull cord tight under rail at B, carry it directly across to upper left corner of the frame and over top of the opposite rail at C; then around the edge under the rail, up and over the cord and rail at D, and over edge of D.

Pull cord tight under rail at D, and carry it directly across to the lower left corner of the frame and over the top of opposite rail at E; then around the edge, under the rail, up and over the cord and rail at F, and over the edge of F.

Pull the cord tight under rail at F, and carry it directly across to the lower right hand corner of the frame and over the top of the opposite rail at G; then around the edge, under the rail, up and over the corn and rail at H, and over the edge of H.

Pull cord tight under the rail at H and carry it directly across to upper right corner of the frame, from where the same circuit is repeated each time around.

Remember that each corner in all succeeding rounds the cord is passed over the first rail as usual, for instance over A, and then under it and also under all fixed cords adjacent to it before being passed up through the center space. The arrow under A in Fig. 3 shows the course of the second time around. Also when crossing to the opposite rail, the cord passes over all cords adjacent to that rail before going around the rail. The long arrow in Fig. 4 indicates that the cord coming from the right will pass over all the vertical strands next to the left-hand rail. Pull cord tight over the rails, and do not let strands overlap at corners. If a strand will not go into place, use a block of wood and mallet.

**STUFFING SEAT AND REFINISHING:** As work progresses you will notice that there is an upper and lower layer of rush. The space is between is usually stuffed to make a firm seat. This is done when the seat is half finished. The dark portions of Fig. 4 indicate the stuffing. It may be of raffia, corn husks, excelsior or paper, but it should be put in flat layers. When seat has been completely wrapped, the cord is passed through center of the seat, divided in half, and tied to one of the cords underneath.

**SHELLACKING THE SEAT:** The cord seat should be given a couple of coats of shellac or varnish to preserve it from moisture, and to give a smooth surface. Care should be taken when shellacking that any loose ends are forced into place. If you wish to stain or paint seat the same color as the chair, do so before shellacking, dry thoroughly before applying shellac.

**WRAPPING AN IRREGULAR SEAT:** Very often chair seats are irregular in shape, as in Fig. 5, where the front rail is longer than the back but the side rails equal. The first step in winding a chair of this shape is to draw a line from each corner at the back, at right angles to the front rail. Stretch a string over this line. In Fig. 5, AB is at right angles to front rail, and CD is also at right angles to it. Space ABCD is now square. To fill in the extra space at right and left, tack one end of the cord to the inner edge of the left side close to the corner. See lower left side arrow. Wrap this cord around the corners as shown in Fig 5, and tack the other end to the inner edge of the opposite rail. See lower right side arrow. Tack another cord to the inside of left rail a little above the first, and proceed winding it around the corners until the opposite side is reached, where the end should be tacked to the right hand rail just opposite the left end. Keep adding tacked-in cords until spaces at right and left are filled. The remaining square space may now be filled in according to regular directions.

**WRAPPING A RECTANGULAR SEAT:** Oftentimes the seat is oblong in form, being wider from side to side of the chair, in which case the side rails will be filled before front and back rails. See Fig. 6. The remaining space is filled by passing cord around front and back rails and through center in the form of a figure eight. The figure eight wrapping starts after the corner squares have been filled until they touch each other, as at 6A. The cord now passes over the front or back rail as usual and across all finished work and underneath, to the center, and through to the top as at D. Continue around to opposite rail and underneath to the center, then through to the top. Repeat this until all space is filled in, then tie the end of the cord underneath the finished seat.

(McCall Needlework, August 1927---By Osma Palmer Couch)

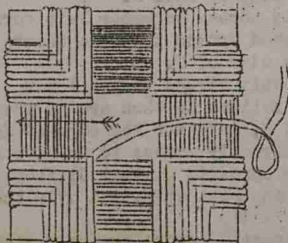


Fig. 4

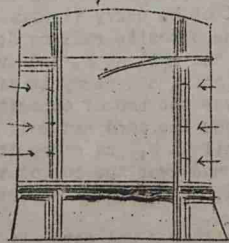


Fig. 5

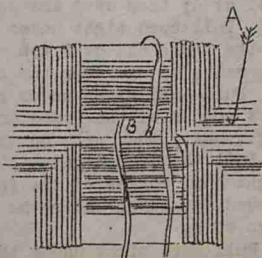


Fig. 6



## ACCESSORIES

### I. Kinds of Accessories

Accessories include all small decorative objects, such as: books, book ends, what nots, clocks, mirrors, smoking sets, fire place equipment, foot stools, waste paper containers, pottery, vases, small dining equipment, table runners and mats, chair mats, cushions, candle holders and candle sticks, door stops, fire screens, etc. Flowers, pictures, lamps, and textiles are so important that they are studied separately.

### II. Selection

The appearance of a room depends to a large extent upon the accessories and in selecting them the homemaker has an opportunity to enhance the beauty of her home. It is better to have too few rather than too many and each object should be given careful thought. She should choose only those accessories which harmonize in color, design, and appropriateness to the furnishings and size of the room. Interesting points or arrangements in a room may be accented by using accessories of contrasting color.

### III. Characteristics

1. Good structural lines.
2. Conventional rather than naturalistic decorations.
3. The color of the object should repeat some other color in the room or harmonize with other colors.
4. Appropriate in type and texture for the place in which it is to be used.

### IV. Testing

Every homemaker should ask herself the following questions concerning each object and thus determine whether or not it is worthy of a place in her home:

1. Does it have good structural lines?
2. Are the decorations conventional?
3. Does the color harmonize with the color scheme of the room?
4. Is its type and texture suited to the room?
5. Is there a definite place for it?
6. Does it have artistic merit or is it just a sentimental souvenir?
7. Should it be kept, put in storage, or discarded?

### V. Placings

#### A. Living Room

##### 1. Mantel

- a. Should contain only 3 to 5 objects.
- b. Candle sticks are good only where wall brackets are not used on the wall above.
- c. A clock or large vase of flowers should be avoided where an interesting picture is used above the mantel.

d. Art principles should be observed.

2. Tables

- a. Table should contain a few good books between book ends, vase of flowers, or potted plant, ash tray, cigarette holder, or small ornamental box, and lamp.
- b. Objects should be arranged on table so that they could be quickly removed if table is to be used for cutting, writing, playing games or any other purpose.

3. Piano

- a. Covers, such as fringed scarfs and imported shawls, should not be used.
- b. Very few, if any, objects should be placed on the piano.

4. Sofa cushions

- a. Cushions of plain, simple construction, deep rich colors; made of materials such as: cretonne, printed chintz, Indian head linen, heavy corded silks, satin, and sateen, applique, or patch work of silk or wool.
- b. Avoid boudoir type pillows of chiffon, organdies, voiles, laces, etc.

B. Dining Room - Very few objects should be placed in the dining room. China and glassware should not be displayed on the buffet or sideboards.

C. Bedroom

1. Bed

- a. Only these things which do not interfere with the comfortable and restful appearance of the bed should be used.
- b. A few well chosen boudoir pillows may be used.
- c. Crepe paper dolls, etc., should never be used.

2. Dresser

- a. Combs, brushes, and toilet articles should be kept in the drawer.
- b. A few well arranged articles from the following may be used:  
Boudoir lamps, dresser sets, perfume bottles, etc.



## HOME MANAGEMENT AND HOUSE FURNISHINGS

N. C. State College, Raleigh  
Home Demonstration Division

Pauline E. Gordon, Extension Specialist  
Mamie N. Whisnant, Ass't Ext. Specialist

### Mantel Arrangement

"The fireplace is the focus of interest in the room-- meaningless things have no place there."

The fireplace is the soul of a house, the feeder of imagination and the symbol of the home. The mantel is its frame.

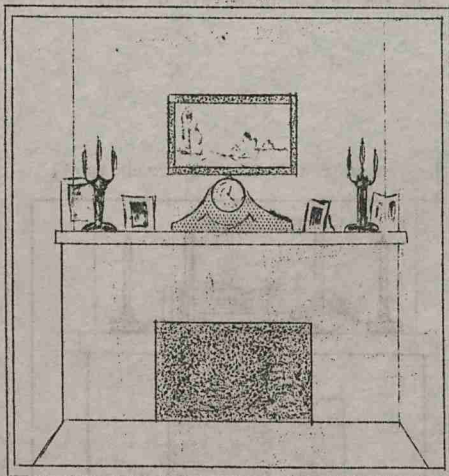
In mantel arrangement one is faced with two questions:

1. What should be placed on the mantel shelf?
2. What should be put on the wall above the shelf?

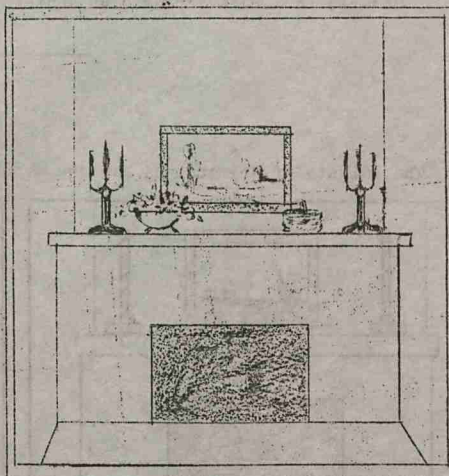
The answer to both of these is "Not too much."

### Mantel Shelf Arrangement

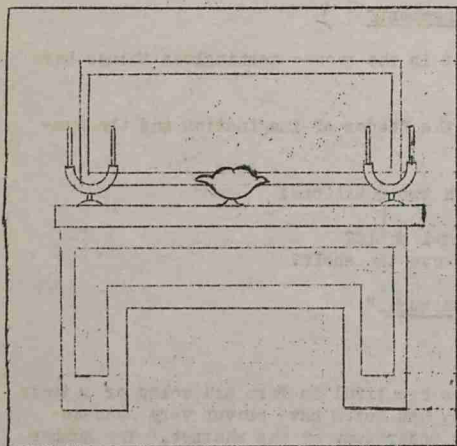
The objects on a mantel shelf should be beautiful in form and color or objects of unusual interest. Grouping of three, five, and seven have proven very successful. The mantel shelf should never become an understudy of the whatnot. The number of objects on a mantel should be carefully considered and there should not be two or more centers of interest.



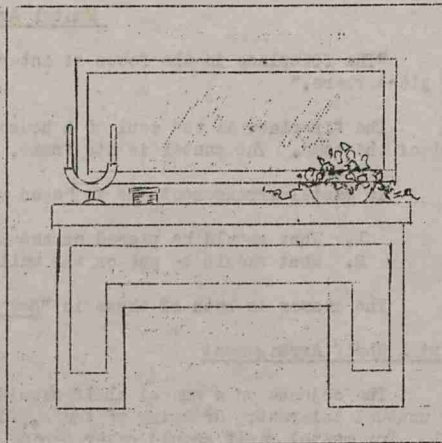
Poor: A picture and a clock are used over the mantel which create two centers of interest. Too many objects.



Good: By the removal of the clock and photographs, the lowering of the picture and the use of flowers and a little basket, a more pleasing arrangement is made.



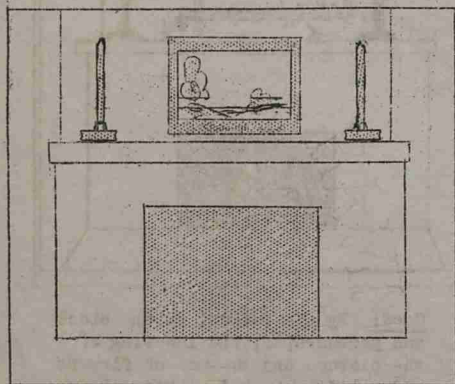
Formal Balance



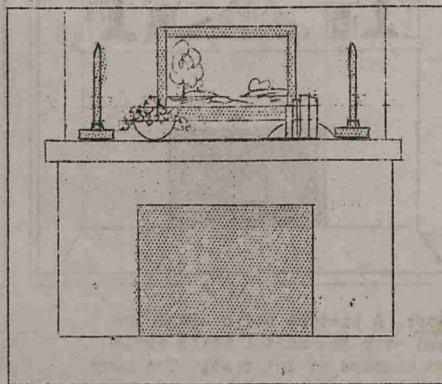
Informal Balance

Objects should be arranged on mantel to conform to the principle of balance.

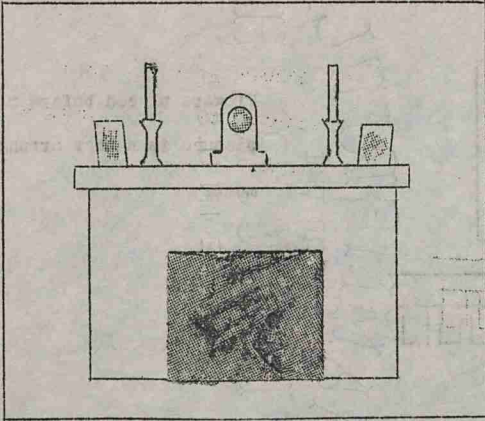
The heights of objects and spacing should be considered in mantel arrangement.



This arrangement is poor as the heights of the candlesticks and picture are the same, and the spaces between the objects are equal.



A more pleasing arrangement because heights of the objects and spaces vary.



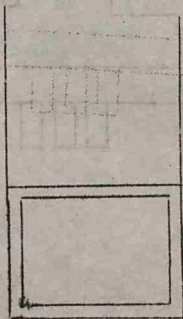
A pleasing variety in the size, shape, and height of objects. Note spaces between objects vary.

#### The Space Over the Mantel

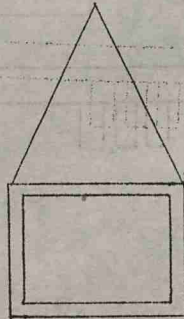
A picture or a mirror is desirable for the space over the mantel. The majority of people prefer a picture. Regardless of which one is chosen, it should be of sufficient size. A grouping of small pictures may be used.

A portrait, a landscape, or a marine scene is suitable for the space over the mantel. Its color should be the keynote for the dominant hue of the room.

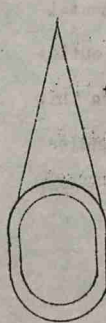
A picture or mirror should be hung to conform to the lines of good design. One should avoid hanging the picture too high or too low.



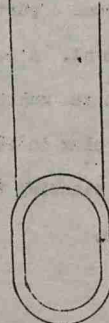
Good



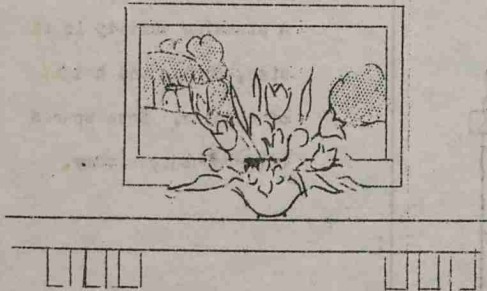
Poor



Good

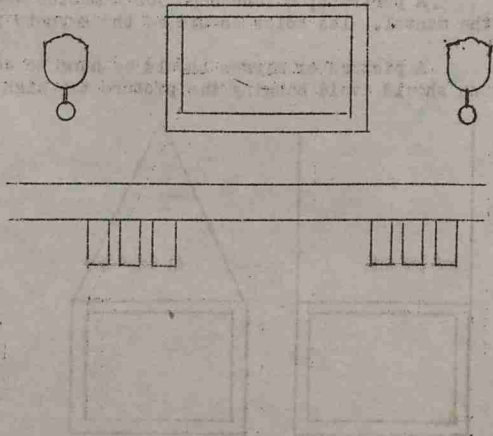


Poor



Flowers placed before a picture is a poor arrangement.

Wall brackets used for side lights should be shaded and placed at an adequate distance so that they will become a part of the mantel arrangement. A convenient outlet place in the mantel shelf so that one can plug in lamps or candles is more pleasing than the bracket fixtures.





## BEDROOM

### I. Furniture Arrangement -

All large pieces of furniture should be placed to conform to the structural lines of the room, and balanced in arrangement. A bedroom should contain but few things. These should be well placed.

#### A. Bed -

- (1) Should not face window.
- (2) Near enough window so that sleeper gets air.
- (3) Bed near door gives effect of small unattractive room.
- (4) Do not place bed against wall. Be able to make bed without moving it.

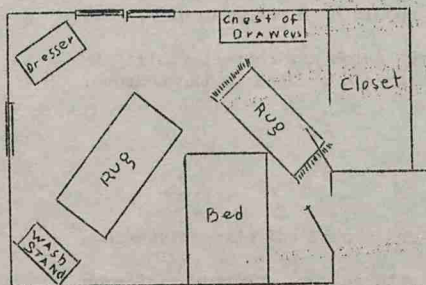


Fig. 1

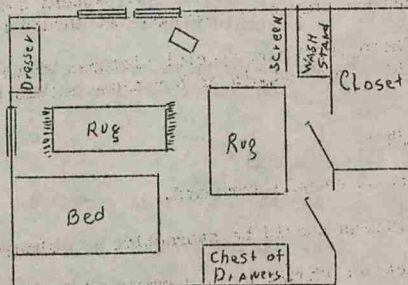


Fig. II

#### B. Dresser -

- (1) Place so that light falls on person standing before mirror.
- (2) Place a few well arranged things on top of dresser--avoid a cluttered appearance.

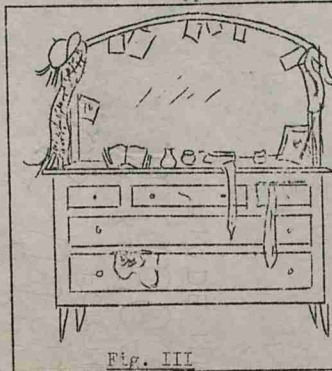


Fig. III

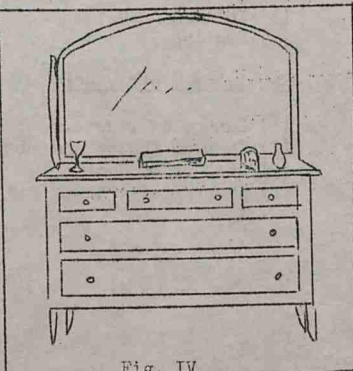


Fig. IV

C. Wash Unit -

- (1) Place in as private place as possible.
- (2) Use screen to protect it.

II. Walls -

- A. Some light tone such as ivory or light gray is preferable for the bedroom walls. A definite blue, yellow, or green is pleasing; but one might tire of an entire room of it. Use one's favorite color in the details of the room--in curtains, rugs, bedspreads, pictures, etc.  
If wall paper is used, the pattern should be restful. It should stay back quietly. It should be a background.
- B. Photographs and special pictures which are characteristic of the owner and his or her taste should be used in the bedroom.

III. Windows -

- A. Should be well screened.
- B. Curtains should be attractive and should add attractiveness.
- C. Curtains should be in harmony with general structures of room.

IV. Care of Bedroom -

A. Daily Care -

- (1) Airing of bed.
- (2) Making of bed.
- (3) Putting away things.
- (4) Dusting.

B. Weekly or Monthly Care -

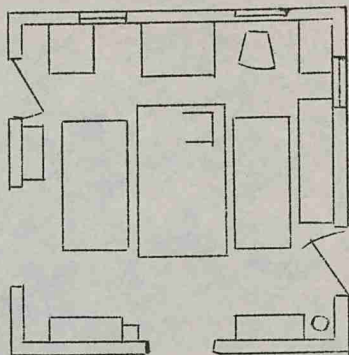
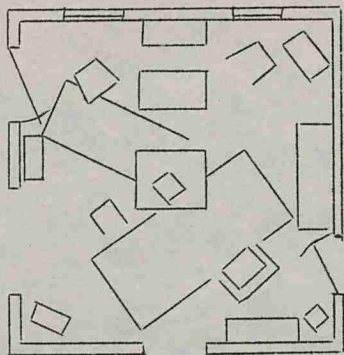
- (1) Change of linens.
- (2) Care of floors and rugs.
- (3) Care of woodwork.
- (4) Washing of windows and mirrors.

PRACTICAL CONSIDERATIONS IN FURNITURE ARRANGEMENT FOR THE  
FAMILY LIVING ROOM

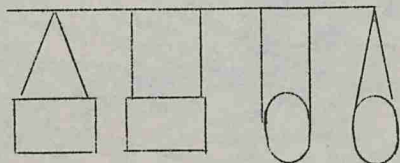
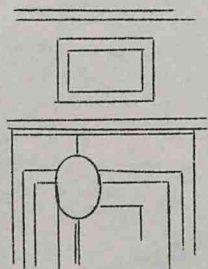
1. Study your own family to find what things each would like to have in the living room to make it "homey" to them.

<u>For Each</u>	<u>Adults</u>	<u>Children</u>
Comfortable sitting space	Conversational	Study tables or
Good Light	Group	desks
Storage Space	Smoking Stand	Game tables
Books and Magazines	Sewing materials	Musical instruments
	Writing desk	Much cupboard space
	Radio ?	Furniture adapted to size of child.

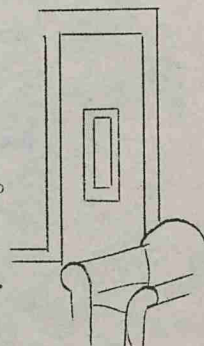
2. Plan a group from your furniture for each which will meet their desires as nearly as possible.
3. Plan a space in the room for each one of these groups.  
Consider: Paths of travel through the room.  
Light - day and artificial.  
Size of wall spaces and groups of furniture.  
Place in room preferred by each.  
Social use of room.  
Writing and study groups withdrawn from social group.  
Reading chair with comparative isolation, etc.
4. Have only useful and comfortable furnishings,  
and  
Eliminate everything that is not fundamental to the comfort and happiness of some one, as last year's calendars, etc.
5. Balance the arrangement - Furnishings must balance on the floor space and each of the four walls must balance within itself.  
Formal Balance - Like or equally heavy objects are placed an equal distance from center.  
Informal Balance - Unequally attractive objects placed at varying distances from center. Heavier object comes nearer center.  
Bright colors, interesting shapes and more material give added weight.
6. Repeat each color, shape or idea in more than one place in the room.
7. Be sure that one group in the room is sufficiently attractive to be seen first and to serve as a center of interest.



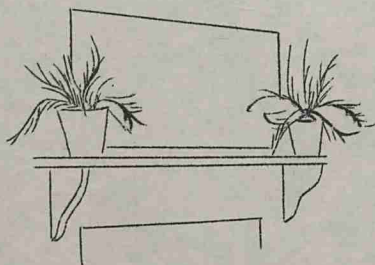
Diagonal placing decreases apparent size, is confusing and restless.



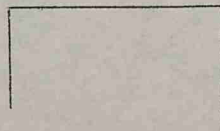
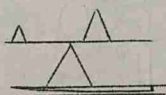
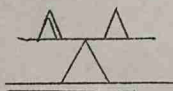
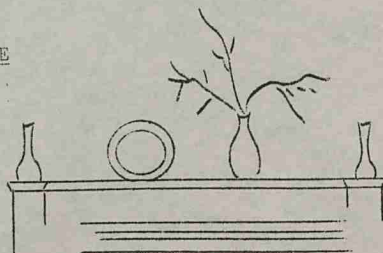
Cords for hanging pictures should conform to shape of picture. A. Inharmonious shapes. B. Harmonious shapes.



The shape of pictures should conform to space in which hung.



# BALANCE





### SELECTION AND PLACING OF FURNITURE

#### Selection of furniture

- A. Fulfill the requirements of structural design-
- (1) That it be suited to its purpose in addition to being beautiful. (Pts. in construction) (Useful and comfortable)
  - (2) That it be simple (Structural rather than decorative design)
  - (3) That it be well proportioned.
  - (4) That it be suited to the material of which it is made.
- B. Fulfill the requirement of decorative design.
- (1) Decoration used in moderation.
  - (2) Placing of decorative design should help to strengthen the shape of the object.
  - (3) Decoration should be placed at structural points.
  - (4) There should be enough background space to give the effect of simplicity and dignity in design.
  - (5) Surface patterns should cover the surface quietly.
  - (6) Background shapes should be as carefully studied and as beautiful as the patterns placed against them.
  - (7) The decoration should be suitable for the material and for the service it must give.

#### Grouping of Furniture-

- (1) Harmony- Harmony is the art principle which produces an impression of unity through the selection and arrangement of consistent objects and ideas.  
Harmonies of shape, size, texture, color, idea.
- (2) Proportion-
  - a) Greek ideal- means of obtaining beautiful spaces.
  - b) Lines which apparently alter proportions.  
Vertical, horizontal, converging.
  - c) The proper use of scale, or consistent sizes.
- (3) Balance- Balance is rest or repose.  
Formal and Informal Balance.  
Bright color, striking shapes, or more material give added weight.
- (4) Rythm- Rythm is related movement, obtained through Repetition of shapes.  
Progression of sizes  
Easily connected, or continuous line movement.
- (5) Emphasis- Emphasis is the art principle by which the eye is carried first to the most important thing in any arrangement and from that point to other details in order of their importance.  
Means of securing emphasis are:-
  - (a) By placing or grouping of objects.
  - (b) By use of contrast of light and dark or color.
  - (c) By using decoration.
  - (d) By having sufficient background space around objects.
  - (e) By unusual or unexpected lines, shapes, sizes or colors.

In a room the relation of emphasis to rest spaces should be in the proportion of 2 to 3.

"The observer should be conscious first of the decorative objects, such as the books, pictures, or wall hangings, and lamps, candlesticks, vases and the like; second, of the furniture; third of the walls; fourth and last of the floor. There will be one chief center of interest in each room.

"Homelike quality" is an intangible thing, and it is the most vital of all the essentials of a good room.

Ways to secure livableness-

- (1) Simplicity- only things necessary for use or beauty of the whole.
- (2) Convenience- "A woman who says that her house is always disarranged after visitors leave unconsciously admits poor management in her furniture arrangement."
- (3) Order in arrangement-
  - (a) Large pieces placed to follow the lines of the room.
  - (b) Shapes of pieces in harmony with shape of wall space against which it is placed.
  - (c) Groups placed to secure balance of floor and wall space.
- (4). Color - "Because dull warm colors make a background against which any color is seen to advantage, most living rooms will look well with backgrounds which are sand color or some variation of sand color. The color may be lighter or darker depending upon the size of the room, number of windows, etc. The soft grayish tan may verge toward green or toward orange depending upon the expense. Light walls call attention to furniture placed against them- good with beautiful pieces of furniture- Wall near the value of the furniture better with furniture not of ideal proportions. Good taste demands that all background colors be dull, that is, low in intensity. The smaller the area covered the brighter the color that may be used.

### "Personality" in Furnishings

(A) Hangings, pictures and decorative objects may suggest either a masculine quality, a feminine quality or they may be impersonal. Feminine quality, results from the selection of a lighter type of furnishings - slightly smaller, finer patterns; a little more grace in lines of furniture; lighter colors and less strong value contrasts (not weak colors); and a finer texture. Masculine furnishings need not be dark nor heavy but should appear solid and somewhere a forceful bit of dark and light or color should be found. Impersonal furnishings come just between masculine and feminine.

(B) Furnishings may give a social or a domestic feeling. Domestic quality is the outward expression of the love of home and family, and is usually informal. The social idea is more formal than the domestic. Social refers to the characteristics which result from an interest in the conventions of formal society.

The question of expense, of good and bad taste of rich and poor materials never enter into these attributes of objects - the social or domestic, the masculine or feminine. It is merely the individuality of the object.



### FURNITURE SELECTION

- A. Fulfill the requirements of structural design -
  - (1) That it be suited to its purpose in addition to being beautiful.  
(Pts. in construction) (Useful and comfortable).
  - (2) That it be simple (Structural rather than decorative design).
  - (3) That it be well proportioned.
  - (4) That it be suited to the material of which it is made.
- B. Fulfill the requirement of decorative design -
  - (1) Decoration used in moderation.
  - (2) Placing of decorative design should help to strengthen the shape of the object.
  - (3) Decoration should be placed at structural points.
  - (4) There should be enough background space to give the effect of simplicity and dignity in design.
  - (5) Surface patterns should cover the surface quietly.
  - (6) Background shapes should be as carefully studied and as beautiful as the patterns placed against them.
  - (7) The decorations should be suitable for the material and for the service it must give.

Each piece of furniture selected should be beautiful and it should be suited to its purpose. This relationship of utility to beauty determines the permanent enjoyment of the furniture which one purchases. The chair that is handsome but uncomfortable, the desk which trembles as one writes upon it, the pitcher so designed that it drips when liquid is poured from it, and countless other articles are sources of annoyance rather than pleasure.

Furniture should depend for its beauty upon structure rather than upon decoration. Simplicity and good proportions are essentials of good furniture design. In considering proportions in furniture the relation of height, breadth, and depth would be considered. A chair built on the line of a cube with all three dimensions similar would be very uninteresting. The less easily perceived proportions as 2:3 or 3:5 are more interesting than 1:1, 1:2, and 1:3. The size of the arms of overstuffed pieces in relation to the size of the entire piece, and the leg which seems too heavy or too light for the weight which it has to support, are other proportions to be considered. The scale of the piece in relation to the room in which used also effects the appearance.

If the furniture is to attain the appearance of simplicity decoration must be used in moderation allowing enough background space. Decoration should be so placed as to strengthen the structure and shape of the object, that is, the best decoration conforms to the shape of the object, and is used at the structural points. The decoration must be suitable to the material upon which it is used and to the service it must give.

One may select furniture from styles which have proved their worth over a long period of years. These designs have survived and become universally known because they were beautiful in line, proportion and materials, because they were comfortable and useful, and also because they express some ideal of living or home comfort which remains as a part of the home life of today. Unproved fads in furniture are to be avoided upon the same ground. Each style was influenced by all preceding and contemporary styles.

England, however, developed more furniture designed for simple home life than any other country. These influences and styles in turn were used by the American colonies. Jacobean furniture, in use when the colonies were settled, was heavy and uncomfortable and unsuited, except in greatly modified pieces, to the small home. Following this came the William and Mary, introducing much of the Dutch influence. In this period walnut began to be used. The Queen Anne, following William and Mary, was the beginning of the area of real comfort and included the development of many new and useful pieces. Mahogany was introduced in the latter part of Queen Anne Period. The styles of the Georgian period are given the names of their designers, Chippendale, Sheraton, and Hoppelwhite. Two other designers, The Adams Brothers and Duncan Phyfe, appeared before over-exaggeration of line and ornament replaced the strength of character, fineness of line and simplicity of the former period. These massive, ornate designs in mahogany did not live and were succeeded by the also short-lived golden oak period. The best designs of today are adapted from those of other generations which have already proved their worth.

Of the furniture woods, walnut, with its deep rich brown tone is probably the most desirable, as it never reflects unpleasant tones when seen in bright light or shadow. Mahogany has the advantage of being always obtainable and easy to furnish to. Maple, though long neglected, is now being given an antique honey tone which harmonizes well with light, cheerful schemes of furnishing. Golden oak is never possible, artistically, but the finish may be removed, (also much as possible of the over ornamentation) and the wood treated with walnut stain and wax. From this treatment a dull pleasant brown color results not unlike the antique oak pieces which were found among the earliest English furniture.

By exercising care and thought the ingenious housewife may create very cheerful, informal schemes of furnishing by selecting inexpensive unfinished pieces of good line and design and finishing in enamel or stain. Fiber and reed furniture are suitable additions to this type of furnishing and may be used in sun parlors or bed rooms at any time when they are replaced by more formal pieces. If little money is available, greater satisfaction may result from refinishing of pieces already on hand for temporary use and spending the entire annual allowance upon one worthwhile piece.

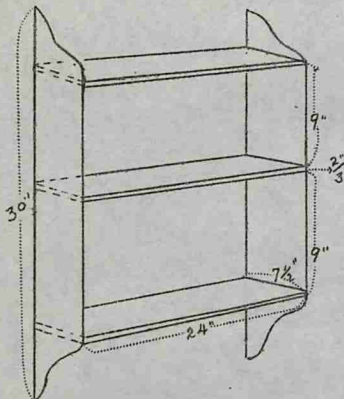
In selecting pieces of wood furniture, one should determine the kind of wood used, that the pieces are joined in such a way as not to loosen readily, that the piece is well braced and substantial, and that the finish is smooth and satiny in appearance and will be durable.

In selection of fiber furniture, the best grades are braced with iron braces at the corner and other points of strain. As fiber furniture is made of wire twisted with paper, it will wear well if protected with shellac or some finish which prevents the wear coming on the paper. Once broken there is a tendency for it to untwist.

In selection of upholstered furniture choice should be made on the basis of wearing quality, of the springs and the upholstery rather than choosing the fad of the minute. There may be springs in both the cushion and the seat. A spring edge makes the piece more comfortable for sitting. Heavy arms, whether containing springs or not, are out of place in a home. Of upholstery materials, highly glossy velours and velvets are in questionable taste. In the medium priced fabrics this leaves tapestries, upholstery denims, and velveteens. Cretonne, printed linens, etc. may be used.

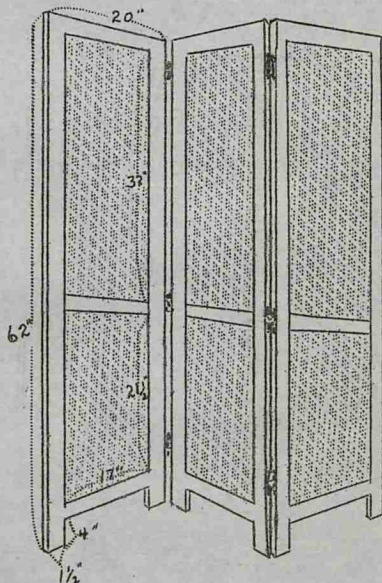


FURNITURE WE CAN MAKE



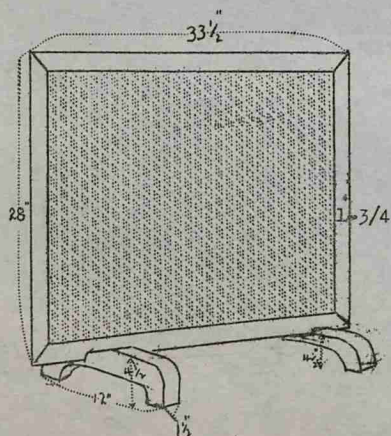
HANGING BOOK SHELF

(Dimensions given on drawing.)  
Appropriately used over writing  
desk or study table.



THREE-PANEL SCREEN

(Dimensions for each panel given on  
drawing.) Centers of panels are  
beaver board and finished same as  
fire screen.



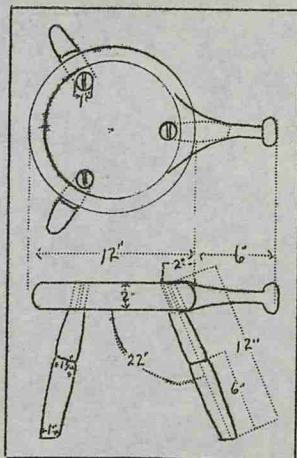
FIRE SCREEN

(Size will vary according to size of  
fireplace.) The center is made of  
beaver board, covered with wall paper,  
and then finished with two coats of  
clear shellac.

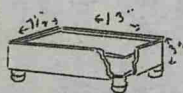
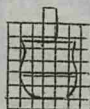
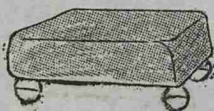


### EARLY NEW ENGLAND MILK STOOL

Once you have one of these useful articles around the house you won't be able to do without it. The handle makes them easy to pick up and carry. Even the baby lugs them about, and dotes on upsetting them and sitting inside. In the garden or out on the lawn they're a joy, for they don't wobble on uneven ground.



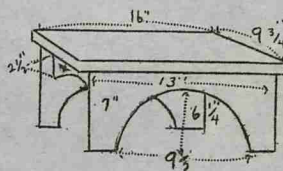
And this is the way you make the milk stool.



### FOOT STOOL

The footstool above may be covered either with needlepoint or with a hooked-rug covering.

The sides are of soft wood  $\frac{3}{4}$ " thick, while the top and bottom can be either  $\frac{1}{2}$  or  $\frac{3}{4}$ " thick. The top is set down about a half inch as shown. The legs are turned to the size shown in the half-inch-squared drawing and are fastened by a dowel, which is an integral part of the leg. These are fitted tightly through holes bored in the bottom of the frame and are fastened by using small finishing nails on the inside before the pieces are nailed together.

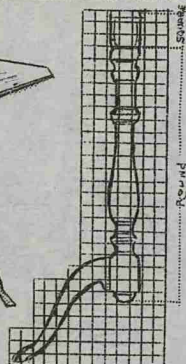
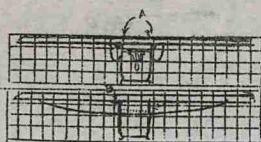
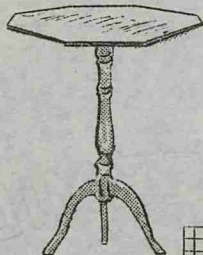
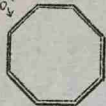


### FOOT STOOL

(Dimensions given on diagram.)

Method of Finishing. First form a pad with cotton batting or wool; over this stretch and tack a burlap covering. Be sure that there is plenty of padding in the center so that it will be higher than the sides. The stool is then ready for the final cover, which can be tacked to the bottom of the frame.

PLAN OF  
TOP (MAY BE  
ROUND)



The only turned work is the standard; if you are not equipped to do this, it is a simple job for a woodworking shop. It will be necessary for this size of top to build it up by gluing boards together, and they should be at least  $\frac{3}{4}$  inch thick. All wood should be hard. Braces which serve as guides are screwed to top. For this kind of table there is a special catch which you can obtain from your hardware store. The top can either be hinged to the standard or swung on iron dowels. Legs are shaped with a coping saw from straight-grained pieces of hardwood and joined to pedestal by a mortise and tenon, being glued in place.

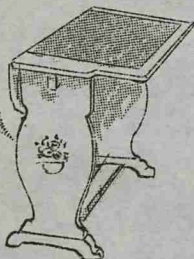
#### TIP-TOP TABLE

Dimensions for table can be obtained from drawings in squares, which are 1" each side.

Make two 17-inch end pieces and thru the 1-inch squares drawn on them, as shown, trace pattern. Cut to line with a hand turning saw. Feet are made of thicker material than end pieces and are assembled to end pieces with liquid glue and dowell pins, for which  $\frac{3}{8}$ -inch holes must be properly bored in each piece. Two stretchers are required. The lower stretcher is assembled to the feet with mortise and tenon joints, and upper stretcher is grooved and set in cutouts

made in end pieces. Tapered rests for supporting the side leaves are hinged to the upper stretcher. A wedge-shaped strip may be glued to end of rests to force leaves up in line with table top and overcome any play found

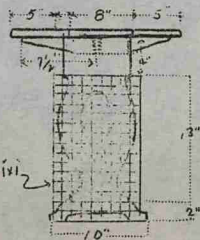
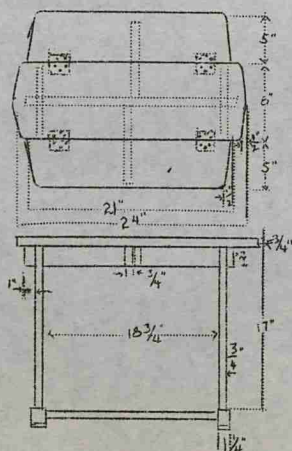
in hinges, which would cause the rest to sag. Fasten table top to end pieces with 4 angle irons set in top and spreader. Hinge leaves to top of the table.



#### COFFEE OR END TABLE

The table is handy for afternoon tea or coffee. It is also convenient for sewing or laying out other work.

A transfer decoration may be used on the end pieces of the table as shown.





# CORNER CUPBOARD

The choice of material, of course, depends upon the kind and finish of the woodwork already in the room. The cupboard will fit into the room best if it's of the same material and finished in the same manner. The dimensions as given in the drawing are for an average size dining-room, but should your dining room be large, the cupboard can be made wider.

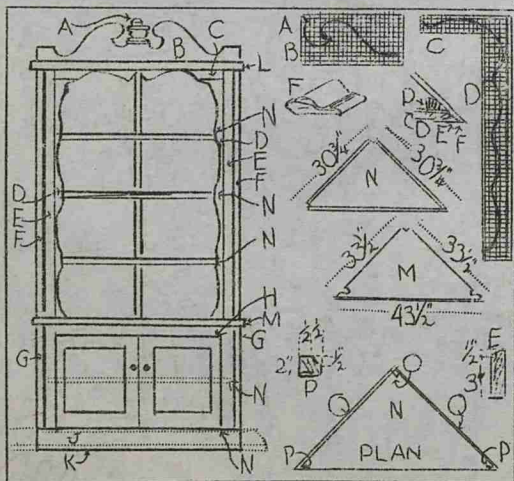
The lumber may be either  $5/8$  or  $3/4$  inch thick, and the portion shown in the squared drawing should be made of plywood to prevent splitting.

Let's start with the shelving. There are five shelves marked "N" and two marked "L" and "M". The latter two are deeper to allow an overhang and are the same except that it isn't necessary to fit "L" around the uprights.

The uprights are of 2-inch-square stock 82 inches long. "O" is square and the two marked "P" each have a corner planed away to meet the wall.

The doors can either be standard mill stock or be built of plywood with a  $1/2$  inch flat moulding, used to stimulate paneling.

