Human intelligence has in the past given its full force to the improvement of cattle and crops. Just as much so should it be directed to the simplifying of our household duties, "too long dominated by the sway of ancient custom." Efficiency in the administration of her household, is the modern homemakers' ideal, the object of her practice. To approach this ideal she must herself be efficient. She must have efficient tools, whether they be for cleaning, cooking, serving or sewing. The plan of the house must be for efficiency. Health, time,
and labor are too valuable to be wasted by the shortcomings of a badly planned house.

**Kitchen as a Workshop.** Since the kitchen is the workshop of the home it should be given due consideration. It is not particularly for the purpose of presenting definite plans of kitchens for those building new homes that this bulletin has been prepared; but the writers' hope, through this bulletin, to assist in making the kitchen lived in, more convenient, approach their maximum efficiency, and to create an interest in and a greater use of, true labor savers.

Many useful devices and appliances must necessarily be omitted. Incomplete, however, as the presentation of this matter must be, it can be studied to best advantage under two heads.

1. The kitchen—Its plan and arrangement.
2. Kitchen equipment and labor savers.

**KITCHEN PLAN AND ARRANGEMENT.**

**Location.** It is impossible to plan a model kitchen to suit all people under all conditions; still there are some common principles which apply to all kitchens. In this brief discussion, the location will first be considered. This room should not be on the side of the house facing a dusty street, or in such a relation to the barnyard that the prevailing winds carry the odors into this room. One with a northeast or southeast exposure will be more comfortable in which to prepare supper on hot summer nights.

**Size.** If the meals are to be prepared and served in the same room, a larger kitchen will be required. Otherwise a moderately small kitchen is best, as needless steps are saved in going from pantry to work table, stove, and sink.

A plan is given below, Figure 1, showing the rearrangement of a large farm kitchen.

The original room was 15 feet by 19½ feet and contained a work table, range, cupboard, and dining table very inconveniently placed in one undivided space. In the rearrangement, the cupboard has been built so it projects into the center of the room, forming a partition which divides the original space into a kitchen and dining room. A sink was installed on one side of the room between the range and window, bringing the drain board in front of the window. On the right side of the sink is a zinc covered drop-leaf shelf, a very desirable
place to set hot pans and kettles from the range. Beneath this shelf is space for the fireless cooker. Above this table is a cupboard for cooking utensils. A window cooler was placed outside the window by the sink. A broad shelf or counter extends across the end of the room giving ample space for the preparation of food. The flour bins and drawers beneath contain supplies and equipment. The cupboard in the corner above the table affords space for spices, baking powder, extracts, etc.

Outside the window at the end of the room is a parsley box. The dish cupboard opens on both sides, thus saving

A REARRANGEMENT OF A LARGE FARM KITCHEN
many steps. There is one long drawer on the dining room side for tablecloths, and smaller drawers for napkins and silver. The tea wagon, when not in use, stands before the window near the range. At the right of the range is the wood box and behind it the hot water tank. There is a small door opening into the wood box from the screened porch, thus saving the carrying of the wood through the kitchen. There is a small ventilated broom closet above the wood box. The windows in this room are well arranged for ventilation. A hood over the range would be a desirable aid in carrying off odors from the cooking.

The large porch on this house has been screened. A lavatory is placed on the porch near the outside door, giving the men a place to wash. Hooks placed on the wall in the corner near the door of the living room are convenient for rain coats. A chest of drawers, opening on the porch, is placed under the dining room window, making a place to store rubbers, shoes, blacking brushes, etc. On the top of this chest is a place for potted plants.

In brief, the secret of remodeling a kitchen is to make it an attractive and convenient work room, easily cleaned.

STUDY OF KITCHEN EQUIPMENT.

We can suggest no better way to improve the kitchen than to sit down in an easy kitchen chair with pencil and paper and write out its good and bad points, noting what can be done to make the good ones better and to do away with the bad ones. Weed out every utensil and device which you do not know to be useful.

Many questions may present themselves during this critical study of the kitchen. In considering equipment for efficiency, four things should be taken into consideration:
1. COST. We must necessarily consider the price of the article.
2. CONVENIENCE. Is it the article which will meet the need best?
3. WEARING QUALITIES. Will it last?
4. SANITARY ASPECTS. Is it sanitary in every way? Easily cleaned?

In the following pages a few of the very useful and simple articles of temporary equipment, which should be given consideration, will be discussed. The four points mentioned
above have been taken into consideration in selecting these articles of equipment.

The Work Table. The work table should be all its name implies, a place to work. Materials and utensils should be near at hand.

Figure 2 shows an ordinary kitchen table with utensils out ready for work. This table is large enough for ample working space; is simple, inexpensive, and neat. The table was made high enough for the worker by the use of small blocks with castors, placed under each leg. These blocks are held in place by iron pins extending into the end of the table leg and also into the blocks.

The height of the work table should be such that the worker could stand erect. For the woman of average height this will be from 32 to 34 inches. Each worker, however, should raise or lower the table, stove, or sink to suit her height.

