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AGRICULTURAL EXTENSION SERVICE
B. W. KILGORE, DIRECTOR

PLANS FOR COMMUNITY CLUB WORK IN THE STUDY OF FOODS AND HOUSEHOLD CONVENIENCES

PREPARING FOR THE DEMONSTRATION

RALEIGH AND WEST RALEIGH

INTRODUCTION

To Home Demonstration Agents in North Carolina:

Now that the Canning Club work is on a good, solid basis, it is planned to devote more time to the organization of Home Demonstration work amongst the women on the farms and in rural communities. In each county you can arrange to bring these women together in clubs, selecting for this purpose first, the communities which you find are showing the greatest interest in women's organizations, and gradually interesting your whole territory. The motives operating to bring women together in such an organization must be considered, and to that end an outline is presented, which will suggest lines of work to be followed by the different county organizations as the wishes of the women indicate.

To Increase Income.—Canning and preserving; Poultry and the egg circle; Butter and cream shipment; Coöperative marketing of farm produce; Rug weaving.

For Home Betterment.—Preparation of foods and the balanced meal; The curing of meats; Home conveniences; Sanitation.

Social.—Community meetings for men and women; Entertainments to make country life attractive.

These clubs should be called Home Demonstration Clubs, and should be organized with a president and a secretary. Whatever line of work is taken up by the club should be pursued by demonstration methods, and results noted and recorded by the county agent.

Regular days of meeting should be decided upon, and requests for assistance from this office must be sent in early, that an itinerary may be planned for the force sent out to demonstrate principles and to assist in organization.

The past year has proven that work along the line of home economics, food values, and the preparation of foods is much in demand. Looking at the needs of the women and girls of the State, Miss Minnie L. Jamison, who has come to the Division of Home Demonstration Work of the Extension Service in the capacity of Food Specialist, has prepared the following circular, which is presented with the belief that it will follow up the demonstrations in the field most effectually.

JANE S. McKIMMON,
State Agent Home Demonstration Work.

PLANS FOR COMMUNITY CLUB WORK IN THE STUDY OF FOODS AND HOUSEHOLD CONVENIENCES

MISS MINNIE L. JAMISON
Assistant in Home Demonstration Work

CLASSIFICATION OF FOODS

Important Sources of Proteins: Tissue Builders.—Milk; eggs; meat; fish; cheese; peas; beans; lentils; some nuts, and the whole grain in cereals.

Important Sources of Fats: Fuel Foods, Activity Foods.—Butter; cream; olive oil; cotton-seed oil; bacon and other fat meats; nuts.

Important Sources of Carbohydrates: Starch and Sugar; Energy Foods.—Cereal products; potatoes, rice, tapioca, and other starchy vegetables; sugar, honey, molasses, sweet dried fruits.

Important Sources of Mineral Matter, or Ash.—Green vegetables, fruits, and salads.

All measures given in this circular are level.

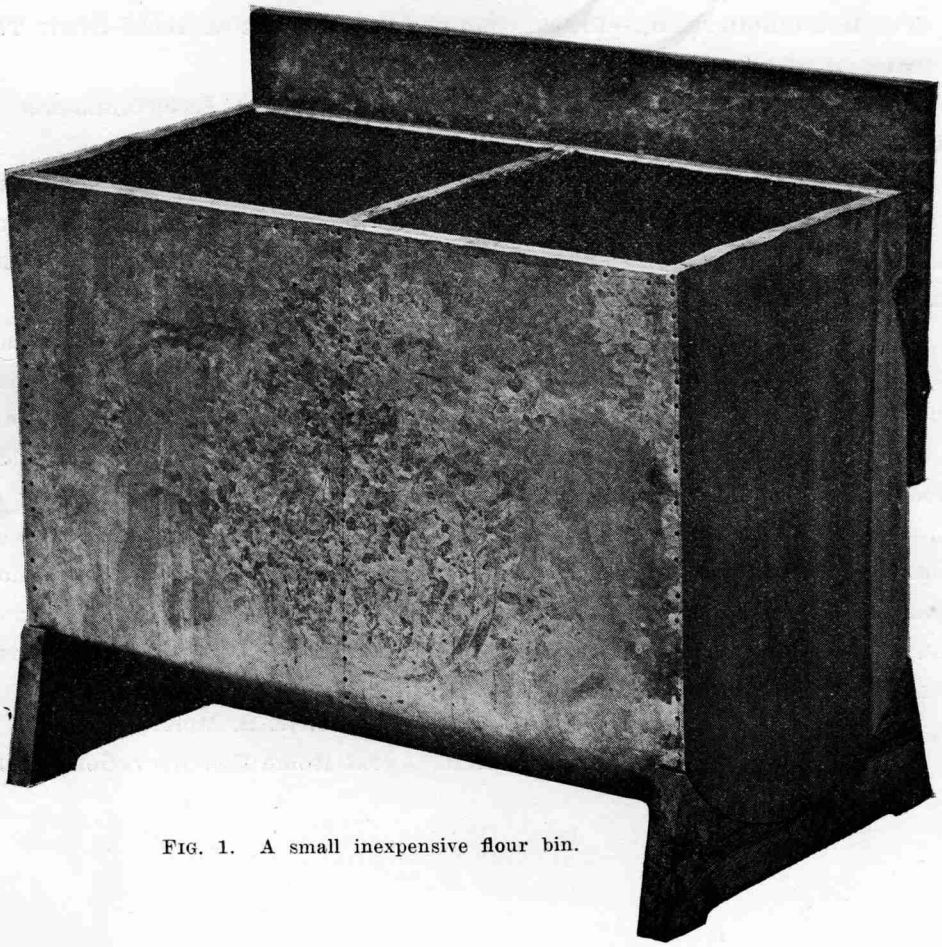


FIG. 1. A small inexpensive flour bin.

HOME CONVENIENCES

MOP—BROOM HANDLE.—Cut the broom handle off at wires, fasten old woolen stockings or soft woolen skirt pieces to the handle and slash into ½-inch strips about 10 or 12 inches long. The broom handle should be covered at the wire end and these strips sewed to it in rows about ¾ inch apart until you have the thickness desired. Dip the mop into ½ cup of melted paraffin and 1 cup coal oil and allow to dry. To keep moist, roll tight and keep in a paper bag.

When the mop needs cleaning, wash in warm soapy water and dry in the sun. Moisten with any good furniture polish.

A hearth-broom handle may be used to make a duster of same kind.

FLOOR MOP.—Buy a 10-cent mop, cut off the cotton strings, and sew as many strips of old woolen cloth on the binding or frame as it will hold. These strips should be 8 or 10 inches in length. Dip in kerosene and paraffin—½ cup of each.

FURNITURE MOP.—Buy a dish mop, cut off about 1½ inches of the cotton strings, and sew strips of old woolen cloth to the cotton strings left on the mop. These strips should be 3 to 5 inches long. Dip in kerosene and paraffin—equal quantities of each.

TABLE WITH PIGEON-HOLES, ON ROLLERS.—Another great step saver is made by putting a back on your kitchen table. It answers the purpose of a cabinet and is much more easily kept clean.

FIG. 2. This table answers the purposes of a cabinet and is much more easily kept clean.

Arrange the back in compartments or divisions—some large and others small, to suit your needs. On the back of the table and under the shelves place the small brass cup-holders for hanging things. Where you wish to hang heavier things, place small nails. By this means all of your small articles, like spices, soda, cream of tartar, baking powder, etc., may be placed on the shelves near, so that you need not rise from the stool on which you are working. By a little thought in planning your work and getting materials together, the whole dinner, practically, may be finished at this table. Paint legs and drawers dark and top white, and then enamel top, or tack white oil-cloth over top.

ROLLER TRAY MADE OF OLD-FASHIONED WASHSTAND.—The wash-stand has a flat top with rod at either end; a drawer just underneath the top, and a shelf about two-thirds of the distance between top and bottom. Place this on rollers, and it makes quite an attractive tray if painted white, then enameled.

ICELESS REFRIGERATOR SPECIFICATIONS AND INSTRUCTIONS.—Forty inches high, 20 inches wide, 12 inches deep, shallow pan 20 inches wide for top, and longer pan for bottom.

Make a wire cupboard, using light-weight lumber for the framework. For the four posts use lumber 1 inch square.

1. Measure 12 inches below top and brace with lumber 1 inch square. Place the first shelf on this brace.
2. Measure 12 inches below the first shelf and brace for second shelf.
3. Measure 12 inches below the second shelf and brace for third shelf. Cover with 36-inch wire, beginning at the lower shelf. This will require only one cutting of the wire.
4. Make the door of the same framework, with a brace on the diagonal to keep the wire from sagging. Cover with wire. Fasten with a wooden button, cupboard catch, or staple and hook.
5. Cover with an old, clean sheet, beginning at the bottom shelf and tacking at each corner with brass-head tacks. Allow 8 or 10 inches of sheet above the refrigerator to act as wicks or carriers of moisture.
6. Place a shallow pan of water on the top of the refrigerator and place the wicks in it. The theory is that of capillary attraction. The water is drawn through the wicks downward and the air in motion causes sufficient evaporation to keep the contents within down several degrees lower than the outside air. If there is no movement of air where your refrigerator is placed, it will not do the work.