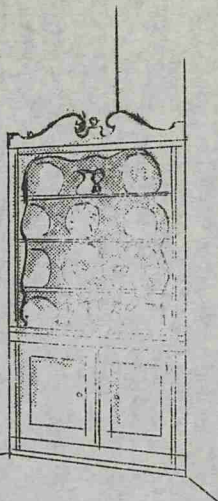
Pieces "E" and "H" are  $2\frac{1}{2}$  inches wide, while "J" should be the same as the base-board now in the room, as also should be the moulding "K", "F", and "G". Use stock moulding with corners planed to fit against the wall.



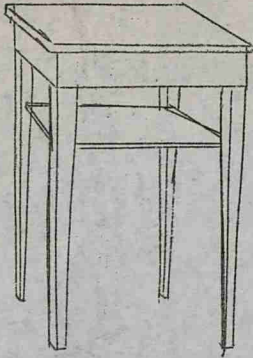
It will be best to cut out the pieces "C" and "D" from  $5/8$ -inch-thick plywood. The design is shown in the square drawings, as is also the design for "E". The ornament "A" can either be turned or a wooden curtain rod end, usually procurable at notion stores, will make a good substitute.

The back "Q" is of  $1/4$ - or  $3/8$ -inch plywood, and, if desired, moulding can be nailed under each of the shelves, for effect only, as it isn't needed for support.

Use the dimensions given only as an approximation. It will be best to fit your cupboard to the space allotted rather than follow them exactly, as walls aren't always plumb or square. The finish should be similar to the woodwork now in the room.







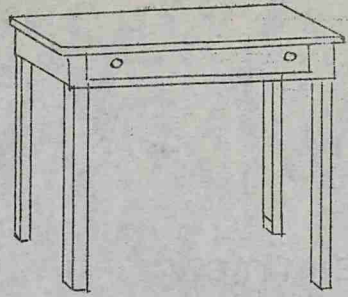
TELEPHONE OR BEDSIDE TABLE

Top:  $1\frac{1}{2}$ " x 17" x 18"

Legs: Top,  $1\frac{3}{4}$ " tapered 1" sq. at bottom.

Box ends and sides, 3" wide.

Shelf, 9" from top of table.



RADIO, STUDY, OR WRITING TABLE

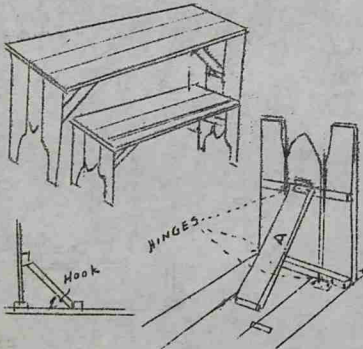
Size of top: 32" x 23"

Height:  $27\frac{1}{2}$ "

Drawer front:  $3\frac{1}{2}$ " x 17"

Legs: top,  $1\frac{3}{4}$ " sq., bottom, 1" sq.

Boxing: 4"

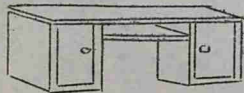


SUPPER SET-UP FOR THE YARD

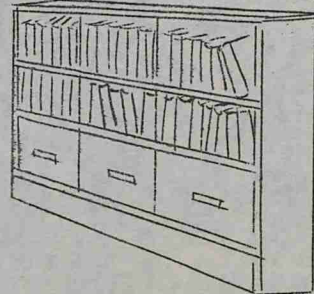
They're built of inch-thick boards, with the exception of the bench tops, which should be 2 inches thick to support weight. Piece "A" is 20 inches long and is hinged to the table leg. The 2 sides are also hinged as shown. Table top is 60" x 30".

The benches are the same type of construction, but need be only 50" long, 14" wide, and 16" high.

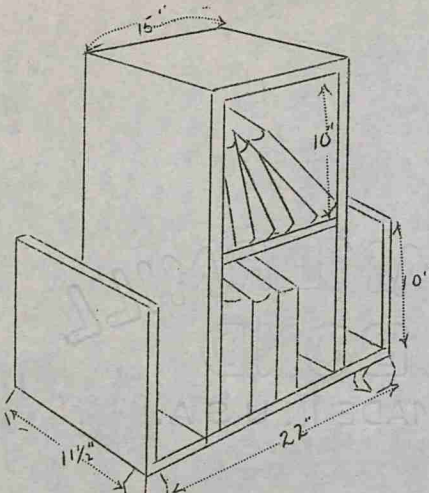
When folded, the pieces "A" occupy the space provided by the shortness of the center member in the end sections.



LOW BENCH - with storage and magazine sections to be used in front of davenport or fireplace.



Two BOOKCASES above and three drawers below. Size will vary to suit space.



THREE-IN-ONE, Book Case, Magazine Rack, and End Table.

**Material:**

Amount-- about 10 ft. of  $11\frac{1}{2}$  by  $\frac{3}{4}$  inch dressed lumber.

To paint, use poplar or gum lumber.

To finish with stain, use gum or pine.

For feet-- 4 blocks 2" by 2" by  $2\frac{1}{2}$ ".

Slope each block slightly from center toward the ends. Ball feet may be used where available.

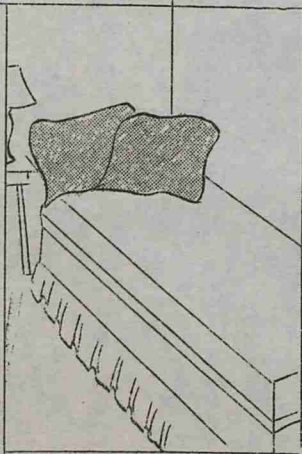
**Joining:**

Cabinet or cascin glue may be used in addition to finishing nails to strengthen construction. Dado joints illustrate below.

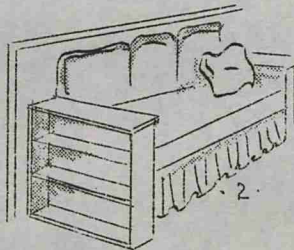
**Size:**

Total height may be varied to suit the chair with which it is used. Length of 22 inches suitable with most comfortable chairs.

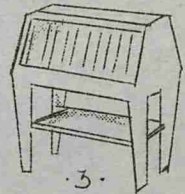
INDIVIDUAL DAVENPORT AND END TABLES



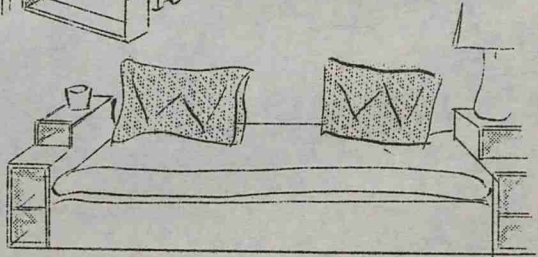
1.



2.

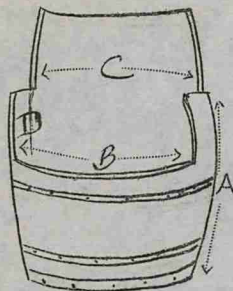


3.



4.

COMFORTABLE CHAIRS MAY BE MADE FROM BARRELS



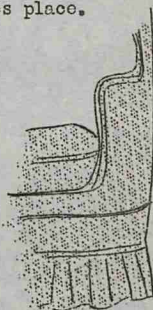
Full Barrel Cut for Making Chair.

For large chair from full-sized barrel:

1. Place four screw-on castors in head of barrel.
2. Mark carefully for sawing.  
A represents height of chair front-- never more than 14 inches from floor and for people below average height, 12 or 13 inches.  
B, distance between arms-- about 22 inches.  
C, width of back approximately same as front width.  
D, arms will be approximately 12 inches long and 8 to 9 inches high.
3. Fasten staves together securely with corrugated nails. This applies to all portions above the highest hoop which will remain when the cutting takes place.

4. Saw on marked lines.

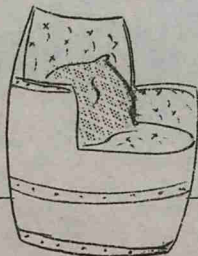
5. Brace upper head of barrel or a low box in bottom of barrel covering with pads of excelsior, hair, or gray moss to within one or two inches of B.
6. Cover the entire with old bed quilt or blanket pieces.
7. Make a wedge shape pillow and place against back at the back of seat to insure a vertical back to chair.
8. Slip cover the entire barrel and complete with round pillow for seat which will come out over the edge of B. Or protect edge B and top of arms with roll padding as in half-barrel illustration below.



Detail of Slip Cover.

Left Below:

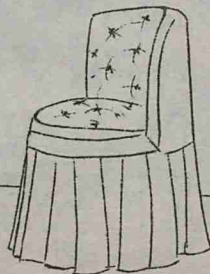
Barrel having inside padded and outside painted. Used in bedroom or den. Bottom of barrel furnishes storage space reached by a hinged seat arranged under cushion. Pillow necessary for comfort.



Right Below:

A specially nice armless chair made from a half barrel. Note roll padding on edges and deeply plaited skirt.

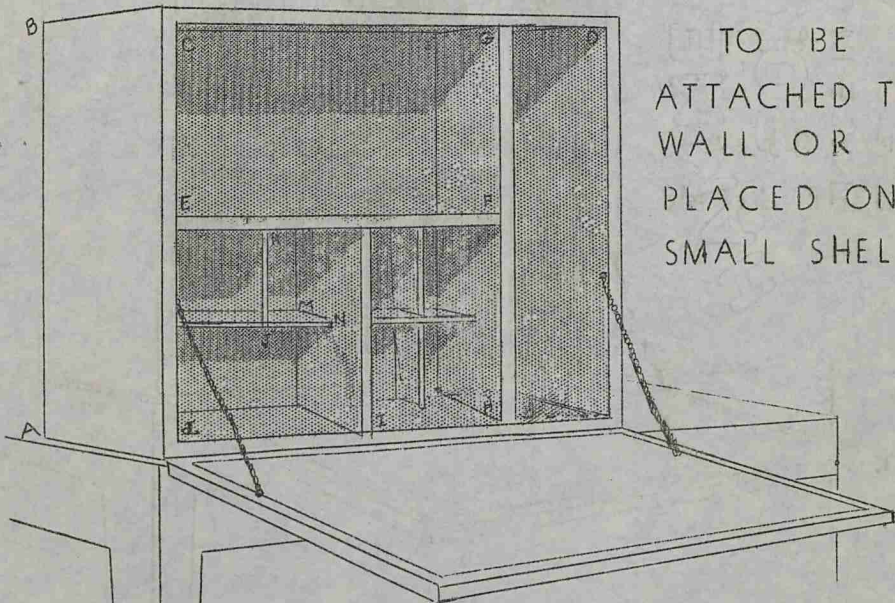
It is now possible to secure individual coil springs boxed in burlap ready for padding, and to fit any size chair seat, rectangular or round. This should be done for barrel chairs especially, but may be done in re-finishings other types of upholstered furniture.





# KITCHEN BUSINESS UNIT

TO BE  
ATTACHED TO  
WALL OR  
PLACED ON  
SMALL SHELF.

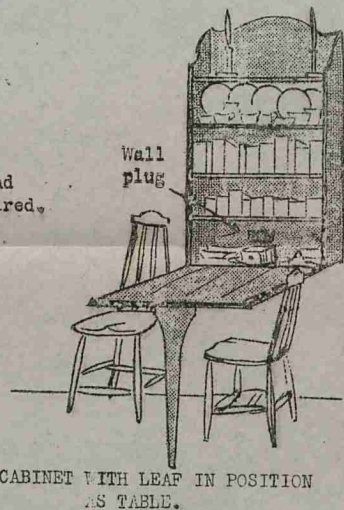
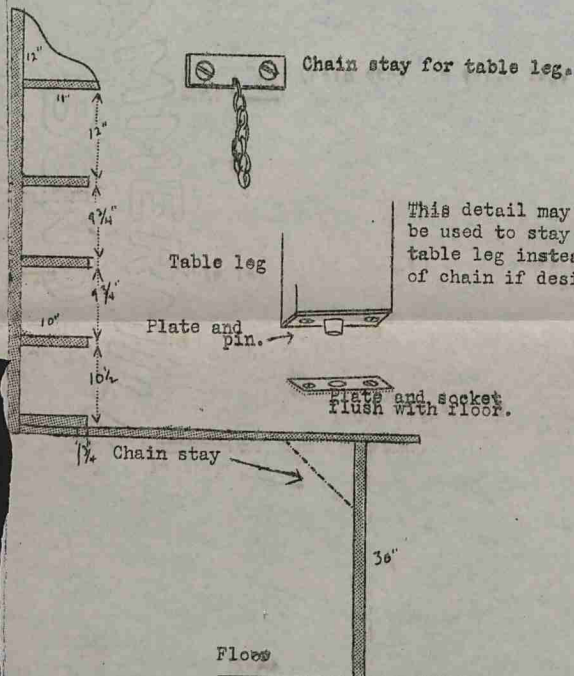
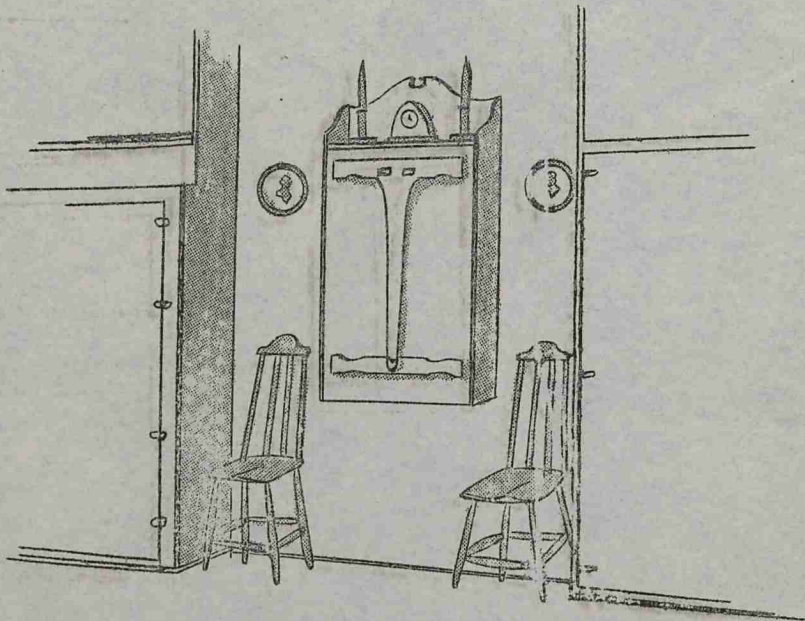


## MEASUREMENTS:

From	A to B	-	18 inches
"	C to D	-	22 "
"	C to E	-	8-3/8"
"	E to L	-	7-3/8"
"	A to L	-	7-3/4"
"	G to D	-	4-1/2"
"	A to G	-	15 "
"	M to N	-	3-3/4"
"	J to N	-	3-3/4"



# A BREAKFAST CABINET WITH DROP-LEAF TABLE



Kinds of Feathers:

Down from geese best choice, duck down a second choice. Fine chicken feathers may be used but care should be taken that they are fine without hard midribs.

Quantity:

About two to three pounds of light clean feathers is sufficient.

To Prepare Feathers:

Feathers are cleaned by placing in a very thin cheesecloth bag and sousing up and down in a soap suds prepared as for washing wool material. Several waters may be needed. Rinse and dry quickly and thoroughly.

If feathers continue to be oily steep them in water containing one pound of lime to each gallon, stirring well. Pour off water and rinse well in soft water.

Covering for Quilt:

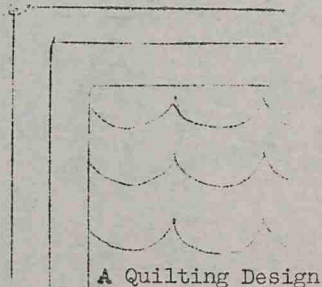
The covering for feathers should be tightly woven, having at least 80 threads per inch each way. Some prints and satins meet this requirement. Pieced covers may be used if placed of same quality of material. Washable covers are desirable and quilts are washed in the cover.

Size:

Feather quilts are made somewhat smaller than others as they are not to be tucked in. Tucking in causes feathers to lose their fluffness.

To Make:

Place feathers in this covering and then stretch on to the quilting frame. Work the feathers around until they are evenly distributed. Then quilt loosely in any chosen design which holds the feathers in fairly large loose pockets, (6"-8" between stitchings).



If desired one cover may be stretched on to the quilting frames, the feathers in a cheesecloth cover of desired size laid in this and the feathers evened before the top cover is placed. Quilt as before.

Extension Service,  
N. C. State College,  
Raleigh, North Carolina

Helen N. Estabrook,  
Extension Specialist in  
Home Management.

N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U.S. Dept.  
of Agri. Cooperating

H. M. Leaflet #15

Pauline E. Gordon, Spec. in Home  
Management & House Furnishings  
Memie N. Whisnant, Asst't. Specialist

INSTRUCTIONS FOR MAKING A COTTON MATTRESS

MATERIALS AND EQUIPMENT

9-1/4 yards feather ticking, 36 inches wide.

35 to 40 pounds cotton, either (1) carded into batts at the gin or  
(2) in the bale.

Tufting needle.

Stitching or roll edge needle.

Strong cord.

Beating table 83 inches long, 61 inches wide, and 40 inches high, with  
solid top. (May also be used for measuring and cutting the ticking.)

Tufting table, 83 inches long, 61 inches wide, and 40 inches high  
(Same as beating table except boards on top are spaced 4 to 5 inches  
apart.)

Round pole, 2 inches in diameter and 6 to 7 feet long.

CUTTING AND MAKING TICK

Cut four strips of ticking each 83 inches long.

Tear a 5-inch strip for the boxing from one side of each of the four  
lengths, leaving them 31 inches wide. (Fig. 1)

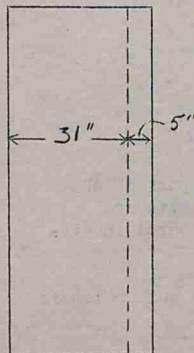


Fig. 1. Tear a  
5-inch strip from  
each 83-inch length

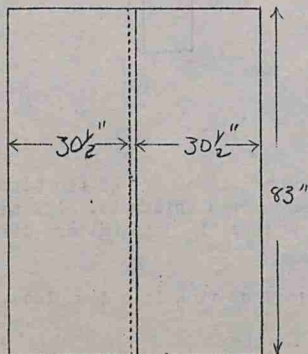


Fig. 2. The top and bot-  
tom of the tick.

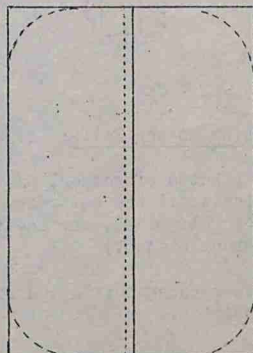


Fig. 3. Round off the  
corners of the top  
and bottom of the tick  
before sewing to the  
boxing



Sew the lengthwise raw edges of two of the 31-inch pieces together using a half-inch, flat-felled, machine-stitched seam. This makes the top of the tick; make the bottom in the same way. These large pieces should measure 83 inches long and 61 inches wide. (Fig. 2)

Round off the corners of the top and bottom parts of the tick. (Fig. 3)

To make the boxing, sew the 5-inch strips end to end. Cut off any extra length so that the resulting piece will fit exactly around the bottom of the tick.

Sew the boxing to the bottom of the tick with a flat-felled seam one-half inch wide. Sew one end of the top to the boxing, leaving the other end and two sides open.

Turn the partially made tick wrong side out and lay the bottom on the beating table (Figure 4), letting the boxing and top hang down at the sides and one end.

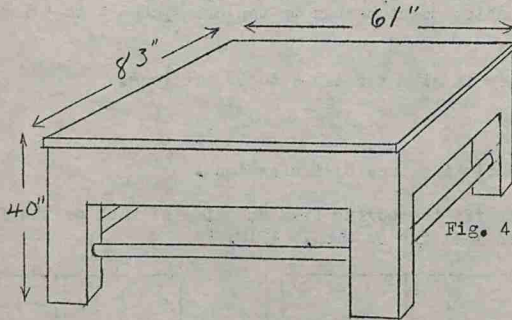


Fig. 4. The beating table

#### FILLING THE TICK

##### Using Cotton Batts:

Lay batts of cotton, one on top of the other, on the bottom part of the tick until the mattress is the desired thickness. (If the batts are not full width, arrange them so that the joinings are distributed in different places.)

Sew through cotton and lower part of tick in a few places to hold batts in position.

Spread the top of the tick over the cotton. Turn under the edges of the top and boxing and then whip the two together, using a strong thread and short stitches.



Using Baled Cotton:\*

Weigh out 50 to 55 pounds of cotton for each mattress.

Pick the cotton apart and fluff it up as much as possible, then distribute it evenly over the lower part of the tick.

Spread the top of the tick over the cotton. Turn under the edges of the top and boxing and whip the two together, using a strong thread and short stitches.

Beat the mattress with a smooth, round pole 9 feet long and 2 inches thick. This helps to fluff the cotton and to distribute it more evenly.

MAKING THE ROLL EDGE

Thread the stitching needle with strong corn and run it diagonally through the boxing about three-fourths of an inch down from the seam. Bring it out through the top of the tick about 2 inches in from the seam. (Fig. 5)

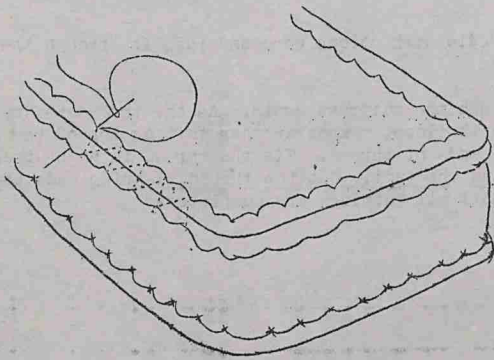


Fig. 5. Shows method of making roll edge and a completed roll edge.

About three-fourths inch to the left of where the needle came out insert it again diagonally, so that it comes out this time in the boxing in a line with the first stitch.

---

\*When carded cotton is not available baled cotton is very often used for making mattresses at home. The process is more tedious and, unless the beating is done thoroughly, it is apt to produce a mattress inferior to one made according to the method described under "Using Cotton Batts."

Draw the thread tight to make a small roll on the edge but be careful to keep it smooth and even.

Make the roll edge around the top and bottom of the mattress.

#### TUFTING

Transfer the mattress to the tufting table.

To locate the places for tufts, measure down approximately 5-1/2 inches from one end then mark at 10-inch intervals the entire length of the mattress. Space the rows about 12 inches apart and 5 to 6 inches from the side. This spacing makes five rows lengthwise and seven across.

Make 70 tufts either by rolling a small bunch of cotton between the fingers to make a roll 1 inch long and one-half inch thick or by cutting small rectangles of ticking 1 inch wide and 2 inches long and folding them in the center.

Thread the tufting needle with strong cord and push it through the mattress.

Bring the needle through the mattress again. As the thread is drawn through put a tuft in the loop. Place another tuft on top of the mattress between the two ends of thread. Tie the thread in an ordinary knot then make a slip knot around the tuft. Cut the thread, leaving ends about an inch long. Repeat until all tuftings are completed.

(Reprinted from circular of United States Department of Agriculture.  
Bureau of Home Economics.)

HOME MANAGEMENT AND HOUSE FURNISHINGS

N. C. State College, Raleigh  
Home Demonstration Division

Pauline E. Gordon, Ext. Specialist  
Mamie N. Whisnant, Ass't Specialist

Porches

No country home is complete without a generous porch or other feature that will form a center for outdoor family living. A vine covered arbor, a paved spot, or a shaded lawn may take the place of a porch.

Shape of Porch

A porch should be room shape. Avoid long, narrow, covered platforms enclosed by a rail and reached by steps in which chairs must be arranged in a row.

Screening of Porch

Porches that occupy a sunny position may be shaded by screening with lattice work over which vines grow. Lattice should be very plain. When laid at all angles and in all forms, it gives an undesirable gingerbread effect.

Awnings of various kinds may be used to shade the porch.

A porch that is heated for winter and screened for summer is very desirable.

Floors

Water will cause unfinished wood to decay and splinter. Therefore, it is economical to paint all wood floors with a good grade of deck paint. Other materials suitable for porch floors are cement, brick and tile.

Furniture

Tables, chairs, and swings made of painted wood, wicker, reed, old-fashioned hickory, Swiss reed, and iron are suitable for the porch.

Rugs for the porch should be made of cox, rush, corn mats, etc. A limited number of potted plants may be used on the porch. The boxes and jars in which these are planted should not be featured but made a part of the background. The stands for flowers are made of painted wood, wrought iron, bent wire, etc., and should be painted colors that fit into the general scheme. Pots of trailing ivy and fern may be effectively used.

Colors

Avoid drab tans, buffs and grays. Soft green; black trimmed with such colors as green, orange, etc.; and white are used for furniture. Chairs may be cushioned in varied color combinations.

Kitchen Porch

The kitchen porch should be well screened. It is possible to use it for a summer dining room, and for a place to sit and work in hot weather. It should never be used for a place of storage.

## PICTURES IN THE HOME

"A picture which has no meaning to you should not be placed upon your walls."

The most beautiful adornment a room can have is a selection of good pictures well-framed, carefully hung, and harmonizing with the other furnishings. We are realizing more and more the value of pictures as constant companions in our homes. They should be judged and selected with care just as clothing, pieces of furniture, and other things in the home are selected with much thought and care. Bare wall spaces are better than poor or tiresome pictures. Good taste in pictures is not natural and has to be acquired through careful study of them. Every home should have a good book on pictures, also small color reprints of the old masters.

### I. WHY WE USE PICTURES

#### A. Beauty

1. Line      2. Mass      3. Pattern      4. Color

B. Subject and Story Value. Suitability to environment; avoid realism or photographic likeness.

C. Individuality to Room. "When a person has pictures about him, he is electing them to speak for him."

### II. POINTS IN SELECTION

A. Must be really beautiful.

B. Must repeat leading colors of the room.

C. Must be suitable in size to the space it is to occupy.

D. Must be suitable in type to the room and to the person who occupies the room.

E. An excessive number of pictures must be avoided.

### III. SUITABILITY TO ROOM

#### A. Hallway

1. Samplers
2. Engravings
3. Etchings or prints of general interest

#### B. Living Room

1. Landscapes
2. Nature pictures
3. Pictures of peasant life
4. Interiors
5. Marine scenes
6. Tapestries

#### C. Dining Room

1. Garden scenes
2. Conventionalized flowers
3. Hunting scenes
4. French color prints, etc.
5. Formal-portrait or two of own family done by artist
6. Character studies

#### D. Bedrooms

1. Guest
  - a. Nature pictures
  - b. Scenes of "Knights and Ladies"
  - c. Portraits of general interest
  - d. Travel pictures
2. Child's Room
  - a. Narrative pictures
  - b. Imaginary (Fairies)
  - c. Happy children at play
  - d. Animals, birds, etc.
3. Personal
  - a. Family portraits
  - b. Any picture having appeal to person



#### IV. PICTURES AND THEIR BACKGROUNDS

- A. Omit pictures when color and figure interest of background are sufficient. Use mirror or textile hanging.
- B. With sufficient color but deficient pattern, choose etchings or drawings.
- C. With sufficient pattern and deficient color, use strong color interest.
- D. Light pictures should be on light walls and dark pictures on dark walls.

#### V. FRAMING PICTURES

##### A. Mats used on:

1. Etchings
2. Pictures showing decided movement.
3. When subject "fills" the picture.

##### B. Law of margins:

1. In a vertical oblong the bottom should be widest, the top next, and the sides narrowest. (Fig. 1)
2. For the horizontal oblong the bottom should be widest, the sides next, and the top narrowest. (Fig. 2)
3. In a square the bottom should be widest and the sides and top equal to each other. (Fig. 3)



Fig. 1

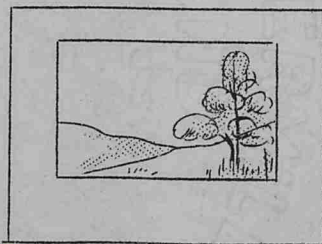


Fig. 2

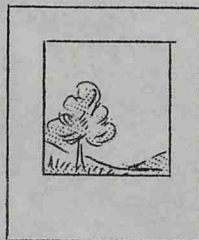
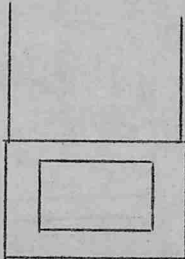


Fig. 3

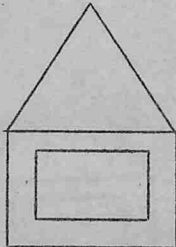
- C. "The frame should be a rest space between picture and wall and be less conspicuous than the picture."
  1. Dull gold or silver - with or without color.
  2. Narrow black or brown - width will depend on size of picture.
  3. Natural wood - color should repeat coloring in picture.
- D. The size and weight of the frame should correspond to that of the picture, also style and period.  
Oil paintings require larger and heavier frames than water colors or prints.
- E. Strong subjects (buildings, etc.) require larger frames than delicate subjects (children, etc.).
- F. Warm colored pictures should be framed with warm colors or gilt. Cool colors such as blue, white, or gray should be framed with cool color or possibly silver.

VI. HANGING PICTURES

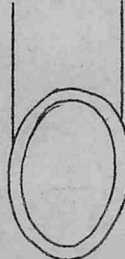
- A. Picture should correspond to wall space, i.e., a vertical oblong picture should be hung in a vertical oblong wall space and be proportionate in size.
- B. Pictures should be hung on a level with the eye, standing, except where they should be lower to form a unit with the furniture.
- C. Fine picture wire, rather than large over-ornate cords, should be used to hang pictures.
- D. Medium and small pictures should be "blind" hung, i.e., hook or nail hidden back of picture.
- E. Large rectangular pictures should be hung with two vertical wires rather than triangular, and round or oval pictures in triangular form.



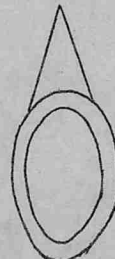
Correct



Incorrect

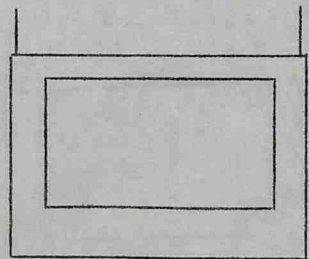
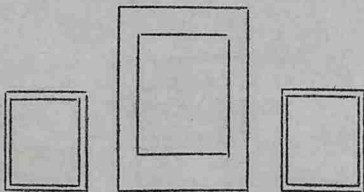


Incorrect



Correct

- F. Hang pictures flat against wall; avoid tilting.
- G. Either top or bottom of all pictures in a room should be on line as nearly as possible so as to avoid a jagged line on the wall.
- H. Group small pictures together, and avoid stringing them along aimlessly. They should not be placed step-wise except on a stairway wall. Several small pictures may be used to balance one large picture as illustrated.



"Good pictures, like good books and good friends, wear well. We never tire of them."

## Points in Selecting and Using Ready Mixed Oil Paints

### FOR EXTERIOR SURFACES

Painting adds to the appearance of farm buildings and aids greatly in their preservation. Painting at regular intervals is the cheapest way of keeping buildings in good condition. White pine, yellow poplar, cypress and cedar withstand weathering well. Exterior painting gives satisfactory protection (that is, prevents moisture from reaching the under surface) for from 3 - 5 years. Paint deteriorates more rapidly on portions of building exposed to intense sunlight.

Steps in deterioration are:

- 1 - Loss of gloss and fading of colors.
- 2 - Chalking begins, ie. loose particles of pigment can be rubbed off.
- 3 - Fissures appear in the surface.
- 4 - Failure of coating to protect under surface, first inconspicuous but becoming increasingly conspicuous.
- 5 - Disintegration of coating reveals underlying surface, inconspicuous but becoming increasingly conspicuous.

Repainting should occur when step four is reached as further delay increases labor costs of repainting and decreases quality of results in repainting.

### A - Judging Quality of Paint:

A good linseed oil paint usually bears a label showing the name and address of manufacturer and the composition of the paint. This is required by law in many states. A detailed statement of composition on the label is not proof that the paint will be satisfactory but it is a guide in selecting. Any label failing to show exact character of material, having fancy names, or term 'compounds' should be looked upon with suspicion. Absence of name and address of manufacturer is a strong indication of inferior products.

All paint consists of a solid (the pigment) and a liquid (the vehicle). The pigment gives paint its durability, opacity, color and brushing consistency. The vehicle provides the spreading power and upon drying binds the particles of pigment together, and to the surface. In most paints both vehicle and pigment are mixtures.

Type of Pigments: Light colored paints have a white base pigment, but dark paints may have a dark base pigment. Pigments other than white in light colored paints are called tinting material.

The most important white pigments for outside house paints are:

- White lead (basic carbonate of lead and lead sulphate), only pigment used alone in making paint.
- Zinc oxide: In exterior paints used for 25 - 50 per cent of total pigments. Causes paint to dry with a harder, more durable film than that produced by white lead alone. Especially desirable as a part of the pigment for paints in warm, humid climates as south Atlantic seaboard.



Colored Pigments: Opaque colored pigments are much more opaque and durable than white. Chrome pigments, Prussian blue and carbon are used in connection with white for house paints. Iron oxide pigments are cheap and form the base in barn paints.

Per Cent of Opaque Pigments:

In light colored and white paints at least 90 per cent of pigment should be opaque white pigment. In iron oxide paints, iron oxide should be at least 30 per cent of total pigment. In dark green and black at least 20 per cent of pigments should be of colored opaque type.

Minimum per cent by weight of pigments in good paints:

Good paints should contain at least the total pigments as shown in the following table:

Minimum total pigments in

	Prepared paint per cent, by weight.	Paste paint per cent, by weight.
White or tinted paint in which white lead is the only opaque white pigment.....	70	83
White or tinted paint in which two-thirds of the opaque white pigment is white lead.....	66	80
White or tinted paint containing little or no white lead.....	60	75
Red lead paint.....	78	93
Red or brown iron oxide paint in which 75 per cent of the pigments is iron oxide.....	61	76
Red, brown, or yellow iron oxide paint in which 30 per cent of the pigments is iron oxide.....	53	68
Green paint containing little or no opaque white pigments.....	50	68
Black paint containing little or no red lead or iron oxide.....	28	48

The minimum total pigments in paste paints with colored pigments to be used for tinting white paint, commonly called colors in oil, is of minor importance provided that such paints are sold at a fair price. For practical purposes the tinting strength of a colored paste may be considered approximately proportional to its content of opaque colored pigment, and the price paid for it should vary accordingly.



Vehicle: In a linseed oil paint this consists of linseed oil, volatile thinner, and paint drier. At least 80 per cent of vehicle by weight should be linseed oil. Substitutes for linseed oil should be avoided. Turpentine is the best volatile thinner. Japan drier is best type of drier.

Light colored outside paint weighs 12 - 22 lbs. per gallon.  
Dark ready mixed paints weight 9 - 14 lbs. per gallon.  
Pigments are usually 60 - 65 per cent of total weight.  
Japan drier 5 - 10 per cent. Volatile thinner not more than 10 per cent.

#### How to Use Paint:

Two mistakes in painting are excessive addition of liquid, and too sparing application of paint. Paints when used should be of a consistency that is as heavy as possible without showing laps. Prepared paint needs thinning for the first coats. This should be done as directed by the manufacturer. When additional thinning is necessary it should be done with turpentine. Experience seems to show that the third coat should contain only sufficient oil to harden with a glossy surface. The under coats should contain less oil and harden without a glossy surface.

#### Spreading Rates for One Gallon of Paint (thinned as directed)

Coating Material	Character of Surface	1 coat sq. ft.	2 coats sq. ft.	3 coats sq. ft.
Oil Paint - gloss	Smooth wood	500	325	225
" " - flat	Smooth wood or wall board	500	275	200
Enamel	Smooth over undercoater	500	250	
Calsomine 5#	Plaster	400		
Whitewash(5# lime)	Wood - plaster	200-300		
Two coat repainting	Wood		300	
One coat repainting	Wood	500		

#### INTERIOR SURFACES

Additional labor costs are involved when interior woodwork is allowed to become soiled before painting, they should therefore, be painted as soon as moisture from plating and masonry has entirely disappeared. Plaster becomes more receptive to paint upon aging so painting may be deferred if desired. Interior paint coats rarely wear out. Repainting therefore occurs when they have become dingy from cleaning or when the owner desires to change the color.

Flat Wall Paint: The pigment base of most prepared flat-finish wall paints is lithopone, alone or with zinc oxide. About 60 per cent by weight should be pigments. Inside paint may have 10 - 12 per cent of drier.

Enamel: A mixture of pigments, as zinc oxide and lithopone, with varnish as a vehicle.

Undercoaters: Each type of prepared paint has a recommended undercoater, which may contain the same kind of pigment, but is designed to make the paint adhere, close the pores and give a good foundation for the finishing coats. It is important that the proper sizing or undercoater be used.

Pigments commonly found in interior paints are:

- (1) Lithopone an opaque white pigment made of zinc sulfide and barium sulphate.
- (2) Titania (Titanium Oxide).
- (3) Titanium - barium pigment ( 25 per cent titania - 75 per cent Barium Sulfate).

Titania and zinc sulfide are the most expensive and the more opaque of the white pigments. They are combined to make titanium-barium pigment and lithopone which are still slightly more white and opaque than other pigments.

Extenders: Because they are less expensive some transparent pigments are used in paints as extenders. These include several silicates, whiting, chalk and marble dust among others. More than 15 per cent of extenders on basis of total weight is not accepted by the Government in its purchases.

B - Defects in Painting:

Paint blisters are cavities formed between the paint and the surface painted. These blisters and resultant peeling indicate presence of moisture when painting was done or that moisture at times gains access to back of boards painted. This condition must be remedied. Peeling on interior surface may also be caused by wax, oil, or grease on surface painted as well as by lack of proper sizing. Painting should not take place in rainy or foggy weather. 70 or 80 degrees F. is a good temperature for the work.

Scaling of paint is usually caused by streaks of pitch or rosin in the wood.

In using ready-mixed paints make sure that directions furnished with the paint are carefully followed in all respects.

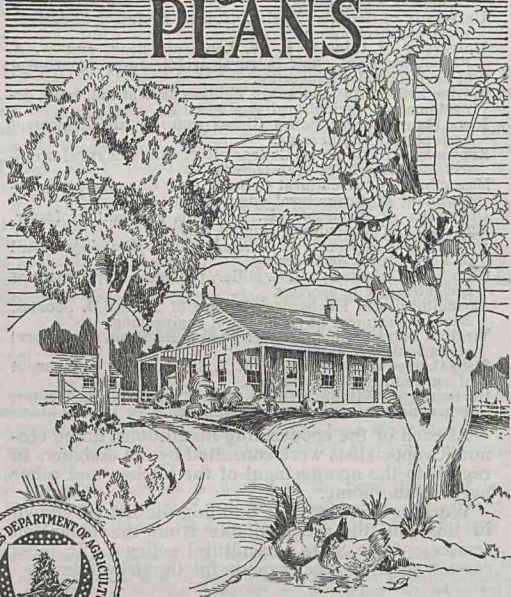
C - References:

Painting on the Farm, Farmers' Bulletin 1452, (also contains material on mixing paints on the job).  
Vol. VII. Farm and Village Housing. Report of President's Conference on Housing.  
Why Some Wood Surfaces Hold Paint Longer, United States Department of Agriculture, Leaflet 62.

U. S. DEPARTMENT OF  
AGRICULTURE

FARMERS' BULLETIN No. 1738

FARMHOUSE  
PLANS





**T**HE FARMHOUSE PLANS presented in this bulletin were developed in connection with the Farm Housing Survey made in the spring of 1934 by the United States Department of Agriculture and the agricultural colleges of 46 States, with funds provided by the Civil Works Administration. These plans were selected from more than 100 prepared under the cooperation of the following agencies and persons:

United States Department of Agriculture: Bureau of Agricultural Engineering, S. H. McCrory, Chief; Bureau of Home Economics, Louise Stanley, Chief, and Director of the Rural Housing Survey.

Alabama Polytechnic Institute: J. B. Wilson, extension engineer, department of agricultural engineering.

University of Arkansas: Deane G. Carter, head, department of agricultural engineering.

University of California: H. B. Walker, head, division of agricultural engineering.

University of Georgia: R. H. Driftmier, professor of agricultural engineering.

University of Illinois: E. W. Lehmann, head, and W. A. Foster, assistant chief in rural architecture, department of agricultural engineering.

Purdue University (Indiana): William Aitkenhead, head, department of agricultural engineering.

Iowa State College: Henry Giese, professor, department of agricultural engineering.

Kansas State Agricultural College: H. E. Wichers, rural architect, department of architecture.

Massachusetts Agricultural College: C. I. Gunness, head, department of agricultural engineering.

University of Minnesota: H. B. White, assistant professor, division of agricultural engineering.

University of Missouri: J. C. Wooley, chairman, department of agricultural engineering.

Ohio State University: R. C. Miller, professor, department of agricultural engineering.

Agricultural and Mechanical College of Texas: D. Scoates, head, department of agricultural engineering.

Virginia Polytechnic Institute: C. E. Seitz, head, department of agricultural engineering.

State College of Washington: L. J. Smith, head, department of agricultural engineering.

University of Wisconsin: S. A. Witzel, extension instructor, department of agricultural engineering.

At each of the cooperating institutions, home economics specialists were consulted by the designers in regard to the arrangement of the kitchen and other parts of the home.

Working drawings for building the houses shown in this bulletin are available from the extension services of the State agricultural colleges. In most cases a small charge is made for the drawings.