Fig. 2. Modified table and useful tools.
Clock. No kitchen is complete without its clock, which should be simple in design and placed where it may easily be seen from stove and table.

Some Desirable Kitchen Tools.

<table>
<thead>
<tr>
<th>Articles</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooden Spoon</td>
<td>$.25</td>
</tr>
<tr>
<td>Vegetable slicer</td>
<td>.35</td>
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<tr>
<td>Vegetable ricer</td>
<td>.35</td>
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<tr>
<td>Double boiler, aluminum</td>
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<tr>
<td>Measuring cup</td>
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<tr>
<td>Ladd egg beater</td>
<td>.35</td>
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<tr>
<td>Food chopper</td>
<td>1.25</td>
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<tr>
<td>Spatula</td>
<td>.15</td>
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<tr>
<td>Mixing bowl</td>
<td>.25</td>
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<td>Scales</td>
<td>.75</td>
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<tr>
<td>Bread mixer</td>
<td>1.50</td>
</tr>
<tr>
<td>Steam cooker</td>
<td>2.50</td>
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<tr>
<td>Lemon reamer</td>
<td>.10</td>
</tr>
<tr>
<td>Dish drainer</td>
<td>.75</td>
</tr>
<tr>
<td>Paring knives</td>
<td>.25</td>
</tr>
<tr>
<td>Bread knife</td>
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If the kitchen is large, a rocking chair gives opportunity for an occasional rest to renew energy for the kitchen work.

Fig. 3. Comfortable Rocking Chair.

The Parsley Box. Just outside the kitchen window in summer and inside in winter, is the ever-ready box of parsley, both useful and ornamental. How many times would the busy
housewife garnish the meat dish or add to the seasoning of the soup if the parsley were only near at hand.

A small wooden box 6x8 inches, the length of the window, is of sufficient size to grow this parsley.

The housewife plans to make her dishes attractive by simple garnish.

Roll of Paper. The roll of paper such as is found in stores is a convenience rarely found, but one worth having. Paper of this kind may be at hand for lining cake pans, covering cupboard shelves, wrapping occasional packages, and many
other purposes. The cost of paper would be less than 50c a year for the average home.

The handy boy can make a holder for the roll of paper and a ball of twine may be hung above.

The Cooler. In the older house the cooler was not built in when the house was built, hence no provision was made for it. In the north or east window of the kitchen or pantry of such a house, the simple and useful cooler may be placed. It may be made the height to meet the needs of the housewife and wide enough to fit the window. The roof should slant and extend over the back to protect the inside from the weather.

The one in Figure 6 is made to fit under the window sash with a door on the inside which opens from the top and forms a convenient shelf on which to rest the dish which is being placed in or taken from the cooler.

The Wheeled Service Tray. Many of the wheel-trays or tea-wagons on the market are too fancy and too expensive for real use. One can be made at no great cost of time or material and be the means of saving the thousands of steps which are necessarily taken in the preparation and serving of meals without the use of the tray.

The handy boy or man about the house can easily make one similar to the one shown in the diagram. Dimensions are given in Figure 7. Any available wood may be used in this tray. If finished in hard varnish, it will be found satisfactory.

Material required and approximate cost.

9.5 Board feet required. Fir at $40 per M=$.38. Oak at $100 per M=$0.95.
Fig. 7. The wheeled service tray; dimensions and plans.
The cost of the wheels will depend upon circumstances. Rubber-tired furniture casters may be used satisfactorily. The larger the wheel, however, the smoother will the wagon run. Eight inches is the desirable size for these wheels. The wheels of a child's go-cart or doll carriage have been used for this purpose and have given satisfaction. The cost is very little. Separate rubber-tired wheels, equipped with swivels, may be obtained from manufacturers who put out such devices as wheeled trays commercially. These vary in price. Consult your furniture or hardware dealer.

The bread mixer in many homes is indispensable and should find a place wherever bread is made at home. For the average family the medium size, where four to six loaves may be made at once, is best.

The Dish drainer economizes in time and labor when dishes are to be washed. With use of hot water and the wire basket, the towels are saved and the dishes are more sanitary.

Fireless Cooker. The fireless cooker must have a prominent place in the modern kitchen that is equipped for efficiency. Food cooked in a well-made fireless cooker, is wholesome and nutritious. Fuel and labor are both saved by the use of the cooker. It is important that a cooker be selected with seamless lining and seamless cooking utensils. This means a great saving in cleaning the appliance. For the average family use, a three-compartment cooker is not too large.
1. Have you made an inventory of your kitchen, noting the good and bad features? If not, why?

2. Were your sink and work table a convenient height for you? Did they need a block under them?

3. Did you make any changes after studying the bulletin?

4. Did you have any suggestions which would be of value in some other kitchen? If so, will you please give them?

5. What labor savers have you added to your kitchen equipment? At what cost?

6. What do you consider your greatest labor saver in your kitchen?