The iceless refrigerator is especially fine for keeping fresh meats, fresh vegetables, and fruits. If the air is in good **brisk** motion, it keeps milk and butter well; otherwise, it does not do the work for them.

The iceless refrigerator may be built any height and any width you wish, but the space from front to back—across the shelf—must not be over 15 inches.

REFRIGERATOR FOR SMALL MEANS.—This refrigerator serves for a mother who has to feed her baby wholly or in part, and is very inexpensive, both as to material and ice.

Fill a clean box with sawdust. In the center place a large bucket. In the

center of this bucket place another bucket filled with pieces of ice. Put the milk or food in this bucket and put a tight lid on it. Line the lid of the outer box with two or three thicknesses of paper, and keep the bucket closed.

A SMALL INEXPENSIVE FIRELESS COOKER

Things needed: A butter or lard tub, a 10-gallon tin bucket with tight lid, 1 yard of asbestos sheeting, a soapstone.

Wrap the tin bucket with several thicknesses of paper, or moisten asbestos sheeting and plaster around the outside of tin bucket and lid; allow to thoroughly dry. Place the bucket in the center of the tub and pack the sawdust almost to the lid. Cut a piece of cardboard to fit the top of the tub just below lid of the tin bucket. When ready to use, heat the soapstone and place it in the tin bucket. Put the food in another close vessel, and when steaming hot put it on the hot soapstone and close the lid of each vessel. Have a pillow to fit the top, and keep closed until the food has had time to cook.

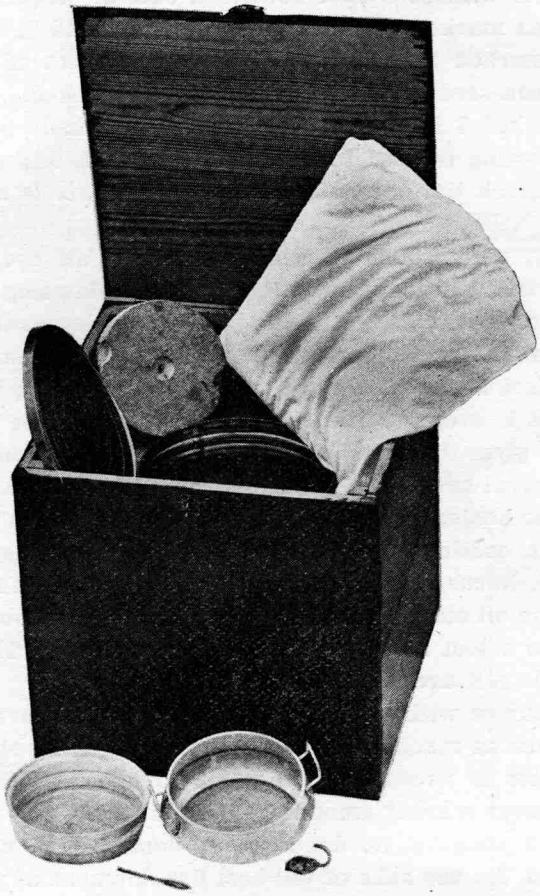


FIG. 3. A large inexpensive Fireless Cooker.

A LARGE INEXPENSIVE FIRELESS COOKER

A good box, 20 inches in length, 20 inches in width, and 20 inches in depth, a 50-pound lard tin, one sheet of asbestos, clean sawdust or ground cotton-seed hulls to pack.

1. Put a thick layer of dry sawdust or cotton-seed hulls in the bottom of the box (3-inch layer).

2. Wrap the sides and bottom of the lard tin with asbestos.

3. Place the lard tin in the center of the box—this will allow 3 inches of packing space on all sides.

4. Pack as tightly as possible with the sawdust or cotton-seed hulls up to within an inch of the top of the can, then cover with cement, or lumber may be tongued and grooved to fit around the mouth of the can.

5. Make a pillow 23″ x 23″ of any washable goods and fill lightly with the nonconducting material.

6. Make a lid to fit the top of the box and fasten with staple and hook.

7. Casters will make the box more convenient.

This outfit, including two soapstones, will cost from $1.50 to $3.00.

A MORE EXPENSIVE FIRELESS COOKER

Specifications for fireless cooker shown in cuts on pages 9 and 10:

1. The outer box marked 1 in the cut is built of good ¾-inch lumber.

2. The space marked 2 in the cut is a 2-inch space filled with mineral wool, ground cotton-seed hulls or sawdust tightly packed.

3. The line marked 3 in the cut is the inner box made of ¼-inch lumber.

4. Asbestos sheeting is used to cover bottom, sides and ends.

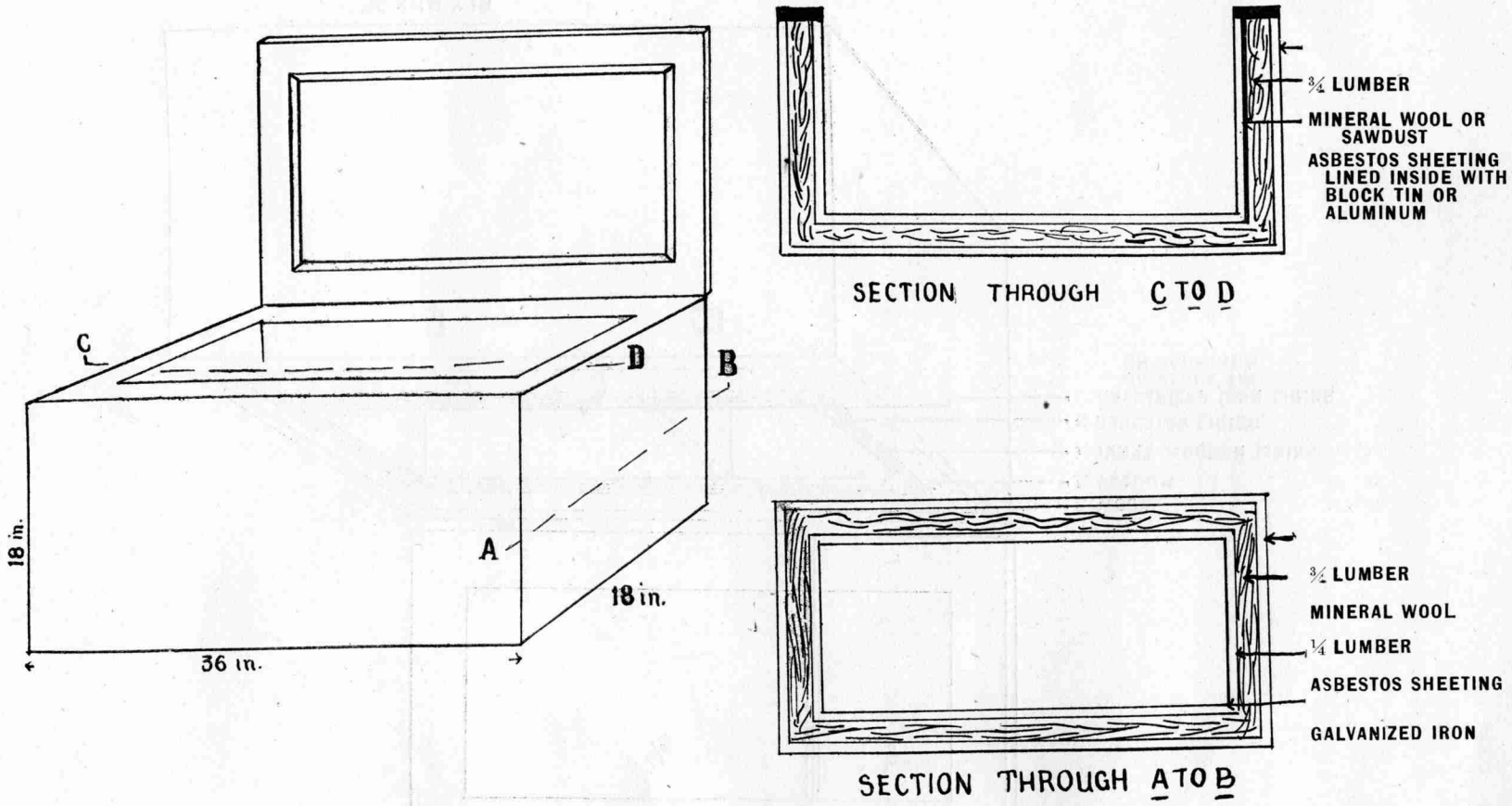
5. A lining of block tin, galvanized tin, or aluminum is necessary to keep the box clean.