# FARMHOUSE PLANS

By WALLACE ASHBY, *Chief, Division of Structures, Bureau of Agricultural Engineering*<sup>1</sup>

## CONTENTS

	Page		Page
Farmhouse requirements.....	1	Working drawings.....	7
Size.....	1	Caution regarding changes.....	7
Comfort and convenience.....	2	Plans for houses.....	7
Relation to other buildings and highway.....	3	One-story growing houses.....	34
Appearance.....	4	Moderate-sized one-story houses.....	45
Safety.....	4	Houses of more than one story.....	60
Construction materials.....	4	Very small houses.....	60
Costs.....	5		
Cellars.....	5		
Superstructures and porches.....	5		
Estimating by unit costs.....	6		

THE PRINCIPAL PURPOSE of this bulletin is to supply plans for low-cost farm dwellings designed to meet the requirements of the farm operator and his family. Some of the plans may be useful in cases where, in addition to the main dwelling, smaller homes are needed for relatives, tenants, or unmarried farm hands. Still others will be found useful in the construction of low-cost houses for temporary use.

A well-built farmhouse should last for 60 years or more. In the ordinary course of events at least two generations of children will be brought up in it. During these years the family operating the farm probably will have no other choice of dwelling. The builder should, therefore, think both of present needs and possible future requirements when selecting a plan for a new farmhouse.

## FARMHOUSE REQUIREMENTS

### SIZE

The first requirement of a satisfactory farmhouse is adequate size to provide needed working area, storage space, and living and sleeping quarters. For the average family at least three sleeping rooms are needed,<sup>2</sup> one for the parents, one for the boys, and one for the girls.

All the space may not be needed at the time the house is built, but the chances are that it will be needed before many years. On the other hand, many families find that after the children have

<sup>1</sup> Acknowledgment is made of the extended collaboration of Louise Stanley, Chief, Bureau of Home Economics, in selecting and reviewing the plans presented herein; and of the helpful assistance of W. H. Nash, architect, Bureau of Agricultural Engineering, in the preparation of both the manuscript and illustrations for publication. Mary Rokahr, senior home management specialist, Extension Service, and Eloise Davison, director of domestic electric service program, Electric Home and Farm Authority, made valuable suggestions regarding arrangement of kitchens and other equipment. Helpful comments and suggestions have been received from many other persons. Many of the perspective sketches illustrating the house plans shown in this bulletin were drawn by C. W. Mead, Bureau of Agricultural Engineering.

<sup>2</sup> Sometimes the living room must serve as one of the sleeping rooms.

grown up and left home it is not necessary to use the entire house. For this reason it is desirable to have it arranged so that part of the rooms may be closed off or may be rented to tourists.

#### COMFORT AND CONVENIENCE

Adequate, well-used space for both the family and the furniture is a large factor in farmhouse comfort. The proper number, size, and placement of windows, doors, and stairs, and good construction are important. These matters have been carefully worked out in the plans shown in this bulletin. Comfort also depends to a large extent on good heating, plumbing, lighting, and screening. Information on some of these subjects is given in Farmers' Bulletin 1698, Heating the Farm Home; 1448, Farmstead Water Supply; 1426, Farm Plumbing; 1227, Sewage and Sewerage of Farm Homes; Department Circular 405, The Domestic Oil Burner; and in U.S. Department of Commerce bulletin, Insulation on the Farm, price 10 cents.

The convenient arrangement of the farmhouse begins with its relationship to the other farm buildings and to the highway. Unlike the city house, the farmhouse has its main line of communication through the back or side door. Therefore outside doors and porches should be located so as to give convenient entrance from the farm driveway and the path to the barn, and wherever possible should be on the sheltered side of the house.

If possible, there should be a convenient place near the rear entrance for men to leave their outer wraps and to wash before going into the house. These facilities are often provided in a washroom or in one corner of the workroom, but if there is no washroom or workroom in the house, there should at least be clothes hooks and a bench and washbasin for summer use on the back porch.

It is also desirable that the work portions of the house, where the housewife spends much of her time, look out over the farm buildings and the entrance roadway. Most farm women like also a glimpse of the highway from the kitchen window.

Preferably the traffic way from the rear entrance to the main portion of the house should not lead through the kitchen. If the kitchen must be used as a passageway, the doors should be so arranged that the traffic does not cross the work area. This not only decreases the possibility of interference with household activities but also makes possible a more compact and convenient arrangement of work equipment. An important factor is a workroom or porch, on about the same level as the kitchen, for laundry, canning, care of milk, and other farm activities and for supplementary food storage. This saves much clutter in the kitchen itself and contributes to more efficient arrangement.

At least one bedroom should be provided on the first floor of the farmhouse, not too far from the kitchen, so that small children or sick persons may be cared for conveniently. The bathroom should be convenient to both downstairs and upstairs bedrooms, but preferably on the first floor. A space for a bathroom is very desirable even if the fixtures cannot be put in at once.

Ample storage space should be provided for clothing, bedding and linen, wraps, food, dishes and utensils, cleaning equipment, toys, and fuel. In general, these needs have been met in the plans given in this

bulletin by closets in halls and bedrooms, kitchen cabinets, shelves or pantries, and cellar storage. Closet, cabinet, and shelf space adds greatly to the convenience and comfort of a house and should not be omitted.<sup>3</sup>

In the smaller plans shown here, an alcove or an end of the kitchen is indicated for use as a dining area. In the larger plans, either a dining room or a space for dining in the living room is provided, and in most cases there is also space in the kitchen for "hurry-up" meals.

The following points have been kept in mind in planning the kitchens.

A sink in every house is recommended. Even when water must be carried into the house, the sink and drain add much to the convenience of the kitchen and may be installed very cheaply. Where running water is not available, a pump may be installed beside the sink. However, running water, hot and cold, adds more to the convenience of the farm home than almost any other factor.

The sink should be well lighted, with windows over or at one end of it. Windows over the sink should have the sills higher than the back of the sink. Such windows will need to be shielded from sun glare unless on the north side of the house. The sink should have a drain board at the left end, at the right a flat shelf for stacking dishes if there is no drain board there. Dish storage should be near enough the left end of the sink for the dishes to be put away without unnecessary steps.

The cookstove should be conveniently near the sink, preferably against the side wall, or across from it if the kitchen is narrow.

A small food-preparation surface, table or shelf, should be placed next to the stove at the same height as the cooking surface. There should be cupboard space near the stove for the storage of cooking utensils. A worktable should be provided for long mixing jobs; it should have knee space and toe space. Staple supplies should be stored near this table and, if possible, should be near the refrigerator and not too far from the stove.

The refrigerator should, for convenient use, be as near as possible to the worktable and stove; however, the higher the surrounding temperature the greater the cost of operating the refrigerator. If an ice refrigerator is used, a location near the outside door lessens the tracking of dirt into the house. A ventilated cupboard near the worktable is convenient for storing the less perishable foods and reduces the season during which ice is needed.

#### RELATION TO OTHER BUILDINGS AND HIGHWAY

A house designed for the south or west side of the highway should be reversed if it is to be built on the north or east. For example, plan 6521 (p. 24) would fit nicely on either the south or the west side of the main road. If it were south of the highway, with the drive as shown, the kitchen would be on the east where it would have the advantage of the morning sunlight and in most localities the

<sup>3</sup> Plans for closets and storage spaces can be obtained from the Bureau of Home Economics.

screened porch would be sheltered from the coldest winds. If the house were on the west side of the road, the kitchen would still get morning sunlight, and the porch would protect it from the afternoon sun. On the other hand, if the house were to be built on the north or east side of the road, the kitchen would be badly sheltered and lighted, but reversing the plan so that the kitchen would be on the right instead of the left side of the house would remedy these conditions.

Before deciding to build any house the plan should be studied carefully to see how it will best fit the location and the arrangement of the rest of the farmstead.

#### APPEARANCE

Attractive appearance of a farmhouse is to be obtained by:

Good taste in its proportions and exterior design.

Materials chosen to suit the local environment and type of house, effectively employed.

A pleasing color scheme for the house, in harmony with its surroundings.

Proper planning with relation to the natural features of the site, the other farm buildings, and the highway.

Grading the site and planting trees, shrubs, and flowers.

If the homes shown in this bulletin are carefully built according to the drawings, they will be satisfactory with respect to the first two points.

Proper location of the house is exceedingly important and must be worked out on the ground. Farmers' Bulletin 1132, Planning the Farmstead, and 1087, Beautifying the Farmstead, will be found helpful in this and in the planting of trees and shrubs around the house. Farmers' Bulletin 1452, Painting on the Farm, discusses kinds and uses of paints. Other bulletins on these subjects are available from several of the State agricultural colleges.

#### SAFETY

Safety in the farmhouse depends first on good construction for protection from damage by wind, fire, decay, and termites. Safety is promoted also by planning to avoid hazards from low beams, steep or unguarded stairways, or badly placed doors and windows. The working drawings for the houses illustrated herein embody good practice in these matters. The welfare and convenience of the occupants will be further permanently safeguarded through rat-proof construction, which eliminates "rat harbors", and denies easy entrance of the rodents to the building. Additional safety may be secured at slight cost by following the recommendations in Farmers' Bulletins 1590, Fire Protective Construction on the Farm; 1638, Rat Proofing Buildings and Premises; and 1649, Construction of Chimneys and Fireplaces; Leaflet 87, Wind-Resistant Construction for Farm Buildings, and Leaflet 101, Injury to Buildings by Termites.

#### CONSTRUCTION MATERIALS

The houses shown in this bulletin may, with slight changes, be built of wood, stone, concrete, brick, tile, earth, steel, or other materials. The choice depends largely on owner's preference, local availability and price, and the skill of local builders in using one or



another. Many new materials for various purposes such as roofing, flooring, and insulation are on the market and deserve consideration.

The practice common among farmers of hauling their own stone or concrete materials, cutting their own logs where possible, having their lumber sawed at local mills, and doing part of the actual construction work, aid in reducing the cash outlay and in making possible a better house for the same money expenditure. This is especially true where lumber is sawed long enough before building starts to allow thorough seasoning. This seasoning of lumber is important and is too often disregarded.

#### COSTS

The most satisfactory way to learn the probable cost of a house is to obtain estimates from one or more local builders. Approximate costs may, of course, be obtained by comparing the proposed house with one built recently in the same community, or rough estimates may be based on the size of the house and typical unit costs for the locality.

Unit costs based on prices and wages prevailing in the spring of 1934 for houses suitable for the localities were obtained for about 300 counties by the Farm Housing Survey. A summary of the figures is as follows:

#### CELLARS

Costs for ordinary cellars were reported for most sections as varying from 50 cents to \$1 per square foot of floor space. The cost per square foot is, of course, less for a large than for a small cellar, other things being equal. Easy excavation and low-cost materials also make for low unit cost. Costs of nearly \$2 per square foot were reported in some sections where the ground-water level is high and cellar walls and floor must be carefully waterproofed. In sections where cellars are not ordinarily used the cost of the foundation was reported as part of the cost of the house superstructure.

#### SUPERSTRUCTURES AND PORCHES

Reported costs of one-story frame superstructures, including heating, plumbing, and lighting equipment ordinarily used in the locality, ranged from \$1.25 to \$2.25 per square foot of floor space in the South, from \$2.25 to \$3.50 in the West and Southwest, from \$2.50 to \$4 in the North, and from \$3 to \$4.50 in New England. Costs in Maryland, Virginia, and West Virginia and in a narrow belt along the east coast, including Florida, were reported from \$2 to \$3.25, and in the timber-producing sections of the Northwest at about \$2 per square foot. Costs in any locality are influenced by local factors, generally being relatively high near cities and in thickly settled sections and relatively low in places where there are local supplies of lumber or other materials.

Differences in cost between the various sections are due to differences in the kinds of houses built, as well as to differences in material costs and wages. The typical house in the North is much more compact and substantial and provided with more expensive heating equipment than the typical house in the South.

The cost per square foot of floor area of two-story frame houses was reported as being 5 to 15 percent less than that of one-story houses in the same locality.

The costs of typical masonry superstructures were generally reported at \$2 to \$3 per square foot of floor area in the southern third of the United States, from \$3 to \$4 per square foot in the central third, and more than \$4 per square foot in the northern third of the country. There were many variations from these general levels, however, costs of about \$2 per square foot being reported in many localities in the States bordering on or south of the Ohio River. Costs reported for counties along the Atlantic and Gulf coasts were generally higher than for those in the interior. Little difference in cost per square foot of floor area in one-story and in two-story masonry houses was reported. The higher costs reported for masonry houses as compared with frame are probably due in part to better grades of finish and equipment used in the masonry houses.

The costs per square foot of floor space of open porches were reported as being about half the costs per square foot of floor space in one-story houses of similar materials.

#### ESTIMATING BY UNIT COSTS

The floor areas of the cellar, the porches, and the house itself (the superstructure) are shown with each plan. They do not include unexcavated cellar space nor unfinished space in attics. The areas were figured from the working drawings (see p. 7) because in some cases the dimensions given in the plans herein are approximate only. The superstructure area of a house of more than one story is given here as the area of the first floor plus the usable area of the second floor. Stairways, halls, and closets are included. To estimate very roughly what a house might cost, multiply the number of square feet of cellar floor space by a cost per square foot based on the costs stated above. Do the same for the house superstructure and the porches, and add the figures together. This, with allowance for price changes since the spring of 1934, will give a rough estimate of total cost of the house. The actual cost will, of course, be affected by the materials and home equipment which the owner selects and by the skill and efficiency of the builders.

If the owner can furnish part of the material or labor, or if interior finish or equipment is omitted, the initial cash outlay may be reduced. Estimates based on local prices and wage rates are to be preferred to those based on the cost figures given above.

Little study has been given to what amounts farm people are justified in spending for their houses, but several investigations have been made of expenditures for housing by people with fixed incomes. It is generally agreed that the house ordinarily should not cost more than two and one-half times the average annual net income of the family. In the case of the farm family the value of the living furnished by the farm should be considered as part of the income. Another generally accepted rule, which perhaps is more nearly applicable to farm conditions, is that not more than 25 percent—usually not more than 20 percent—of the average annual net income of the family should be required for housing, including principal payments, interest, taxes, insurance, repairs, and miscellaneous costs.

## WORKING DRAWINGS

Working drawings have been prepared giving all necessary dimensions and details for building these homes. Farmers may obtain copies of these drawings from the agricultural extension services of the State agricultural colleges. The State extension services will supply only those plans which are suitable in their respective States, and usually will make a small charge to cover printing and mailing.

## CAUTION REGARDING CHANGES

These plans have been carefully prepared by competent architects in consultation with home-management specialists and agricultural engineers familiar with farm conditions in all parts of the United States. It is urged that the plans be studied carefully before making a selection, but that no changes be made in them except for alternate arrangements indicated by the drawings or descriptions. Changing the size of a room or the location of a door or window may spoil some other valuable feature, and is almost certain to harm the appearance of the house. Doors and windows should be selected according to the descriptive material on the drawings. Sizes should be closely adhered to for best appearance.

The prospective builder should not try to obtain too much originality, but rather should base his selection on those features of the plan which will give the utmost satisfaction in the long run. Differences in slope of ground, location of the drive and farm buildings, and position and amount of trees and shrubbery, all will contribute to the distinctive appearance of the home.

For homes of the type offered in this bulletin, the surroundings should be kept free from distracting adornments. As a general rule, a few trees to provide shade, some flowering shrubs of native growth grouped close to the building to break harsh lines, and a bed or two of flowers selected for their color value, will be sufficient decorative relief.

## PLANS FOR HOUSES

The 40 house plans shown in this bulletin have been arranged in four groups representing, respectively, (1) 1-story growing houses; (2) 1-story houses originally built with two or more separate bedrooms; (3) houses of  $1\frac{1}{2}$  or 2 stories; and (4) very small houses. Some of the plans might have been placed in another group about as well as in that in which they are shown.

## ONE-STORY GROWING HOUSES

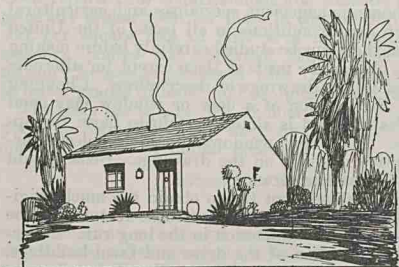
There are many arguments in favor of the growing house for the farm. The first unit can be erected at a moderate cost, yet the finished house may have all the features considered important. As more space is needed the owner often can build the additions himself, taking advantage of slack times to cut lumber from his own land, haul sand and gravel for concrete, and in other ways reduce the cost of the additions. The chief difficulty with the growing house is that it is likely to grow very slowly. By the time additions are made the house is considered old by its occupants, and the additions are likely not to receive as careful attention as the original house.

The growing houses in this bulletin have been carefully planned so that both the first units and the final structure are satisfactory in usefulness and in appearance. The additions fit into the original units with a minimum of ripping out and rearrangement.

PLAN 6511,<sup>4</sup> FOR THE SOUTHWEST

Floor areas: Superstructure, first unit 605 square feet; with 1-bedroom addition 815 square feet; with 2-bedroom addition 960 square feet.

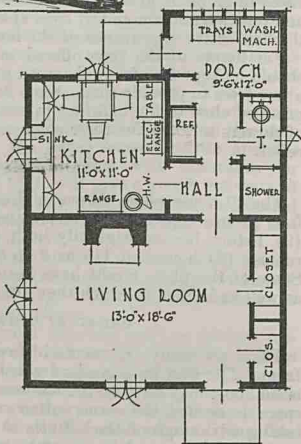
This plan is for a permanent dwelling of frame, stucco, stone, adobe, or other construction. If desired, the first unit may be built without bedrooms, as shown, and the living room used for sleeping quarters until the house is completed. The two large closets of this living room add much to its



value, and the arrangement with all doors at one end of the room permits efficient use of the space.

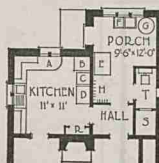
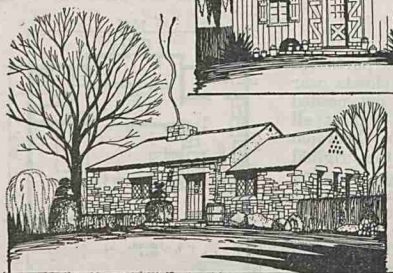
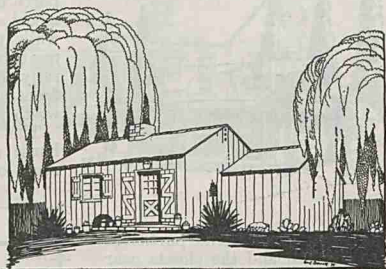
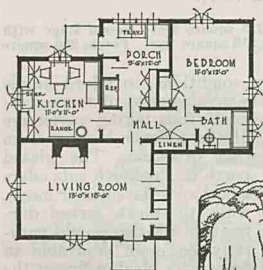
If the first unit is to be used for several years before the bedrooms are added, the small bathroom with shower will be especially desirable. That space must be used for other purposes, however, and the bathroom fixtures moved when one or both bedrooms are added.

An alternate kitchen arrangement suggested by the Bureau of Home Economics for houses in which only an oil, gas, or electric stove is needed and meals will usually be eaten in the living-dining room is shown on page 9.

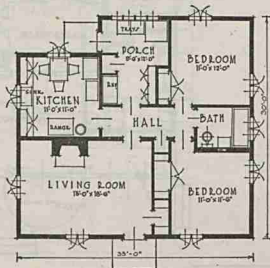


<sup>4</sup> Prepared by W. K. Bartges and Earl Barnett for the department of agricultural engineering, University of California.





A-WORK TABLE  
B-REFRIGERATOR  
C-WATER HEATER  
D-ELECTRIC RANGE  
E-TABLE  
F-LAUNDRY TRAYS  
G-WASHING MACHINE  
H-COAT HOOKS  
I-TOILET  
J-SHOWER  
K-STORAGE



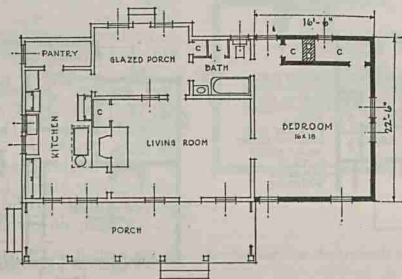
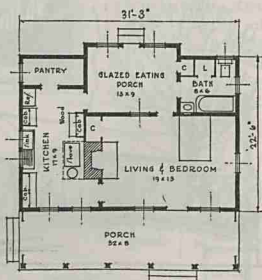
PLAN 6512,<sup>5</sup> FOR THE SOUTH

Floor areas: Superstructure, first stage 715 square feet; second stage with one bedroom 1,085 square feet; third stage 1,515 square feet. Porch, 250 square feet.

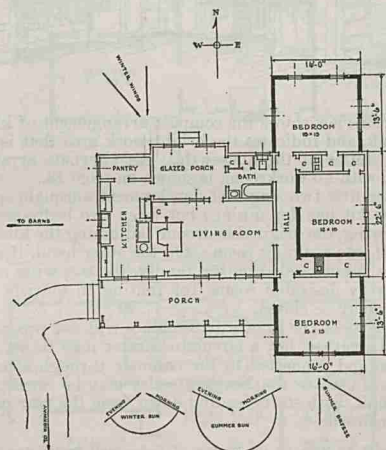
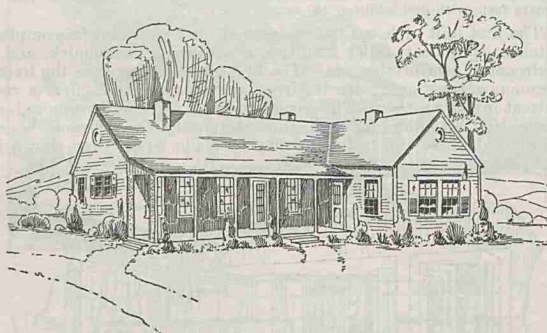
Plan 6512 is designed for southern conditions, to afford ample shade from a glaring summer sun. The arrangement of rooms permits the building to face toward the south, thus taking advantage of the summer breezes from that direction. The glazed porch on the north side offers a cool spot for summer meals, while the meals served during cold weather would naturally be more enjoyable in front of a blazing fire at the west end of the living room.

The second stage of the house adds the center bedroom of the three shown in

the third stage. The partitions for the hall and the closets near the south porch are not needed until the third stage. If at all possible, the center bedroom should be built with the original unit to provide more sleeping space; but if it is necessary to watch the budget closely, the large living room or the glazed porch can be pressed into temporary service as sleeping quarters.



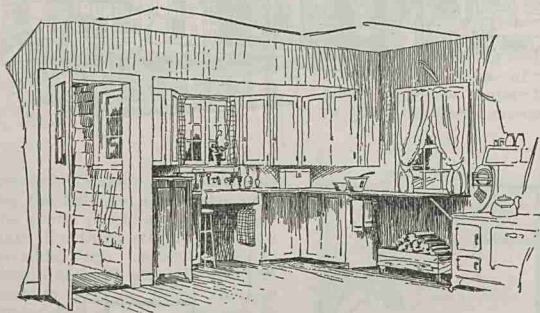
<sup>5</sup> Prepared by J. B. Atkinson and J. E. Hudson for the department of agricultural engineering, Agricultural and Mechanical College of Texas.



PLAN 6513,<sup>6</sup> FOR THE SOUTH

Floor areas: Superstructure, first unit 490 square feet; with first addition 705 square feet; completed house 1,015 square feet. Porches, first unit 25 square feet; with first addition 240 square feet.

The first unit of house 6513 is modest, and yet provides complete kitchen equipment, toilet facilities, a workroom or laundry, and a bedroom of comfortable size. The first addition increases the living accommodations and, with its front and rear porches, offers a cool retreat in hot weather. The second addition provides two more bedrooms and an adjoining bath, thus completing the six-room house. If desired, these two bedrooms may be made larger than shown in the plans.



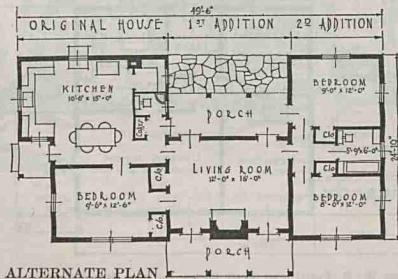
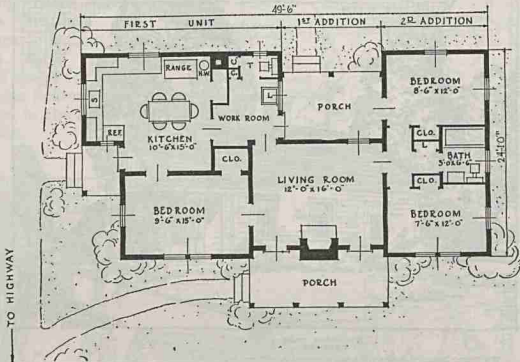
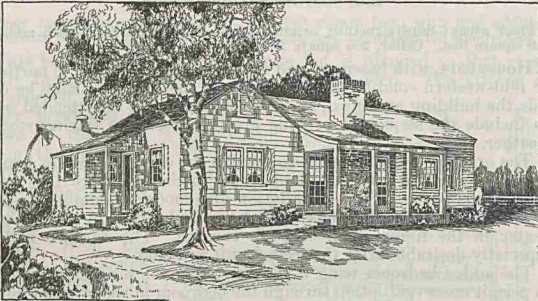
The interior view shows the compact arrangement of kitchen cabinets and sink, and indicates the bright work area that is planned to lighten the duties of the housewife. An alternate arrangement of the kitchen, with no workroom, is shown on page 13.

During the first two stages of development adequate space will be found in the kitchen for dining; but when two bedrooms are added in the final wing, the original bedroom (adjoining the kitchen) might be converted into a dining room. On the other hand, if at times the entire house is not needed by the family, the last wing of the house will make very desirable rooms for renting to tourists or summer boarders, or may be closed.

In some parts of the South the fireplace will not provide sufficient heat in cold weather, but a circulator heater may be set in front of the fireplace and connected to the chimney through a metal shield. If the plan is used in the North, a cellar may be constructed under the second unit, with stairs leading down from the rear porch, which should be enclosed.

<sup>6</sup> Prepared by W. H. Nash for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.





PLAN 6514,<sup>7</sup> FOR THE MIDDLE WEST

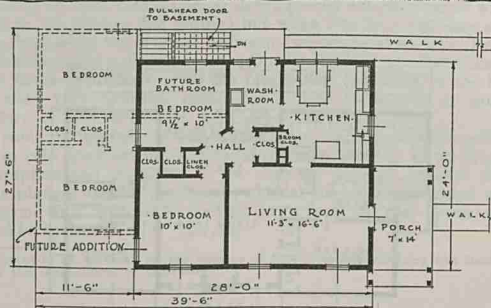
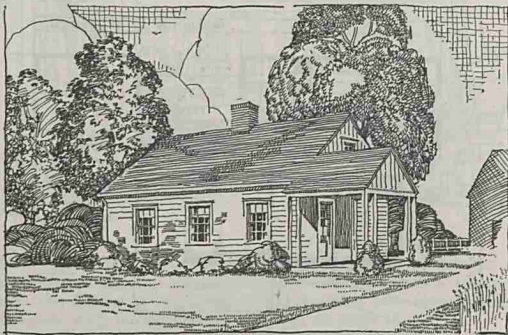
Floor areas: Superstructure, original house 670 square feet; with addition 940 square feet. Cellar, 255 square feet. Porches, 120 square feet.

House 6514, with basement and furnace, is well adapted to northern or mid-western conditions. The steps to the basement may be outside the building as shown, or the wash room may be extended so as to include the steps and provide greater protection during stormy weather.

The original house, in order to come in the class of low-cost houses, does not contain a bath. A pump at the kitchen sink provides water until funds permit of the installation of a modern plumbing system.

The first unit of the house may be heated either by a circulator heater in the living room or by a furnace. The furnace will be especially desirable after the second unit is added.

The added bedroom wing is recessed from the main building line to permit cross ventilation through the bedroom in the original house.

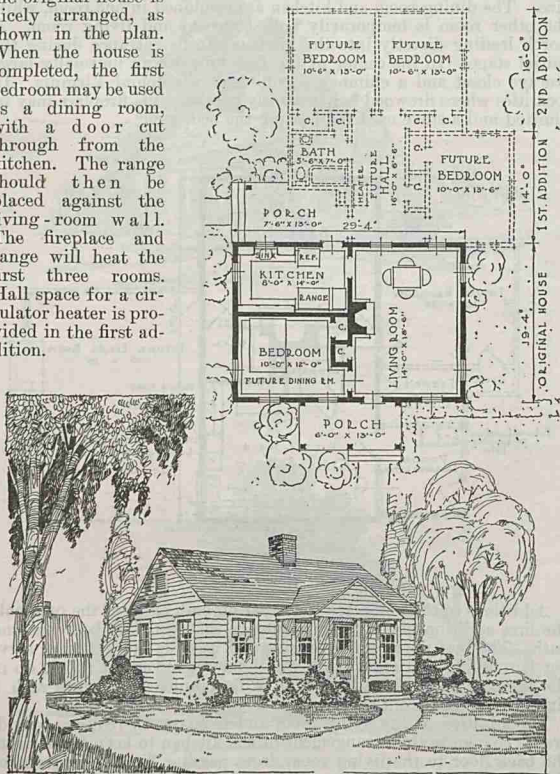


<sup>7</sup> Prepared by W. E. Pettit and Fred Riebel for the department of agricultural engineering, Ohio State University.

PLAN 6515,\* FOR THE SOUTH

Floor areas: Superstructure, first unit 565 square feet; with first addition 900 square feet; completed house 1,255 square feet. Porches, 175 square feet.

This begins as a three-room house but is planned so that eventually three bedrooms and a bath may be added. The kitchen in the original house is nicely arranged, as shown in the plan. When the house is completed, the first bedroom may be used as a dining room, with a door cut through from the kitchen. The range should then be placed against the living-room wall. The fireplace and range will heat the first three rooms. Hall space for a circulator heater is provided in the first addition.

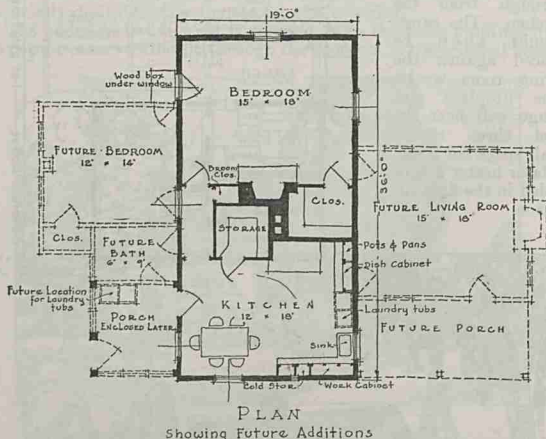


\* Prepared by C. W. Heery, Fred J. Orr, and B. G. Danner for the department of agricultural engineering, University of Georgia.

PLAN 6516,<sup>9</sup> FOR THE SOUTH

Floor areas: Superstructure, original unit 685 square feet; with first addition 1,035 square feet; completed house 1,345 square feet. Porches, original 90 square feet; completed house 155 square feet.

The original unit of house 6516 is a two-room structure of ample size. The dining room and kitchen are combined in one room, while the other room is temporarily both bedroom and living room. A porch leading directly into the kitchen affords entrance during the initial stage. In the center of the first unit are an unusually large storage closet and a chimney reminiscent of colonial Virginia. In localities where firewood is not readily available the fireplace may be omitted and a stove used for heating the bedroom.

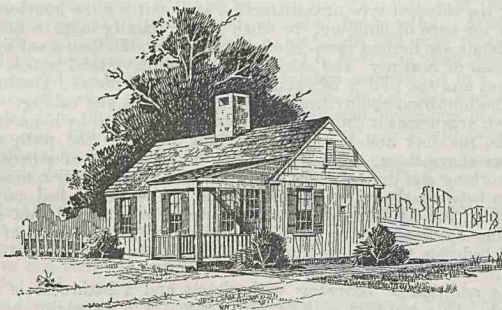


Additions to the house are indicated on both sides of the original; the first addition undoubtedly would be that with the bedroom and bath. The rear porch can be enclosed if needed, and will then serve for laundering and other work that is more convenient not to do in the kitchen. The second addition will complete the house with a living room and front porch.

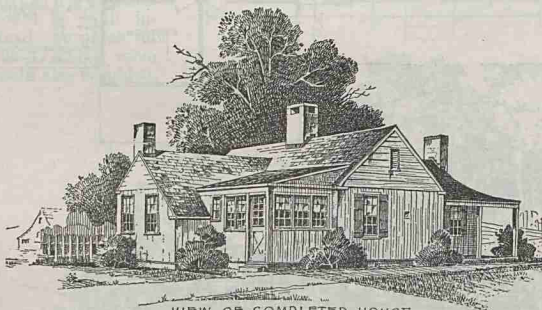
The addition of the living room and front porch requires considerable change in the arrangement of the kitchen to keep traffic from the back door to the living room from passing directly in front of the range. It will be best to set the range against the end wall, and preferably to use an electric or oil range so that no new chimney will be required. After the living room is added, less dining space will be needed in the kitchen.

<sup>9</sup> Prepared by H. B. Boynton and J. M. Thompson for the department of agricultural engineering, Virginia Polytechnic Institute.





VIEW OF ORIGINAL UNIT



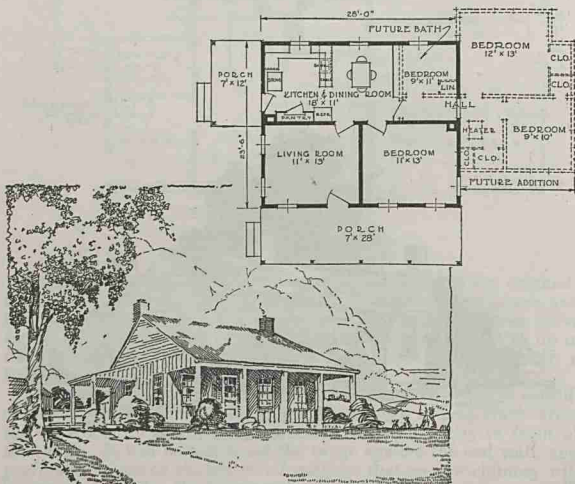
VIEW OF COMPLETED HOUSE

PLAN 6517,<sup>10</sup> FOR THE SOUTH

Floor areas: Superstructure, original house 660 square feet; completed house 1,025 square feet. Porches, 300 square feet.

In plan 6517 a large amount of space is provided at low cost by using the cheapest type of construction and omitting the interior finish at the time of building, for when a large family must be housed and funds are limited space is often more desirable than good finish and ease of heating. The exterior walls are of vertical boards and battens, and the roof is of galvanized corrugated metal. The house may be improved at any time by lining the walls and ceiling. The kitchen arrangement shows a treatment recommended by home economists, the sink and worktable at right angles to the wall, with shelves above them. This scheme has the advantage of separating the working and dining areas, yet it does not hamper easy communication between the rooms at meal hours. If desired, a bed may be placed in the living room, yet the house is so arranged that each sleeping room will have complete privacy. The side wall of the small bedroom next to the kitchen is intended to be made of 1-inch boards with battens on both sides.

The addition of bedrooms with closets and a bathroom is suggested. This addition will provide space for a circulator heater, which is a convenience when no cellar is planned.



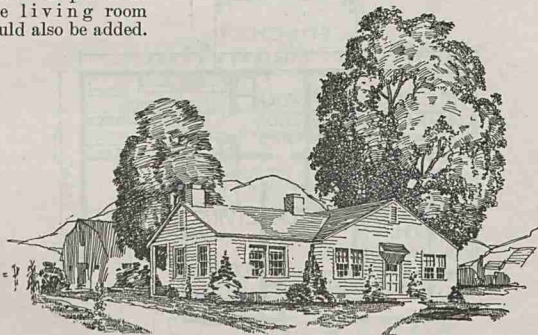
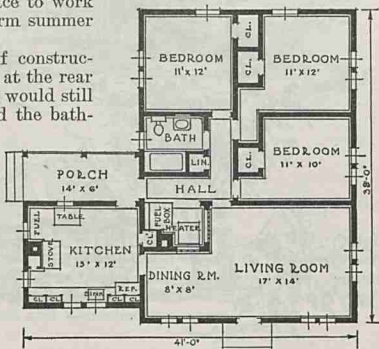
<sup>10</sup> Prepared by the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.

PLAN 6518<sup>11</sup>

Floor areas: Superstructure, first stage 835 square feet; with addition 1,160 square feet. Porches, 120 square feet.

Several novel features about this small dwelling will appeal to the farm-home builder. A heater room on the main floor near the rear entrance and the kitchen avoids the need for a cellar. A kitchen like this, with three outside walls to give light and cross ventilation and a better view of the farmstead and highway, is often desirable. The end of the living room next the kitchen is narrowed to a dining alcove, and when more space is needed the dining table may be extended into the living room. The completed bungalow has three bedrooms, with ample closet space. The rear porch will provide a comfortable, shady place to work outside during the warm summer days.

In the first stage of construction the two bedrooms at the rear may be omitted. This would still leave one bedroom and the bathroom and temporary closet space in the original bungalow. Then the two other bedrooms can be added later, when funds become available, or a screened and glazed sleeping porch with outside entrance could be built instead. A porch off the living room could also be added.



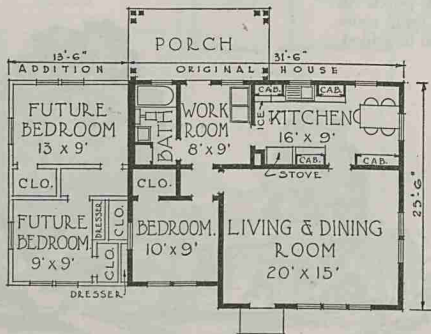
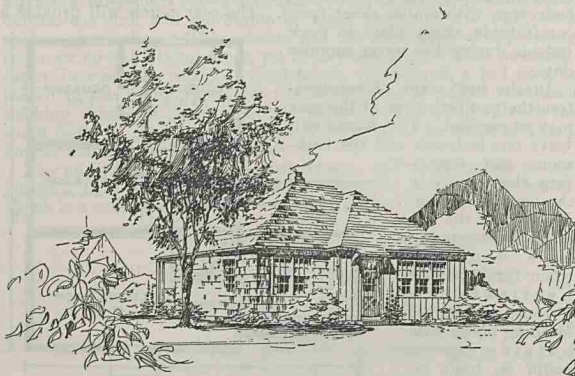
<sup>11</sup> Prepared by L. J. Smith for the department of agricultural engineering, State College of Washington.

PLAN 6519,<sup>12</sup> FOR THE SOUTHWEST

Floor areas: Superstructure, original house 775 square feet; with addition 1,075 square feet. Porches, 160 square feet.

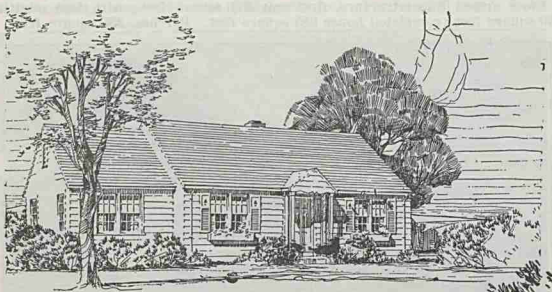
The plans and perspectives on these pages show two methods of roofing this house. In each plan the original unit of the house is complete, and pleasing in appearance, and the additions fit the house gracefully with very little tearing out or rearrangement.

As in some other plans, the kitchen is designed for the use of an oil, gas, or electric cookstove. The house may be heated by a circulator hot-air heater, by a hot-water system with a radiator boiler in



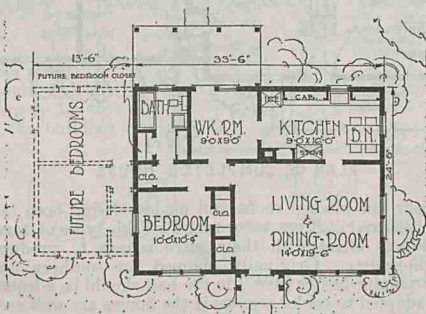
<sup>12</sup> Prepared by H. E. Wichers, O. S. Ekdahl, and N. F. Resch for the department of architecture, Kansas State Agricultural College.



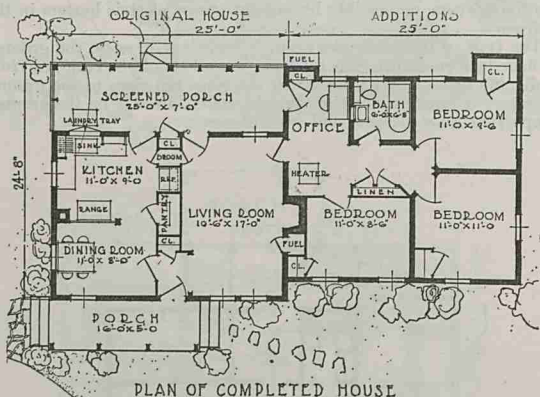
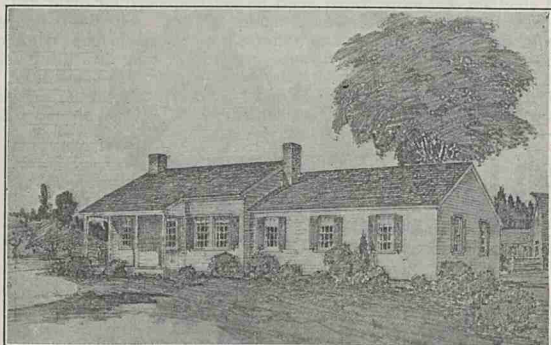


the living room, or possibly by radiant gas or electric heaters in the bedrooms.