In the country, where it is impossible to have all the conveniences of the city kitchen, the housekeeper by **thinking** and **planning** can save a great amount of hot, hard labor by gathering the vegetables in the late afternoon and keeping them in the iceless refrigerator fresh for use in the morning. While the breakfast fire is burning, the soapstones should be heated, and as soon as breakfast is over the dinner and supper should be put into the fireless cooker. This gives the entire day to cleaning, sewing, reading, club meetings, and the general care of the house and the children. In the winter the soapstones may be heated in the open fire. In the summer a universal alcohol stove, one burner, costing from $2.50 to $3, is of great service. This stove, if well regulated, burns about 2 cents worth of alcohol an hour.

A good kerosene oil stove is almost a necessity in the country kitchen. In buying **be sure to select a stove with a short chimney.** The Bon Ami, The Blue Bell, The Detroit are all good ones.

The kerosene stoves with **tall chimneys** are made to **burn** oil. They burn four or more times as much oil as the stoves with short chimneys.

A fireless cooker is twofold in its value to a housekeeper. When used intelligently, it saves a great amount of time, anxiety, and fuel, and, best of all, the long, slow cooking, no doubt, saves some of the vitamins in which you are interested, for the sake of the best development of your family. See Dr. Wiley's article, "Life in the Husk," in September (1916) Good Housekeeping.



A More Expensive Fireless Cooker (Cost $5 to $7)

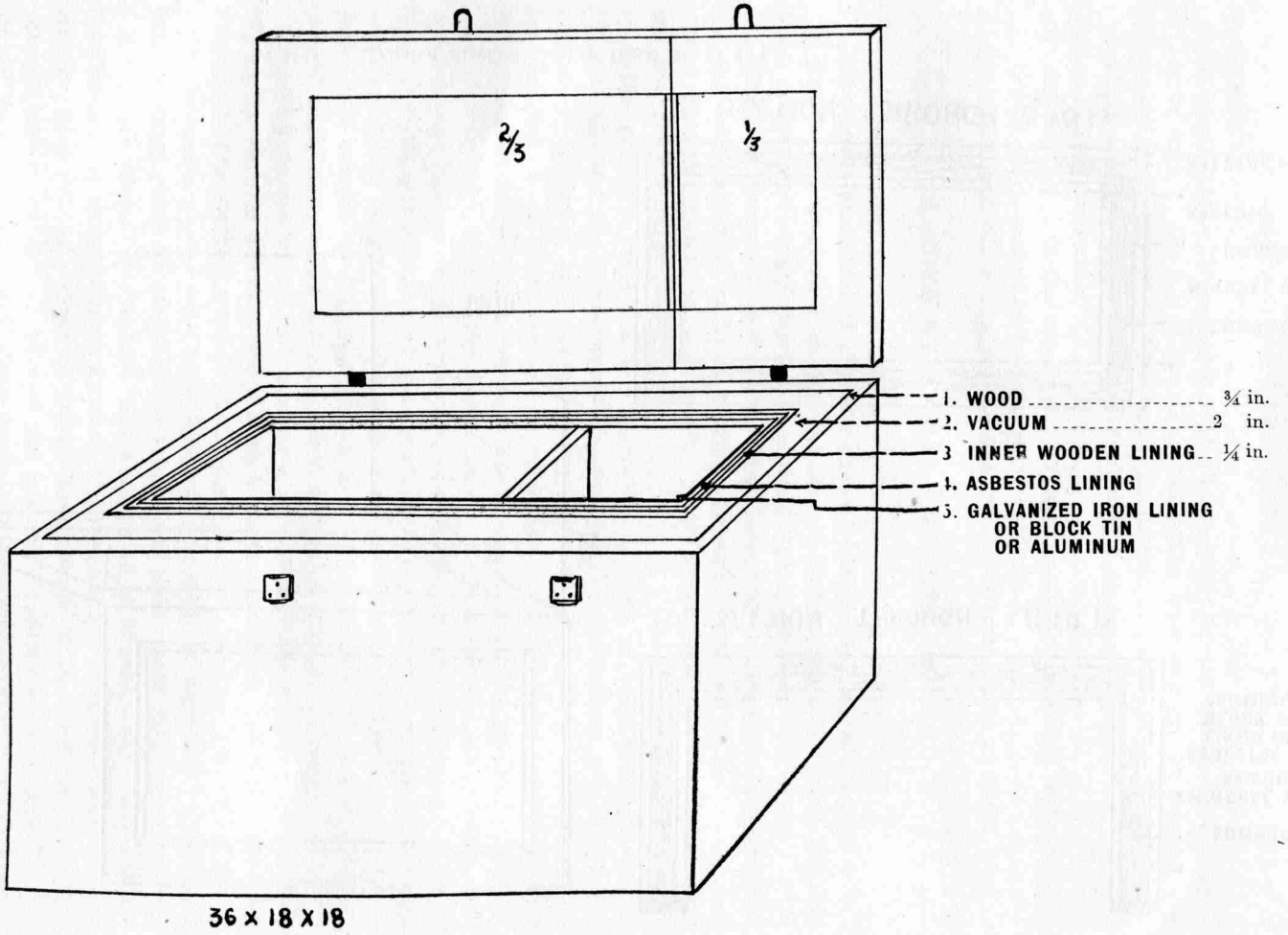


FIG. 4. A more expensive Fireless Cooker.

FLOOR FILLERS AND POLISHES

FLOOR FILLERS

Cotton-seed oil is **not** satisfactory as a floor filler.

Diamond Paraffin Oil is an **excellent floor filler.** Put the oil on with a paint brush and **rub in well** with a **woolen** mop.

The Standard Oil Company has agreed to sell this oil at 25 cents per gallon over North Carolina.

One gallon of this oil, if carefully used, will cover eight rooms—four rooms 12x16 and four 10x14 ft.—at a cost of 25 cents.

Linseed Oil and Japan Dryer as a Floor Filler.—If you prefer to do so, use 1 gallon of linseed oil mixed with 1 pint of Japan dryer, at a cost of $1 to $1.30 per gallon, as a floor filler.

FLOOR DRESSINGS

For New Floors.—Rub the floor filler in well and give the floor one or two coats of orange shellac. Allow the floor to dry between coats.

To 1 gallon of pure orange shellac use 1 quart of denatured alcohol. Mix well and put on the floor as quickly and as smoothly as possible. This will cost less than $3 for the eight rooms above mentioned if Diamond Paraffin filler is used. The cost will be $5 if linseed oil is used as a filler. This makes a rich golden finish.

If Color is Wanted in the Floor.—Bruise 1 gallon of green walnuts and cover with 1½ gallons of water. Let this stand overnight. Strain, and to the liquid add 5 cents worth of permanganate of potash. Dissolve thoroughly and put this stain on the floor with a paint brush. After this is dry, put the oil filler on the floor. **Rub well.** This makes a reddish brown floor, and is a very good finish at a cost of 30 cents for eight floors. If shellac is used in addition to the foregoing, the floor is kept from splintering and is more easily kept sanitary, as it gives a hard finish.

For an old floor that has been scoured until it is **toneless or lifeless,** dissolve ½ pound of raw sienna in the floor filler. Be sure it is thoroughly dissolved, and then go over the floor with the oil, using the paint brush. **Rub in well** with a woolen mop. This makes a light oak color, and it is very effective if orange shellac is used over it. The cost of this for the eight floors is 35 cents, without the shellac. With the shellac, the eight rooms will cost $3.05 if judiciously handled.

Old, dingy, dark floors may be made very attractive.—First, clean thoroughly, then cover the dark floor with **one coat of thin white paint.** The paint must be thin enough to look like a thin veil. After the coat of paint is dry, go over the floor with orange shellac. Two coats of orange shellac, costing about $3, will make new and attractive golden brown floors with the finish sufficiently hard to stop all splintering.

To Paint Old Linoleum.—Cut off the ragged edges, then stretch and tack closely. Paint the linoleum with a coat or two of any good wash paint or give it a coat or two of shellac and you will have practically a new linoleum.

The mops described in the first pages of this Circular are all the floor dressing you will need for these floors after they are finished.

If care is taken of the mops, they need not be redipped oftener than once in six months. When soiled, wash in lukewarm, soapy water and hang out to dry. In this way the dust and dirt are removed but the oil remains.

To Paint Ingrain Carpets.—

1. Clean the carpet.
2. Stretch and tack closely—1½ inches apart.
3. Make boiled flour starch and with a paint brush give the carpet a good coat. This is a filler.
4. Give the carpet a second coat of starch after the first is dry.
5. Give the carpet a coat of wash paint after the starch is dry.
6. Give the carpet a second coat of wash paint after the first is dry.

—(Suggestion from Southern Conference of Home Demonstration Workers, Washington, D. C.)

To Paint Cracked Window Shades.—If the shades are white, buy a can of white paint and thin it with a little turpentine, then paint one side of the window shade with a small paint brush. If the shades are green on one side and white on the other, paint the white side.

RURAL SCHOOL WORK FOR COUNTY HOME DEMONSTRATION AGENTS

OBJECT

1. To encourage coöperation between teachers and parents in planning a hot dish to supplement the cold lunch.

(a) The hot dish to supplement the cold lunch should be simple and must not interfere with the regular school duties.

(b) A cream or vegetable soup, cocoa, a cereal, rice and creamed eggs, boiled eggs, soft or hard—any of these can be prepared on the regular heater.

The preliminary work of preparing the hot dish should be done by the larger girls before school or at recess. This teaches good lessons in planning and conduces to **logical thinking.**

The boys should make a fireless cooker to aid in cooking the hot lunch. A table or cupboard may be made by the boys to keep supplies sent in by the patrons for the hot lunches.

2. To encourage coöperation among parents, children, and teachers in carrying out instructions at home where no equipment can be placed in the school.

3. Some enthusiastic woman will, no doubt, allow the larger girls and teachers to have a lesson or two in making and baking muffins, buscuits, rolls, etc., on her stove, and after a lesson is given, the work done by the students at home should be graded by the teacher and a record kept in record book or on the board. This stimulates interest.

(a) Samples of home work graded by teacher.

(b) Record of home work kept by teacher.

(c) Recipes and method of work to be neatly kept by the pupils.

(d) Each girl making a grade of 95 to be given this Circular.

4. Regular work in Domestic Science will be the outgrowth of the school lunch.

SUGGESTIVE COURSE FOR RURAL SCHOOLS IN DOMESTIC SCIENCE

An Outline of the First Year's Work

Subject: Food.

Teacher's Aim—

1. Train students to know foods and their uses in the body.
2. Effect of heat on different foods.
3. Habits of neatness, accuracy, skill, prompt obedience, logical thinking.

Student's Aim—

1. To gain a clear knowledge of foods and their uses in the body.
2. To gain skill in preparation of food and in table service.

LESSON I. Lessons on Apparatus:

1. Arrangement of kitchen.
2. Placing of apparatus.
3. Study of range.
   (a) Fuels.

LESSON II. Carbohydrates (Starch and Sugar).

See this Circular for recipes and food values.

1. Starch in Potatoes.

Practical work in as many lessons under each head as are necessary.

(a) Boiled potato.
(b) Baked potato.
(c) Stuffed potato.

LESSON II. (Continued.)

Starch in Cereals.

(a) Oatmeal—steamed.
(b) Rice—boiled.

LESSON II. (Continued.)

Starch in Wheat Flour.

(a) Popovers.
(b) Muffins.
(c) Baking powder biscuit.
(d) Sour-milk biscuit.
(e) Quick rolls.

LESSON II. (Continued.)

2. Sugar.
   (a) Cottage pudding.
   (b) Cheap cake.
   (c) Cookies.
   (d) Cup custards.
   (e) Mints (candy).

LESSON III. Fats and Oils.

Practical work in

(a) Mayonnaise dressing.
(b) French dressing.
(c) Cooked salad dressing.
(d) Fat meats.
   1. Bacon—broiled and fried.
   2. Ham—broiled and fried.

LESSON IV. Proteins.

1. Eggs.
   (a) Composition.
   (b) Effect of heat.

   Practical work.
   (1) Boiled eggs (soft).
   (2) Boiled eggs (hard).
   (3) Scrambled eggs.
   (4) Simple omelet.

LESSON IV. Proteins (Continued).

2. Milk.
   (a) Composition.
   (b) Food value.

   Practical work.
   (1) Junket.
   (2) Cup custard.

LESSON IV. Proteins (Continued).

3. Red Meats.
   (a) Structure.
   (b) Composition.
   (c) Effect of heat.
   (d) Methods of cooking tough meats.

   Practical work in tough meats.
   1. Rabbit with tomato sauce.
   2. Old fowl (fireless cooker).
   3. Steamed roast from shoulder or lower round.

   Practical work in tender meats.
   1. Smothered chicken.
   2. Fried chicken.

LESSON IV. Proteins (Continued).

4. Soups.
   (a) Potato soup.
   (b) Peas and tomato soup.
   (c) Corn soup.

LESSON V. Ash or Mineral Matter.

1. Green vegetables.
   (a) Canning—vegetables and fruits. (See Circular No. 11).
   (b) Cooking.
      1. Creamed turnips.
      2. Creamed cabbage.
      3. Boiled onions.
      4. String beans.
      5. Carrots.
      6. Turnip greens.

2. Fruits.
   (a) Baked apples.
   (b) Baked pears.
   (c) Prune whip.
   (d) Apple pie.
   (e) Peach compote.

LESSON VI. Simple Balanced Meals.

SUGGESTIVE COURSE FOR RURAL SCHOOLS IN DOMESTIC SCIENCE

An Outline of the Second Year's Work

I. Carbohydrates (Starch and Sugar).
1. Review of Starch in Potato.
Practical work.
(a) Creamed potatoes.
(b) Potato salad.
(c) Candied sweet potatoes (food value).

I. Carbohydrates (Continued). See this Circular for food values.
Cereals—Practical work.
1. Wheat.
(a) Wheat hearts.
(b) Cream of wheat.
(c) Whole wheat mush.
2. Corn.
(a) Grits.
(b) Corn-meal mush.
3. Rice.
(a) As a vegetable.
(b) As a cereal.

I. Carbohydrates (Continued).
Wheat Flour.
1. Bread flour.
2. Pastry flour.
Practical work.
(a) Muffins.
(b) Waffles.
(c) Griddle Cakes.
(d) Soft biscuit.
(e) Kneaded biscuit.
(f) Beaten biscuit.
(g) Pastry.
(1) Pumpkin pie.
(2) Lemon pie.
(h) Pocketbook rolls.
(i) Bread (loaf).

B. Corn meal.
1. Griddle bread.
2. Batter bread.
3. Muffin.

2. Sugar.
(a) Soft gingerbread.
(b) Cakes.
(c) Icings—syrups.
(d) Jellies. See Circular No. 11.
(e) Candies.
(a) French.
(b) Mints.

II. Fats and Oils.
1. Deep fat frying.
(a) Doughnuts.
(b) Croquettes.
(c) Deception wafers.
2. Mayonnaise dressing.
3. French dressing.
4. Cream.
(a) Whipped.
(b) Plain.
(c) Frozen.
5. Fat Meats.
(a) Sausage.
(b) Liver pudding.
(c) Trying out lard.
(d) Boiled ham (fireless cooker).

III. Proteins.
1. Eggs.
(a) Poached.
(b) Creamy omelet.
(c) Foamy omelet.
(d) Creamed eggs.
(e) Poached in chicken gravy.

Proteins (Continued).
2. Red meats.
(a) Hamburg steak.
(b) Broiled steak.
(c) Pan-broiled steak.

Proteins (Continued).
3. Poultry.
(a) Roast hen.
(b) Fried chicken.
4. Fish.
(a) Baked.
(b) Broiled.
5. Oysters.
(a) Stewed.
(b) Fried.
(c) Scalloped.
6. Cheese.
(a) Rarebit.
(b) Souffle.
7. Beans and peas.
(a) Baked beans.
(b) Pea soup.
8. Nuts.
(a) Sandwiches.
(b) Salads.

IV. Ash or Mineral Matter.
  1. Green vegetables.
    (a) Salsify.
    (b) Corn.
    (c) Kale, mustard, spinach.
    (d) Carrots.
    (e) Beans.
    (f) Garden peas.
  2. Fruits—fresh and cooked.
    (a) Baked apple pudding.
    (b) Peach pudding.
    (c) Prune whip.
    (d) Prune souffle.
    (e) Stuffed prunes.
    (f) Jellied apples.
    (g) Jellied pears.
    (h) Peach souffle.
    (i) Apricot souffle.