The type of design favors keeping the house close to the ground. If floor-joist construction is used, the topsoil should be removed from under the house so that joists will not come too close to the ground surface. A concrete subfloor could be placed directly on the ground, supporting wood sleepers and wood floors.



Floor areas: Superstructure, first unit 450 square feet; with first addition 730 square feet; completed house 985 square feet. Porches, 255 square feet.

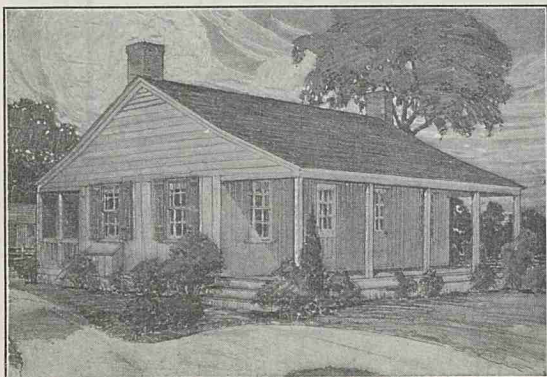


With their low-pitched roofs, and modest design both inside and out, plans 6520 and 6521 represent very desirable types of farmhouses. Such buildings blend with their surroundings to produce a real homey atmosphere. Originally planned for southern conditions, where a circulator heater placed in the hall should be adequate, these plans are adapted to colder regions if the houses are well constructed

<sup>13</sup> Prepared by Eldred Mowery and C. E. Cope for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.

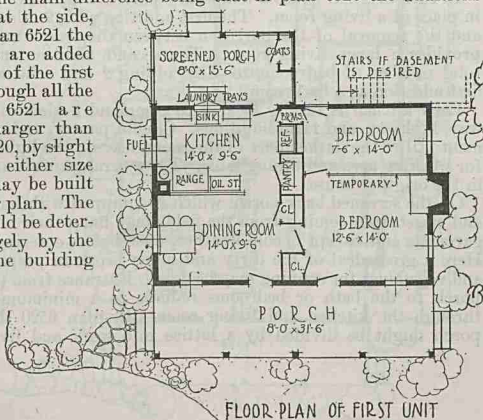
PLAN 6521<sup>13</sup>

Floor areas: Superstructure, first unit 630 square feet; with first addition 985 square feet; completed house 1,285 square feet. Porches, 385 square feet.

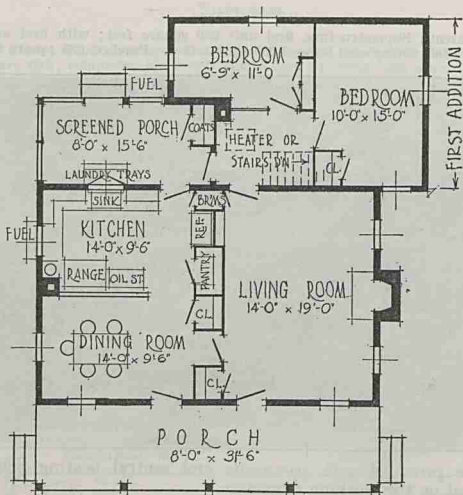


and are provided with basements and central heating plants as indicated on the working drawings.

In both designs the development from two large rooms progresses logically, the main difference being that in plan 6520 the additions are made at the side, while in plan 6521 the new rooms are added at the rear of the first unit. Although all the rooms of 6521 are shown as larger than those of 6520, by slight alterations either size of house may be built from either plan. The choice should be determined largely by the slope of the building site.



<sup>13</sup> Prepared by Eldred Mowery and C. E. Cope for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.

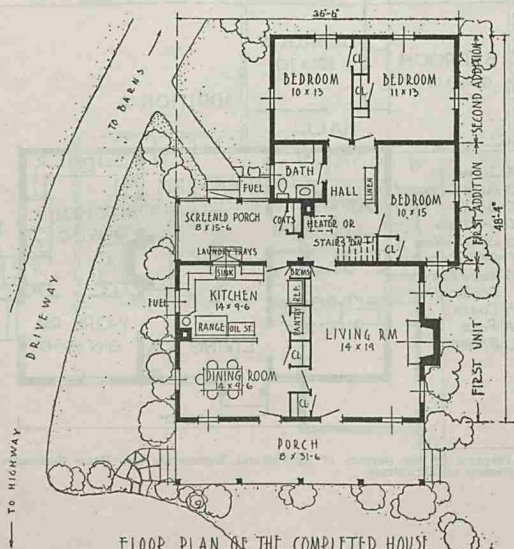
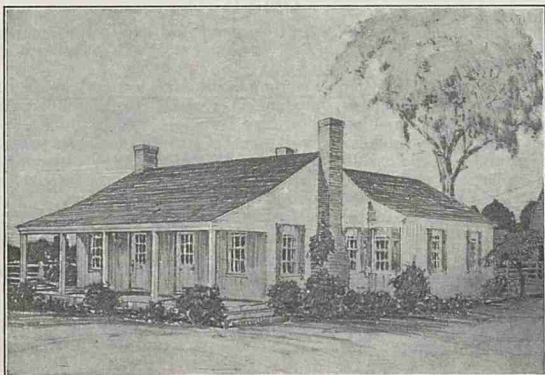


In each original house a temporary partition provides 2 bedrooms in place of a living room. The first addition adds 2 other bedrooms, and the removal of the partition between the temporary bedrooms provides a large living room. The second addition increases the total number of bedrooms to 3 by adding 2 and refitting 1 in the first addition as a bathroom.

Each kitchen is ideally located to command a view of the driveway, highway, and farm buildings. Closets, pantry, and other equipment utilize the darker part of the room, leaving the lighter portions for working area and dining table. These arrangements are complete in the original house.

On the screened back porch, which is equipped with laundry trays and closet, men coming from the fields may hang their outside work garments and, except in cold weather, wash before entering the house. Here a great deal of the dirty and messy work in preparing fruits and vegetables for canning may be done. Entrance from the screened porch to the bath or bedrooms reduces to a minimum the traffic through the kitchen and living room. In plan 6520 the screened porch might be divided by a lattice into work and living spaces.



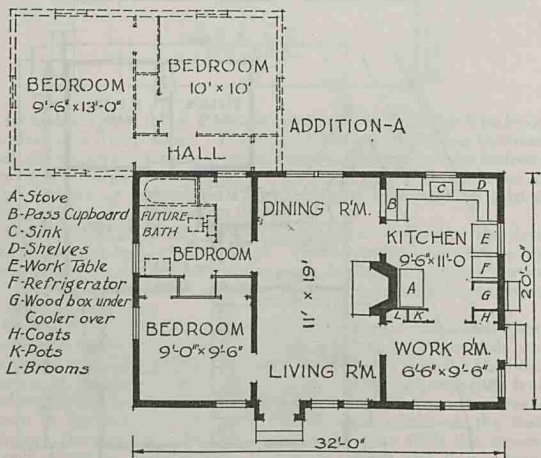


PLAN 6522<sup>14</sup>

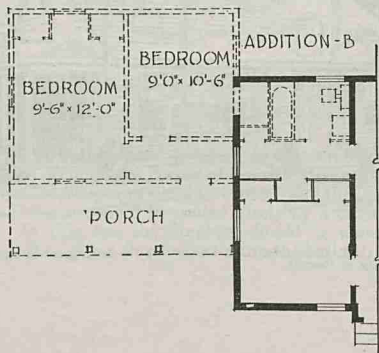
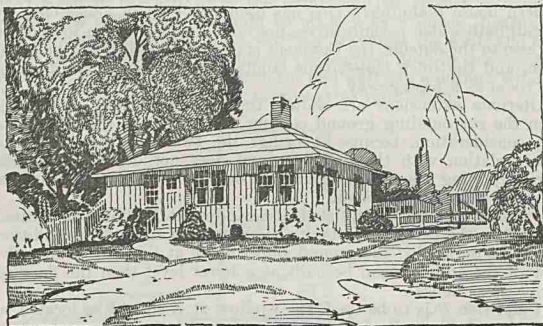
Floor areas: Superstructure, original house 640 square feet; with addition A 950 square feet; with addition B 930 square feet. Porch, addition B, 120 square feet.

On account of its compact arrangement, this low-cost house furnishes a very satisfactory amount of usable space for the small family and may be enlarged to three-bedroom size, as indicated on the plans. The kitchen is well arranged, with moderate storage space, and a wood box filled from outside, with a ventilated cupboard or cooler above it. The workroom, unusually large for a small house, is a good place for laundry or canning and for men to clean up before coming in to meals. Dining space is provided at the rear of the living room. This house should be compared with no. 6527 (p. 36).

Board and batten construction is very suitable for a low-cost house, but any other type of construction may be used for plan 6522 if preferred. If the house is built in a cold climate, probably it will be desirable to omit the fireplace and heat the living and bedrooms with a circulator heater.



<sup>14</sup> Prepared by the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.



PLAN 6523,<sup>15</sup> FOR THE SOUTH

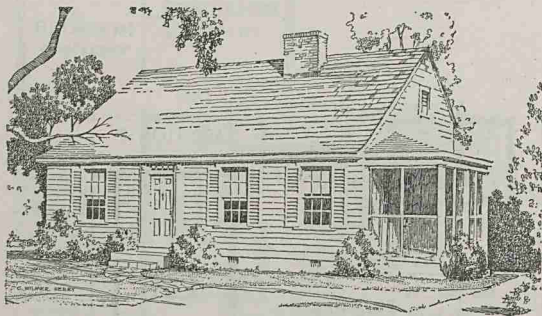
Floor areas: Superstructure, first unit 990 square feet; with addition A 1,420 square feet; with addition B 1,375 square feet. Cellar, 350 square feet. Porches, 100 square feet.

Communication between rooms is an important consideration in modern house planning. This has been provided in house 6523 by a small hall, which permits access not only from one room to another but also to the outside, the basement stairs, the wash room, the bathroom, and the linen closet, thus eliminating the necessity of using any room as a passageway.

Alternate extensions are shown, the choice probably depending upon the surrounding ground contour. Addition B should receive first consideration, because it brings the two new bedrooms into closer relation with the bathroom and does not destroy the wash room adjoining the rear entrance. It does, however, reduce the size of one of the first bedrooms.

If addition A is contemplated, the window at X should be located at Y when the first unit is built. The steps in the hall of addition A may be omitted if the ground slopes down at the rear so that the floor of the addition can be built at a lower level than the floor of the original house.

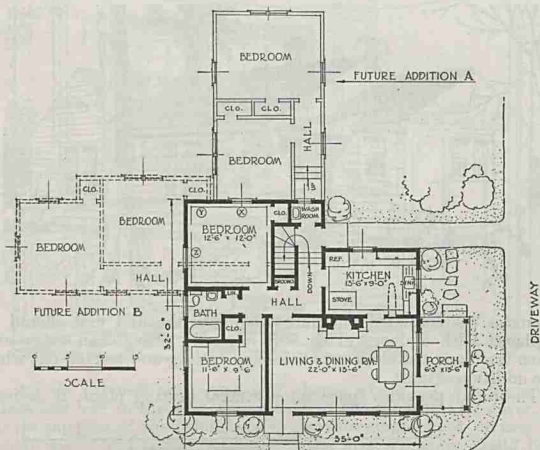
If addition B is to be used, the window at Z should be located so as to come in the hall of the addition.



<sup>15</sup> Prepared by C. W. Heery and B. G. Danner for the department of agricultural engineering, University of Georgia.



The original house is compact and of pleasing design. The high sloping roof with louvers in the gables affords air circulation to aid in keeping the house cool in warm climates. The attic space may be used for storage; it is reached by stairs over those to the cellar or through a trap door in the ceiling. There is also space for a good-sized room in the attic over the bathroom, but if such a room is wanted the ceiling joists should be made 2 by 8 inches, instead of 2 by 6 inches as specified in the working drawings, the walls and ceiling of the room should be insulated for comfort both in summer and in winter, and a double window in the end wall and a dormer window at the rear should be provided, to give cross ventilation.

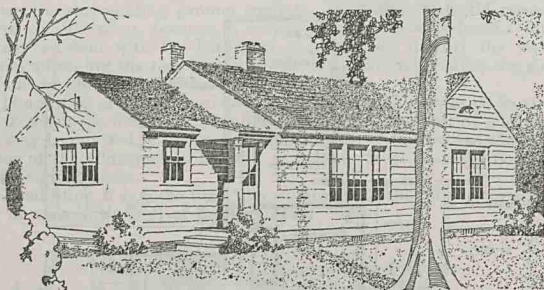


The working drawings provide for a piped warm-air furnace in the cellar, which occupies one corner of the space under the house. If no cellar is wanted, the stairs could be omitted and the original house, without the additions, could be heated nicely by a circulator heater in the hall. In this case the fireplace should be moved about 18 inches to the left to give a flue connection in the hall.

PLAN 6524<sup>18</sup>

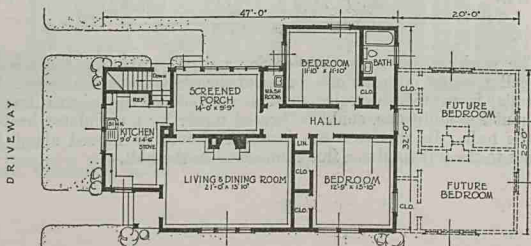
Floor areas: Superstructure, first unit 1,245 square feet; with addition 1,735 square feet. Porches, 25 square feet. Cellar, 400 square feet.

The charm of house 6524 lies in its informality and simplicity. It is built for comfort and service. The broad expanse of roof, relieved by a gable, gives it a substantial yet homelike appearance. This is an easy house to move around in, and the kitchen is very nicely arranged. The screened porch, in addition to providing a cool and inviting summer dining and work space, affords ready access to all the rooms of the house. If the future addition of bed-



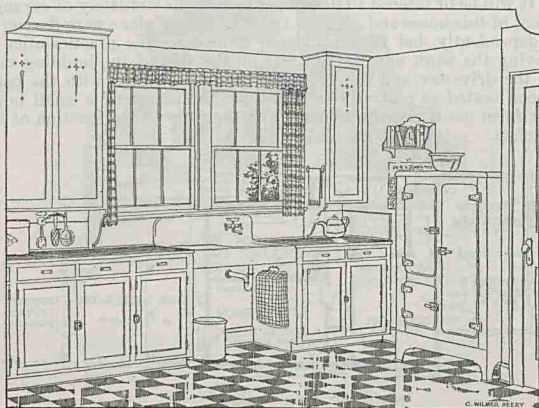
rooms is contemplated, the hall window in the first unit should be replaced with a door. This will not only provide an extra exit from the house but obviate unnecessary cutting and tearing out when the addition is built.

The cellar provides space for a central heating plant, if desired.



<sup>18</sup> Prepared by C. W. Heery, Fred J. Orr, and B. G. Danner for the department of agricultural engineering, University of Georgia.

The interior view shows the efficient kitchen arrangement and ample cabinet space planned for this house. Note that the sink drainboard is at the left for most convenient work by the average right-handed person, and that there is ample space for stacking soiled dishes at the right of the sink. The broad work shelf is 35 inches above the floor—a good average height—and there is toe space at the front for comfort while standing. The space under the sink is left clear so that the housewife may sit comfortably on a stool for the longer jobs.



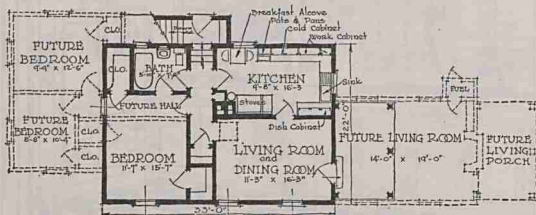
All the cabinets are shown with doors, which aid in keeping out dust and add to the neat appearance of the kitchen. However, the main purpose of the cabinets is to provide ample work surface and shelf space, and if money is scarce the first economy should be to omit the upper doors. They may be added later, or a roller window shade may be mounted above the shelves and drawn down to cover them when not in use.

PLAN 6525<sup>17</sup>

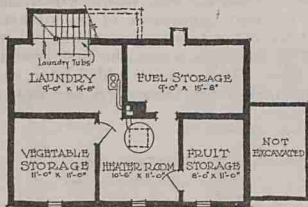
Floor areas: Superstructure, first unit 795 square feet; with bedroom addition 1,080 square feet; with both additions 1,375 square feet. Porches, 105 square feet. Cellar, 795 square feet.

This simple farmhouse develops into a home of dignity and charm. The original unit furnishes all modern conveniences and an ample basement. Future bedrooms may be added as required, while the extended living room might be built as the final touch of growing prosperity.

It will be of interest to the reader to note the similarity of arrangement of this house and no. 6519 (p. 20). These plans were developed independently, but the coincidence emphasizes the practicability of having the work and living areas on the side of the building next to the driveway and the bedrooms toward the rear, with the bathroom located as centrally as possible. The design of a small house for farm use is greatly influenced by the rather fixed location of the kitchen.



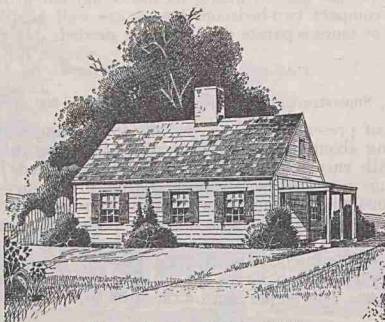
MAIN FLOOR PLAN  
SHOWING FUTURE ADDITIONS



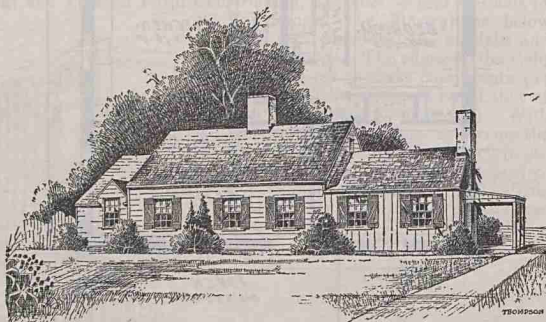
BASEMENT PLAN

<sup>17</sup> Prepared by H. B. Boynton and J. M. Thompson for the department of agricultural engineering, Virginia Polytechnic Institute.





VIEW OF ORIGINAL UNIT



VIEW OF COMPLETE HOUSE

THOMPSON

## MODERATE-SIZED ONE-STORY HOUSES

Houses of this group can best be built complete at one time, though in several cases it is noted that rooms may be omitted from the original building or extra rooms added. The larger houses of this group provide about the same features as the completed growing houses. The more compact two-bedroom houses are well adapted to farms where two or more separate dwellings are needed.

PLAN 6526,<sup>15</sup> FOR TIMBERED SECTIONS

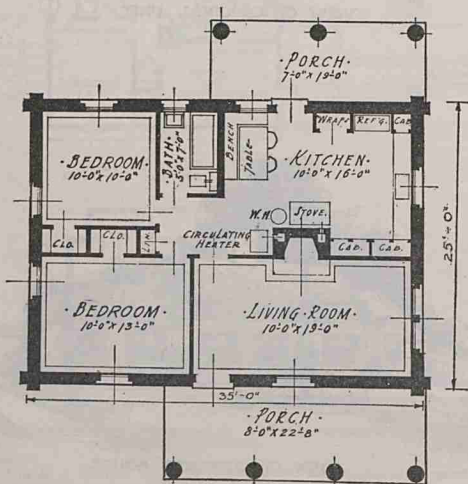
Floor areas; Superstructure, 845 square feet. Porches, 300 square feet.

In spite of present-day improvements in building materials, there is something about the rugged appearance of a log cabin that harmonizes with rural settings. Log construction blends into wooded surroundings more intimately than boards, bricks, or stucco.

House 6526 will accommodate 4 persons comfortably, or even 5 or 6 persons if a couch is placed in a corner of the living room.

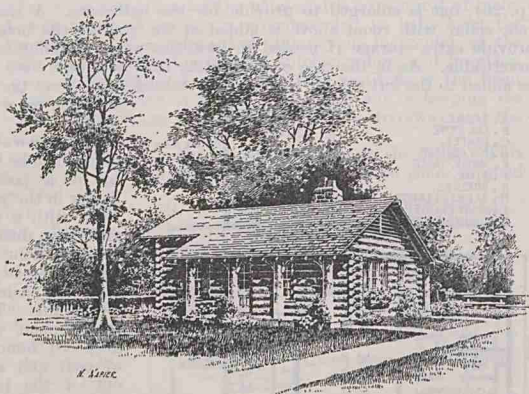
The location of the bathroom not only serves the bedrooms but is convenient to the kitchen and the rear porch.

The central chimney serves the kitchen range, circulator heater, and fireplace. The ample size of the kitchen, and its built-in cup-

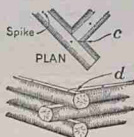
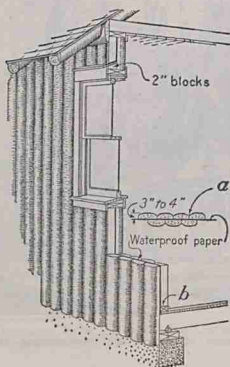


<sup>15</sup> Prepared by N. G. Napier for the department of agricultural engineering, University of Arkansas.

boards, dish cabinets, and other conveniences add greatly to the desirability of the design. If a pass cupboard between kitchen and living room is desired, it may be arranged in the cabinet next to the outer wall.



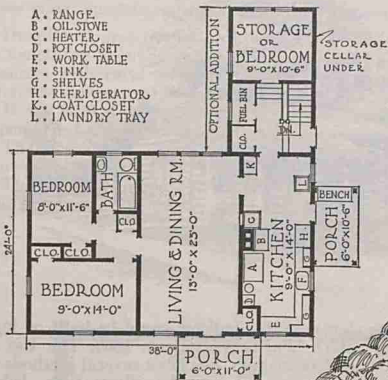
Many of the houses shown in this bulletin could be built of logs, with little change in detail. Farmers' Bulletin 1660, The Use of Logs and Poles in Farm Construction, describes several methods of using logs. The illustrations below show the economical use of slabs and flattened logs. The edges of the slabs should be cut to make close joints (*a*) and sill thickness should equal that of floor and quarter round (*b*). With horizontal flattened logs, at corners the projecting log should be notched to obtain a tight joint (*c*), and the projection sloped to shed water (*d*). This method of using slabs for walls was suggested by the University of Wisconsin.



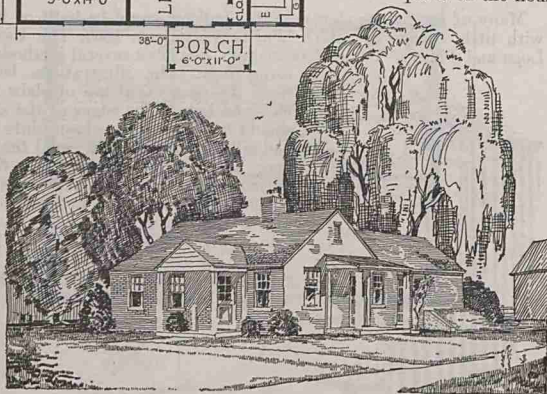
PLAN 6527<sup>10</sup>

Floor areas: Superstructure, main house, 915 square feet; with storage addition 1,120 square feet. Cellar, 115 square feet. Porches, 130 square feet.

This house is similar in many respects to the first unit of 6522 (p. 26), but is enlarged to provide for the bathroom. A shallow root cellar with room above is added at the rear of the house to provide extra storage if needed in localities where a cellar is not practicable. As in the case of plan 6522, two more bedrooms may be added to the left side of the house by taking space from the rear bedroom for a hallway.



The house is planned to be heated by a jacketed heater in the work-room with a cold-air return duct under the floor and cold-air registers in the living room and bedrooms. This arrangement will keep all handling of coal and ashes out of the living parts of the house.



<sup>10</sup> Prepared by O. R. S. Trabor for the department of agricultural engineering, University of Missouri.

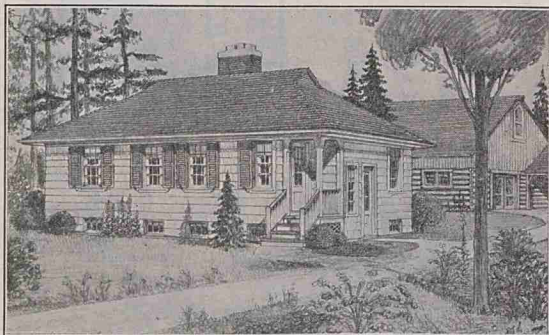
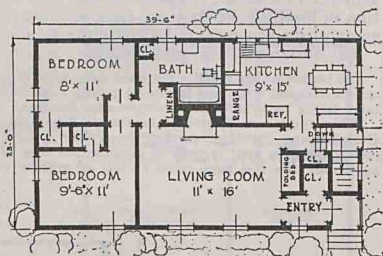


PLAN 6528,<sup>20</sup> FOR THE NORTH

Floor areas: Superstructure, 800 square feet. Cellar, 800 square feet.

House 6528 is intended for use in cold, snowy regions, where farmers need cellars for storing fuel and vegetables. The hip roof helps to brace the house against the wind and is economical of material. A well-insulated ceiling is recommended to help keep the house comfortable. The substantial chimney in the center of the house, with separate flues for furnace, kitchen range, and fireplace, insures good draft and no wasted heat. The vestibule at the front and the hall arrangement at the side door also aid in keeping the house warm. Both doors are convenient to the driveway and the path to the barn.

The wash room and laundry of this house are in the cellar. This is a satisfactory and economical arrangement where there is good drainage for both the cellar and the plumbing fixtures, and is particularly advantageous on rolling ground. But one should beware of putting a deep cellar in a poorly drained location. (See Farmers' Bulletin 1572, Making Cellars Dry.)



<sup>20</sup> Prepared by S. A. Witzel for the department of agricultural engineering, University of Wisconsin.

PLAN 6529<sup>21</sup>

Floor areas: Superstructure, 740 square feet. Porches, 250 square feet.

This house was designed to meet the needs of a family of 4 to 6 people. The porch faces the highway, and paths from the front and side porches lead to the farm drive.

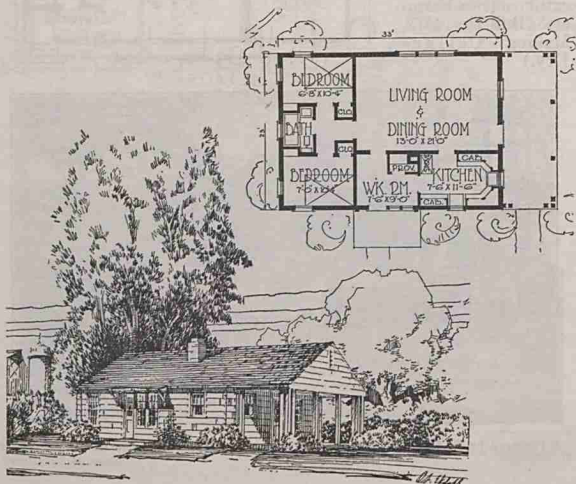
The kitchen is complete and compact. The extra space found in many farm kitchens has been omitted and a workroom added to provide for laundry and other rough work. This also provides a place for men to leave their outer wraps and wash before entering the living room. Storage space can be obtained in the attic by the use of a disappearing stair in the workroom ceiling.

No wood or coal range is provided for in this plan, because the use of an oil, gas, or electric stove saves space in the kitchen and correspondingly reduces the cost of the house. This saving and the convenience of a small, compact cooking unit deserve careful consideration in localities where these fuels are cheaply available. Heating is accomplished by means of a circulator heater in the living room.

The designer of this plan states:

The bedrooms are small. They are little used during waking hours, thus they can be reduced with less injury to family comfort than any other room. The large living room more than compensates for this.

When funds are limited it is always debatable, in a great portion of the United States, whether spending money for a porch is wise, because the same money could be used instead to increase the area of the house proper. In this particular case the porch could be left off without harm.



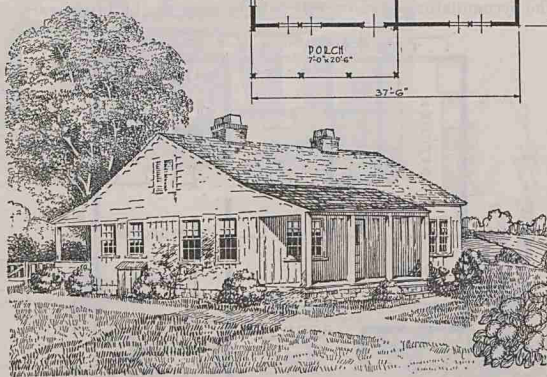
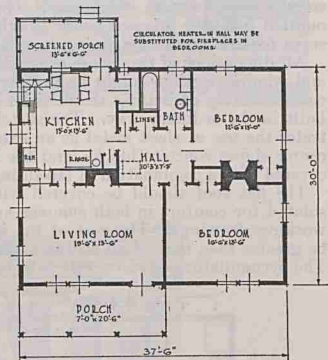
<sup>21</sup> Prepared by H. E. Wichers and O. S. Ekdahl for the department of architecture, Kansas State Agricultural College.

PLAN 6530<sup>22</sup>

Floor areas: Superstructure, 1,155 square feet. Porches, 245 square feet.

The well-known economy of square house construction is illustrated by this plan. A choice of heating methods without a cellar is indicated. If a circulator heater is used in the hall, as shown, the chimney between the bedrooms will not be needed, and if extra bedrooms are wanted they may be added as in plan 6517 (p. 18). A fireplace in the back bedroom would, of course, interfere with taking a hall off this room.

Kitchen doors are located to permit easy communication between the screened porch and the hall without interference with the work area while the screened porch is useful as both work and dining area. This latter feature, together with the ample size of the bedrooms, living room, and kitchen, makes the dwelling especially suitable for the small family in the South. The addition of a cellar under one-half of the house and of a central heating plant would adapt this plan to other sections of the country, though the rooms are rather larger than is common in the North.



<sup>22</sup> Prepared by W. C. Breithaupt and H. W. Dearing for the department of agricultural engineering, Alabama Polytechnic Institute.

PLAN 6531<sup>23</sup>

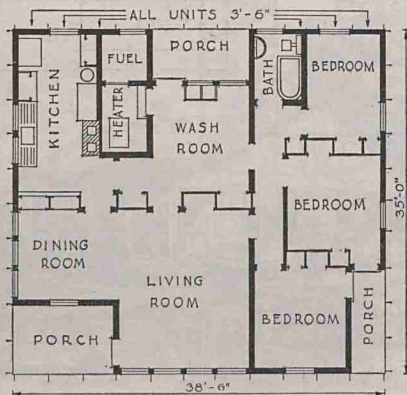
Floor areas: Superstructure, 1,185 square feet. Porches, 155 square feet.

House 6531 should be compared with no. 6533. The two plans were developed independently, but are very similar and illustrate a logical grouping of rooms for a farmhouse. In some respects the arrangement of 6531 works out more satisfactorily because it is not restricted by the structural details of framing a pitched roof.

This house is a model of compactness and efficiency. Note the simple but effective way in which the kitchen and heater room are located back to back. The floor of the heater room is a concrete slab, two steps below the main floor level. A pass cupboard between the kitchen and dining room is handy for serving meals. It also provides storage space beneath its counter. The entire bedroom side may be omitted from the original house, in which case the workroom would serve for dining and the dining room for a bedroom.

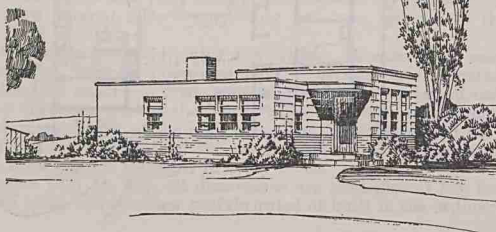
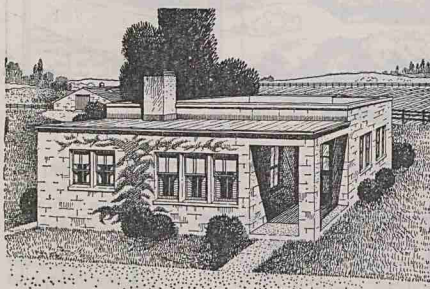
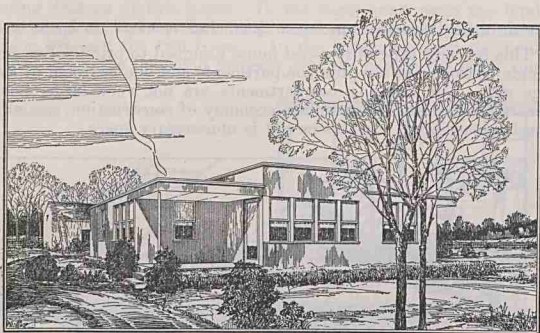
All dimensions of this house are multiples of  $3\frac{1}{2}$  feet. Wall, door, and window sections might be prefabricated so that erection would consist merely of bolting the sections together, or the house can be built in the ordinary way. The sketch at the top of page 41 illustrates the use of sheet metal as an exterior covering, the one in the center shows concrete blocks, and the bottom view shows the walls covered with a combination of lap siding and shingles or wide boards.

The flat roof should be covered with good roofing and well insulated for comfort in both summer and winter as described in the working drawings. The cost of the insulated flat roof should not be greater than that of an ordinary pitched roof without insulation. The accumulation of snow will help to keep the building warm.



<sup>23</sup> Prepared by Albert Frey for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.

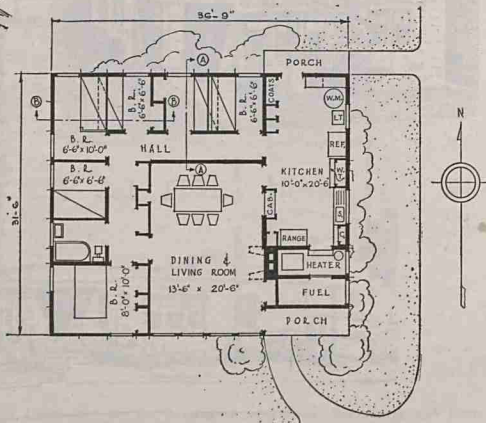
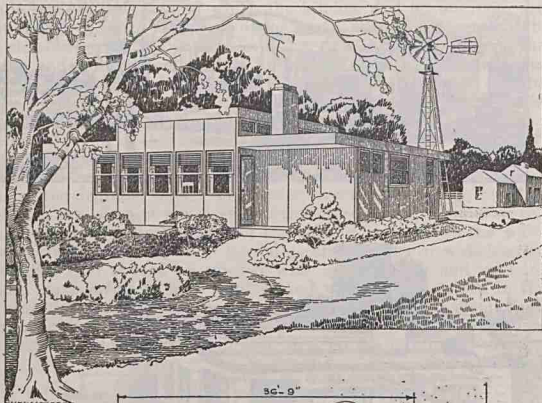




PLAN 6532<sup>24</sup>

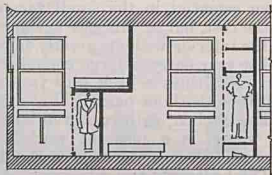
Floor areas: Superstructure, 1,125 square feet. Porches, 35 square feet.

This is a new type of low-cost house designed to provide five small single bedrooms or sleeping compartments and one bedroom of average size. The sleeping compartments are not very large, but to secure privacy and yet maintain economy of construction, something must be sacrificed. In this case it is unnecessary space.

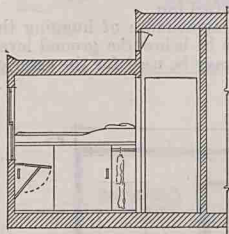


<sup>24</sup> Prepared by Albert Frey and R. G. Allen for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.

The sketch showing the arrangement of bunks illustrates an interesting feature of this house. In the right-hand room the bunk is near the floor, and wardrobe and dresser space is obtained in the partition between the two rooms. In the left-hand room the bunk is 4 feet above the floor and projects over the one on the other side of



CROSS SECTION OF  
BEDROOMS AND  
WARDROBE AT B-B



SIDE VIEW  
OF BUNK  
AT A-A

the partition. Wardrobe space is arranged under the bunk. This room is especially suitable for a boy. A folding study table is provided under the window in each room. On warm nights air circulation would be obtained by opening the bedroom doors to the hall, which is ventilated by the windows above the lower roof. By omitting all but one of the partitions forming the five small bedrooms two good-sized rooms can be obtained.

The exterior appearance may seem, at first glance, unusually severe, but by omitting a pitched roof and the ornamental features of cornice moldings and trim decorations, the cost of construction is materially lowered. Here everything has been reduced to the simplest form possible.

With the heater room adjoining the kitchen, there is little need for a basement, thus an important item of expense is eliminated. The kitchen and workroom form a compact and very convenient unit along the driveway side of the house, while the large living room commands a good view of the highway. The living room and halls are lighted and ventilated by the small windows above the lower roofs. Closet space is provided in every room.

As in plan 6531 (p. 40), all dimensions are multiples of  $3\frac{1}{2}$  feet so that the house can be either prefabricated or built in the ordinary way.

PLAN 6533<sup>25</sup>

Floor areas: Superstructure, 1,130 square feet. Porch, 80 square feet. Cellar, 280 square feet.

House 6533 is one of the few designs in which a separate dining space was allotted. Many people do not consider a separate dining room essential in the small farmhouse, and additional space adds to the cost, but in this case the arrangement adds to the spaciousness of the interior without greatly increasing the cost.

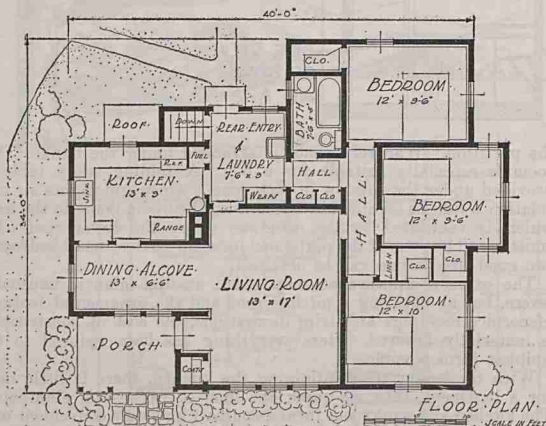
The rear entry is large enough to serve as laundry and washroom, and constitutes a back way from the kitchen to the bedrooms and bathroom without passing through the living room.

The kitchen, with cross ventilation and ample cupboard and counter space, is a pleasant workshop for the housewife, and is so arranged that easy service to the dining alcove is possible.

The bedrooms and adjoining bath are grouped together, allowing that portion of the house to be closed off from the living portion.

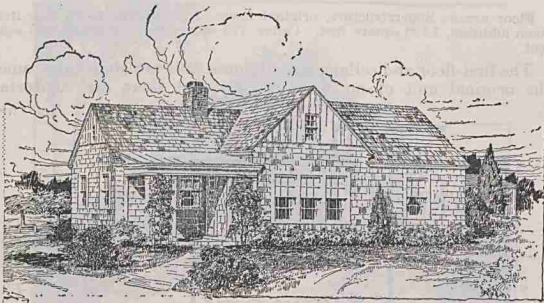
In the cellar is the heating plant, with fuel bin.

The house is kept low to give it an appearance of hugging the ground, but in no case should the joists be below the ground level. Shingles, beveled siding, or clapboards may be used for the exterior surface.



<sup>25</sup> Prepared by Max Uhlig for the department of agricultural engineering, Massachusetts Agricultural College.





#### HOUSES OF MORE THAN ONE STORY

In many respects houses of more than one story are better suited for farm use in the Northern States than single-story buildings. They are more economical in foundation and roof construction, and are easier to heat. They should be arranged with one bedroom and a bath, or at least a toilet, on the ground floor. A cellar for fuel and vegetable storage and a central heating plant are usually needed with this type of house. The laundry may also be located in the cellar if suitable drainage and a grade door to the outside can be obtained, but in a poorly drained location it is best to keep the laundry above-ground. In building a cellar advantage should be taken of the slope of the ground to obtain good lighting and an easy entrance on the low side of the slope.

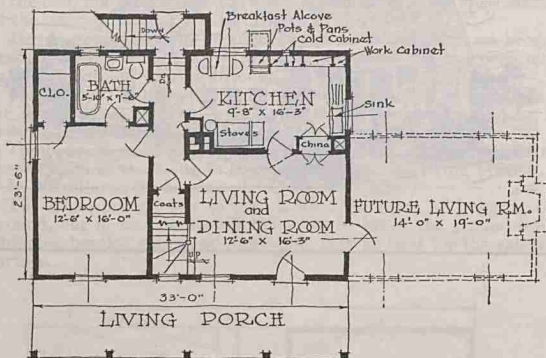
To avoid uncomfortably warm second-floor bedrooms in summer cross ventilation should be provided in each room. Insulation of the ceiling is valuable both in summer and in winter.

It is very convenient to have a bathroom on the second floor as well as one on the first floor, especially if rooms are to be rented to tourists when the family does not need the whole house.

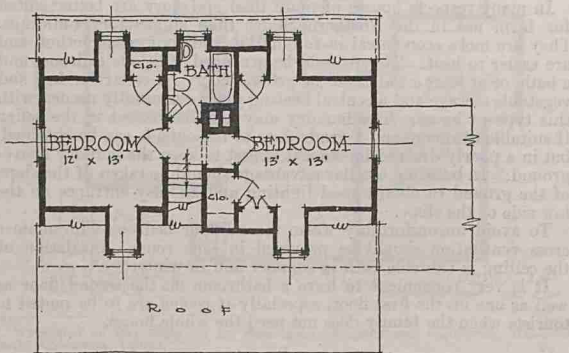
PLAN 6534<sup>20</sup>

Floor areas: Superstructure, original house, 1,420 square feet; with living-room addition, 1,720 square feet. Cellar, 775 square feet. Porches, 285 square feet.