V. Table Service.

SMALL EQUIPMENT FOR RURAL SCHOOLS

1 stove or range
1 barrel and sink for kitchen water supply
1 meat chopper
1 vegetable press
1 can opener
1 meat knife
3 paring knives
1 bread knife
1 knife sharpener
1 large mixing spoon
1 set measuring spoons
3 measuring cups
3 Dover beaters
1 mayonnaise mixer (simple)
3 wire egg beaters
1 potato masher
1 colander
1 small puree seive
3 large puree seives
1 flour sifter
1 grater
1 nutmeg grater
3 moulding boards
3 rolling pins
1 lemon squeezer
1 quart measure
1 coffee pot
3 medium bowls
3 small bowls
3 large bowls
1 pair scales
6 teaspoons
6 tablespoons
6 knives
6 forks
1 teakettle (enamel)
3 double boilers (enamel)
3 small saucepans
3 medium saucepans
1 frying basket and pan
1 frying pan (heavy)
3 omelet pans (small)
1 cake pan
1 set (layer) cake pans
3 biscuit pans
3 pie tins
1 muffin pan
1 baking dish
1 bread box
1 cake box
1 flour bin
2 dish pans
1 dish mop
1 dozen tea towels

The above is arranged for a class of twelve, working in groups of four.

BALANCED MEALS IN THE LUNCH BASKET

2 brown bread, honey and butter sandwiches. (See this Circular for Brown Bread)
2 egg sandwiches
1 baked apple

1 pint milk
raisins and figs

2 chicken sandwiches
2 bread and butter sandwiches
1 baked pear
cookies

2 roast beef sandwiches
1 lettuce sandwich
1 cup of prunes
jumbles

1 ball of cottage cheese
2 brown bread and butter sandwiches
1 cup dried peaches

2 apricot sandwiches
1 egg sandwich
1 apple
cookies

1 cup potato salad. (See this Circular.)
2 lettuce sandwiches
1 baked pear
2 doughnuts

Milk, country nuts—walnuts, pecans, hickory nuts, peanuts—a cup of prunes, or other cooked, dried fruit, dates, figs, and raisins are valuable additions to the lunch basket.

Simple sweets, such as sponge cakes, cookies, doughnuts, with a little peppermint candy (See this Circular) may be allowed in the lunch basket. No rich butter cakes should be allowed in the lunch.

EGGS

If the young chick is developed from the egg without the aid of any external agency, save heat, it follows that eggs contain much protein (tissue-forming material) and mineral matter, because these are the materials out of which bone and blood are built.

COMPOSITION.—The white of the egg is made up principally of albumen and water. The yolk contains not only protein, but fat of a very assimilable nature. Yolks of eggs are especially rich in the quality of the mineral matter also. These are phosphorus, iron, calcium, potassium, and magnesium,

in the form of salts and other chemical compounds. The latter foods are necessary in making the chemical changes of the body, if health is to be maintained. They are also necessary for the development and growth of the bony structure of the child's body. Because of this fact, and the large percentage of protein and assimilable fat in the yolks of eggs, these are valuable food, especially for children and anæmic people.

The white of eggs is a valuable source of protein for the sick. Because of the mild flavor, the white may be combined with milk and many other cold drinks to increase the nutritive value of a liquid diet.

EFFECT OF HEAT.—Heat hardens and toughens albumen. Albumen coagulates **below** the boiling point. At about 160 degrees F. the albumen of the egg is a soft, tender, white jelly; therefore, eggs cooked **below the boiling point** are more digestible and wholesome.

SOFT-COOKED EGGS.—(1) Pour boiling water over the eggs, four to 1 quart; cover the vessel, allowing it to stand where the water cannot boil from 7 to 10 minutes, depending on consistency desired.

(2) Pour boiling water in both compartments of a double boiler. Put the eggs in the inner division; keep covered in a warm place for 8 minutes.

(3) Put eggs in cold water; bring the water to the boiling point. Serve immediately.

HARD-COOKED EGGS.—(1) Let eggs stay in a steamer 40 minutes. This makes the most digestible of all hard-cooked eggs.

(2) Pour boiling water in both compartments of a double boiler; put the eggs in the inner division; cover and place on the back of the stove, where water will not boil, for 45 minutes. The yolks will be granular and the whites will be firm. but not tough. Egg yolks cooked in this way are very valuable for undernourished children and convalescents.

3. Boil 30 minutes.

POACHED EGGS.—Break the eggs, one at a time, in a saucer, and slip them into a pan of boiling salted water. Remove at once to a cooler part of the stove, where the water cannot boil. As soon as the eggs are set, serve on buttered toast. Sprinkle with pepper and salt. Only fresh eggs can be poached.

SCRAMBLED EGGS.—Do not beat the eggs. Cut the yolks just enough to mix with the white, sprinkle with salt and pepper, pour into a hot, greased pan, and cook until set. Now lift the pan slightly and at the same time draw back with a spoon the part already set. If the cook is careful, this will make a pretty dish of white and gold.

CREAMY OMELET.—Eggs, 4; cream sauce, ½ cup; salt, ½ teaspoon; pepper to taste.

Beat the yolks, add cream sauce, salt and pepper; then fold in well-beaten whites; pour into a hot, buttered pan, cook slowly until set; fold, turn out, and serve at once.

CREAM SAUCE.—Milk, 1 cup; flour, 2 tablespoons; white pepper to taste; butter, 2 tablespoons; salt, 1 teaspoon.

Cream the butter and flour; add milk and bring slowly to a boil, stirring all the time. Add salt and white pepper.

OMELET.—Eggs, 3; milk, 1 cup; cold grits, 1 cup; salt, ½ teaspoon; pepper to taste; butter, 1 teaspoon.

Heat the milk and cold grits; separate the eggs and add the well-beaten yolks, salt and pepper to the milk and grits after it is cool, fold in the well-beaten whites, and bake in a buttered pan.

BAKED OMELET.—Eggs, 4; milk, 1 pint; flour, 2 tablespoons; salt and pepper.

Beat the yolks of the eggs; add flour, salt and pepper. When well mixed, pour in the hot milk, stirring all the time; then fold in well-beaten whites; pour into a hot, buttered baking pan, and bake in a moderate oven.

EGGS IN TOMATO SAUCE.—Make the sauce as in Oysters with Tomato Sauce. When the sauce is smooth, creamy, and very hot, drop in the eggs and cook just below the boiling point until the eggs are jelly-like or a little harder if you wish. Season with salt and pepper.

POACHED EGGS IN CREAM SAUCE.—Milk, 2 cups; butter 3 tablespoons; flour, 3 tablespoons; eggs, 4 to 6; salt and pepper.

Cream the butter and flour while milk is heating. When the milk is hot, add the creamed butter and flour, and stir until smooth. Season with salt and pepper. When about ready to serve, drop in the eggs and cook just below the boiling point until jelly-like or as hard as you wish.

BAKED EGGS.—Beat the white of the egg until it is light. Put into a buttered baking dish. Drop the yolk in the center and bake in a moderate oven. Sprinkle with salt and pepper. Serve on a plate garnished with a sprig of parsley. This is an attractive, appetizing-looking breakfast for an invalid.

STUFFED EGGS.—Boil the eggs by "Method 1" for hard-boiled eggs. Cut in halves lengthwise, mash the yolks to a paste, and season with salt, pepper, mustard, and vinegar.

(2) Cut the eggs in halves, lengthwise, mash the yolks and add about half the quantity of cold minced ham, chicken, or tongue. If ham is used, serve with a suspicion of mustard and cayenne. If chicken is used, serve with a little parsley. If tongue is used, serve with a few drops of onion juice.

CREAMED EGGS.—Hard-boil the eggs; cut into halves. Make a rich cream sauce and pour over the eggs, or better still, when stock is left from chicken or turkey, make a sauce of it by using ½ pint of stock, 2 tablespoons each of butter and flour.

Melt the butter, add the flour, stirring steadily to keep from burning; pour the chicken stock into the flour and butter and stir until smooth. Add seasoning, if necessary; pour over the eggs. Serve hot.

EGGS SCRAMBLED WITH TOMATO OR CHILI SAUCE.—Eggs, 4; salt and pepper, water, 1 tablespoon; tomato sauce, ¼ cup, or Chili sauce, 1 tablespoon.

STEPS FOR AMATEURS IN MAKING OMELET.—(1) Heat water. (2) Put ½ teaspoon butter in omelet pan and place over hot water. (3) Beat

yolks until thick and creamy; beat whites until stiff, but not dry. (4) Add 1 saltspoon salt, ¼ saltspoon pepper, 1 tablespoon of water to each egg's yolk. (5) Fold white into yolk. (6) Pour into hot buttered omelet pan; cover. (7) Cook over water without disturbing until omelet has doubled in size (about 5 minutes). (8) Put omelet in oven or under gas flame to brown on top. (9) Then hold over flame to brown bottom, being careful not to scorch. (10) Run spatula under omelet to loosen it; fold omelet over the opposite half from the handle of the pan.

GOOD CUTS OF MEAT

STRUCTURE.—Upon examination it will be found that the meat from a long-cooked soup bone will tear off in long, stringy fibers. By the use of a microscope one can see that these fibers or tubes are composed of bundles of these hairlike tubes, held together by a tough membrane called connective tissue.

COMPOSITION.—These fibers are filled with the life-giving muscle-juice and water, holding in solution proteins, mineral salts, and extractives.

EFFECT OF HEAT.—Heat coagulates the protein. The ideal to be aimed at in cooking meat, therefore, is to remove the raw appearance without hardening the proteins and the texture, and without the loss of the characteristic flavor of the extractives of the meat. To reach this ideal, care must be taken to expose the meat to a high temperature only long enough to coagulate the protein on the outside and close the openings to the tubes; then cook at a low temperature.

THE MORE EXPENSIVE CUTS OF MEAT.—The more expensive cuts of meat—the loin cuts—have nutritive value, texture, and flavor. Exposure to a high temperature for a short time coagulates the protein on the outside and by that means the juices are retained in the meat for their ultimate purpose—building body tissues and repairing waste. In the case of a tender or expensive cut of meat after the brief exposure to high temperature the meat should be placed where the cooking will be less rapid until it is as rare or tender as the family desires.

BROILING.—In the process of broiling the heat is conveyed to the meat by direct radiation. Expose the meat to a high temperature until the outside is seared; then cook slowly.

BROILED STEAK.—Cut the steak from 1 to 1½ inches thick. Trim, and wipe with a wet cloth. Broil over a hot fire, turning every 10 counts, until both sides of the meat are seared. After both sides have been exposed to the high temperature, hold further away from the coals and cook slowly until the steak is as well done as you wish it. Season with salt, pepper, and butter.

PAN-BROILED STEAK.—Rub over the pan with a piece of beef fat to keep the meat from sticking. Have the pan **very** hot during the first 3 minutes. Broil the meat on both sides; then reduce the heat. Season as in broiled steak.

ROAST OF BEEF.—Roast of beef, 4 pounds; a little suet; salt, tablespoon or more.

Try out the suet, put the roast in the hot fat, sear on all sides; then reduce heat and cook slowly in its own juices and fat until the roast is nearly done. When nearly tender, add salt, dredge with flour, and brown. Then add 1 cup of boiling water. Baste the meat every 10 minutes throughout the entire time of cooking. If liked very rare, allow 15 minutes to the pound; if liked well done, 20 minutes or more to the pound may be allowed.

BROWN SAUCE.—Flour, 1 tablespoon; fat, 2 tablespoons; pepper, 1 saltspoon; kitchen boquet, 1 teaspoon.

Stir the flour into the hot fat, cook until brown; then add 1 cup of boiling water and 1 teaspoon of kitchen bouquet; stir until smooth; add salt and pepper if more is needed.

BOILING.—The tough cuts of beef exposed to boiling water, sufficient to cover, and kept at this point for a few moments only, then cooked very slowly, are made more tender.

The fireless cooker is of excellent merit in the cooking of tough or cheap pieces of meat.

STEWING.—From an economic standpoint, stewing is an ideal method of cooking meats. If properly done, it coagulates without hardening the proteids, and owing to the fact that the juice is eaten with the meat, none of the flavoring ingredients are lost.

MUTTON AND LAMB.—Mutton is in season all the year round, and lamb during the spring and summer months.

LEG OF LAMB.—Drop the leg of lamb into a kettle of boiling water, to which has been added a very little red pepper. Cook slowly until half-done; then add the salt and cook until thoroughly tender; put in a pan, dredge with flour, season with pepper, and brown. Serve with Chili sauce or caper sauce.

CHILI SAUCE.—Tomatoes, 1 quart, sliced; onions, 4 medium size; hot peppers, 2 or 3; vinegar, 1½ pints; sugar, 2 tablespoons; salt, 1 tablespoon.

Cook slowly until dark brown and thick (2½ to 3 hours); strain, pushing as much of the pulp as possible through the strainer. Be careful not to let seeds pass in. Bottle. This sauce is delicious with all rich, red meats, and will keep indefinitely.

PORK.—On account of the great amount of fat it contains, pork is classified with the carbonaceous or heat-giving foods. Pork, if not thoroughly cooked, is both dangerous and unpalatable.

TRY-OUT LARD.—Cut the fat into small pieces, wash, and fill an iron kettle two-thirds full, and cook very, very slowly, to prevent burning, until

the cracklings are brown and crisp. Take the vessel from the fire, cool, and strain.

TO SALT MEAT.—When pork has cooled, cut into shape, rub salt into the meat, and pack, with plenty of salt, in the boxes. After four to six weeks, remove from the boxes, hang in a smokehouse and smoke from time to time. In the early spring scald the meat, cover with black pepper, sack, and hang for the summer.

SAUSAGE.—Meat, 4 pounds; salt, 4 tablespoons (level); sage, 1 tablespoon; black pepper, 1 teaspoon; red pepper to taste.

Chop meat, add seasoning and then put through chopper the second time. Use plenty of fat with the meat.

LIVER PUDDING.—Use the liver, jowl, and heart. Cook very slowly until the meat falls away from the bone. Put through a meat chopper; return to the fire, bring to the boiling point, add salt, red pepper, black pepper, and enough meal to make a good thick mush; cook slowly again until the meal is thoroughly cooked; cool, and, when ready to serve, slice and brown in its own fat.

POULTRY

SMOTHERED CHICKEN.—Clean, dress and split the chicken down the middle of the back; break the breastbone to make the fowl lie flat; steam in a covered pan from 20 to 25 minutes; dredge with flour, add salt, pepper, and butter, and brown in a quick oven, basting every 10 minutes.

FRIED CHICKEN.—Clean, dress and cut chicken in pieces; wipe dry, salt and pepper, and dredge with flour; put the chicken into hot fat, cook only a few minutes at this high temperature; brown on both sides, put back on the stove where the chicken will cook slowly. Cover, as soon as possible, with a close-fitting top, and leave it covered throughout the entire time of cooking. If cooked in this way, the meat will be very juicy and tender—not hard throughout, yet crisp and brown on the surface.

ROAST TURKEY.—Steam the bird until tender. In the meantime prepare the stuffing by mixing the crumbs, salt, pepper, a **little** thyme, and melted butter. When the fowl is stuffed, season with salt and pepper and brown on all sides in the oven.

DRESSING FOR TURKEY.—Crumbs, 1 pint or more; salt, 1 teaspoon or more; pepper, to taste; thyme, 1 saltspoon; butter, 3 tablespoons; oysters, 1 pint.

After the turkey is taken to the table, pan-broil the oysters. Season with salt, pepper, and butter, and serve over the dressing.

TO PAN-BROIL OYSTERS.—Drop two tablespoons of good butter in the chafing dish; add the oysters and cook until the oysters plump and the gills curl.

FISH AND OYSTERS

Proteid is the chief nutritive constituent found in fish, just as in meat. Fish are easily digested, except the red-blood variety. The latter has the oil distributed throughout the body and is often too rich for semi-invalids. The flesh of a fresh fish is firm, the eyes are clear, and the scales are bright. Fish should be cleaned as soon as possible after leaving the market.

TO CLEAN FISH.—Remove scales before opening, if the fish has scales. Scrape the fish from the tail toward the head with a sharp knife, holding the knife flat and slanting. Open the fish from the gills halfway down on the under side of the body; remove the intestines. The head and tail may be removed or left on as one wishes.

BAKED FISH.—Fish, 2½ to 3½ lbs.; bread crumbs, 1½ cups; salt, 1 teaspoon; parsley, 1 tablespoon; pepper, 1 salt-spoon; butter, 3 tablespoons; a few slices salt pork.

Dress the fish for baking, mix the stuffing by melting the butter and adding melted butter, salt, pepper, and chopped parsley to the crumbs. Stuff the fish and sew together. Make gashes on sides 2 inches apart and fill with thin slices of bacon. Try out a little of the bacon or pork and drop the fish into the hot fat. Cook a moment or two and then turn the fish over. After the fish has been exposed to heat on all sides, put into a moderate oven and cook slowly. When the fish is half-done, dredge with flour and add enough boiling water to cover the bottom of the pan. Up to this time the fish has had no water in the pan; it is baked very slowly in the bacon fat, and basted every 10 minutes in its juices and fat. Garnish with parsley and lemon, or serve with sauce Hollandaise.

SAUCE HOLLANDAISE.—Drawn butter, 1 cup; eggs, 2 yolks; onion, 1 teaspoon (chopped); juice of ½ lemon; chopped parsley, 1 tablespoon; salt, ½ teaspoon.

Make a drawn butter by mixing 2 tablespoons of good butter and 1 of flour to a paste. Place this over the fire and add 1 cup of boiling water gradually, stirring constantly until it thickens. Take from the fire immediately and pour over the yolks of the eggs, stirring steadily. Add the salt, lemon juice, parsley, and onion, and serve.