The first-floor and cellar plans of house 6534 are almost the same as the original unit of no. 6525 (p. 32), but there are comfortable

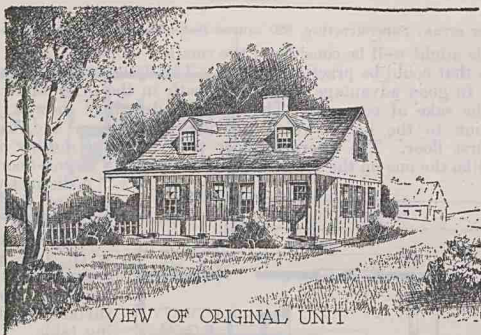


MAIN FLOOR PLAN  
SHOWING FUTURE ADDITION



SECOND FLOOR PLAN

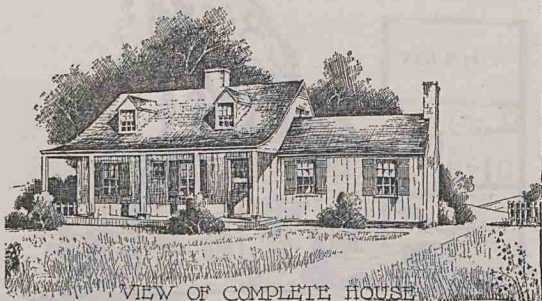
<sup>20</sup> Prepared by H. B. Boynton and J. M. Thompson for the department of agricultural engineering, Virginia Polytechnic Institute.



bedrooms, a bath, and closet space on the second floor. If funds are available to build the living-room wing indicated, the entire dwelling will breathe the traditional southern spirit of hospitable spaciousness.

The hall and stair arrangements of this house are very good. Persons coming in at the back door can leave wraps in the vestibule at the head of the cellar stairs and go directly to any downstairs room or to the cellar, yet there is little lost space.

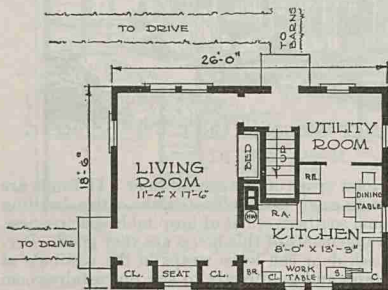
If the house should at some time be occupied by a small family, the entire upstairs could be shut off. Persons wishing rooms for tourists will find either the upstairs bedrooms or the downstairs bedroom and bath very suitable for this purpose.



PLAN 6535<sup>27</sup>

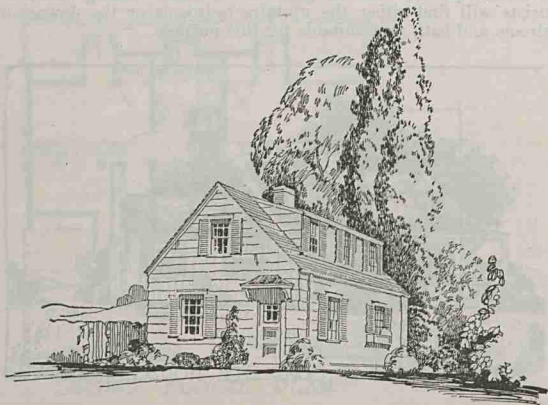
Floor areas: Superstructure, 820 square feet. Porch, 30 square feet.

This might well be considered the smallest story-and-a-half farmhouse that could be practicably built. The designer has utilized the space to good advantage, omitting a bath in the original structure for the sake of economy. The working drawings show a future addition to the house which provides a bedroom and bath on the first floor. The alternate floor plan shows a dormer in the rear like the one on the front, to make room for a second-floor bath.



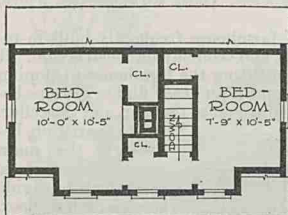
• FIRST FLOOR PLAN •

A distinctive feature of this compact design is the L-shaped kitchen with its well-grouped and well-lighted working surfaces and dining table. The arrangement of an L-shaped room is often a problem when enlarging or remodeling. The living room is arranged for both day and night use, with a folding bed in a closet.

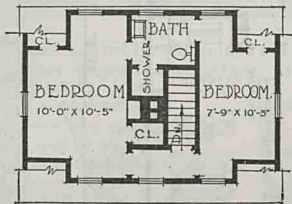


<sup>27</sup> Prepared by C. T. Bridgman for the department of agricultural engineering, Iowa State College.

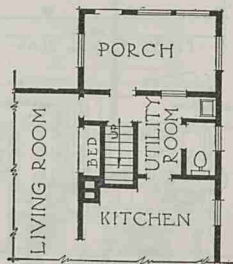




SECOND FLOOR PLAN



ALTERNATE  
SECOND FLOOR PLAN



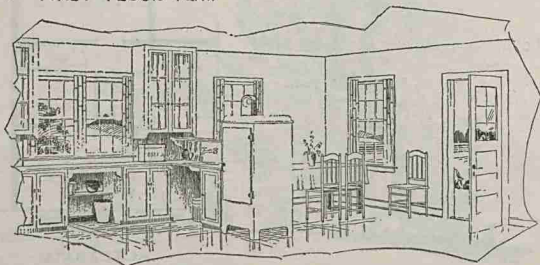
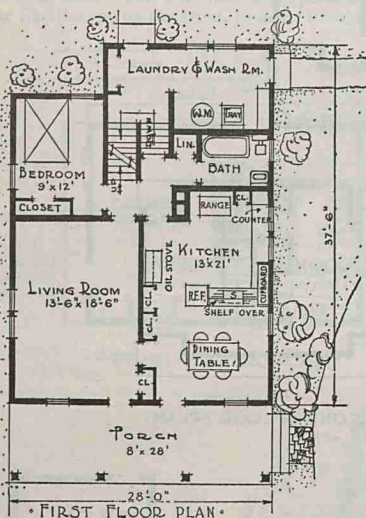
ALTERNATE  
FIRST FLOOR PLAN

PLAN 6536,<sup>25</sup> FOR THE NORTH

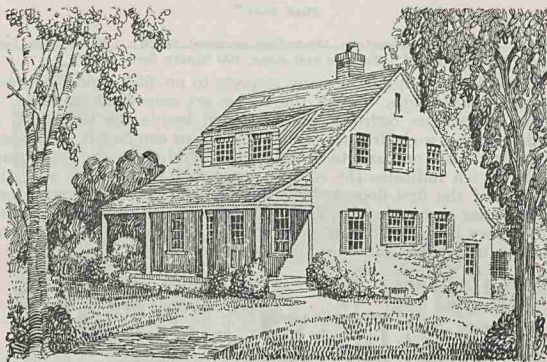
Floor areas: Superstructure, 1560 square feet. Cellar, 400 square feet. Porch, 210 square feet.

This design illustrates a type of farmhouse frequently built in recent years because of its simple lines and economy of construction. It illustrates the pleasing possibility of fitting the farmhouse to sloping ground, with ample light in the basement and easy flights of steps between the house proper, the large workroom at the rear, and the cellar.

The partition between the main rooms downstairs is carried up to divide the second floor, giving these bedrooms ample size and good cross ventilation and making a strong construction that will not sag in years to come. A second bathroom may be provided in the storage space by the chimney, thus adding to the comfort of the home and making the upstairs rooms suitable for rental to tourists if desired. The roof should be insulated to give comfort both in summer and in winter.

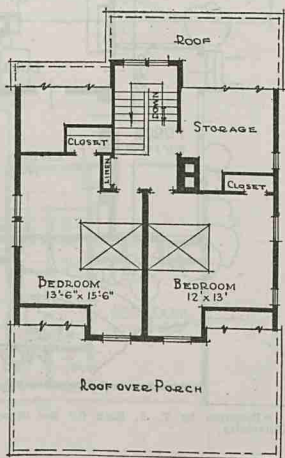


<sup>25</sup> Prepared by C. J. Polesz and Eldred Mowery for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.



The downstairs hall, lighted by the windows on the stairs, is compact and provides easy communication between all rooms. The living room is well lighted and has good wall spaces for furniture. The combined kitchen and dining room, with the sink at right angles to the outside wall, as shown in the interior view, gives the housewife three walls of continuous work surfaces and in addition light and the view from all the windows of the room. Children can play or older members visit in the dining end with slight interference to the housewife's work. This is especially helpful on chilly days in the fall and spring when the kitchen stove provides the only heat in the house.

The part basement furnishes space for a furnace and for storage of fruits and vegetables.



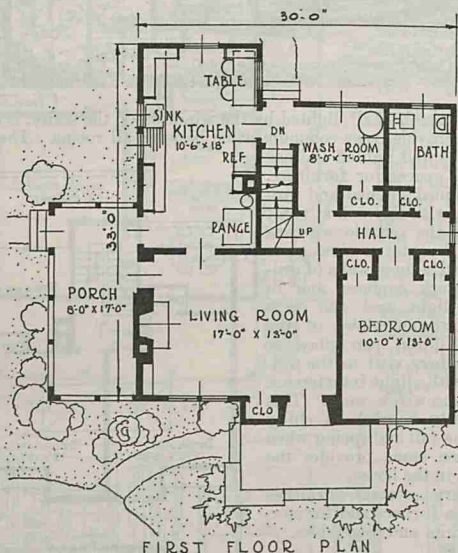
•SECOND FLOOR PLAN•

PLAN 6537<sup>20</sup>

Floor areas: Superstructure (including enclosed porch) 1,520 square feet. Cellar, 840 square feet. Terrace and steps, 100 square feet.

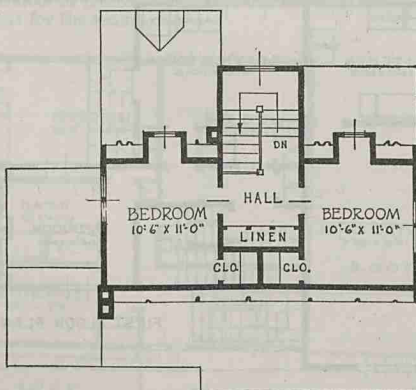
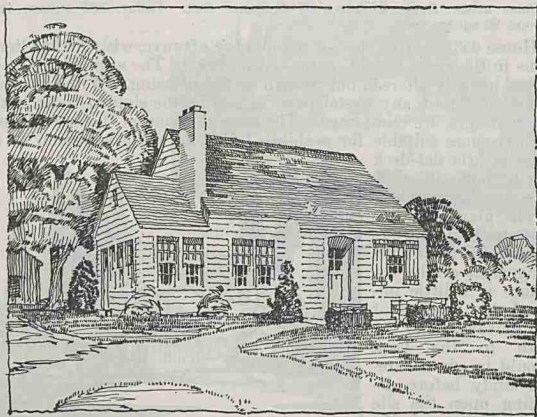
House 6537 is similar in many respects to no. 6536, and has much the same advantages, though the rooms are somewhat smaller. A second downstairs bedroom can be added beside the bathroom, if needed, or the two bedrooms on the second floor can be left unfinished if funds are not on hand to complete the building in the beginning.

The sketch indicates the roof line sweeping down snug over the window of the first-floor bedroom, a feature which is carried out with similar success in plan 6538. Designs of this type help to keep a two-story home from appearing too tall and make it a more harmonious unit in the farmstead scheme.



<sup>20</sup> Prepared by T. A. Zink for the department of agricultural engineering, Purdue University.





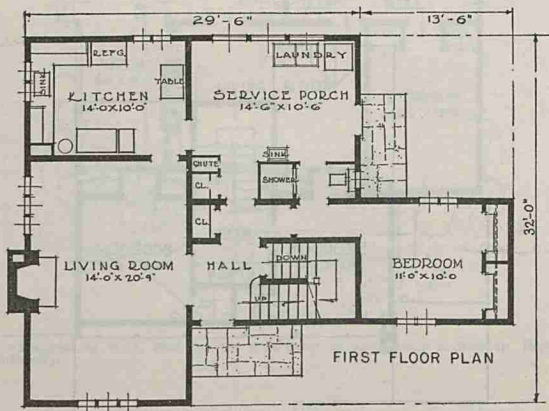
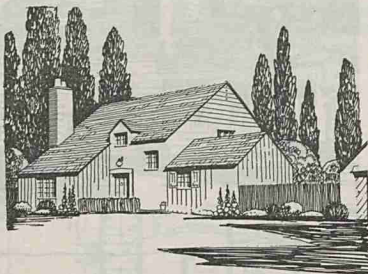
SECOND FLOOR PLAN

PLAN 6538<sup>30</sup>

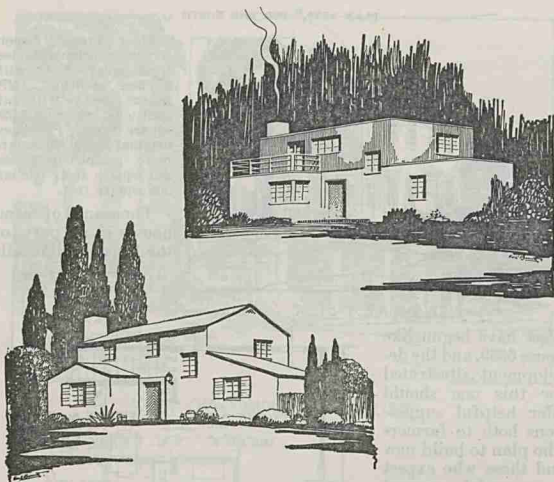
Floor areas: Superstructure, 1,740 square feet. Cellar, 385 square feet. Stoops, 80 square feet.

House 6538 may be roofed in a number of ways, with slight alterations in the arrangement of the second floor. The appearance is, of course, greatly altered; but in each case is pleasing. With the modernistic flat roof, any waste spaces caused by the sloping roofs in the other designs are eliminated. The storage room on the second floor then becomes suitable for a child's bedroom, a sewing room, or an office, and the flat-deck porch roof will serve as a sleeping porch.

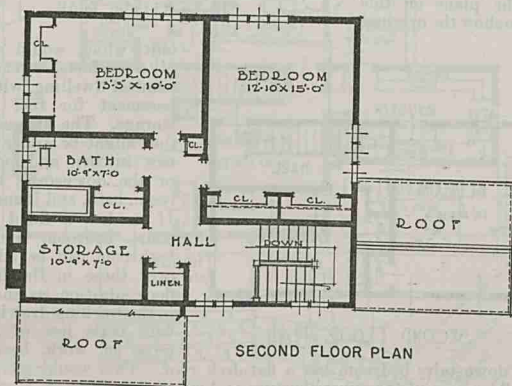
The plan is simple and well proportioned. Since the arrangement of the entrance is a little unusual, the location of the driveway and the path to the barn should be given careful study before deciding upon the site and placing of the house.

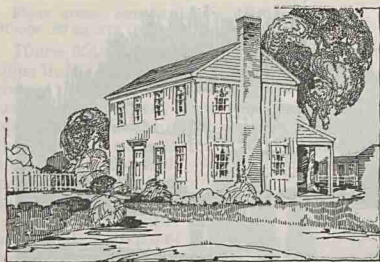


<sup>30</sup> Prepared by W. K. Bartges and Earl Barnett for the department of agricultural engineering, University of California.



Construction should be simple. In the case of the modernistic house, concrete or stucco is suggested for the first story and boards and battens for the second.

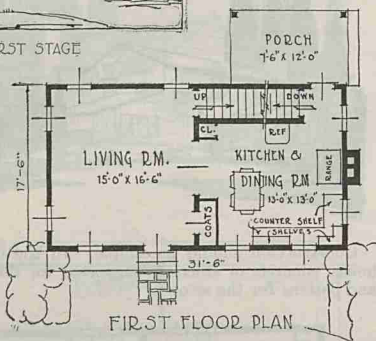


PLAN 6539,<sup>21</sup> FOR THE NORTH

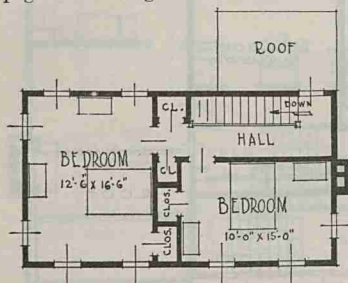
VIEW OF FIRST STAGE

West have begun like house 6539, and the development illustrated for this one should offer helpful suggestions both to farmers who plan to build new and those who expect to remodel present houses. It is a very practical design, expressing honest dignity.

The plans on this page show the original



FIRST FLOOR PLAN



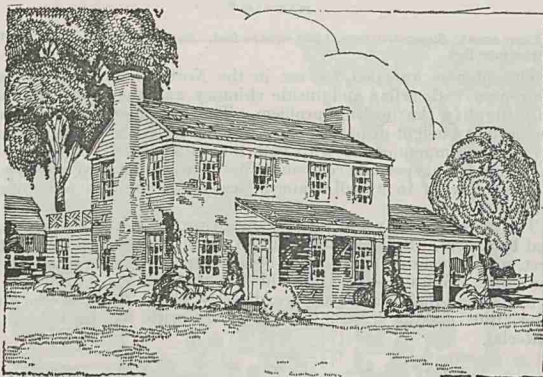
SECOND FLOOR PLAN

unit, which would supply a comfortable yet economical dwelling, with a basement for fuel and storage. The first addition might be either the new kitchen and porch or the downstairs bedroom, bath, and laundry. If needed, a third upstairs bedroom and a bathroom can be added over those in the first-floor addition, as shown in the working drawings, with little loss of material or work, because

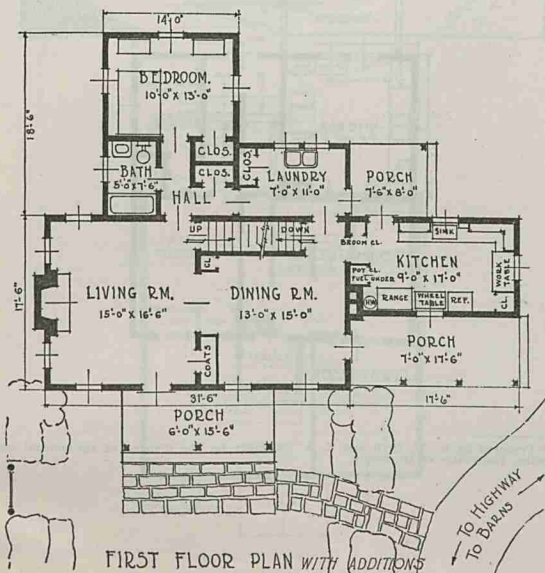
the downstairs bedroom has a flat-deck roof. This would increase the floor area of the superstructure to 1,900 square feet.

<sup>21</sup> Prepared by J. M. Deibert for the Bureau of Agricultural Engineering and Home Economics, U.S. Department of Agriculture.





VIEW OF COMPLETED HOUSE



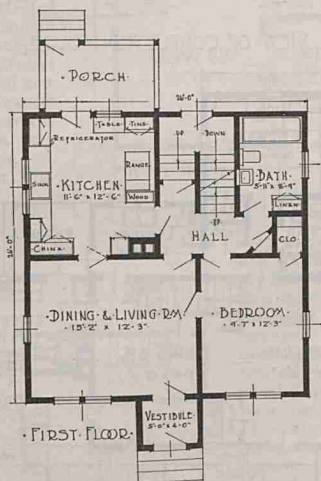
PLAN 6540<sup>22</sup>

Floor areas: Superstructure, 1,380 square feet. Porch, 70 square feet. Cellar, 760 square feet.

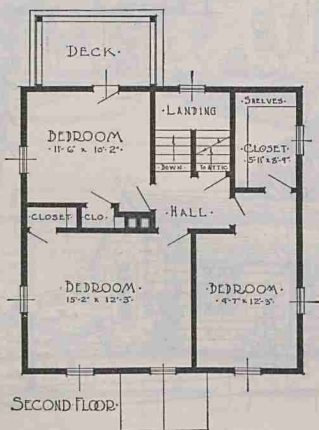
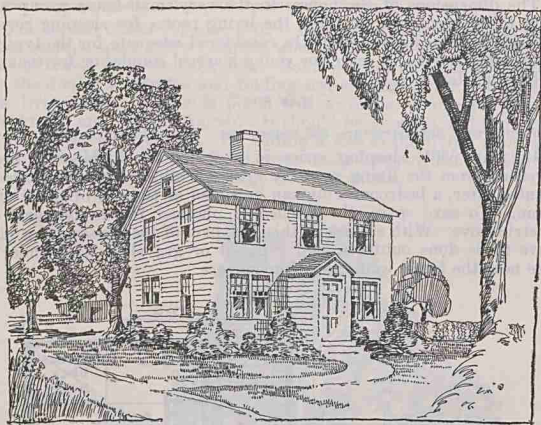
This plan is intended for use in the North, where the compact floor plan with cellar and inside chimney and the front vestibule will simplify the heating problem. The first-floor level is above the ordinary height of packed snow in winter, but the grade entrance gives easy communication with both the cellar and the main part of the house. This permits convenient use of the cellar as a wash room and laundry, if in a well-drained location, as well as for storage purposes.

The house is roomy and well arranged, with a downstairs bedroom and bathroom. By a slight change to make the second floor like the first, a bathroom or toilet could be arranged in the large closet by the stairs. Storage space is provided in the attic.

All second-floor partitions are directly above those of the first floor, thus making a strong, rigid house with the least framing material.



<sup>22</sup> Prepared by H. W. Orth and R. A. Gmeinder for the division of agricultural engineering, University of Minnesota.



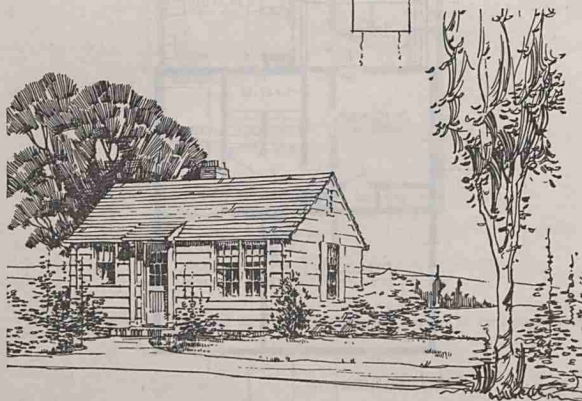
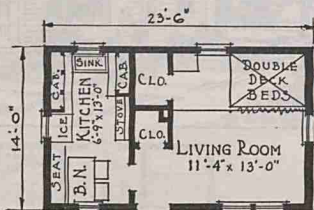
## VERY SMALL HOUSES

The dimensions of the houses in the very-small-house group are kept to the minimum by using the living rooms for sleeping rooms at night. These houses cannot be considered adequate for the typical farm family, but will serve for young married couples or for tenants with small families.

PLAN 6501<sup>33</sup>

Floor areas: Superstructure, 325 square feet. Stoop, 15 square feet.

In plan 6501, sleeping space is provided in double-deck beds screened from the living room by draw curtains. If more space is wanted later, a bedroom wing can be added at the end of the living room. To save space, the kitchen is planned for an oil, gas, or electric stove. With a house of this size, part of the housework would have to be done outdoors, and a paved or graveled space under a tree near the house would be a convenience.



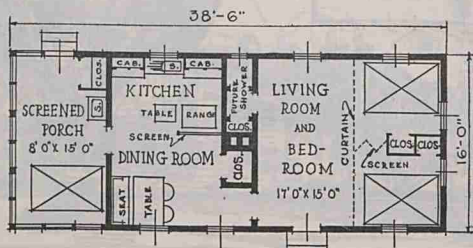
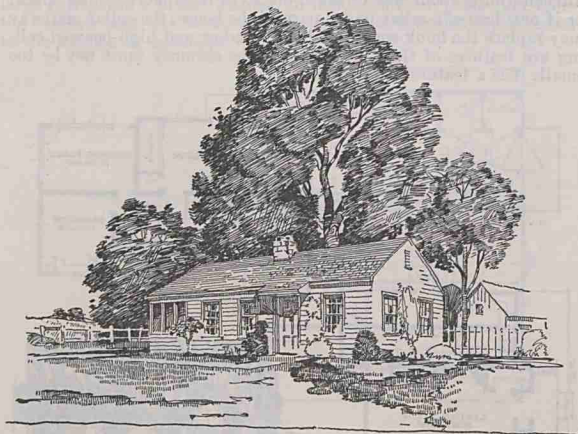
<sup>33</sup> Prepared by H. E. Wichers, N. F. Resch, and O. S. Ekdahl, for Kansas State College.



PLAN 6502<sup>34</sup>

Floor areas: Superstructure, 600 square feet. Stoop, 35 square feet.

The special feature of plan 6502 is the well-arranged kitchen, with good storage space and a compact work area at one side of the direct line of travel from the back door. Some privacy at night is afforded by the double wardrobes and folding screen between the two beds in the living room. The side porch will serve the double purpose of workroom and sleeping porch. It should be screened and have curtains to keep out the rain. By adding 4 feet to the living room and an additional partition, a third room could be provided. A shower bath may be installed in the large closet as shown.



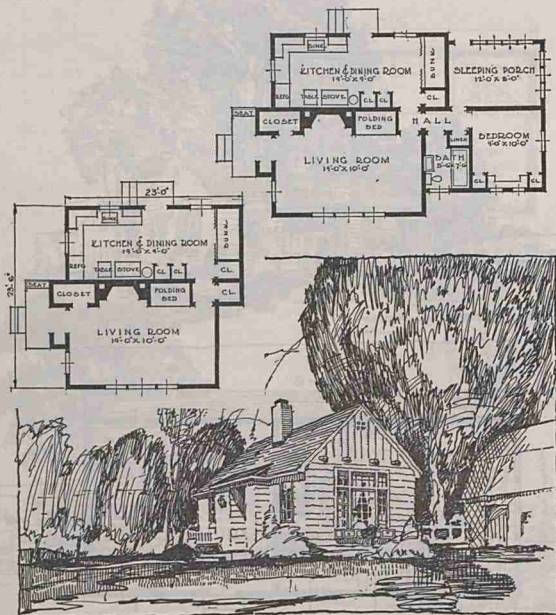
<sup>34</sup> Prepared by A. L. Matthews and N. G. Napier for the department of agricultural engineering, University of Arkansas.

PLAN 6503<sup>35</sup>

Floor areas: Superstructure, original house 520 square feet; with addition, 825 square feet.

Small homes are often cut up into several rooms, with the result that in them a person has a "boxed-in" feeling. In plan 6503 the rooms are few, and each is used for more than one purpose. If the cost must be kept to a minimum, the bedroom and sleeping porch may be omitted in the original construction. The kitchen-dining room is unusually large for a house of this size, and the equipment is grouped in the front part of the room where the housewife can have a good view of the highway.

When the bedroom and sleeping porch are built, the bunk in the kitchen-dining room may be taken out to provide more dining space; or if one desires a cellar under part of the house, the cellar stairway may replace the bunk space. A large window and high-beamed ceiling are features of the living room. The chimney must not be too small; it is a feature of the house.



<sup>35</sup> Prepared by R. A. Deal and W. W. DeNeff for the department of agricultural engineering, State College of Washington.

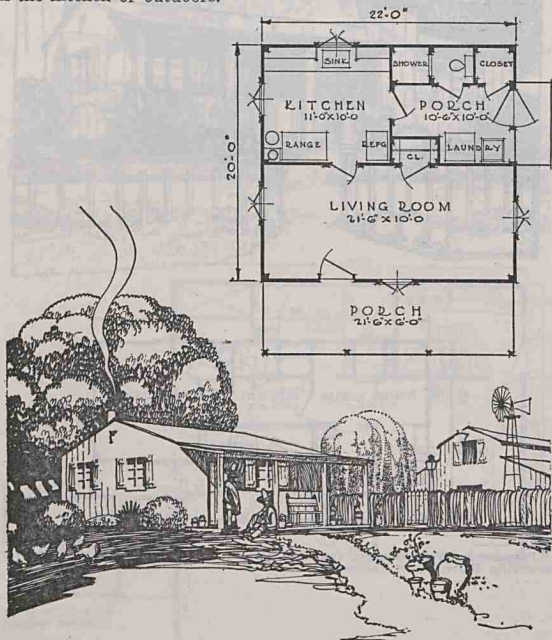
PLAN 6504,<sup>20</sup> FOR THE SOUTHWEST

Floor areas: Superstructure, 430 square feet. Porches, 145 square feet.

Plans 6504 and 6505 were designed for the central valleys of California, where outdoor sleeping is invited by the mild nights.

These were designed for temporary homes to be used later as shops, bunk houses, storage buildings, or for other uses, so concrete floors are recommended. Low-cost "frameless" construction is shown in the working drawings. There are no ceilings. The shower baths shown in the plans can be installed cheaply.

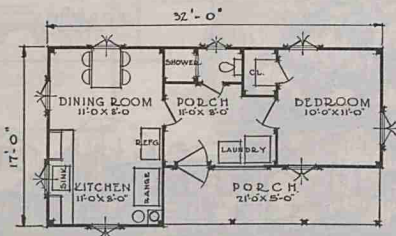
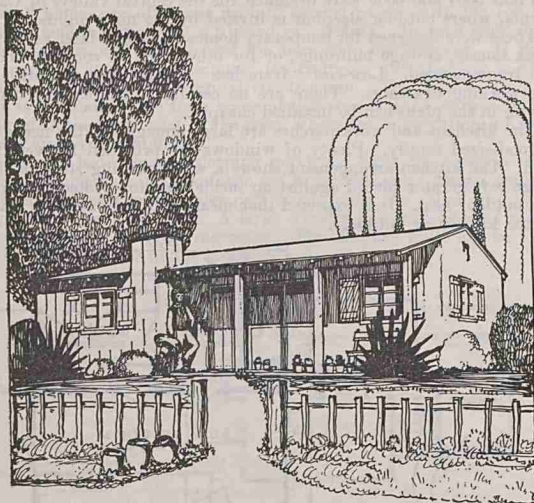
The kitchens and work porches are large enough for the needs of a good-sized family. Plenty of windows are provided for ventilation. The kitchen arrangement shows a wood-burning stove, and a large refrigerator placed against an inside wall for protection from the outdoor heat. It is expected that meals will ordinarily be eaten in the kitchen or outdoors.



<sup>20</sup> Prepared by W. K. Bartges and Earl Barnett for the department of agricultural engineering, University of California.

PLAN 6505,<sup>26</sup> FOR THE SOUTHWEST

Floor areas: Superstructure, 410 square feet. Porches, 125 square feet.



<sup>26</sup> Prepared by W. K. Bartges and Earl Barnett for the department of agricultural engineering, University of California.

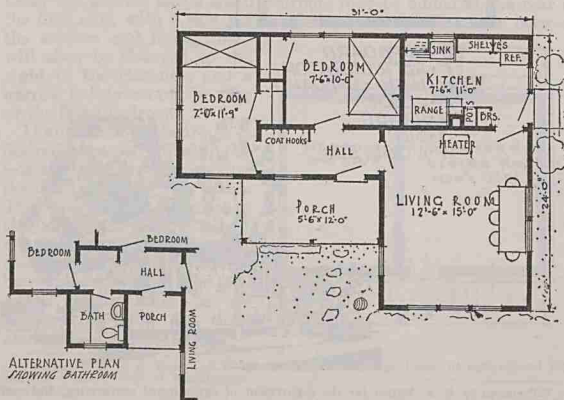
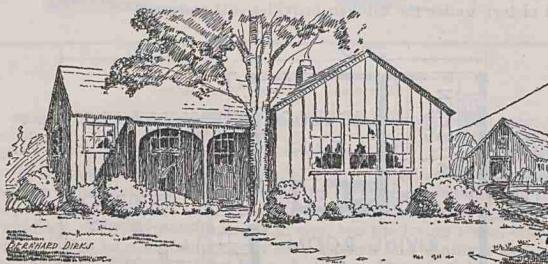


PLAN 6506,<sup>27</sup> FOR NEW ENGLAND

Floor areas: Superstructure, 540 square feet. Porches, 60 square feet.

Though the rooms in plan 6506 have been kept as small as possible in order to reduce cost, good use of space is realized in the arrangement. Additions to the house would enable it to accommodate an average-sized family.

A work-porch addition beside the kitchen and living room, between the windows, would provide a place for laundry work and for hanging outer wraps. A bathroom might be built by enclosing a portion of the front porch and enlarging the window to make a doorway from the hall. If desired, a third bedroom could be added at the end of the living room.



<sup>27</sup> Prepared by Bernhard Dirks for the department of agricultural engineering, Massachusetts State College.

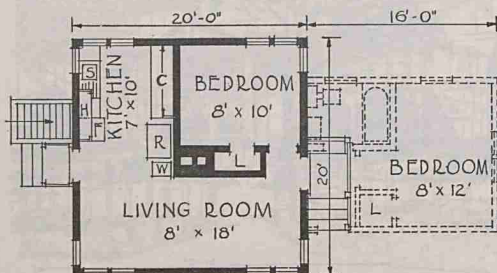
PLAN 6507,<sup>28</sup> FOR THE NORTH

Floor areas: Superstructure, original house, 380 square feet; with first addition 600 square feet. Porches and entrances, 50 square feet. Cellar, first unit 380 square feet; with addition 600 square feet.

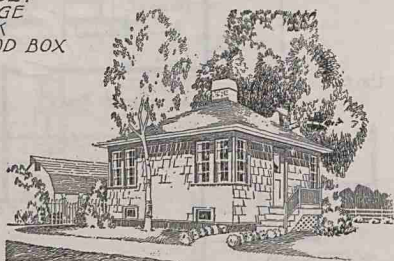
Plan 6507 is intended for snowy sections, and the first floor is purposely raised above the winter snow level. The house can be built in either one or two stages.

No partition divides the kitchen and living room, which permits heating the house with the kitchen range in mild weather. It also aids ventilation in summer and facilitates serving of meals in the living room.

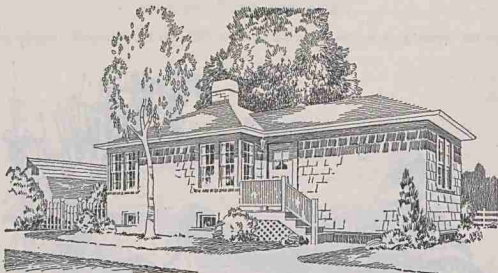
The steps to the cellar are outside the house, protected by a storm door. There is ample space in the cellar for laundry and storage. A cistern under the kitchen provides soft water.



C • CUPBOARD  
 F • REFRIGERATOR  
 H • HIGH CUPBOARD  
 L • CLOSET  
 R • RANGE  
 S • SINK  
 W • WOOD BOX



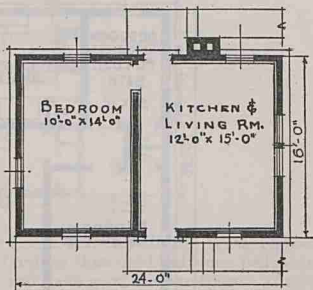
<sup>28</sup> Prepared by S. A. Witzel for the department of agricultural engineering, University of Wisconsin.

PLAN 6508,<sup>20</sup> FOR THE NORTHWEST

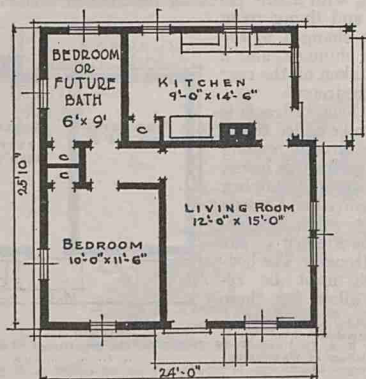
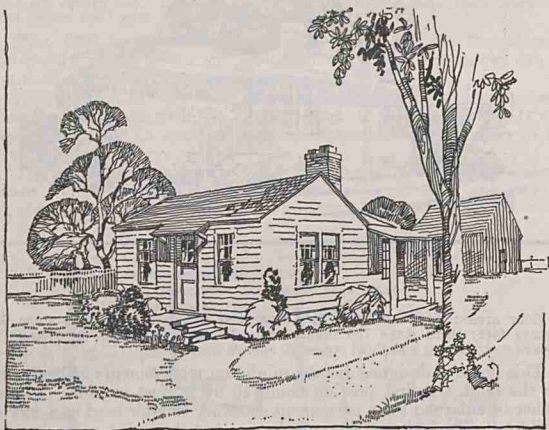
Floor areas: Superstructure, first stage 385 square feet; second stage 605 square feet; third stage 755 square feet. Porches and steps, first stage 20 square feet; second and third stages 70 square feet.

This house is designed for the minimum requirements of beginners on the land, the first portion being 16 by 24 feet outside. It may either be enlarged for a permanent dwelling or later used as a service building. The bedroom is ample in size, but the living room, because it must also be used temporarily as a kitchen and dining room, will be crowded. This unit may be made 18 feet instead of 16 feet wide. Later the kitchen and a small bedroom may be added at the rear of the first unit, with a side porch off the kitchen. The door between the kitchen and living room will then be changed to the right of the chimney, and a narrow hall taken off the rear of the front bedroom.

If an additional bedroom is desired, it can be added to the left of the bathroom, making the third stage for this house. The closet in the kitchen should be removed and a door cut through to allow easy access from the kitchen to the bath and bedrooms. The bedroom closets must be rearranged to allow for these changes.



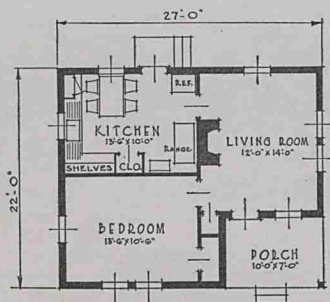
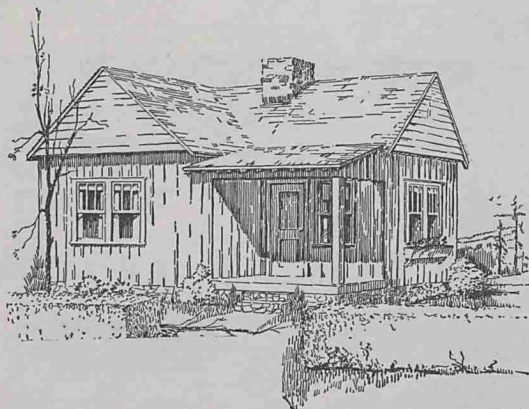
<sup>20</sup> Prepared by R. A. Deal and W. W. DeNeff for the department of agricultural engineering, State College of Washington.





PLAN 6509,<sup>40</sup> FOR THE SOUTH

Floor areas: Superstructure, 525 square feet. Porches and steps, 90 square feet.



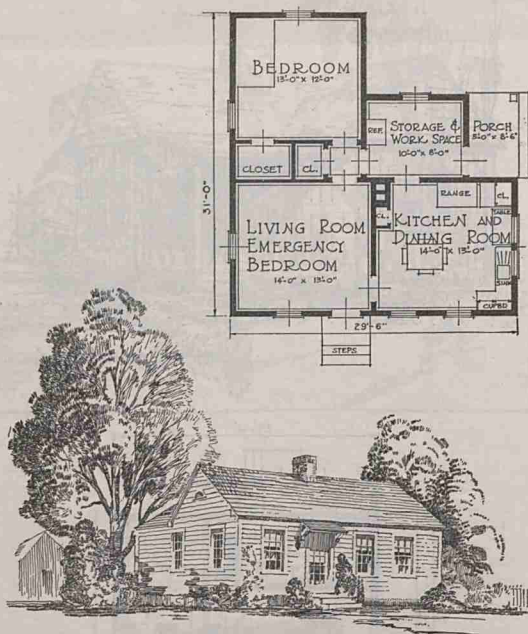
Plans 6509 and 6510, for the South and the Middle West, respectively, are low-cost houses for families that need only one bedroom. The kitchens are well arranged and have good storage space. Closet space also is ample for houses of this size.

A storage and work room, as shown in plan 6510, is a good feature for the North but is not so much needed in the South, where mild

<sup>40</sup> Prepared by W. C. Breithaupt and H. W. Dearing for the department of agricultural engineering, Alabama Polytechnic Institute.

PLAN 6510,<sup>41</sup> FOR THE MIDDLE WEST

Floor areas: Superstructure, 740 square feet. Porches and steps, 60 square feet.



weather permits doing much housework outdoors. The living-room fireplace and kitchen range should heat house 6509 comfortably under ordinary southern conditions, but in the North arrangements should be made for a stove or circulator heater as in plan 6510.

<sup>41</sup> Prepared by H. J. McKee and Arthur Wupper for the department of agricultural engineering, University of Illinois.

# JUNIOR HOME ECONOMICS UNITS

By MATA R. FRIEND and HAZEL SHULTZ

---

## LIVING IN OUR HOMES

### UNIT II

#### A GIRL'S ROOM

What This Unit Is About . . . . .	94
Furnishings for Comfort and Beauty . . . . .	96
Caring for a Bedroom . . . . .	133



COPYRIGHT, 1933, by

D. APPLETON and COMPANY :: NEW YORK

## UNIT II

### A GIRL'S ROOM

If you have studied art, you may be able to answer most of these questions fully. Your teacher may have additional questions to ask.

1. If you had an opportunity to add a piece of furniture to your room, what would you choose? Why?
2. Describe several colors that would make a room light and cheerful if used in wall paper.
3. Name the colors of a complementary harmony; a monochromatic harmony; an adjacent harmony.
4. Why is it usually in poor taste to place pieces of furniture diagonally across corners in a room?
5. Describe a wall paper that makes a good background for pictures and furniture.
6. What is the effect of a valance on the apparent height of a window?
7. How should one determine a good height for hanging pictures?
8. How should we decide what to keep on a dresser?
9. What is the purpose of a window shade? Glass curtains? Draperies?
10. What kind of material in a bed cover do you think would be most useful on a bed that is also used as a couch?
11. Describe some device either in your own closet or in one you have seen or read about that helps to keep a closet orderly and attractive.
12. What determines how much care you must give to your room each day to keep it neat and attractive?
13. Why is a carpet sweeper not a good tool for a thorough cleaning?
14. Why is it a good plan to keep all cleaning equipment in one place?



## WHAT THIS UNIT IS ABOUT

Our rooms are of two kinds: (1) those commonly used by a group, and (2) individual rooms. The group rooms are those used by all members of the family such as kitchen, dining room, living room, and bathroom. Bedrooms are individual rooms. We think of our bedrooms as places in which we may have more of the things we enjoy. That is, we can choose the furnishings and arrange them without considering others to so great an extent as is necessary in the rooms used by all members of the family. We may arrange the bed and chairs to suit our own comfort and notions of beauty. We can choose and hang the pictures we think suitable and beautiful. We can arrange the closet space, dresser top, and drawers as we like.

Often sisters share a room and make a plan whereby they cooperate in furnishing it. If both understand how to make pleasing combinations of color and how to use line harmoniously, they will both enjoy the same kinds of furnishings. When changes are to be made, they will talk over what would be most desirable from the standpoint of both usefulness and beauty.

To have a room comfortable and pleasant, we must not only have well chosen furnishings, but we must also keep them clean and in order. If a girl has a room to herself, this becomes her responsibility. If she shares her room with her sister, there are many plans for cooperation in its care. For instance, if two sisters shared a room but had twin beds, individual dressers and separate closets, each could be responsible for the care of her own possessions and share in the general sweeping and dusting as

well as in the care of draperies, dresser covers, cushion tops, and so on. If, however, they shared the same bed, dresser, and closet they might make the one bed together, or one might make it one week and the other the next. They might divide the use of dresser drawers, the taller sister having the use of the higher drawers and the shorter the lower, if one is decidedly taller than the other. Likewise the space on one side of a closet might be reserved for the use of one sister and that of the opposite side for the other. Probably you know of other plans that seem to be especially good for the use of one room by two sisters.

In this unit you will learn something about how to choose and arrange furnishings in your room that will give you pleasure because of their attractive combinations of color, line, and so on. You will see that some ways of placing furniture give more comfort in its use, and that providing a convenient place in which to keep your possessions not only helps to keep your room orderly but also makes it easier to clean. You will have an opportunity to experiment with your own room to find out how you may improve it in beauty and usefulness and in the ease with which you may keep it clean. Possibly you may not need nor have time to use more than one or two of the suggestions given for making furnishings for your room. Read through all of them carefully before you decide which will give you the greatest amount of pleasure.

## FURNISHINGS FOR COMFORT AND BEAUTY

Use of room. When choosing and arranging the furnishings for rooms that you use alone or that you share with a sister, there are many points to consider. First, you must think of the way the room is used. Usually it serves not only as a sleeping room, but also as a dressing and study room and a place for entertaining your most intimate girl friends. For sleeping there must be a good bed, for dressing there should be a mirror and places to keep clothing and toilet articles. If used as a study, the room should contain a desk or table and a place to keep books and other study needs. For entertaining friends there must be comfortable chairs or other places to sit and a place to keep things of mutual interest. If a porch is used for sleeping, a small daybed or couch may replace the bed; if there is a dressing room, the individual room would need no dresser or mirror.

### 1. For what purposes do you use your room?

In addition to choosing useful furnishings, we may select articles that are pleasing when combined, and we arrange them so that they will give easy use and beauty of appearance. In choosing and arranging furnishings you can use much that you learned in the study of clothing. The same principles used in designing garments can usually be applied in planning room furnishings.

## COLOR

**Color values.** If you think of different rooms or if you collect a number of examples of rooms in color, you will immediately recognize that each gives a different effect or feeling. A room in pale colors, that is, *in high values*, gives the feeling of daintiness, cleanliness, and cheerfulness. It is the kind of room that girls usually like to live in because it expresses happiness. Pale yellow is like a ray of early morning sunshine. Dull browns are dark, warm, and heavy in feeling. They reflect very little light. All low values reflect less light and are therefore warmer, older, and heavier in effect. The colors from orange through red to purple are warmer in effect than those ranging between yellow and blue.

2. Describe the value and color of wall paper that you might select for a small dark bedroom to make it lighter and more cheerful. If you have a book of wall paper samples, select those that would be best for such a room.<sup>1</sup> If the walls are painted, choose colors that would do the same thing from a book of samples of paint colors.

3. Is there enough sunlight in your room to make it light, or is it dark? If you might choose wall paper for it, what value would you select?

**Effect on apparent size.** In planning the decoration of a well proportioned room, the floor coverings are usually darker than the walls, and the ceiling lighter than the walls. This use of value gives a sense of freedom and lightness. It makes the room seem higher. To reverse the order and use a dark ceiling gives a sense of heaviness

---

<sup>1</sup> Wall paper sample books may be obtained from dealers. Paint companies also have sample books available.



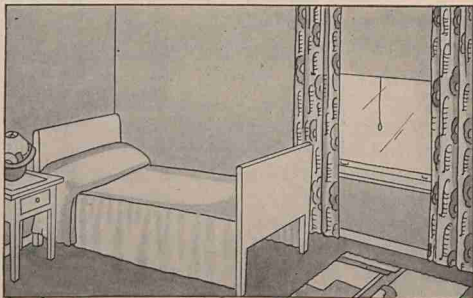


Fig. 30 A. A room decorated in high values.

like a cloudy day. The ceiling seems to have been brought down and the room made lower.

4. Trace room of Figure 34 twice. On one tracing, color the room in values from dark in the floor covering to almost white in the ceiling. On the second tracing reverse the order. What happens to the apparent height of the room in the second tracing?

5. Would a ceiling of oak beams increase or decrease the apparent height of a room?

6. Is the ceiling of your own room high or low? If you could plan the color values as you would like, would you have the ceiling light or dark in relation to the walls and floor?

In Figure 30 (A and B) you will see the effect of value on the apparent size of a room. Which room seems to be the larger? Measure to determine.

**Color harmonies.** You perhaps recall from your work in clothing that certain ways of combining colors give greater pleasure than others. By arranging all of our

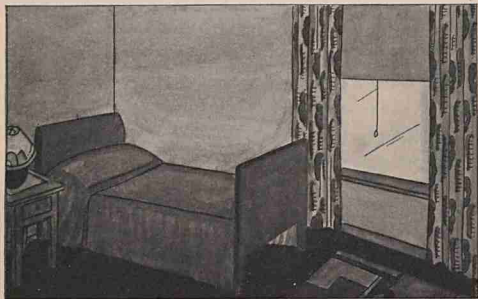


Fig. 30 B. A room decorated in low values.

colors in a circle as was done in the study of clothing,<sup>1</sup> we can quickly see how colors are combined to give different harmonies. If we use lavender wall paper in a room with maple furniture we have a complementary harmony. A golden brown rug, paper of a cream background with gold stripes, in a room with maple furniture, would give a monochromatic harmony. Green paper with this furniture would give an adjacent harmony.

7. Suppose that one had mahogany furniture. What colors in wall paper would give a complementary harmony? A monochromatic? An adjacent?

**Color in materials.** The materials used together in a room each have color, but, unlike the colors at the circumference of the color wheel, they are modified. That is, the yellow of the maple furniture is not the same clear

<sup>1</sup> Friend and Shultz, *Junior Home Economics: Clothing*, p. 51.

yellow as that of the color wheel. Nor is all maple furniture exactly alike in color. Maple yellows are somewhat grayed though high in value. The red of mahogany furniture is very low in value. We must study our furnishings to see with what color qualities we must work.

Combining colors in furnishings. When we have studied the colors in our furnishings, we can better imagine

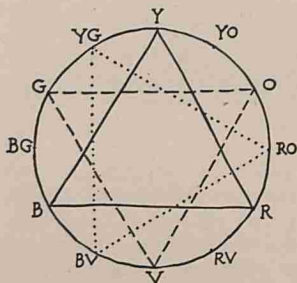


Fig. 31. Color diagram showing triads.

the effect of combining them with something else. A Nile green wall paper with mahogany furniture would give sharp contrast in value as well as in hue. The yellows of walnut are grayed and very low in value. Because it is so nearly neutral, more intense color may be satisfactorily used with walnut.

8. What is the color of the furniture in your own room? If you might choose wall paper to go with it, what color do you think might look best? Explain. If you could hold different strips of wall paper against the wall beside the dresser it would help you to decide.

When selecting wall covering, we must also keep in mind the colors in floor and draperies. If by chance we had a dark blue rug in a room with maple furniture, we would have the problem of selecting a wall-paper color that would combine well with both yellow and blue. If in

such a situation we chose deep cream or light blue for the walls, and found that the effect was monotonous, we might use draperies or pictures with small areas and different values of pinks or reds for the accent of bright color. These three colors, yellow, blue, and red, are at the points of a triangle on the color wheel and form a color relationship known as a *triad*. This is sometimes called a three-color harmony and suggests additional orderly ways of combining colors.

9. Name the colors of a second triad as shown on the color diagram.

10. Name the colors of the third triad. Draw a color diagram similar to the one shown and connect the colors of a fourth triad.

*Use of triads.* The same triad may be used with different materials to give an infinite amount of variety. We may use different values and intensities to increase this variety. Small areas or accents of color in the designs of draperies, in bed covers, pictures, flowers, vases, book ends, pillow tops, lamps, and so on often complete a triad harmony. Another way of using the yellow-blue-red triad might be red mahogany furniture, with a blue Chinese rug in which there is a pattern in golden yellow.

11. In what way would brass book ends, a bouquet of pink sweet peas, and a piece of blue pottery show additional use of the triad colors?

12. Below are examples of color combinations. In each case pick out those that form a triad. On a circle that you will draw, place the names of the colors in their proper positions and connect them. This will help you to see whether they really do form a triad.

a. Ebony furniture, apple green rug, cream painted walls, bunch of lilacs, copper bowl.



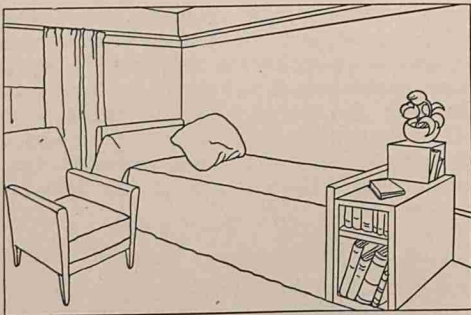


Fig. 32 A. Lines change the appearance of a room. Horizontal lines are emphasized in this room.

- b.* A rag rug made of cadet blue (a very much grayed blue), with wide border stripes of golden yellow and narrow ones of cerise.
- c.* Green painted furniture, peach glass curtains, violet blotter, pewter candle sticks.
- d.* Jade, cream, rose and black in cretonne.

13. With samples of wall paper, drapery fabrics and other materials, practice combining colors of triads.

As you place the color names on the circle, you see that they are not all at full intensity or of the same value. Some are usually grayed. You find examples of both high and low value. Equal intensity and value in areas of equal size would give monotony.

14. Pick out from among the examples given, the same harmony in different values and intensities.

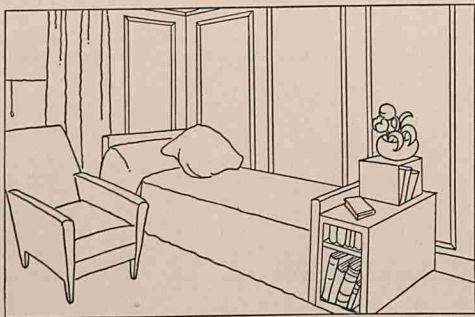


Fig. 32 B. Lines change the appearance of a room. Vertical lines predominate here.

READINGS. Daniels, F. H., *Furnishing of a Modest Home*, Ch. iv, vi.

McClelland, N., *The Young Decorators*.

Trilling and Williams, *Art in Home and Clothing*, Fig. 3, opposite p. 4. Color wheel.

SELECTIONS FOR SPECIAL STUDY. Problems are suggested on page 138 for individual study, for those who have time after they have finished the unit.

## LINE

**Effect of line.** You recall that perpendicular lines in clothing tend to increase the apparent height of people, and that horizontal lines make them seem shorter and broader. In Figure 32 you can see the effect of horizontal and perpendicular lines in wall decoration.

15. Which of these rooms seems the higher? Is there a difference?

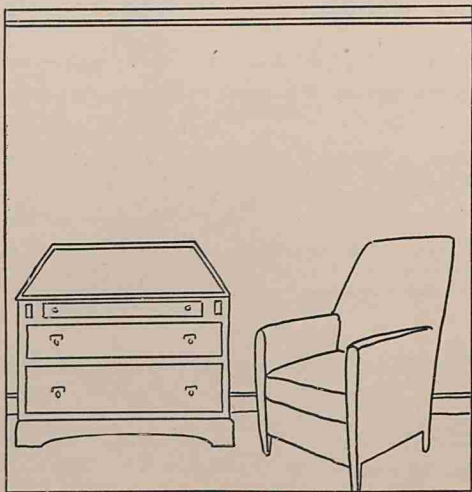


Fig. 33 A. Room with a low ceiling.

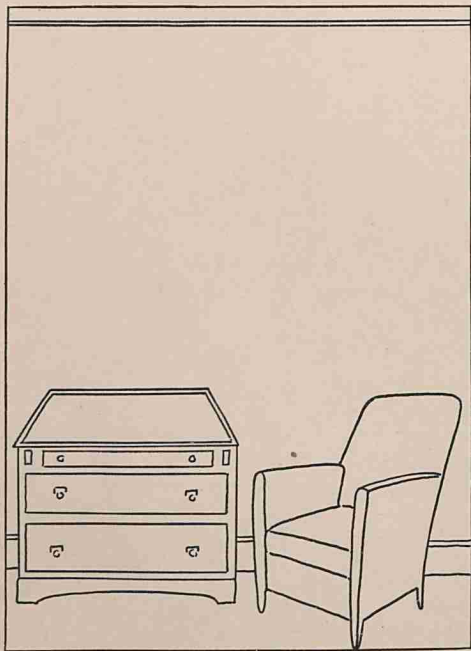


Fig. 33 B. Room with high ceiling.



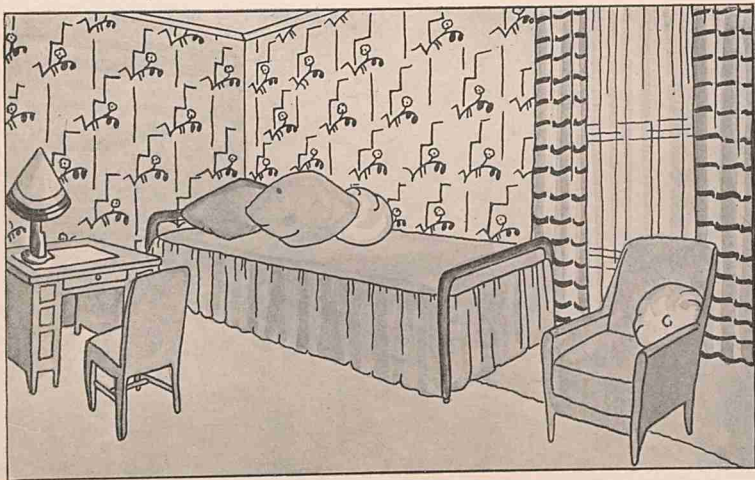


Fig. 34 A. Wall paper of bold design.

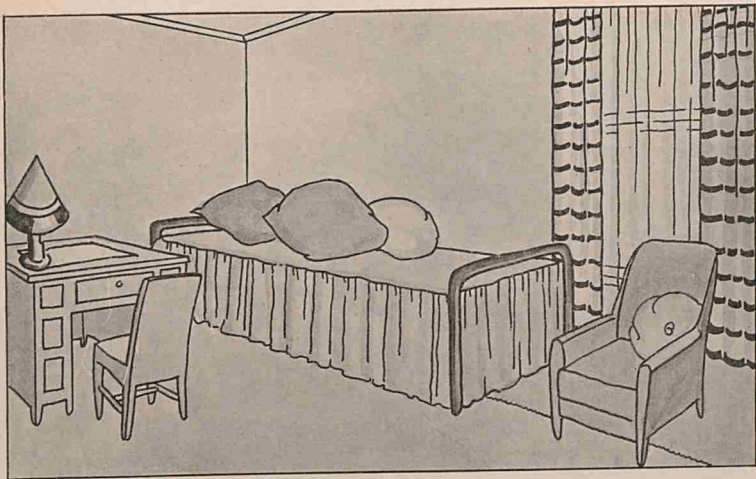


Fig. 34 B. Plain wall.

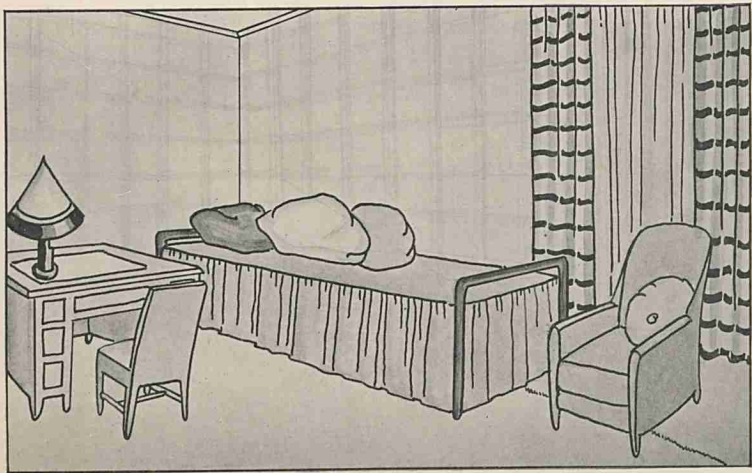


Fig. 34 C. A self-tone paper that gives an allover effect.

16. Trace the outline of the rooms in Figure 33 and design for the walls paper that will help to improve the proportion of each room.

17. Which lines of a room are emphasized with moldings and wall paper borders?

18. Should they be used with rooms of high or low ceilings?

19. What would be the effect of a series of narrow panels on the walls?

20. Would it be desirable to change the apparent height of your room? If so, how would you accomplish the change?

**Walls as background.** In a room various pieces of furniture are seen in front of the walls. The wall covering becomes the background for furniture and furnishings. If we wish to call attention to the furniture, we plan to have wall coverings that give a plain effect. Calcimine and paint are inexpensive coverings with wide variety in color but no design. Paper may of course have a very wide variety both in design and color. In Figure 34 notice that in room A paper having a large bold design has been used. This large design makes the room seem smaller and would be a poor background for a picture because one's attention would be constantly drawn from a picture to the striking design of the paper. Observe also that in this room draperies of prominent design have been used. The effect is one of confusion.

21. In what ways is room B an improvement on A?

Although there is design in the paper of room C, it is of one color and does not attract attention. It can be more successfully used as a background for pictures than the walls of room A. You will note that the paper, in addition to having a self-toned design, is conventionalized, that



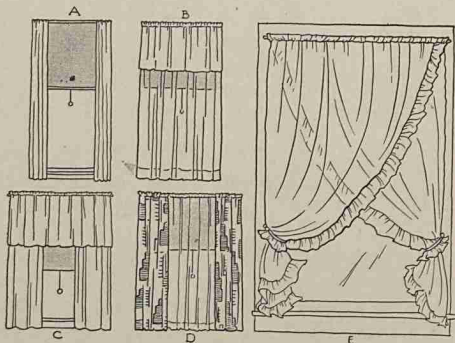


Fig. 35. Curtains may be used to correct poor proportions in windows.

In E the lines made by the curtains are out of harmony with those of the window.

is, it is more like a geometric pattern and is no longer a picture. It gives an all-over effect.

22. In books of wall paper find examples of conventionalized self-tone patterns. Try placing pictures before them.

**Window treatments.** We can also plan the hangings at windows to give pleasing effects. In Figure 35 you will find windows of different proportions. A is very long and narrow. Note how draperies hung as narrow panels along either side tend to increase the apparent height and narrowness of this window.

23. How is the proportion of the window as shown in A and B affected by curtaining? In C and D?

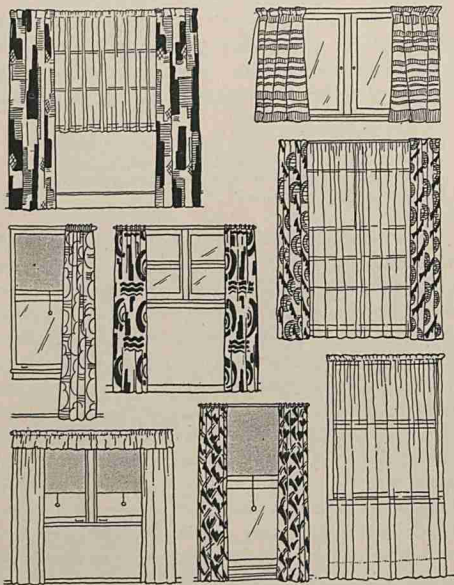


Fig. 36. There is considerable variety in pleasing ways to hang curtains.

Observe that shades alter the proportion in windows. Half drawn shades at the double windows increase the apparent width. When not needed, shades may be rolled out of sight.

24. Draw windows of proportions similar to those of A and C, Figure 35. Turn to Figure 36 and select those draperies that you think suitable for each of your drawings. Perhaps you can find other examples in magazines. Sketch draperies on your drawings.

E has satisfactory proportions, but the lines of the hangings do not seem right because they do not seem to fit the lines of the windows. Notice how the lines of the draperies in Figure 36 repeat the lines of the windows.

25. Trace window E of Figure 35 and design hangings upon it that you think are pleasing. Since the relation of the height to the width is good, you need not make an effort to change it.

**Choosing pictures.** There is great variety in subjects for pictures which a girl might enjoy in her room and which would help decorate it. Pictures of her family and friends are appropriate here because they are of special interest to her. They are not appropriate in the living room, for in this room we entertain our friends and acquaintances who may not be interested in family pictures. Sometimes we choose pictures because they fit in beautifully with the color scheme of the room. For instance, colorful pictures of flowers, butterflies, birds, sea or landscapes may be a colorful accent against the walls. Occasionally posters made in art classes are so well designed and so interesting because of the work we have put into them that we like to hang them for a time in our rooms. You can see why pennants rarely add beauty to a room. Their colors must be intense to be seen on an athletic field, and their shapes do not harmonize with the lines of a room.

**Arranging pictures.** There are several orderly arrangements of pictures. For example, when one large picture is used it is ordinarily placed in the center of a wall as shown in A of Figure 37. If several smaller pictures are used they might be arranged as shown in B.

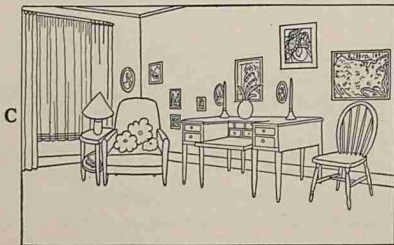
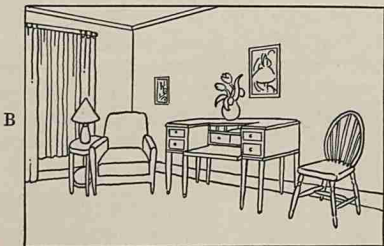
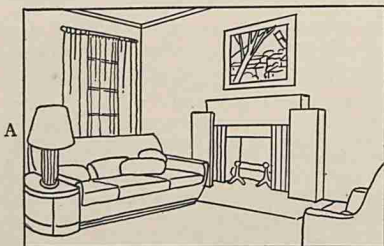


Fig. 37. Too many pictures give a feeling of confusion and unrest.



26. What is wrong with C?
27. Make two tracings, one of wall C without the pictures, the other of the pictures only. Cut out the pictures and place on the wall as many as you need to decorate it pleasingly.
28. Make a second tracing of this wall and with selections of your own place pictures on it in an orderly arrangement. If all the members of the class hang their tracings you will see some variety in good arrangement, and you will observe that among even the more pleasing arrangements some are better than others.

**Hanging pictures.** The pictures that a girl is most likely to have in her room are light enough in weight to be hung satisfactorily on picture pins and therefore need no unsightly wires or cords. Figure 38 shows one side of a girl's room with pictures well hung in one case and poorly hung in the other. Notice the unsightly appearance of the heavy cords in A. Also notice that the lines of the cords do not follow the lines of the room. The cords on the

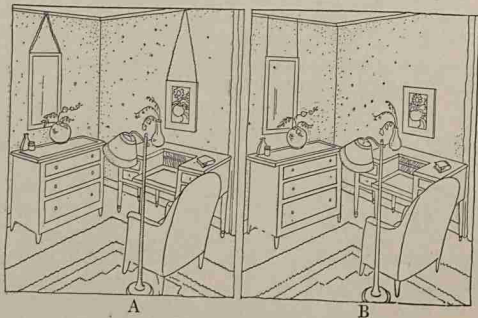


Fig. 38. Which method of hanging mirror and picture is more pleasing?

mirror in B continue the lines of the mirror and seem heavy enough to hold it. Notice that the picture in B of Figure 38 hangs without a cord. In hanging pictures you will notice that there is usually a center of interest or a place in the picture that you see first when glancing at it. It may be a person, building, tree, or some other object. When a picture is well hung, the center of interest is usually just a little higher than the eyes of those who are to look at it. That is, in looking at a well hung picture we look slightly higher than straight ahead.

29. Try hanging pictures at the right height for members of your class. Is there enough difference in the heights of the various members to make a difference in the placing of pictures in their rooms?

30. Why would you hang pictures in a six-year-old child's room differently from those in an adult's room? How high would you hang the child's pictures?

READINGS. F. H. Daniels, *The Furnishing of a Modest Home*. Points made by pictures of furnishings are good.

Trilling and Williams, *Art in Home and Clothing*, pp. 142-163; *A Girl's Problems in Home Economics*, pp. 263-269.

SUGGESTIONS FOR FURTHER STUDY. You will find problems suggested for independent study on page 139.

## FABRICS

Bedroom textiles and fabrics. *Uses*. Cretonne or chintz in hangings; marquisette or other sheer fabric in glass curtains; linen or cotton in shades; linen for dresser scarves; cotton, linen, or rayon in bed covers; cotton or linen for sheets and pillow cases; and wool, grass, or cotton in carpets or rugs are among the textiles and fabrics commonly found in bedrooms.

The purpose of shades is to shut out light and provide

privacy, that is, to prevent persons outside from looking in. Glass curtains do much the same, but, since they are sheer, some sunlight filters through and persons in the house can see much outside, while those outside see little inside except at night when the room is artificially lighted. Of course glass curtains cannot be shifted up and down as is so easily possible with a shade. They may be used with draperies that are hung for decorative purposes. Since the effect that a girl usually wants in her room is cheerfulness, she will wish to plan window hangings for sunshine, cleanliness, and dainty attractive colors. Fabrics such as Swiss, mull, and nets are sheer and comparatively easy to launder. They are often made with ruffles, and hung without draperies to accompany them. Fabrics such as cretonne, chintz, calico, percale, gingham, and thin unbleached muslin are suitable when made to hang at the side of the window as draperies. Figure 42, page 122, shows one window with sheer curtains and percale hangings.

*Durability.* Fabrics to be used at windows should fade little, hence it is a good plan to test a sample for the fastness of its color to both sunlight and washing. See page 168 of *Junior Home Economics: Clothing*—for a method of testing. Because a large number of the fabrics shrink when cleaned by washing, it is advisable to determine how much to anticipate when planning the length of draperies.

31. If a 6-inch length of a drapery fabric shrinks  $\frac{1}{4}$  inch, how much will a yard shrink?

32. If it were necessary to plan a length of this fabric  $2\frac{3}{4}$  yards long to allow for hem at the bottom and heading at the top, how many inches should be added to allow for shrinking when laundered?

33. Suppose that the same fabric were to be used for hangings and cushion tops, about how much shrinking should be anticipated for the cushion length? This slight shrinkage might be allowed for by making the cover larger by the amount of shrinkage.

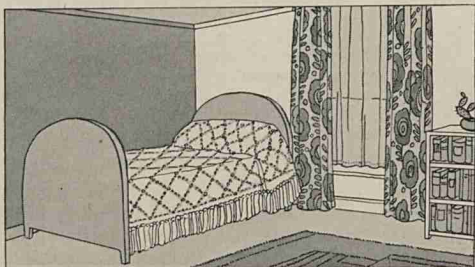
**Choosing materials for a bed cover.** Occasionally girls have beds for which they may select or make covers. A wide number of fabrics are available for such a purpose. They include cretonne, chintz, percale, gingham, chambray, muslin, rayon, and heavier fabrics such as abbey and monks cloth. In selecting a cover for a bed that is never used during the day one need not be so careful to avoid fabrics that wrinkle easily. However, for a single bed that serves also as a daybed one needs to choose either a wiry fabric that does not wrinkle easily or one of such design that wrinkles will not be too objectionable. The cover for a double-purpose bed may not be as light in color, since the additional use soils the fabric more quickly.

In choosing the color and design of the material for a bed cover, we need to consider the wall covering and the draperies. Figure 39 shows two rooms. Room A is displeasing because of the confusion in designs. In B, on the other hand, the background of walls and floor give a plain effect. The same fabric is used in draperies and bed cover.

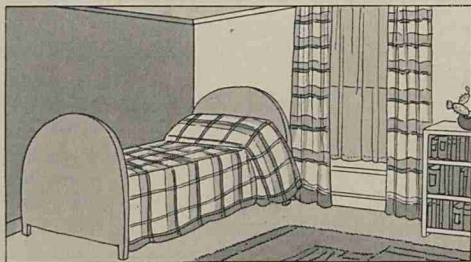
34. What kind of design and what color would you choose in a bed cover for your room to make it attractive?

**Making a bed cover.** The following is one simple method for making a cover for a single bed. If you have a double bed, you must increase the width accordingly.





A



B

Fig. 39. Too much variety of design in a room is displeasing

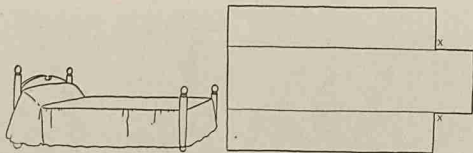


Fig. 40. A bedcover and its pattern.

Perhaps you can find other methods if you have need for a cover. Avoid complicated patterns unless you are sure you have plenty of time for your work.

To make this cover for a single bed, use a length of material long enough to extend down over the foot of the bed and also up over the pillow. It should be as wide as the top of the mattress. The side pieces, which will be sewed on, must be deep enough to reach almost to the floor or to tuck back of the boards of the bed. They must be long enough to reach from the head end to the foot at the point marked  $\times$ , where the top piece drops down over the foot of the bed.

If you intend to use hems as a finish, first hem the foot end of the top piece. Next lay the three pieces together lengthwise, being sure that the right side is up in each case. On each side piece mark the foot end and the bottom edge with a thread or a small chalk mark. Hem along these edges. Then lay and pin each side piece to the center piece, beginning at the point marked  $\times$ . Baste and stitch. If the two edges have been planned to be selvage, but one stitching is needed. If a French seam is made, it may be turned to the right side and left as a narrow finish provided the fabric has no wrong and right

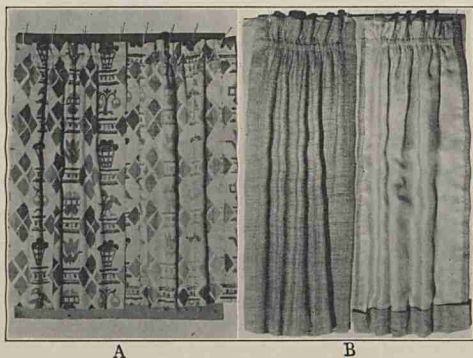


Fig. 41. Draperies.

A. Heading at the top, side and bottom hems were used for these easily made draperies. B. Lined draperies are more difficult to make.

sides. If the sides and the center piece are not the same length at the head end, trim them evenly. Hem the unfinished edges at the foot of the top piece, if they are not selvages.

If a binding is used as a finish, sew the three pieces together first and bind all around the edges.

**Making a cushion cover.** If you need a cushion in your chair, on a window seat, or on a daybed, you will find the cover very easy to make. Cut the material the size of the pillow, allowing for possible shrinkage and a  $\frac{1}{4}$ -inch seam. Lay the two right sides together. Beginning near the center of one side, pin, baste, and stitch around the cushion top leaving an opening of several

inches or enough to insert the pillow. Clip corners, turn to right side, and press. Insert pillow and sew opening together by hand.

**Making draperies.** If you would like to make simple draperies for your windows, you can see how to make one kind by studying A of Figure 41. Notice that the left-hand half of the pair is right side out, while the right half has been turned wrong side toward you to show how it is made.

35. If you plan to make a set of draperies for your room, write the steps you will follow to help you decide the amount of material you will need and how you will do your work.

36. B shows a pair of lined draperies. In what way are they more difficult to make than those of A?

READINGS. G. G. Denny, *Fabrics and How to Know Them*.

Elizabeth Dyer, *Textile Fabrics*, Chs. xi, xiv.

Trilling and Williams, *A Girl's Problems in Home Economics*, pp. 289-295.

SUGGESTIONS FOR SPECIAL STUDY. You will find problems suggested for independent study on page 139.

## FURNITURE

**Choosing furniture.** *Different problems.* Different girls find that they have different problems when they study how to make their rooms more attractive. A few may select new furniture. Most girls, however, either exchange some pieces with other members of the family, or they make certain improvements in the furnishings they already have. In choosing furniture already in the home, there is the problem of deciding whether or not it will fit into the room. Figure 42 shows a very small room with a low ceiling for which it was necessary to consider



carefully the size of the furniture. Because each piece is small, the room seems less crowded than it would with fewer pieces of large furniture.

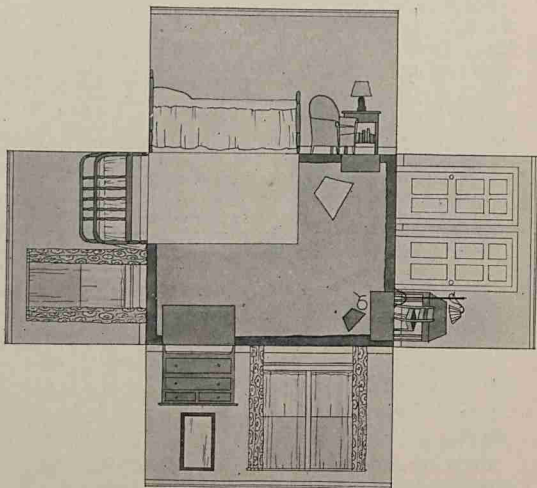


Fig. 42. A small room in good proportion because the furniture is small.

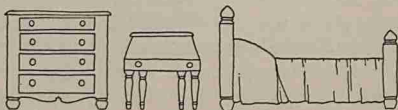


Fig. 43. Ordinary size bed, desk and dresser.

37. Figure 43 shows the space covered by a dresser, desk, and double bed of ordinary size. Trace them and try to place them in the room (Fig. 42). Could regular-sized furniture have been used comfortably?

*Adding a piece.* When we add to what we have, we must always keep in mind whether the different pieces will look well together. Alice had the fun of selecting a desk for her room. Figure 44 shows the dresser and bed she already had. At the store she found she could choose

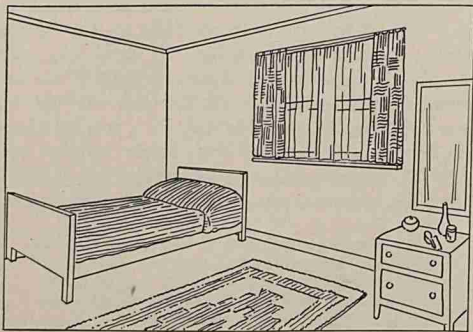


Fig. 44. If this were your room and you might choose one of the three desks below, which would you choose?



A



B



C

one of the three desks shown at the bottom of page 123 at practically the same price. She chose desk C because its lines were the most nearly like those of her dresser, bed, and mirror.

38. In what ways are the lines and decorations of desk A different from those of her dresser?

39. In what way are the legs of desk B different from those of the bed and dresser? How is the decoration different?

*Combining woods.* Another consideration when selecting a piece of furniture to go with what we have is the color of its wood or other finish. We either select the new piece in the same kind of wood or finish, or we are particular to get colors that combine well with the old pieces. Mahogany and golden oak are a poor combination because they contrast very sharply in color and grain. Mahogany and gumwood usually look well together since gumwood takes a finish similar to mahogany.

40. Suppose that you were choosing a desk for your own room. Make a collection of pictures of desks and pick out one that you think would fit your needs and that would look well in your room. Tell why you chose this desk. What finish would be desirable?

*Making a dressing table.* Marie had a sufficient amount of drawer space in her bedroom but no mirror conveniently hung for dressing. She made a dressing table by using an old table and a mirror that the family already had. A and B and the patterns of Figure 45 show how this was made and how it looked when finished. If she had had no table, she might have used a packing box of the right size and shape.

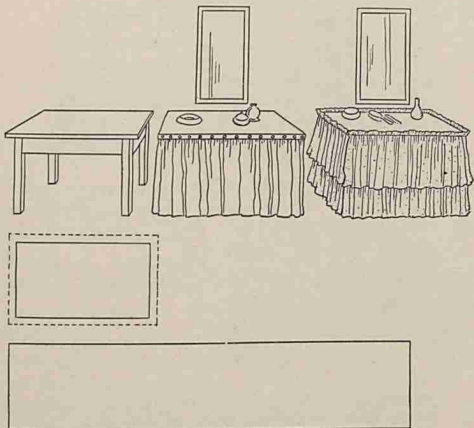


Fig. 45. Dressing tables and a pattern for making the single flounce cover.

41. Why would glazed chintz keep clean longer than plain chintz?

42. If she made it of gingham or another fabric that would need to be laundered, where could she allow for shrinkage?

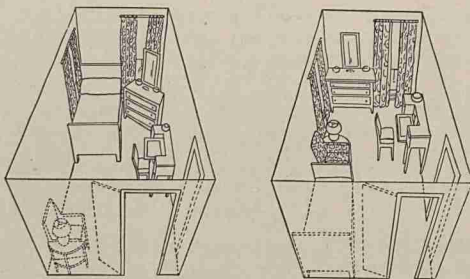
43. Would a heading as shown in the table to the right increase the difficulty of laundering?

If net were used, a lining cover would also need to be made. This might be of colored cloth.

44. In what ways would the net cover, right, be more difficult to make? To keep in good condition?

45. If you have use for such a dressing table and a





A

B

Fig. 46. Which arrangement of furniture would give more comfort?

place to put it, what could you use for a base? What fabric, color, and design would be suitable in the flounce?

**Arranging furniture.** Figure 46 shows different arrangements of the same pieces of furniture in the same room. In B there is an orderly appearance because the sides of the various pieces or groups have been placed parallel with the walls of the room.

46. Compare the ease of managing the windows in the two arrangements.

47. Why do you think the bed would be uncomfortable to use when planned as shown in A?

48. Which room would seem heavy at one end and light at the other? Why? Would the second room give the same feeling?

49. Which do you think would give the most pleasing effect as one came in at the door, both in the daytime and at night? Can you explain why?

50. Why are the chair and lamp better placed in B?

51. Make a diagram of the floor of your room allowing an inch for every foot. Show how you have arranged your furniture. Is this the best way, or could you place your pieces so they would be more usable and would look better? If you cut pieces of paper to represent the floor diagrams of the furniture, you can move them around on your floor diagram until you have the best arrangement, then you can paste them in place.

**Decorative use of desk furnishings.** There are several things to consider when we choose and arrange the furnishings of our desks, study tables, or dressers. Some ways of arranging the useful furnishings are more pleasing than others. Orderliness in arrangement is one element of beauty. In A of Figure 47 you see a study desk in which the various useful articles are

left in such disorder that the effect is unattractive. In B the desk has been rearranged. The books are held between book ends; pencils and pens have been put into the drawer. Notice that those articles that remain are really used by a person studying, that they interfere little with dusting the desk, and that they are of a kind not easily in-

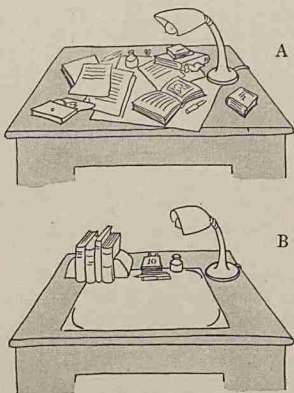


Fig. 47. A disorderly desk is not attractive and makes dusting difficult.

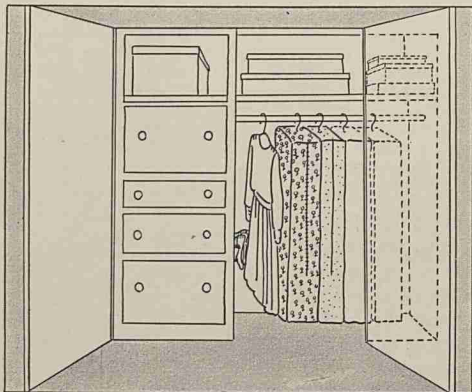


Fig. 48 A. A closet planned for the easy care of clothing.

jured by exposure to dust. Notice also that the corners of the blotter are protected, which gives a neater, more finished appearance.