DEEP-FAT FRYING-OYSTERS.—Remove all pieces of shell, wash and dry between towels. Season the bread crumbs with a little cayenne and 1 teaspoon of salt to each cup of crumbs. Beat an egg slightly, dip the oysters in the egg, then in the crumbs, and fry in hot, deep fat. Fat should be hot enough to brown a crumb of bread in a short time. Drain on soft paper. Serve hot.

PAN-BROILED OYSTERS.—Remove all pieces of shell; drop in the chafing-dish 1 tablespoon of butter, add oysters and cook until the gills curl; add salt and pepper, and serve on toast.

OYSTER STEW.—Oysters, 1 qt.; milk, 1 pt. or more; salt, 1 to 1½ teaspoons; butter, 3 tablespoons; pepper, ⅛ teaspoon.

Heat the milk in a double boiler, add butter, salt, and pepper. When the dinner is ready to serve, drop the oysters into a hot, heavy pan with 1 tablespoon of butter and broil until gills curl and the oysters are plump. Pour into the hot milk and serve at once. This gives the broiled taste.

SCALLOPED OYSTERS.—Oysters, 1 qt.; salt, 1 teaspoon; butter, 2 tablespoons; flour, 2 tablespoons; milk, 1 cup; pepper, 1 saltspoon; cracker crumbs, 2 tablespoons.

Pan-broil and drain the oysters; heat the milk in a double boiler. Add the creamed flour and butter to the hot milk, making a cream sauce. Season with salt and pepper. Put the oysters in a pudding dish, cover with the cream sauce, sprinkle the crumbs over the top and bake a few moments in a hot oven.

CHEAP MEATS

THE CHEAPER CUTS OF MEAT.—The cheaper cuts from the neck, lower shoulder, lower round, flank, and chuck-ribs have nutritive value, but lack in texture and sometimes in flavor.

The value of meat as a food depends, chiefly, on two classes of nutrients:

(1) Proteins, or those foods which build tissue and replace waste; and

(2) Fat, one of the great heat-producing foods.

Both the proteins and fats produce energy, but the proteins are too expensive to feed for energy; hence the necessity for a mixed diet.

The mineral substance or ash is very essential, also, although it is much less in quantity in meats than in green vegetables and fruits, and is a much cheaper form of food, as we get it from green vegetables, showing again the wisdom of a mixed diet, both from the standpoint of the body and the purse.

The chief difference to be noted between the cheaper and the more expensive cuts is not so much in their nutritive value as in their texture and flavor.

All muscles consist of threadlike tubes. These tubes or bundles of tubes are held together by connective tissue. In young, tender animals and in the loin cuts this connective tissue is very easily handled.

On the other hand, the cheaper cuts from the neck, lower shoulder, chucks, etc., are very tough, because the animal, in grazing, has used these muscles until they have become very tough and the connective tissue very strong.

In the case of a tough cut after the brief exposure to a high temperature to seal the openings to the tubes, the texure is brought up or retained by long, slow cooking, as in simmering, cooking in casserole, double boiler, paper bag, and the fireless cooker. In each case the philosophy is the same as the simmering point or cooking at 180 to 200 degrees F.

On the other hand, meats cooked at a rapid boiling rate are tough, because the action of the boiling water destroys the texture, while the long, slow cooking not only preserves the texture, but changes the connective tissue into gelatine or collagen.

Other methods of making tough meats tender are (1) grinding, (2) pounding in flour, (3) soaking in vinegar to make soluble the connective tissues, (4) hanging and freezing to develop the acids in meats.

When the stock or extract of the meat is of more importance than the meat, put the meat on to cook in cold water. By this means the greater part of the soluble protein, the minerals and extractives are served in the stock or gravy.

METHODS OF EXTENDING THE FLAVOR.—The flavor in meats depends mainly on certain nitrogenous substances called extractives, and there are various ways of bringing up the flavor. In good cuts, direct rays, as in broiling, retain the flavor. Little moisture, as in roasting, retains the flavor. In poor cuts, browning in flour brings up the flavor and by the addition of vegetables, sauces, and condiments the flavor is brought up. In poor cuts, long, slow cooking retains the flavor.

RABBIT.—Bacon fat, 2 tablespoons; flour, ½ cup; water, 1 cup; onion, 1 medium size; tomato juice, 1 cup; butter, 2 tablespoons; rabbits, 2; salt and pepper to taste.

Cook the onion to a golden brown in the butter, add tomato juice, salt and pepper. Dredge the rabbit with flour, and brown in the bacon fat; as soon as the meat is a rich brown, add the tomato sauce and water, and cook very slowly, until tender, on the back of the stove or in a fireless cooker.

BROWN BEEF STEW.—Buy the knee joint from the hindquarter. At the highest price it will not be more than 15 or 25 cents. Cut out all of the meat and save the bone and shreds of meat for soup. Cut the meat into small blocks and roll in flour. Try out about 2 tablespoons of beef suet or bacon fat, and brown the meat in the hot fat. When rich brown, cover the meat with boiling water, a cup of tomato sauce, salt and pepper, and place the steam-tight vessel where it cannot boil. A fireless cooker is of excellent merit when using very cheap meat. This is excellent.

TOMATO SAUCE.—Tomatoes, 1 cup; onion, 1 medium; parsley, 1 sprig; butter, 2 tablespoons; flour, 2 tablespoons; salt and pepper to taste.

Cook the onion to a golden brown in the butter; heat the tomatoes and parsley and strain; add the flour to the onion and butter and turn the tomato juice into it; stir until creamy, and add to the stew.

STEAMED STEAK, No. 1.—Use an inch cut from the round of beef. Clean, trim, and chop in flour; brown in hot beef fat or bacon fat (just enough to prevent burning); when brown, add 1 onion cooked in a tablespoon of butter, 1 cup of tomato juice, salt and pepper, with enough boiling water to cover, and cook from 45 minutes to an hour in a steam-tight vessel on the back of a stove, where it cannot boil. This will serve from six to eight persons, and is a very economical cut, because there is practically no waste.

Caution: Care must be taken, in the use of these inexpensive cuts of meat, not to burn the fat. The brown flour is a great means of extending the flavor of cheap, tough meats, but if the fat is burned it is changed from fat to fatty acids and glycerine, and becomes very indigestible.

STEAMED STEAK, No. 2.—The same as above, leaving out the tomato sauce and covering the steak after it is brown with boiling water.

TRIPE.—When using the canned tripe, season with vinegar, cayenne and a little salt; dip in flour and fry in hot fat, reducing the heat after the first few moments; cover and cook slowly until brown.

THICK CREAM SAUCE.—Milk, ½ cup; flour, 3 tablespoons; butter, 2 tablespoons; salt and pepper to taste.

HAMBURG STEAK WITH THICK CREAM SAUCE.—When suet cannot be used to make the steaks of cheap meats, mix ½ cup of thick cream sauce with a pound or more of the ground lean meat; season with salt and pepper, and broil.

ECONOMY IN THE MEAT DIET

While much is being written about the high cost of living, it is just as well to look at the question from every point of view and see if we cannot reduce the cost of high living to wholesome, simple living.

Economy in the meat diet may be observed in the home, not only by buying the less expensive cuts of meats and cooking them intelligently, but by using substitutes for meats which are valuable as food.

Many of these substitutes are not only valuable from the standpoint of economy in money, but are of great value from a dietetic standpoint. A break in the feeding of meat is of valuable importance, especially in the case of those suffering from uric acid conditions.

SUBSTITUTES FOR MEATS

STUFFED ONIONS.—Boil Spanish onions in salted water until nearly tender; drain and remove the core. Chop fine a little cold ham or beef and mix with the chopped core, adding salt and pepper to taste. Stuff the center of the onions with this, cover with cream sauce and bake until tender.

CREAM SAUCE.—Butter, 2 tablespoons; milk, 1 cup; flour, 2 tablespoons; salt and pepper.

Melt the butter, add the flour, mix until smooth; then add the milk and stir constantly until it thickens. Add salt and pepper and pour over the onions.

STUFFED PEPPERS.—Cold cooked ham, veal or beef, 1 pt.; milk, ½ cup; flour, 3 tablespoons; butter, 1 tablespoon; salt and pepper to taste.

Heat the milk, melt the butter, add the flour to the melted butter, and when thoroughly blended pour into the hot milk. Stir until thick, add salt and pepper, and mix with the meat. Take the core from the peppers, stuff and bake.

RAREBIT.—Cheese, ¼ lb.; cream or milk, ¾ cup; mustard, 1-8 teaspoon; salt, ¼ teaspoon; cayenne, a dust; egg, 1; butter, 1 teaspoon; toast.

Melt cheese over **hot water,** drop the whole egg into the milk and pour into the melted cheese, stir until it thickens. Season. Serve on toast.