52. How have the remaining articles on the desk been put in order?

53. Measure the top of your dresser or another at home. Make a drawing of this top, letting an inch represent a foot. On it draw the articles that you use while dressing and that you think need not be kept in the drawer for cleanliness. Do these articles contribute to the good appearance of your dresser? Arrange the articles in an orderly fashion.

READINGS. F. H. Daniels, *The Furnishing of a Modest Home*. Ch. x.

Trilling, Williams, & Reeves, *A Girl's Problems in Home Economics*, pp. 199-213; 260-269.

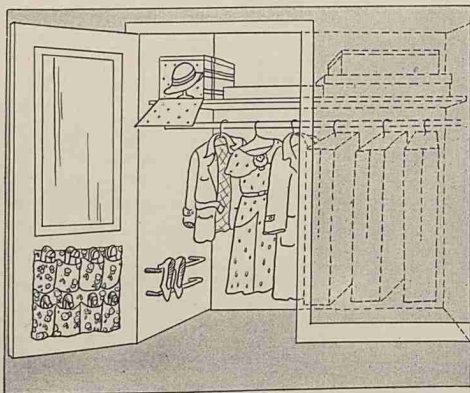


Fig. 48 B. Suggestions for making a poorly planned closet more usable.

United States Department of Commerce *Bulletin*, "Furniture, Its Selection and Use."

Cornell University *Bulletin*, "The Arrangement of Household Furnishings."

Iowa State College *Bulletin*, "Personality in the Girl's Room."

SUGGESTIONS FOR INDEPENDENT STUDY. You will find suggestions for independent study on page 139.

## CLOSETS

**Arrangements in closets.** Closets may also be made to look orderly and at the same time be convenient to use. Of course different persons have different plans that meet their needs. In the closet (Fig 48 A) a shelf was built at the top for suit boxes in which were packed seasonal gar-



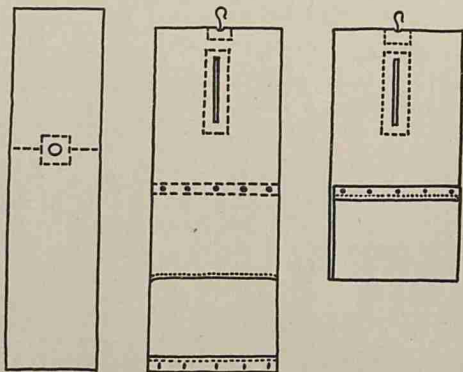


Fig. 49. How to make a bag for soiled clothes.

ments not in use, such as woolen hose, scarves, mittens, and so on in summer. Beneath is a pole with hangers. The clothes bags are for garments less commonly worn. On the other side are shelves for hatboxes and shoes, and drawers for underwear and other garments. Figure 48 B shows closet space that has been adapted by means of shelves, poles, and boxes to make it more useful. Notice that two rods have been placed along the wall to hold shoes and that a mirror has been hung on the door. Nothing should be kept on the floor of closets, since this makes cleaning more difficult. A well arranged closet is an attractive feature of a bedroom. On page 215, *Junior Home Economics: Clothing*, you will find one suggestion for making a convenient hatbox.

54. What arrangement of boxes, shelves, and so on do you have in your closet that helps to keep it orderly, and as a result, attractive?

**Making a bag for soiled clothes.** When it is not convenient to put soiled garments into a family clothes hamper or a chute leading to the laundry, a clothes bag such as the one shown may be most convenient. Figure 49 will show you how it is made. By unbuttoning the extension of the back, which is made to fold up over the front, the bag is opened and the soiled clothing slips out.

55. What advantages and disadvantages would heavy muslin, cretonne, or art ticking have for such a bag?

56. What advantages and disadvantages would glazed chintz or oilcloth have?

Figure 50 is a parlor fashionable a number of years ago. In many ways it shows poor taste. You will be able to



*Courtesy Metropolitan Museum of Art.*

**Fig. 50.** Find examples of poor selection and arrangement in this old-fashioned parlor.

point out a number of these ways as a result of studying this unit. Below are some suggestions that will help you.

57. Do you like the number and variety of pictures?
58. Do you like the way the pictures are hung?
59. Does the wall paper make a satisfactory background?
60. Do the different articles of furniture go well together in design?
61. Does all the furniture look comfortable?
62. Do you like the arrangement of the furniture and the lighting? Think of the ways in which your family uses its living room.
63. How much work do you think the whatnot against the left wall would require to keep it dusted?

READING. Washington State University *Bulletin*, "The Clothes Closet."

Additional suggestions are given on page 140 for the making of conveniences for a room.

## CARING FOR A BEDROOM

Beauty from cleanliness and order. No matter how carefully we select the furnishings of our rooms, and how well we arrange them, we still fail to have attractive rooms unless we keep them clean and in order. Even though we have furniture, closets, boxes, and chests in which to keep our possessions, unless we actually put them in their proper places after using them, our rooms are in confusion, and we are unhappy in them. By keeping things in their places we also make it easier to keep our rooms clean. For example, it is much easier to sweep and dust if handkerchiefs, gloves, shoes, umbrellas, and the many other articles we wear are put away. On the other hand, we may sometimes find it too much trouble to dust a disorderly room.

Kinds of cleaning. The cleaning we do is of two types, (1) the daily and (2) the occasional thorough cleaning. The work demanded in each of these depends to a considerable extent upon the amount of dirt and soot carried by the atmosphere as well as upon how much is brought in on shoes and other clothing. If the air is very clean, but little dust will have settled during a day. On the other hand, a high wind and a dusty atmosphere may bring so much dust on the floor and other surfaces that considerable effort must be spent to pick it up on mop and dust cloth. In winter more lint is likely to settle under beds from blankets and other clothing than in summer. Winter atmosphere also usually carries more soot.



**Daily care.** The program of daily care usually consists of airing the bed for a short time, making it, using the carpet sweeper on rugs perhaps, and dusting the floor and other surfaces not covered by rugs, dresser scarves, and so on. In a reasonably clean atmosphere this should take but a few minutes each day if all articles of clothing and other possessions are kept in places provided for them. The amount of time needed also depends upon how conveniently we keep the utensils needed in cleaning. If mop, sweeper, and dust cloth are each kept in different places, a separate trip to get each one and to put them away would take more time than if one trip for all could be made.

Also, if we choose the best way of doing our work and develop it into a habit, we shall save time. Rachael and Janet were two sisters who shared a bedroom and took turns at the daily cleaning. The weeks when Rachael cared for the room she did it with such ease and in such a short time that it seemed no trouble at all. Janet, on the other hand, had not learned to make the bed properly and often had to remake it because of the wrinkles that showed through the cover and the unevenness of the pillows. The dusting of the floor and the furniture seemed to take a great deal of time, because she would do a bit at one spot, become interested in something she saw or heard, then start at another place. That is, she had not planned how she would do her work to save time, and as a result it seemed difficult.

1. How long does it take you to give daily attention to your room? If you have not timed yourself, this might be an interesting experiment.
2. Do you think you might shorten this time without slighting the cleaning? Think through each kind of

work and see whether you might not improve your methods. Is everything in your room kept in its place? Do you throw the covers of your bed back for airing when you arise? Do you use the method for making your bed that will give good results in a shorter time? Do you keep your implements in one convenient place? Do you do all of one kind of work at one time such as dusting, mopping, and so on? After a few days with your changed methods (if your old habits are not good), try timing yourself again. Have you gained any time as a result of the changes? Does your room look as well or better?

**Occasional cleaning.** In very clean regions, a thoroughly good job of cleaning may need to be done but once or twice a month, in dirty regions it must be done each week to keep our furnishings in good condition and our rooms attractive. The way in which we clean depends upon the kinds of cleaning equipment we use and also upon how our rooms are furnished, as well as upon whether or not we have porches and yards for airing bedding and shaking out dust.

**Cleaning equipment.** There are several classes of work done in cleaning, of which sweeping, dusting, washing, and polishing are examples. The kind of equipment good for one type may not be good for another. For this reason we select the kind of equipment that is well suited for the work to be done when we wish to save time and do the work easily. For sweeping a rug we may use a broom, a carpet sweeper, or a vacuum cleaner. A broom not only is tiresome to use, but it also is inefficient, because it stirs up too much dust that settles again later. If it does not interfere with neighbors, a rug can be taken out of doors and swept, where the wind will carry the dust away. A carpet sweeper is not a good tool for a

thorough cleaning since it picks up but the surface dirt and leaves what has worked down into the nap of the rug. A vacuum cleaner is the only satisfactory sweeper when rugs must be cleaned on the floor, since it removes imbedded dirt and does not cause any to float in the air. In addition, the electric power makes it easier to use than a broom.

A feather duster, like the broom, is inefficient. A cloth



Courtesy Manual Arts Press.

A



B

Fig. 51. Bacteria in the air.

A. Bacterial growth from air in room swept with dry broom. B. Use of mop for cleaning reduces the scattering of bacteria-laden air. Notice that sweeping with a dry broom stirred up bacteria which fell on the gelatin and grew.

that has been treated with an oil holds the dust that it touches and is more satisfactory. Especially in sooty regions furniture and floors soon have a dirty, oily coating that cannot be removed with a dust cloth. They must then be washed with soap and water or

some other solvent of grease. A cloth used in washing should be soft and absorbent, but should not leave bits of lint. When using a linty cloth on floors, furniture, windows, or mirrors we must make numerous extra movements to remove the lint.

**Order of work.** *Getting ready to clean.* Before starting the actual cleaning in a bedroom, we must do a number of preliminary things. The covers should be taken off the bed and all parts of it aired. The mattress should be turned in order not to develop low spots by continual

pressure from sleeping on the same places. Pulling a bed apart in this manner always scatters lint, so it is well to have this done on the day of general cleaning. After airing, the bed is made with a change of sheet or sheets according to the practice of the family. Some families use each sheet two weeks, putting the top sheet below each week and providing a clean one for the top. Some families change both sheets each week, and some with a higher standard, change them oftener. Clean pillow cases should be put on the pillows and the bed made. The soiled clothing may be folded or rolled loosely and put into a clothes hamper or bag.

Another part of preparation is to cover articles with a cloth or paper if these articles cannot be removed easily and are difficult to clean. Lamp shades are an example. Covering is not so necessary when no sweeping is done with broom or brush and where a good dust cloth is used.

*Cleaning.* In general, the order of work should be from the top down, since any dirt or bits of waste thus fall to a lower surface that has not been cleaned. This order of course cannot be used if a lower surface is cleaned in such a way that dust will float onto a higher surface. Thus, when using a broom, it would be poor order to dust first. When using a vacuum sweeper, if the floor is entirely carpeted, this is the best order since then any dirt brushed off in dusting will be collected along with what was originally on the floor.

In cleaning a room with small rugs both the floor must be swept and dusted (or washed) and the rugs cleaned, so we must fit the order of the work to this condition. Probably here we would first of all sweep the rugs, roll them up, and put them aside. Then we would dust those



articles that might be placed in the dresser drawer and put them away. Next we would shake the dresser scarf, brush cushions, brush window sills, and empty the wastebasket. Following this we should sweep the floor with a brush, being careful to set afloat as little dust and lint as possible. Then we should dust all surfaces, the floor mop being used at the end. The floor should be washed occasionally. Lastly we should set the room in order, replacing rugs and the dresser fittings and placing clean scarves if necessary.

3. Why do you think the advice was given to shake the dresser scarf, and to brush window sills and so on, at that particular place?

4. Write the order that is suited to your room and equipment.

READINGS. A. Johnson, *Bacteria of the Home*, Ch. v, pp. 45-57, the house (dust and bacterial growth).

Cooley and Spohr, *Household Arts for Home and School*, Vol. II, Ch. iii, pp. 130-146, cleaning.

E. Allen, *Mechanical Devices in the Home*, Part VII.

M. F. Matthews, *The House and Its Care*, pp. 1-43, the bedroom; pp. 63-69, closets and storerooms.

### READINGS

Readings will be found at appropriate places throughout the unit.

### SUGGESTIONS FOR SPECIAL STUDY

#### *Color*

1. Make a collection of several colored pictures of room interiors. Study them to see what colors are used in walls, woodwork, floor coverings, draperies, and other furnishings. Do these colors vary in the intensities and values used? Describe how. Are complementary colors used? Can you find any triads? A color wheel such as your teacher may provide for class use will help you to

see. By comparing the colors in the rooms with those of full intensity on the wheel you can see where room colors have been grayed or changed in value.

2. Make a collection of pictures of rooms in colors. Put them into groups such as the following. You may have still other groups.

Cool, cheerful and bright  
Warm and dark  
Gaudy, confused and tiresome

### *Line*

1. Make a collection of pictures of interiors curtained in various ways. Explain in each case whether or not they are suited to kind of window and room shown.

2. Make a collection of pictures showing many different ways of decorating walls. In which cases has the apparent height of the room been changed; in which do the walls provide a good background for pictures and other furnishings; which would need no pictures; which tend to make the room seem smaller?

### *Fabrics*

1. If the furniture stores in your town exhibit model rooms, visit one of them and list all the different fabrics used in such furnishings as curtains, draperies, rugs, dresser covers, pillow tops, and so on. In which fabrics can you determine the fibers used? Several rooms of your own or a friend's home would also provide variety.

2. Select the picture of a bedroom such as you might like to have for your own. List a number of kinds of fabrics that might be used in curtaining the windows, for dresser covers, or pillow tops. If you can secure samples of these fabrics, mount them with the picture, and make a booklet of your collection.

### *Furniture*

1. Below are a number of woods commonly used in furniture. Describe as accurately as you can the color of each. If any are finished in more than one color, describe as many as you can find.

Oak  
Walnut  
Mahogany

Ebony  
Bird's-eye maple  
Cherry

2. If you can visit a furniture store and secure permission to measure several dressers, desks, and beds, determine how much floor space each of several similar pieces cover. Furniture catalogues give dimensions of the various pieces pictured. To how great an extent do dressers and desks vary in size? In what dimensions do beds vary most?

### *Closets and Conveniences*

From the following you may find suggestions for your own room. Magazines often picture and give directions for making many of these: Shoe bag for closet door, waste-paper baskets, covered boxes for handkerchiefs, pins, and so on.

# JUNIOR HOME ECONOMICS UNITS

By MATA R. FRIEND and HAZEL SHULTZ

---

## FOOD

- I. Food Preparation
- II. Nutrition
- III. Marketing

## CLOTHING

- I. Good Grooming
- II. Beauty in Dress Through Color and Design
- III. Choice of Fabrics
- IV. Care of Clothing
- V. A Girl's Allowance

## LIVING IN OUR HOMES

- I. Co-operation in the Home
- II. A Girl's Room
- III. Play in our Homes
- IV. Pleasure from Our Food

---

NEW YORK

D. APPLETON and COMPANY



# 4-H Room Improvement Record Book

*"Have nothing in your room that  
you do not know to be useful or  
believe to be beautiful."*

—WILLIAM MORRIS.



NAME \_\_\_\_\_ AGE \_\_\_\_\_

POST OFFICE \_\_\_\_\_

TEACHER \_\_\_\_\_ P. O. \_\_\_\_\_

HOME DEMONSTRATION AGENT

County \_\_\_\_\_ Post Office \_\_\_\_\_

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING  
AND

U. S. DEPARTMENT OF AGRICULTURE, COOPERATING  
N. C. AGRICULTURAL EXTENSION SERVICE

I. O. SCHAU, *Director*

STATE COLLEGE STATION

RALEIGH

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF MAY 8 AND JUNE 30, 1914.

## DESCRIPTION OF ROOM BEFORE IMPROVEMENTS

---

Fill in the following blanks with words which describe your room.

### I. WALLS.

My walls are \_\_\_\_\_  
(Plastered, ceiled, painted, papered, unfinished)

The color is \_\_\_\_\_

### II. WOODWORK. (Baseboard, window and door facings, etc.)

Woodwork is \_\_\_\_\_ (Kind of wood)

The color is \_\_\_\_\_ (Color)

The finish is \_\_\_\_\_ (Painted, or varnished)

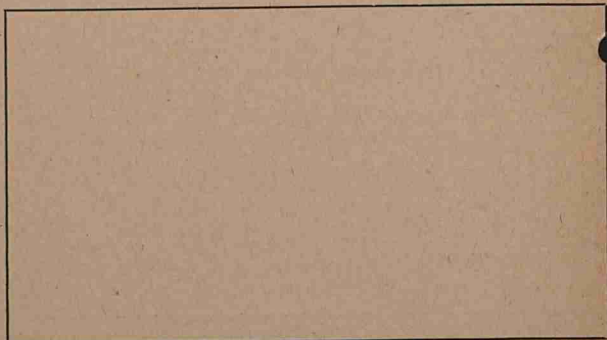
### III. FLOOR.

My floor is \_\_\_\_\_  
(Bare, covered with rug, matting, linoleum, small rugs)

Color of floor or floor covering is \_\_\_\_\_

Design of floor covering is \_\_\_\_\_  
(Large, medium, small)

*Below is a picture of room BEFORE improvements.*



## DESCRIPTION OF ROOM AFTER IMPROVEMENTS

Fill in the following blanks with words which describe your room.

### I. WALLS.

My walls are \_\_\_\_\_  
(Plastered, ceiled, painted, papered, unfinished)

The color is \_\_\_\_\_

### II. WOODWORK. (Baseboard, window and door facings, etc.)

Woodwork is \_\_\_\_\_ (Kind of wood)

The color is \_\_\_\_\_ (Color)

The finish is \_\_\_\_\_ (Painted, or varnished)

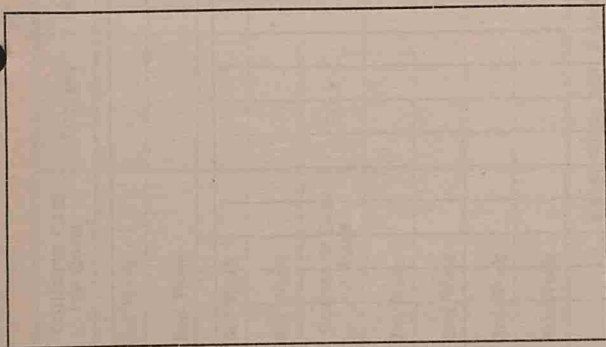
### III. FLOOR.

My floor is \_\_\_\_\_  
(Bare, covered with rug, matting, linoleum, small rugs)

Color or floor or floor covering is \_\_\_\_\_

Design of floor covering is \_\_\_\_\_  
(Large, medium, small.)

*Below is a picture of room AFTER improvements.*



### IMPROVEMENTS MADE

Make a list of all improvements made in your room.

[illegible]



# CARE OF ROOM

COMPLETE CARE OF ROOM	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
1st Week						
2nd Week						
3rd Week						
4th Week						

COMPLETE CARE OF ROOM	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1st Week						
2nd Week						
3rd Week						
4th Week						

Please check with X each week that you took entire care of room.

# SCORE CARD 4-H CLUB GIRL'S ROOM

	PERFECT SCORE	IMPROVEMENT	
		BEFORE	AFTER
<b>BACKGROUNDS</b>	<b>25</b>		
1. FLOOR ..... 8			
a. Condition .....			
b. Suitability of finish .....			
c. Condition and suitability of covering .....			
2. WALLS ..... 9			
a. Condition .....			
b. Suitability of finish .....			
3. WOODWORK ..... 8			
a. Condition .....			
b. Suitability of finish .....			
<b>FURNITURE</b>	<b>20</b>		
a. Condition ..... 7			
b. Suitability ..... 6			
c. Arrangement ..... 7			
<b>WINDOWS</b>	<b>15</b>		
a. Light and ventilation ..... 5			
b. Choice of curtains ..... 3			
c. Method of hanging curtains ..... 2			
d. Shades—Color and condition ..... 3			
e. Screens ..... 2			
<b>STORAGE</b>	<b>10</b>		
a. Closet conveniences ..... 4			
b. Arrangement of closet ..... 3			
c. Drawer space ..... 3			
<b>COLOR SCHEME</b>	<b>10</b>		
a. Suitability to room ..... 5			
b. Way it is worked out ..... 5			
<b>PICTURES</b>	<b>5</b>		
a. Suitability of selection ..... 2			
b. Method of hanging ..... 2			
c. Arrangement ..... 1			
<b>OTHER ACCESSORIES</b>	<b>5</b>		
a. Choice ..... 3			
b. Arrangement ..... 2			
<b>GENERAL APPEARANCE</b>	<b>10</b>		
<b>TOTAL SCORE</b>	<b>100</b>		

Scored by: .....

Date: Before ..... After .....

## SUGGESTED TOPICS FOR ACHIEVEMENT STORY

1. How the study of room improvement has helped me.
2. Things I have made for my room.
3. Why I selected the pictures I have in my room.
4. Other pictures suitable for a club girl's bedroom.
5. How I chose the color scheme for my room.
6. How my study of room improvement has helped my family.
7. The most interesting piece of furniture in my room.
8. Suitable accessories for a girl's room.

SUBJECT SELECTED: \_\_\_\_\_

STORY: \_\_\_\_\_

## ACHIEVEMENT STORY (Continued)



## ACHIEVEMENT STORY (Continued)

Room Improvement was my project in the following years:

Major: \_\_\_\_\_

Minor: \_\_\_\_\_

## SUMMARY PAGE

Name \_\_\_\_\_ Age \_\_\_\_\_

Post Office \_\_\_\_\_ R. F. D. \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_

Name of Club\_\_\_\_\_

Home Agent's Name \_\_\_\_\_

Local Leader's Name \_\_\_\_\_

Number meetings attended\_\_\_\_\_

Number demonstrations you have given or assisted with\_\_\_\_\_

Number household magazines in your home.....

Titles: .....

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

I state upon my honor as a club member that I have answered all the questions in this Record Book as well as I know how.

Signature \_\_\_\_\_  
(Member making report)

Address \_\_\_\_\_

Date \_\_\_\_\_ Age \_\_\_\_\_

Have your home demonstration agent, or two people outside of your family, sign the following:

*We hereby certify* that we have examined the records of

\_\_\_\_\_ entered in this book, and to the best of our knowledge and belief they are correct and a true account of her work.

Signature \_\_\_\_\_

Address \_\_\_\_\_

Occupation \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Address \_\_\_\_\_

Occupation \_\_\_\_\_

Date \_\_\_\_\_

## THE CLUB PLEDGE

---

### I PLEDGE:

*My Head to clearer thinking;  
My Heart to greater loyalty;  
My Hands to larger service; and  
My Health to better living for  
My Club, my Community, and my Country.*

### THE CLUB MOTTO:

*"To Make the Best Better."*

---



## N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agriculture  
and Engineering and U. S. Dept. of  
Agriculture Cooperating.

Pauline E. Gordon, Specialist in Home  
Management and House Furnishings  
Mamie N. Whinnant, Assistant Specialist

### 4-H ROOM IMPROVEMENT PROGRAM FOR 1940

#### Purpose:

Since the type home one lives in influences one's life, and a clean, cheerful, well-ordered one does much to influence the development of its members, it is the purpose of 4-H room improvement program to turn the interest of the girl towards her home. Her first interest is in her own room, and, therefore, the program should guide her in the care, arrangement, and furnishing of a room that will surround her with the color, books, pictures, etc. that express her personality and add to her enjoyment. The room improvement project should lead to an interest in the home, and should be considered the starting point for Home Improvement.

#### Selection of Program:

The room improvement program should be planned to hold the interest of the 4-H girl over a period of two years or more. The projects in the room improvement program are planned for girls who have some knowledge of color, design, and constructive processes. Therefore, the 4-H room improvement projects should be undertaken by girls fourteen years old or over.

#### 4-H Room Improvement for Boys:

There is a field open for 4-H room improvement for boys. If boys are interested in this project, the specialists will consult with the agents in this project.

The units on Clothes Closets and Their Equipment and Homemade and Remodeled Furniture should be of special interest to boys.

#### Family Cooperation:

To successfully complete a room improvement project, it is necessary for the club member to make changes in the home such as refinish floors and walls, build clothes closets, and refinish furniture. It also calls for expenditure of money for such items as paint, wall paper, curtain material, etc. Family cooperation is essential in this project; therefore, the home demonstration agent should put forth every effort to give the parents a clear understanding of the program and to create an interest in it.

#### Organization of a Project:

It is recommended:

First, that each county taking the room improvement program should schedule from six to eight meetings to be given between September and May.

Second, that these meetings be used for the teaching of subject matter by discussion and demonstration methods; that the first meeting be used for introductory work, and the project be so presented that a "feeling of need" is created for the material which is to be studied.

Third, that the individual project be planned with the club member, agent, and leader.

Fourth, that the specialists be scheduled for an all day training school in May or June; that agent, club members, and leaders attend the meeting and a demonstration of the room improvement project be given, and at this time plans be worked out with the club members for their summer work in room improvement.

#### Credit in Projects:

The room improvement project may be carried over a period of several years, but as the required work for projects in room arrangement, homemade or refinished furniture, small furnishings for the girl's bedroom, and clothes closets and their equipment, is completed, credit should be given for a completed project.

#### Unit I. Arrangement and Care of Bedroom.

1. Select room to be improved.
2. Draw floor plans showing location of doors, windows, closets, and each piece of furniture at the beginning, and at the end of the project. Locate lights and convenient outlets if electricity has been, or is to be installed.
3. Take pictures of room, if possible, before commencing work, and at its completion.
4. Make plans with the leader for improvements and care of room.
5. Execute plans as outlined with leader.
6. Keep records of time, money, and materials used in the project.

Note: Demonstrations in arrangement, daily care of room, arrangement of the bedroom units, bed making, etc. should be given by agent.

#### Material Available from N. C. Extension Department:

1. Bedroom Arrangement
2. Care of the Bedroom
3. Points to Consider in Determining Types of Improvements:
  - a. Own or rent?
  - b. Income?
  - c. Cash expenditure?
  - d. Interest of Parents?
  - e. Cooperation of brothers and sisters?
4. Room Improvement Record Book

#### Unit II. Small Furnishings for the Girl's Room.

Select from group and complete at least three of the following projects:

1. Curtains! for window, closet, etc.
2. Runners for dresser and table.
3. Chair pad or cover.
4. Mount pictures.
5. Bed spread.

6. Pillow covers.
7. Bookends, blotter ends, accessories for desk.
8. Rugs
9. Waste paper containers
10. Fire screens

Material Available from N. C. Extension Department:

1. Window Curtains
2. Pictures for the Girl's and Boy's Rooms
3. Bedroom Fabrics: Runners for dresser and table, bed spreads, pillow covers.
4. Chair pads or slip covers.
5. Rugs
6. Accessories

Unit III. Clothes Closets and Their Equipment.

1. Plan and build closet. Make temporary closet.
2. Equip closet with shelves, coat hangers, shoe racks.
3. Make boxes, dress covers, laundry bag, door pocket.

Material Available from N. C. Extension Department.

1. Temporary and Permanent Clothes Closet Plans.
2. Built-in Equipment for the Clothes Closet.
3. Homemade Accessories for the Closet.

Unit IV. Homemade and Remodeled Furniture.

Plan a color scheme for the room.

Remodel or make one or more of the following:

1. Study desk from table or old commode.
2. Book shelves.
3. Dressing table from table or orange crates.
4. Refinish bed, chest, chair.

Material Available from N. C. Extension Department:

1. Color in the 4-H Club Girl's Room.
2. The Study Unit.
3. Dressing Tables.
4. Book Shelves and Magazine Racks.
5. Refinishing Furniture.
6. Chair Seating.

Unit V. Home Management Record Keeping.

Purpose.

1. To help 4-H members obtain and manage an income, both money and non-money, which will contribute to better living.
2. To teach 4-H members to understand the use of good business methods and records as a basis of planning home business.

3. To help 4-H club members to understand how to collect and use facts in the management of the home, and to evaluate the contribution of the home to family living.
4. To encourage 4-H members to make such personal and family adjustments as are essential for individual and family security.
5. To develop in 4-H club members an understanding of the use of records as a basis for studying the factors which cause variation in family earnings and family living.

The Program.

1. The 4-H Home Accounting Activity may be undertaken by any 4-H member.
2. The 4-H club member may choose one of the following as his project:
  - a. Keeping a home account for a year.
  - b. Keeping a personal account for a year.
3. The account must be summarized by the Home Demonstration Agent, and the specialists from the N. C. Extension Department will assist in this.

Material Available from N. C. Extension Department.

Record Book.



4-H ROOM IMPROVEMENT PLAN OF WORK - 1939-1940

Name of County \_\_\_\_\_ Name of Agent \_\_\_\_\_

No. of lesson sheets needed each month \_\_\_\_\_. No. of 4-H Clubs \_\_\_\_\_

Month	Subject of Demonstration	Demonstration
<u>1939</u> September		
October		
November		
December		
<u>1940</u> January		
February		
March		
April		
May		

Do you desire an all-day 4-H leaders' school in May or June for the girls and their months? Yes \_\_\_\_\_ No. \_\_\_\_\_

## N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U.S. Dept.  
of Agri. Cooperating

Pauline E. Gordon, Specialist in Home  
Management and House Furnishings  
Mamie N. Whisnant, Ass't Specialist  
4-H Room Improvement Leaflet #2

### CARE OF THE 4-H GIRL'S BEDROOM

When you go into our room does:

- (1) it look orderly, fresh, and dustless?
- (2) the air smell fresh and clean?
- (3) the bed look comfortable, attractive and inviting?

If your answer to all three of these questions is "yes", then you give your room the daily care it needs in order to present this appearance at all times. If some thought and study is given to this problem, it can be made into simple easy tasks that can be done easily by any girl who takes pride in a neat, clean, attractive room.

#### Daily Care

- (1) Air room leaving bedding turned back.
- (2) Make bed.
- (3) Put everything in order.
- (4) Dispose of any waste.
- (5) Dust and adjust windows and shades.

#### Weekly or Occasional Cleaning

Frequency will be determined largely by:

- (1) Amount of dirt and soot carried by the atmosphere.
- (2) Amount of dirt brought in on shoes and clothing.
- (3) Season of year. More lint under beds from additional blankets, comforts, etc.; and smoke and ashes from fireplaces or heaters.

#### Order of Cleaning

General rules is to go from top to bottom.

- (1) Sweep rugs (if used) roll up, and put aside.
- (2) Dust and put under cover (in dresser drawers, etc.) all exposed articles, such as powder jars, trinket boxes, etc.
- (3) Shake dresser scarf, brush off cushions, and window sills.
- (4) Remove bedding to air and turn mattress.
- (5) Empty all waste water and trash.
- (6) Sweep the floor carefully and avoid raising any more dust than necessary.
- (7) Mop the floor if needed.
- (8) Dust all surfaces with dustless duster (directions for making on page 2).
- (9) Set room back in order, replacing rugs, dresser fittings, etc.

#### Some Other Good Points in General Room Care

- (1) Hang up clothes while still in the hands after they are taken off.
- (2) Put all soiled clothing into the handy laundry bag as they are taken off.
- (3) Have a definite place for shoes-- bag, box, or rack in closet-- and put them there.
- (4) Put all waste in the container for that purpose.

- (5) Keep tops of dresser, bureau, washstand, and table in good order at all times. After the habit is formed, this is no trouble to do, and it saves many occasions of embarrassment.
- (6) Occasionally, when appearance demands it, clean <sup>and</sup> rearrange into good order the closet and drawers.

Our dislike for doing any task is lessened in proportion to the knowledge we acquire for doing the task well and the equipment and supplies with which we do the task.

#### Equipment Needed in Good Room Care

- (1) Good broom.
- (2) Good push brush if floor is finished.
- (3) Wall brush or cotton bag to tie over broom for brushing down walls.
- (4) Two wet mops (bought or homemade).
- (5) Treated mop if floor is finished.
- (6) Dustless dust cloths in covered metal or glass containers.
- (7) Pails or small tubs to use when mopping floor - at least 2 - one for wash mop and one for rinse mop or cloth.
- (8) Long-handled dustpan.

#### Supplies

- (1) Soap (neutral soap jelly is best).
- (2) Sal-soda.
- (3) Fuller's earth or French chalk.
- (4) Whiting.
- (5) Vinegar.
- (6) Kerosene.
- (7) Turpentine (synthetic).
- (8) Denatured alcohol.
- (9) Lemon or linseed oil.
- (10) Wax (if there are waxed surfaces in room)
- (11) Dustless sweeper materials.

#### Making a Dustless Duster

Use a yard square of soft cloth as cheese-cloth, or use outing or sheeting and overcast or hem the edges. Treat in one of the following ways:

Place 2 tablespoons of either of the following: Paraffin oil, lemon oil, boiled linseed oil, or kerosene, in a quart jar or covered container and turn it about until the oil or kerosene is evenly spread over the entire interior surface. Pour out any surplus. Place cloth in jar or can, close tightly and leave over night before using. For waxed furniture or surfaces use liquid wax in place of oil or kerosene.

Why not have one for each area of the home? They may be washed and re-oiled as necessary.

"A good dusting stroke is one that wipes and at the same time gathers the dust into the cloth."

#### Cleaning Painted Walls

Sponge off with a mild soap and water. Beginning at the bottom working toward the top of the wall, using a downward motion on the section being washed prevents streaking. Covering with starch after cleaning keeps them clean longer.



and makes the next cleaning easier. Thin laundry starch made as for starching is applied with a wide brush as in painting. Care must be taken not to spread too thick.

#### Washing of Window Glass

A few drops of ammonia, kerosene, or 1 tablespoon of washing (sal) soda to a pail of warm water may be used for cleaning windows. Soft paper or lintless cloth are used for washing and wiping.

A cloth dampened with wood alcohol makes a most efficient cleaner but is more expensive.

Note: Whiting or some prepared cleaning paste may be used, if the washing is done before the room is cleaned as much dust results where this dried powder is wiped from the window.

Soap is less satisfactory as a cleaner as it leaves a film on the glass.

Clean windows when the sun is not shining on them as this causes uneven evaporation of moisture which produces a streaked effect.

#### To Make Treated Floor Mops

Secure a covered tin receptacle large enough to hold the mop. To make an oiled mop, brush the inside with equal parts of boiled linseed oil and turpentine. Place mop in can, cover tightly and allow to remain overnight. Kerosene may be substituted for the oil and turpentine if necessary. To make treated mop for waxed floors use liquid wax in place of the oil and turpentine.

Floor mops may be purchased or satisfactory ones made by cutting the top of socks into vertical strips and fastening to a handle or sewing to fit into an ordinary mop handle, the corners of which should be covered to prevent the floor becoming scratched.

#### Care of Printed Linoleum

Printed linoleum should be given a coat of clear lacquer or clear floor varnish as soon as laid. Lacquer wears well and is more transparent than varnish. This coat should not be allowed to wear off. Spots may be touched up as they show evidence of wear. Daily care of printed linoleum is the same as that given varnished floors.

#### Use of Wax in Floor Care

A thin coat of wax wears better than a heavy coat. Care should be taken to apply wax sparingly and to polish it carefully with a weighted brush. A floor properly waxed will not show tracks or be slippery.

#### Caution

Oil, turpentine and many other materials used in floor finishing and care are inflammable. There is a decided fire hazard from throwing cloths used in floor care into piles or placing near inflammable material. Place in a metal



container and keep where there is a circulation of air. On the same score it is suggested that gasoline should not be used as a household cleaning agent.

Note to Agent; Demonstrate or have girls demonstrate bed making.

Ask yourself these questions:

1. How long does it take you to put your room in order each morning?  
If you have never timed yourself, try it.
2. Could you shorten the time and still get the same or better results?  
Think carefully through each task and try to improve your methods.
3. Do you keep everything in its place?
4. Do you take pride in a well-made bed?  
If you have not yet learned the hospital method of making a bed,  
do so as soon as possible and see how your bed will improve  
both in looks and comfort.

#### Assignment

Daily care of bedroom for 6 weeks.

## N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U. S. Dept.  
of Agriculture Cooperating.

Pauline E. Gordon, Extension Specialist  
Home Management & House Furnishings.  
Mamie N. Whisnant, Assistant Ext. Spec.  
Home Management & House Furnishings.  
4-H Room Improvement Leaflet #1

### ROOM ARRANGEMENT

Planning, furnishing and caring for a room develops in a girl an appreciation of beauty, cleanliness and order. The enjoyment that comes from achieving results and the pleasure of ownership is well worth the efforts that the girl expends. The Room Improvement Project should furnish a means of self-development for the 4-H girl and should create an interest in the home.

#### Room Arrangement

The arrangement of pieces of furniture in relation to one another is one of the chief factors in making the room attractively and convenient. There should be simplicity in arrangement. A beautiful design is usually a very simple one. Over crowding a room destroys the beauty of it, but a few things artistically arranged give a feeling of restfulness and dignity. There are many ways that furniture can be arranged but there are certain principles that should be observed if one is to obtain the best results.

#### Balance

Formal: Objects the same size and alike in appearance should be placed at equal distances from the center. (Fig. 1)

Informal: Objects unlike in size and appearance should be placed so that the larger object is nearer the center and the smaller one farther away to give a feeling of rest or balance. (Fig. 2)

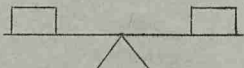


Figure 1. Formal



Figure 2. Informal

A well balanced room should have approximately the same amount of attractions on opposite walls. There should be a feeling that the furnishings are equally distributed around the room.

In placing the furnishings of a room the architectural openings must be taken into consideration. For instance, a small table between two windows may balance the dressing table unit.

Large pieces of furniture should be placed first then arrange the smaller so that they will make convenient groups as well as balanced units.

Note: Girls should collect pictures illustrating formal and informal balance in furniture arrangement in a bedroom.

### Harmony

"When the lines within a space are arranged so they follow or repeat the lines of that space, the result is orderly and harmonious."

All large pieces of furniture should be placed to conform to the structural lines of the room. Rugs, as well as the furniture, should be placed parallel to the walls. (Figures 3 and 4)

The objects in a group should appear unified rather than scattered. Hang pictures and mirrors close enough to a piece of furniture so that it will become a part of the group.

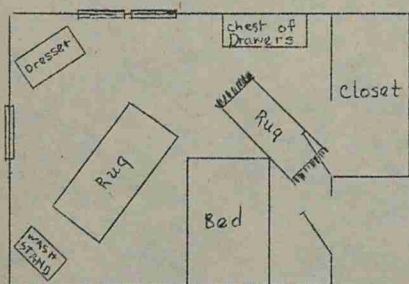


Figure 3.

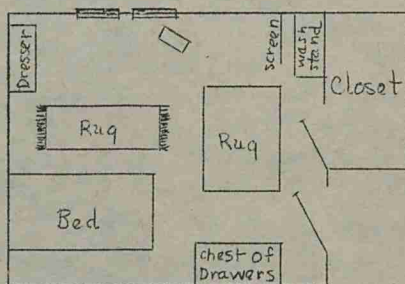


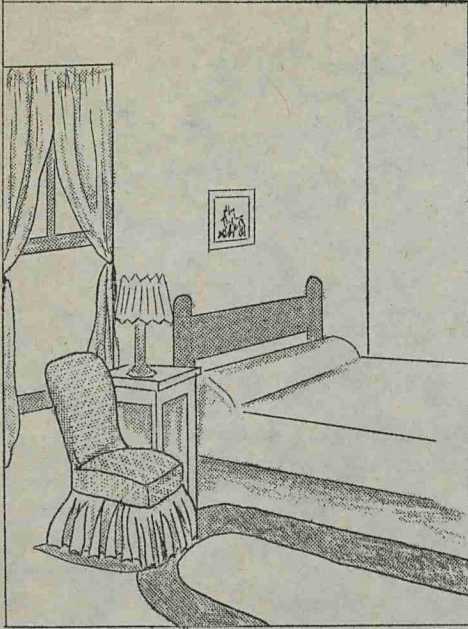
Figure 4.

### Grouping of Furniture

The appearance of a room depends largely upon the grouping of its furnishings. Comfort, convenience and beauty should be the keynotes in arranging the furnishings.

The furniture should be grouped according to its use. In the bedroom the furniture should be so grouped that there is a unit for sleeping, a unit for dressing and a unit for studying, etc. Nothing that does not contribute to the beauty and convenience of the room should be used in it. Pieces of furniture such as chair and tables that are not used should be removed. Pictures that do not fit wall space or belong in a furniture group, and useless accessories should be discarded.

Figure 5



#### Sleeping Unit

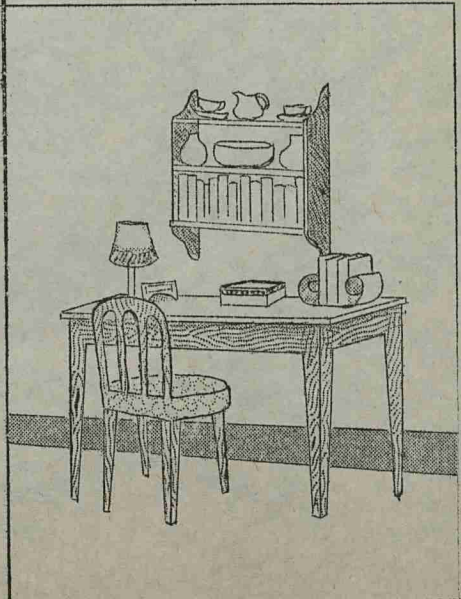
The bed should be so placed that it will not face the light. It should be near enough to the window that the sleeper gets air but will not be in a draft. The bed should be so placed that one can easily move from side to side when making it without having to move it. If the bed is placed near the door, it gives the appearance of a small unattractive room.

Grouped with the bed should be a bedside table with a lamp on it, a chair, a rug and picture (Figure 5),

Figure 6

#### The Study Unit

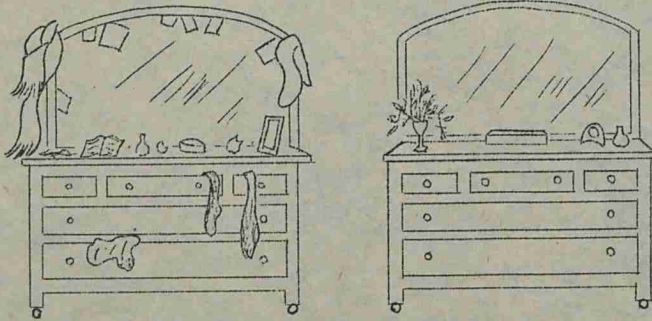
In the arrangement of the study unit which should consist of a table or desk, a chair, bookcase, lamp, and wastepaper basket, a feeling of balance can be given by grouping these as a unified group so that they balance some other piece of furniture such as the bed or dresser. It is important that this group be placed so that the light comes from the left. (Figure 6)





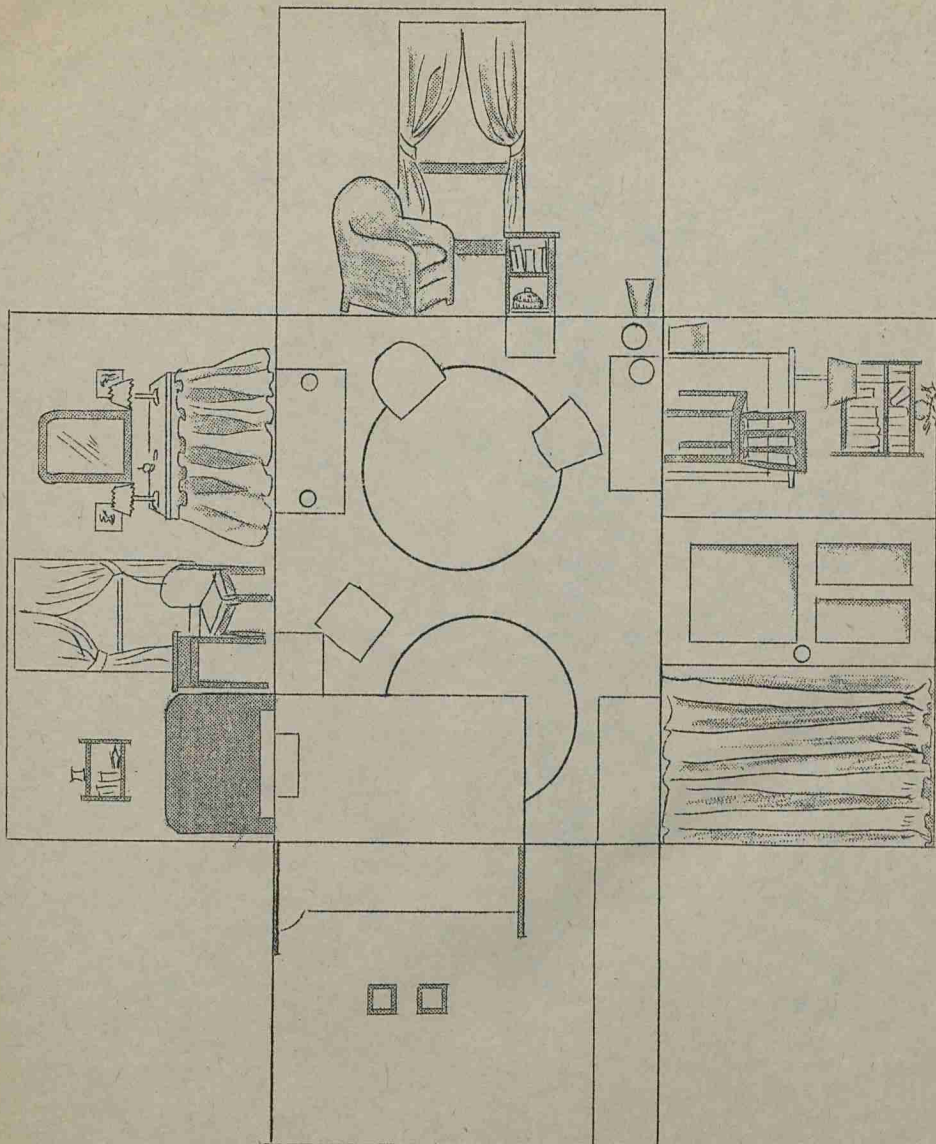
### Dressing Table Unit

The dressing table should be so placed that the light falls on the person standing before the mirror. Place a few well arranged things on top of dresser-- avoid a cluttered appearance.



### Assignment

1. Draw a floor plan of your room indicating furniture, doors, windows, closets, and exposure. List articles of furniture, size of room, pictures and other accessories.
2. Collect pictures showing good bedroom arrangement.
3. Rearrange your bedroom.
4. Draw a floor plan of your room after it has been rearranged.



Arrangement of Girl's Bedroom

## WINDOW CURTAINS

For the 4-H Club Girl's Room

Much of the charm of a room depends upon the window treatment. In planning this treatment the functions of the window should always be kept in mind:

1. Admit sufficient light.
2. Provide ventilation for comfort and health.

Curtains may be used to soften a strong glare of light, shut out an unpleasant view, or frame a beautiful view. Before buying curtains the following points should be thought through very carefully:

1. The size and proportion of the windows (Fig. 1).
2. The quality and type of furnishings in the room.
3. The type of person or persons occupying the room.
4. The amount of money available for the curtains.
5. Durability, color fastness, and ease in laundering.

It is economical to buy materials that will withstand washing and sunlight and to make curtains at home rather than spend the same amount of money for a poor quality of ready-made curtains.

Curtains should be in keeping with the other furnishings and should also harmonize with those in other parts of the house. Ruffled tie-back curtains are always good in a girl's room, especially those made of organdie, dotted swiss, scrim, marquisette, net, and sheer unbleached muslins which are purchasable as mill ends inexpensively. Cream is generally the best color, though white curtains are good with white woodwork. In any case, curtains and ruffles should match in color. Touches of color may be added in facings, bindings, and braids such as ric-rac. Although crisscrossed curtains are being used rather extensively at the present time, they are much more difficult to hang successfully according to art principles than are the standard styles with or without cornice or valance.

In estimating the amount of material needed, a good rule is to add 8 or 9 inches to the desired length of the curtain. This will give ample material for heading, hem, and shrinkage, except in curtains with horizontal tucks in which case extra allowance will have to be made according to number and size of tucks. (See figure 2 and example given on page 2). The length of curtains will vary with the size and proportion of the window. The curtain for a long, narrow window should stop at the sill or lower edge of apron. The wide, short window should have the curtains extending to the top of the baseboard or almost touching the floor. The proportions of a window may be changed as illustrated. (Fig. 3, 4, and 5).

The actual proportion of a window may be changed by adding an extension board or block of wood. A board 2, 4, 8, or 12 inches may be added at the top to give greater height to a window, (Fig. 4). A block of wood 2 to 4 inches may be added outside the frame at each side of the window in line with the top frame and the curtain rods are placed on the outer edges of these blocks (Fig. 5). All fixtures should be screwed in place. Valances are almost never used in bedrooms, and in case they are used, they should be the simplest type made with a casing and sufficient fullness to shirr on the rod. Wooden cornices are being used now. They may be designed and made at home and painted in a color that carries out the color



scheme as planned for the entire room. Generally tie-backs should be made of the same material as the curtain itself, although ribbon or fabric, giving a color contrast, is sometimes used.

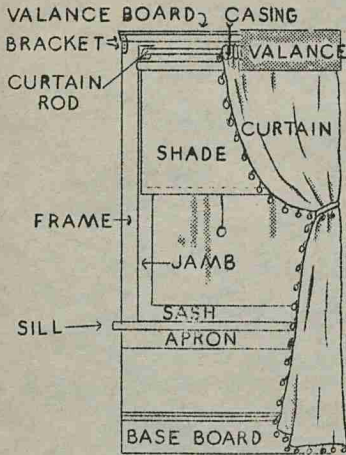


Figure 1

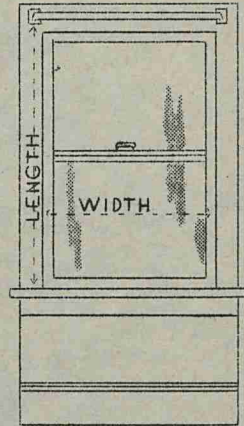
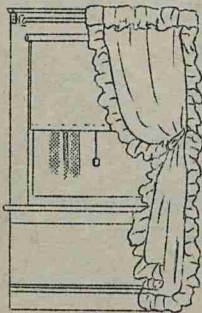
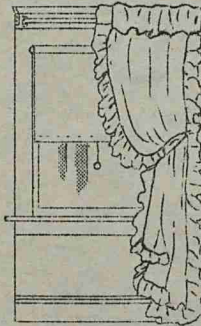


Figure 2



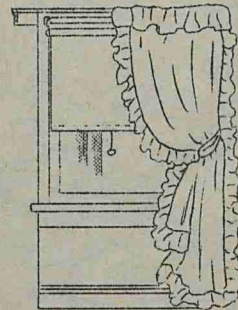
AVERAGE WINDOW

Figure 3



HEIGHT ADDED

Figure 4



WIDTH ADDED

Figure 5

The correct way to measure is from jamb edge to jamb edge, for width, and from the bottom of the rod to the top of the window sill for length, (Fig. 2). These measurements should be written down and then all necessary allowance made. Example:

72 inches	2 inches	2 inches	2 inches	1 inch	1 inch	= 80 inches
window	hem	casing	heading	turning	shrinkage	Total



N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U. S. Dept.  
of Agri. Cooperating

Mamie N. Whisnant, Assistant  
Specialist in Home Management and  
House Furnishings

---

FLOOR FINISHES

4-H Room Improvement

Floors form an important part of the background of a room. Just as shoes may ruin the whole effect of a costume, so floors may ruin the whole general appearance of a room if they are not properly finished and cared for. All floors should be finished for three reasons:

1. To preserve and protect the wood.
2. To make care easier.
3. To add to the beauty of the room and furnishings.

Unfinished floors require scrubbing which makes the care of these floors very costly in human energy. The continued use of large amounts of water on floors produces cracks, causes the boards to warp, and finally to splinter.

Floors need to be divided into three groups and each group studied separately, because each group will probably require a different type of finish:

1. Old floors.
2. New soft-wood floors (pine, ash)
3. New hard-wood floors (oak, maple)

1. Old Floors

The first and most important step in finishing an old floor is to get it clean and perfectly free of any old finish that might have been on it.

- a. It should first be scrubbed clean (soap, steel wool, abrasives, and washing (sal) soda are good cleaners).
- b. All old paint or varnish finish should be removed. This may be done with a saturated solution of sal soda or home made lye paste. Lye paste should be used very cautiously and directions followed carefully. (See your club leader or home demonstration agent and get her advice.)
- c. The floor should be leveled if possible. If very rough and uneven, it may be planed and then sanded smooth.
- d. Sand until smooth. This is the secret to a beautiful finish regardless of the kind of finish. Electric sanding is more successful than sanding by hand, but it is more expensive. If sandpaper is fastened on the bottom of a heavy block of wood to which a handle is attached, or better still, on the bottom of weighted polisher, hand sanding will be easier.

From this point it can be treated as a new floor if all stains and roughness have been successfully removed. In cases of very obstinate stains and uneven floors that cannot be finished in the natural grain, it will probably need to be painted. Only good quality floor paint should be used. After the floor is painted, it should then be given at least two coats of good quality clear floor varnish. This will preserve the color and prevent it walking off in paths where floors get hard wear. Pretty tans, and light medium or reddish browns are good colors. Dirty colors, taffy yellows and mustard browns are ugly floor colors and should be avoided.

2. New Pine Floors should be finished as follows:

- a. Clean and sand smooth and level.
- b. With a  $3\frac{1}{2}$  inch paint brush apply a generous coat of hot oil mixture: 4 quarts boiled linseed oil, 2 qts, synthetic turpentine, and 1 pint Japan drier. This mixture should be heated over hot water because turpentine is inflammable.
- c. Allow to dry 30 to 45 min., wipe up all excess oil and allow to dry at least 24 hours.
- d. Repeat steps 2 and 3 until wood is thoroughly filled with oil, at least 2 coats.
- e. Oil stain will be needed on most new pine floors to give the desired shade. Stains or oil colors may be added to the hot oil mixture in step 2 above. It should be measured with a teaspoon as added and the mixture should be tested for color after each addition. Samples of flooring exactly like the new floor should be used for this testing.

3. New Oak Floors should be:

- a. Smooth, dry and clean.
- b. Filled with paste wood filler as directed on container. Stain may be added to this filler if a darker shade is desired for the floor.
- c. Filled with second coat of filler if needed which is the case with the majority of new oak floors.
- d. Let dry at least 12 hours after rubbing off the last coat of filler and then sandpaper to a smooth uniform surface.
- e. Wax and polish.

4. General Suggestions

- a. Commercial penetrating oil finishes may be bought but are much more expensive than the homemade oil mixture suggested.
- b. Avoid stained varnish on floors. The color walks off in paths quickly and it cannot be successfully "patched."
- c. Avoid shellac as a floor finish. It is too brittle and too expensive in proportion to its wearing qualities.
- d. Avoid paint on floors except as a last resort where a floor is too spotted with bad stains and is too worn and rough to take successfully a transparent finish as suggested for new floors.

5. Application of Lesson:

- a. Plan a background color scheme for your room.
- b. Select a figured wallpaper pattern for your room and submit it to your leader or agent.
- c. Make a color plan for woodwork and floor.
- d. Actually carry out these plans as far as needed at the present time and as much as finances will permit.

N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U.S. Dept.  
of Agri. Cooperating

Mamie N. Whisnant, Assistant  
Specialist in Home Management  
and House Furnishings

THE WASH UNIT FOR THE 4-H GIRL'S ROOM

In homes that do not have running water with bathroom facilities, a special arrangement for bathing should be made in the bedrooms. The wash unit should be located in the room where it will be as inconspicuous as possible and afford privacy. Usually it is located against the wall back of the door, but this will be determined by the location and arrangement of the other furnishings and the clothes closet.

The furniture needed for this unit should be:

1. A wash stand (with storage space).
2. A chair or bench and stool.
3. A mirror.
4. A 3-pound screen.
5. A washable rug, or linoleum.
6. A mat (under combinette).
7. A waste paper container.

The following is a list of equipment and supplies needed:

1. Wash bowl or basin, pitcher and pail.
2. Towel racks.
3. A soap tray.
4. Combinette.
5. Toilet paper holder.
6. Towels.
7. Wash cloths.
8. Toilet soap.
9. Toilet paper.
10. Can of Bon Ami.
11. Tooth paste, tooth brush, and holder.
12. Dusting powder.
13. Hand cream.
14. Drinking glass.
15. Good artificial light.
16. Pail for extra water supply.

Washable enamel or linoleum should be used on the top surface of the wash-stand for ease in cleaning. If the wall finish shows water spots or is finished with cold water paint, it should be protected by a large piece of good oil cloth the same color as the wall. This should be about  $4\frac{1}{2}$  feet high and cover as much of the wall as would be likely to become spattered with water from the wash unit.

The best type of wash bowl and pitcher is the white enamel. This type is lighter weight and easier handled than the old style china which is very heavy. As large bowl or basin as possible should be bought. Small ones make it impossible to prevent slopping over while in use.

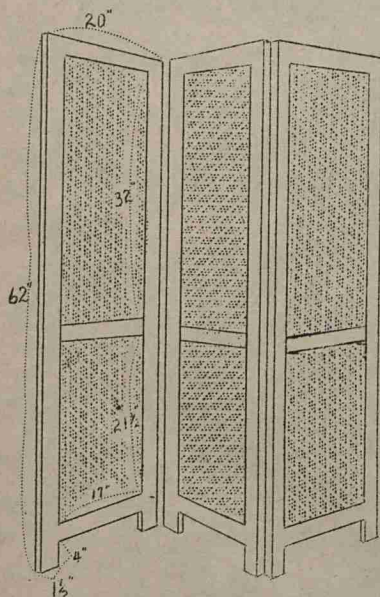
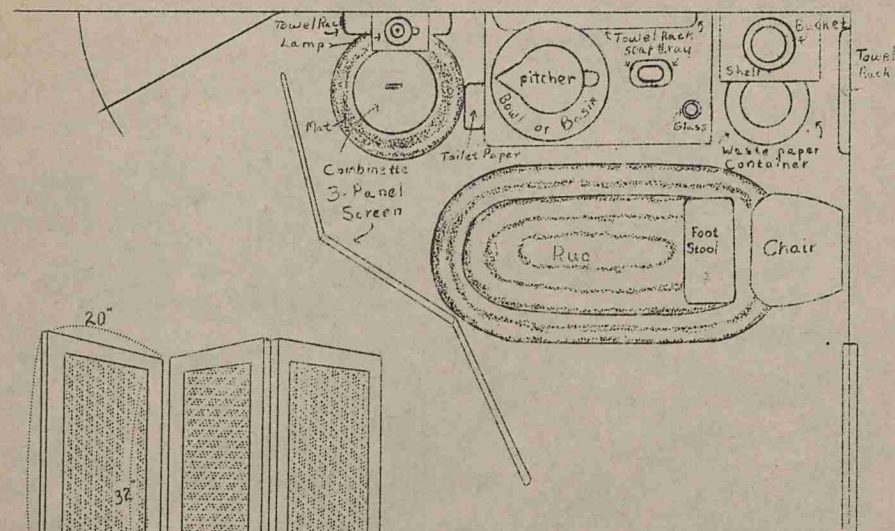
It is a good idea to have a pail or bucket, on a shelf or the stand itself if the room permits, in which to keep an extra supply of water on hand for drinking, etc. in case there is hot water in the pitcher. There should be at least 2 towel racks, if two or more persons share a room. A chair or bench and stool should be near the washstand for convenience in bathing feet, putting on hose, shoes, etc. immediately after bathing.

It is very important that this unit be kept clean and orderly at all times.



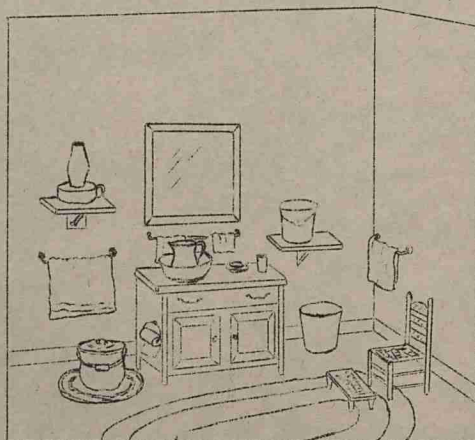
# SUGGESTED ARRANGEMENT

## FLOOR PLAN



### THREE-PANEL SCREEN

(dimensions for each panel given on drawing)  
Centers of panels are beaver board covered with wall paper and finished with two coats of clear shellac.



### ELEVATED SKETCH (with screen removed)



N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U. S. Dept.  
of Agri. Cooperating

Mamie N. Whisnant, Assistant  
Specialist in Home Management  
and House Furnishings

BEDROOM STORAGE  
4-H Room Improvement

"Hang up your things," says Mother.

"Where?" asks daughter.

This little bit of conversation has been taking place in many homes now for years. However, mothers and daughters nowadays are rapidly realizing how easily this problem can be solved and they are going about solving it in interesting and inexpensive ways. No investment will return a larger amount of satisfaction than the time and small amount of money needed to provide adequate storage for each bedroom in the home.

I. Types of Storage

A. Garment Storage (See figures pp. 4, 5, and 7.)

Object: To keep garments in shape, free from wrinkles, and protected from light and dust.

Means: Hangers

Rod to accommodate hangers

Garment protectors

Sufficient space to avoid crowding

Hooks for laundry bag, sleeping garment in use, etc.

B. Shoe Storage (See figures pp. 6 and 7.)

Object: To keep shoes in shape and to protect them from dust.

Means: 1. Shoe racks

2. Shoe boxes

3. Shoe shelves

4. Shoe bags

5. Shoe trees

C. Hat Storage (See figures p. 6)

Object: To keep hat in shape and free from dust.

Means: 1. Hat boxes

2. Hat stands and covers

3. Shelf in closet to accommodate hat boxes or hat stands

4. Hat brush

D. Folded Garments

Object: To keep them free from wrinkles and dust, and for convenience and order in the room.

Means: 1. Drawer space--Bureau, chest of drawers.

2. Shelf space in closet

3. Sliding trays in closet. (See figure 17 p. 6.)

E. Accessories (Handbags, gloves, handkerchiefs, collars, ties, scarfs, hose, jewelry, etc.)

Object: To keep in good condition and to avoid getting misplaced.

Means: 1. Drawer space

2. Boxes easily accessible

3. Shelves--in closet or dressing table

The proper time to put in closets is when the house is built, but if this was not done, they can be built in inexpensively if space permits. There are two types of closets recommended:

## II. Types of Closets

- 2 -

### A. Permanent Built-in Closets

Materials, construction, and architectural details should be identical with the original materials, construction and architectural details of the room, such as walls, woodwork, door facings, etc. Closet should be built to ceiling. This type is the most desirable and is strongly encouraged. (Page 4).

### B. Temporary and Movable Types

1. Homemade wardrobe closets. Figures 5 and 6 on page 5.
2. Orange crate closets. Figures 7, 8 and 9, page 5.
3. Corner shelves, made from scrap lumber--curtain across and one end. Figures 10, and 12 on page 5.

Curtains are substituted for doors in types B<sub>2</sub> and B<sub>3</sub> and sometimes in B<sub>1</sub> although doors are recommended for type a. Where closet curtains are used it is important that they be made of firm and rather heavy material that will keep out light and dust. Monks cloth is excellent. Cheap, thin, sleazy materials are not satisfactory. Materials of inconspicuous design and color are more appropriate than bright colors in bold, striking designs. Curtains should be kept clean.

The closet curtain may be either gathered and stitched to a tape then tacked to the edge of the shelf (figure 11, page 5), or it may be put up with regular window curtain type rods using casing or rings as in a draw curtain. Figure 6, p. 5.

#### Suggested Closet Sizes

34 inches x 42 inches  
24 inches x 54 inches  
36 inches x 66 inches

#### Suggested Measurements As A Guide in Planning Inside Closet Space

##### ROD

To determine the length of rod, for garments on hangers, allow space per garments as follows:

##### Men's and boys' clothing:

	Inches
Suits- - - - -	2
Trousers - - - - -	3
Overcoats- - - - -	4
Shirts - - - - -	1½

##### Girls' Clothing

	Inches
Wash dresses - - - - -	1½
Coat without fur collar- -	2
Coat with fur collar- -	3
Skirt - - - - -	2
Jacket- - - - -	3
Evening dress - - - - -	2

Minimum distances from center of rod to wall: 12 inches.

Distance between floor and top of rod or wardrobe hook (assuming use of hanger which places top of garment 4 inches from top of rod):

	Inches
Garments of adults, general use - -	63
Short coats, skirts, shirts - - -	45
Evening gowns - - - - -	72
Garments stored in moth-proof bags -	72
Garments of children 6 to 12 yrs. -	
of age - - - - -	45
Garments of children 3 to 5 yrs. -	
of age - - - - -	30
Distance between top of rod and bottom of shelf above it - - - - -	2 $\frac{1}{2}$

### HOOKS

	Inches
Bedroom closet, hook to hook - - - 7 in. - - - - - Hook to corner - - - - -	3 $\frac{1}{2}$
Play coats, small children - - - 9 in. - - - - - " " - - - - -	4 $\frac{1}{2}$
Distance between top of hook and bottom of shelf above it - - - - -	4 in.
Depth of space occupied by garments on hooks - - - - -	4 in.

### SHELVES

Article	Width of shelf front to back Inches	Length of space side to side Inches	Vertical height between shelves Inches
For a Man:			
Hat - - - - -	14	12	8
Hat box - - - - -	15	13	9
Cap - - - - -	12	11	4
Shoes - - - - -	13	9	7
For a Woman:			
Hat - - - - -	12	12	8
Hat box - - - - -	14	14	9
Shoes - - - - -	10	7 $\frac{1}{2}$	7
For a Child:			
Shoes - - - - -	6 - 10	5 $\frac{1}{2}$ - 7	6

Shoes may be stored on low shelves, or shoe racks. The length of the shelf or rack should be 14 inches, 18 inches, or 21 inches, to allow for 2 or 3 pairs of women's or men's shoes.

### ACTIVITY AREAS

Minimum width of opening of closet - - - - - 24 inches  
Minimum free space in closet of walk-in type - - - - - 24 by 24 inches

Application of Lesson

1. Make a list of storage needs.
  2. Outline a plan for meeting these needs. This plan may cover two or three years time to accomplish.
  3. Determine how many needs can be met the first year, the second year, etc. if all cannot be met in one year.
  4. Add closet if possible where there is not one in the room.
  5. Make shoe rack, shoe box or shoe pocket. A shoe rack is the most satisfactory where space permits.
  6. Make at least two other closet accessories:  
Hat box or stand, box for accessories, waste basket, garment protectors, closet shelves, laundry bag, etc
- 

Distributed through Further of Acts of Congress May 8 and June 30, 1914.  
North Carolina Extension Service. I. O. Schaub, Director.



I. Permanent Types

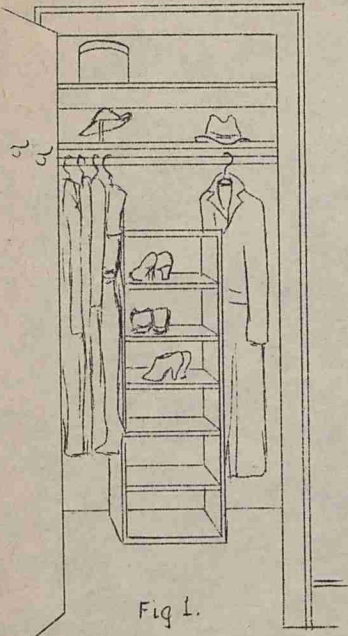


Fig 1.

Walk in Type, For Two Persons

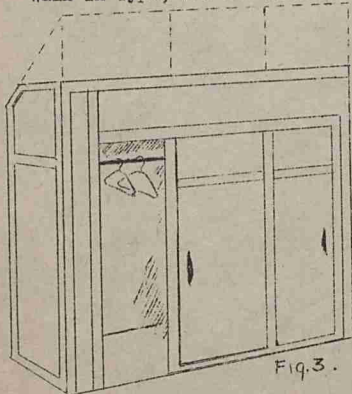


Fig 3.

Closet under slant roof made of wall board and wood stripping. Sliding doors in the illustration.

Building closets to the ceiling prevents dust collecting on top, also, doors may be put in the front to make space on top of closet usable but obscure.

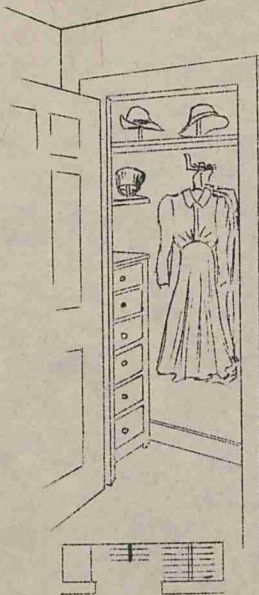


Fig 2.

The sketch above shows what can be done when the closet is long, but too shallow to allow for a horizontal pole and clothes hangers. At one end a case of drawers, which can be purchased for the purpose, is fitted. The rest of the space has two long hooks, which can be found at any hardware store, placed far enough apart to take the hangers. These will accommodate more clothing than ordinary hooks on the walls.

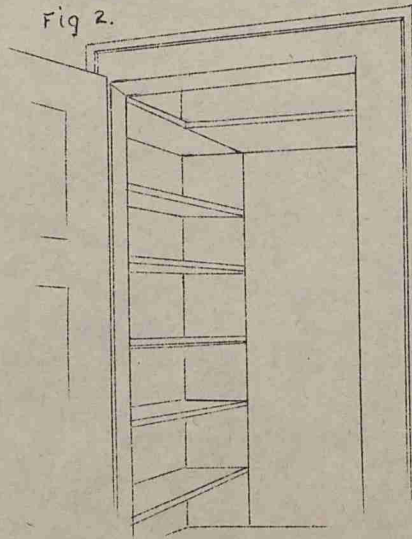


Fig 4.

Shelves built in the closet provide a place for shoes, hats and folded garments.

## II Temporary and movable types.

- 5 -

### A - Homemade wardrobe closets

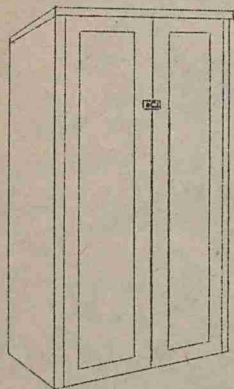


Fig. 5.

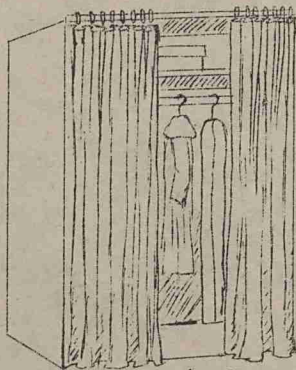


Fig. 6.

### B - Orange Crate Closets

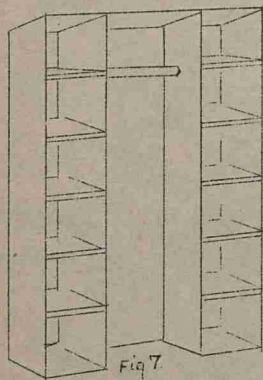


Fig. 7.

6 orange crates  
or 6 egg crates.  
Beaver board top.  
A solid beaver board  
back is most satis-  
factory to hold crates  
together substantial-  
ly.  
Rod for hangers.  
Paint.  
Curtains or roller  
shade at front.  
These orange crates  
should be painted so  
that they are smooth  
and free from splinters.

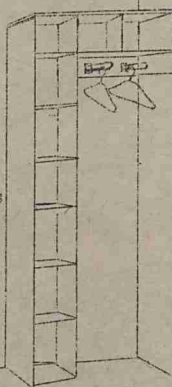


Fig. 8.

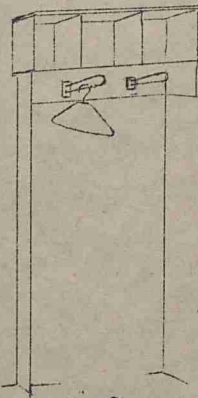


Fig. 9.

### C - Curtained Shelf Closets.

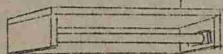


Fig. 10.

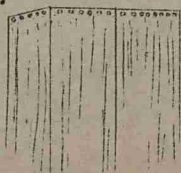


Fig. 11.

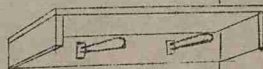
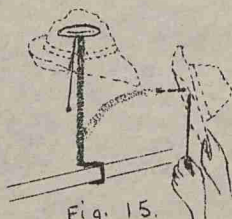
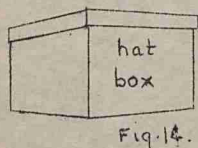
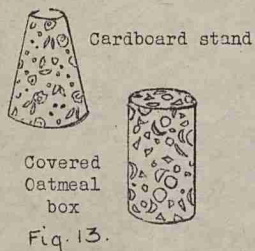


Fig. 12.

# CLOSET ACCESSORIES

## Hat Stands



Metal stand with spring

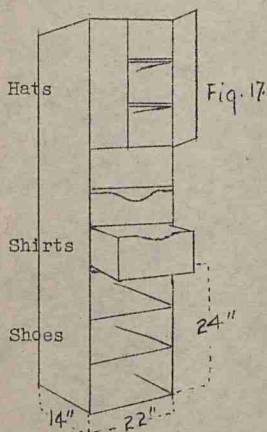
## and Covers



### To Make:

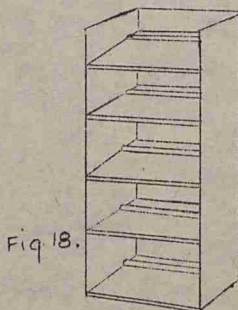
Measure distance around hat and divide by 4.

Divide distance over the hat by 2. Make four sections and shape each at the top. Suggested materials: Voile, lawn, dimity, light weight prints and muslins.

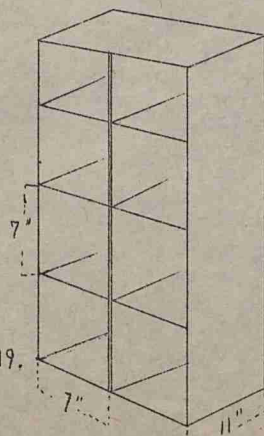


Storage for men and boys. Easily made - fills a need.

## SHOE STORAGE

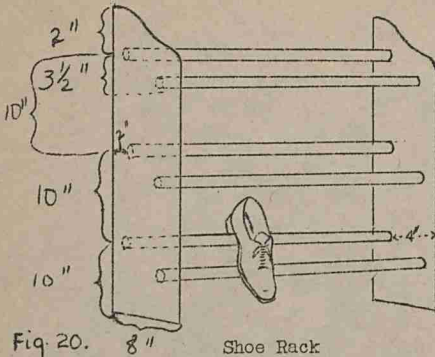


Sloping Shelves 11" x 20".  
Cleat 3" from back.



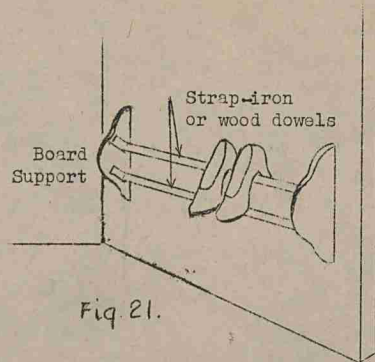
Box for four or eight pairs

SHOE STORAGE ( CONTINUED )

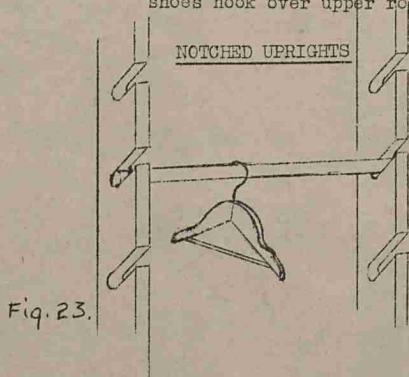
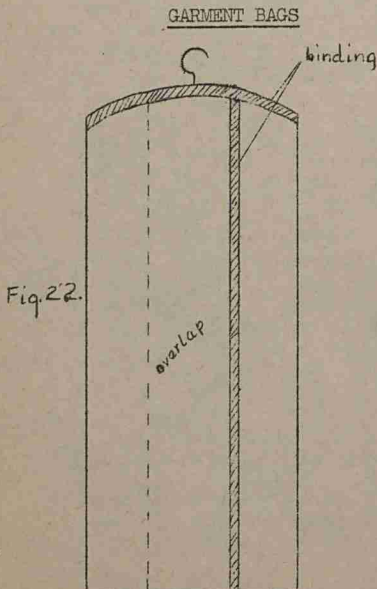


Rods may be wood or iron.  
Suggested lengths which will vary  
with location of rack.

21 inches	=	3	large	pairs	of	shoes
24 "	=	4	small	"	"	"
28 "	=	4	large	"	"	"
30 "	=	5	small	"	"	"



This shoe rack consists of  
two support boards fastened  
to the inside of the closet  
door with screws, and strap-  
iron rods or wood dowels fas-  
tened between. Heels of  
shoes hook over upper rod.



No wraps are underfoot in this  
coat closet!  
Notched uprights adjusts a pole  
to the height of each growing  
child



N. C. AGRICULTURAL EXTENSION SERVICE

N. C. State College of Agri.  
& Engineering & U.S. Dept.  
of Agri. Cooperating

Mamie N. Whisnant, Assistant  
Specialist in Home Management  
and House Furnishings

---

FINISHES FOR WALLS AND WOODWORK IN THE 4-H GIRLS BEDROOM

If furnishings, pictures, and accessories are to make their best appearance, they should have suitable backgrounds. The floor, walls, and ceiling constitute the backgrounds of a room. They should never be very noticeable in color or finish; otherwise, they are no longer backgrounds.

The ceiling should be lighter than the walls, and the walls lighter than the floor. Light colors of flat-tone wall paints are best for ceiled and plastered walls. Ivory, cream, and light buff, with lighter tones for the ceiling, make good backgrounds in almost any room.

Color Scheme

In selecting a color scheme for a room there should be considered:

1. The location or exposure
2. Size of room
3. Amount of light
4. Type of person to occupy room
5. Relation to other rooms in the house.

The woodwork is a part of the wall and should be the same color but slightly different in texture or finish. The walls should be a dull, soft flat finish, and the woodwork should be semi-gloss washable finish. High gloss enamels should be avoided. They are not nearly as pleasing and beautiful as the partial or semi-gloss. Cream walls with ivory woodwork, or visa versa, would always be a pleasing color plan for walls and woodwork in any room. It makes possible many more uses of colors in furnishings, window treatments and accessories.

If tinted walls are desired, the furnishings to be used in the room must be considered. For instance, one of the rug colors may be carried up into the walls, or it be a bedspread or picture that will determine the color for the walls. In any case where colors, other than ivory, cream or light buff, are used, they should be very high in value and very soft. The ceiling should be light cream or light ivory in most cases. If the wall color is used on the ceiling, it should be made at least several shades lighter than the walls. This can be done by adding white paint.

Painted Walls

There are two kinds of paints for using on plain walls:

1. Water paint (calcimine)--inexpensive but not very lasting.
2. Oil paint--more expensive than water paint but the most permanent finish.

Water paint is easy to apply and when done correctly, will not rub off. Soiled spots on a water paint finish can often be rubbed off with art gum. When this finish has to be removed, the old finish will have to be washed off before

applying the new. This is easily done by using a large sponge or soft cloth and brush and warm water. A little vinegar should be added to the water to neutralize the lime in case the new finish is to be wallpaper.

Oil painted walls give a durable, hard surface that resists stains and can be washed time after time and appear like new. Both types of wall paint may be used on plastered walls.

### Papered Walls

Although it is rather difficult to apply, wallpaper is the most pleasing and satisfactory finish for a girl's room. Papering should not be attempted by first and second year girls but may be done by older boys and girls with the help of their parents or some older person. Those who plan to do the work themselves should make a special effort to go and observe an expert paper hanger. Many good points may be gained by so doing.

### Color and Design in Wallpaper

Some characteristics of good colors and designs:

1. Flat appearance against the wall.
2. Slight contrast in color values.
3. Absence of metallic glints.
4. Conventional rather than realistic designs.
5. Color and pattern evenly distributed without appearing crowded, straggling, spotty, or crawling.
6. Pattern should be in scale with the size of room and the furnishings.
7. Small chintz patterns, polka dots, small vertical stripes, and diamond patterns are suitable for girl's room.

### Borders

Borders are not needed in the average room. Picture molding is best used at the intersection of walls and ceiling. If the ceiling is too high in proportion to the size of the room, the ceiling paper should be brought down on the side walls 10" to 15" and the picture molding placed where the side wallpaper and the ceiling paper come together. If borders are ever used, they should be narrow, very inconspicuous in colors and design and should match the paper. They serve only as a finish similar to picture molding and a wide elaborate border stands out and attracts undue attention.

### Paste for Wallpaper

1. Ready-mixed paste, except cold water which is to be added, may be secured from any firm that sells wallpaper. It is not expensive.

2. Recipe for making enough for an average or large room:

3 pts. flour	8 qts. boiling water
2 qts. cold water	2 T. powdered alum

Make a paste of flour and cold water, adding water gradually and stirring and beating to avoid lumps. Then add boiling water and boil slowly for about 10 minutes, stirring continuously. When cool, stir in the powdered alum,

### Ceilings

Ceilings are best plain and they should be the same color as the walls but several shades lighter. Dead white ceilings should be avoided. A light cream ceiling is good with ivory, light tan, light green or light peach walls, and an ivory ceiling is good with tan or buff walls.

### Woodwork

Woodwork is usually painted. Semi-gloss or partial gloss is much more beautiful than pure high-gloss enamel and withstands washing just as well. The woodwork should be the same color as the walls and it should be several shades darker or lighter in value, preferably lighter. It should be the same color as the background in case figured wallpaper is used. This makes irregularities in woodwork less noticeable than a contrasting color. Woodwork of rooms that open into each other should be the same color or hue and of different values if a little difference is desired. Very dark woodwork with a light wall is too strong a contrast and should be avoided.

### Application of Lesson:

1. If walls and woodwork need to be refinished, determine the type of finish-- wallpaper or paint (oil paint or cold water paint). The decision should be based on:
  - a. Condition of walls and woodwork
  - b. Furnishings
  - c. Cost
  - d. Complete color scheme for the room
2. If wallpaper is to be the finish, collect and mount in notebook samples of paper suitable for a girl's bedroom. Study prices. Consult home demonstration agent for advice, then make final choice.
3. Study carefully (and observe if possible) the hanging of wallpaper. Those who plan to do the work themselves should get the help of older brothers or sisters or parents.
4. If paint is selected, make a collection of paint color cards and mount in notebook. Consult home demonstration agent, then select color for walls and woodwork. Follow directions on paint can when painting.