BAKED BEANS.—Beans, 1 qt.; onions, 1; bacon, ¼ lb.; salt, 2 teaspoons; mustard, 1 teaspoon; molasses, 1-8 cup; Chili sauce, 2 tablespoons; tomato sauce, 1 cup.

Soak beans two or three hours, and when the skins are loose rub them between palms of the hands until they are removed. Then pour cold water through them and put them in the bean pot with the onion, tomato sauce, and Chili sauce. Bury the pork in the bean pot, add boiling water to the mustard, salt, and molasses sufficient to cover the beans, and keep them covered until the last hour of cooking. Then lift the meat to the top and brown.

TOMATO SAUCE.—Tomatoes, 1 cup; onion, 1 medium; parsley, 1 sprig; butter, 2 tablespoons; flour, 2 tablespoons; salt and pepper to taste.

Cook the onion to a golden brown in the butter. Heat the tomatoes and parsley and strain; add the flour to the onion and butter and turn the tomato juice into it. Stir until creamy.

RICE AND CREAMED EGGS.—Boil rice until thoroughly tender, drain and season with butter or cream. Prepare the eggs by the following method:

HARD COOKED EGGS.—Pour boiling water in both compartments of a double-boiler; put the eggs in the inner division; cover, and place on the back of the stove where water will not boil for 45 minutes. The yolks will be granular and the whites will be firm, but not tough. Remove the shells and slice or cut into halves and serve in cream sauce over the rice. (See "Cream Sauce" under "Stuffed Onions.")

When there are skins and bones left from a roast chicken the above may be made by boiling bones and skins to make sufficient stock to use instead of the milk in the cream sauce for the rice and eggs.

RICE AND CREAMED CHICKEN.—Mince cold chicken and reheat in the sauce made of stock from the bones and skins. Cook the rice so that every grain will be separate. Place the creamed chicken in the center of the platter and make a border of the rice.

RICE AS A VEGETABLE.—Rice, 1 cup; boiling water, 2 qts. or more; salt, 2 tablespoons.

Sprinkle the rice into the rapidly boiling salted water. Cook at this same temperature until the grains are tender, usually from 13 to 19 minutes, depending on the age of the rice. When tender, drain and place on back of stove to drive out the moisture. If the rice is not overcooked, each grain will be separate.

SCALLOPED POTATOES.—Mix cold mashed potatoes with 2 to 4 tablespoons of grated cheese, cover with tomato sauce and brown in the oven. (See "Tomato Sauce" under Baked Beans.)

BAKED CABBAGE.—Cook the shredded cabbage in boiling unsalted water until tender, drain and salt, then cover with tomato sauce and grated cheese. Bake a few moments in a moderately hot oven. (See "Tomato Sauce" under Baked Beans.)

MACARONI WITH CHICKEN.—Macaroni, 1 cup; salt, 1 tablespoon; water, 2 qts.; cream sauce, 1 cup or more; cold chicken, 1 cup or more.

Drop the macaroni into boiling salted water, cook until tender, drain, pour cold water through it to keep it from sticking. Put a layer of macaroni in the baking dish and a layer of chicken alternately, and cover with the cream sauce, or a sauce made of chicken stock.

When bits of beef are left from a roast or stew, the same may be used with macaroni and tomato sauce, as a meat substitute.

TOMATO JELLY.—Tomatoes, 1 quart; onion, 1 small; pepper, ⅛ pod (hot) or less; sugar, 1 teaspoon; vinegar, 1 cup; water, ½ cup; salt, 2 teaspoons (scant); gelatine, ½ box; cold water, ½ cup; cheese, 1 tablespoon; for each person.

Soak gelatine in cold water, boil the tomatoes, onion, pepper, sugar, water, and salt until tender. Strain, pushing as much of the pulp through as possible and pour, while hot, over the dissolved gelatine. Mould; serve on lettuce with mayonnaise.

When tomato jelly is used as a meat substitute 1 to 2 tablespoons of grated cheese and a few nuts should be sprinkled over each serving.

POTATO SALAD.—Potatoes, 1 pint (cold); parsley, 1 tablespoon; black walnut meats, to taste; shredded white cabbage, ½ pt.; onion (chopped), to taste; salt, to taste; eggs, 2 (hard cooked).

Mix with mayonnaise, or any good vinegar dressing.

CHICKEN SALAD.—Chicken, any amount; celery, ½ to ¾ the amount of chicken; salt, to taste.

Mayonnaise to mix, or a good vinegar dressing to mix.

MAYONNAISE DRESSING.—Olive oil, or Wesson oil, 1 pint; apple vinegar or lemon juice, 2 tablespoons; eggs, 2 yolks; salt, 2 teaspoons (scant); a dust of cayenne; whipped cream, ½ cup, if desired.

Beat the eggs, add a little of the salt, then add the oil, a little at a time, until the first gill has been added. The oil may be added more rapidly after this. When too thick, add a little good vinegar or lemon juice. Add the seasoning. Wesson's Snowdrift oil makes good dressing and costs about one-fourth as much as olive oil. The Wesson oil dressing is apt to separate if the oil is kept on ice. Keep in a cool place, but not in a refrigerator.

If the mayonnaise separates, begin with a new yolk and add, a little at a time, all of the separated mixture. A little patience will reap a reward. Fresh eggs are necessary for good mayonnaise. If celery cannot be found on the market and you wish chicken salad, use Kalamazoo pickled celery (one jar to two large chickens) and mix with finely shredded white cabbage. This makes delicious salad, and a little cheaper. This is especially nice where a large quantity is needed.

CURD CHEESE is a good protein food, and may be served as a salad for a meal when lean meat has been scant or not served.

Example: A ball of curd cheese with a few black walnut meats on lettuce with mayonnaise dressing.

Curd cheese may also be served with certain sweets at the close of a meal when lean meat has been scant or not served.

Example: A slice of guava jelly with a ball of curd cheese. (A Brazilian dish.)

Example: A ball of curd cheese with a little grapefruit marmalade and brown bread.

HOW TO MAKE A CURD CHEESE.—Set the milk that has just turned sour in a double boiler on the back of the stove until it is lukewarm, or a little above lukewarm. Strain through a cheese-cloth, season the curd with a little salt, and fresh cream if you have it, and make into balls the size of a walnut with two butter paddles.

The curd cheese is a good protein food and is not needed with the salad except when meat is scarce or is not served.

BEAN SOUP.—Beans or peas, 2 cups; tomatoes, 2 cups; stock or water, 1 qt.; onions, 1 medium; parsley, 1 sprig; butter, 2 tablespoons; flour, 1 tablespoon; pepper to taste; salt to taste.

Use beans that have been left from dinner. Cook the tomatoes, stock, parsley, and beans until tender. In the meantime cook the onions to a golden brown in the butter and add the flour. Strain the tomatoes and beans through a puree sieve, pushing all of the pulp through, rejecting only the skins and seeds. Reheat, and when steaming, add the onion, butter, and flour. Season with salt and pepper and serve. Beans and peas are good vegetable protein.

CREAM OF TOMATO SOUP.—Tomatoes, 1 can; soda, ¼ teaspoon; flour, 2 tablespoons; butter, 2 tablespoons; milk, 1 qt.; salt, to taste.

Heat tomatoes and press through a puree sieve. Reheat. Heat the milk in a double boiler and season with salt and pepper and thicken with the creamed flour and butter; when the sauce is smooth and creamy, add the soda to the hot tomatoes and pour the tomatoes slowly into the hot milk. **Do not put the soup** back on the stove. Serve at once.

PEAR SALAD.—Soft canned pears served with two tablespoons of grated cheese, a few nuts, stuffed olives, sliced, with a good serving of mayonnaise to each person, makes not only a beautiful dish, but a very nourishing one.

MILK AND BUTTER IN THE HOME

Many housewives would use more milk, butter, and cream or other dairy products in their cooking and in the preparation of the daily food if milk and its products were of a better quality. Many people who declare they do not like milk, if given a taste of good, clean, sweet milk, relish it and say it does not taste like the kind usually obtainable.

Milk is one of the most wholesome of foods, and is not used to the extent that it should be by either the city or country housewife. It is surprising to find in many country homes a shortage of milk; and not only that, but a small demand for it by the household. There is no cheaper food that can be grown on the farm than milk. It is easily digested and can be made readily available at all times of the year.

Many complaints are made by the housewives and others that their cow is giving milk that has something wrong with it; that it sours too quickly or does not sour at all. More than 90 per cent of these troubles, when traced to their sources, show that the cow is not to blame in any way, but that the trouble lies with the persons handling the milk. It is true that cows are often affected with some udder trouble that will produce lumpy or bloody milk. Most of the difficulties arise during the summer time, when the weather is warm and the milk has not been kept as cold as it should be.

There are two main viewpoints that might be taken into consideration in the care of milk in the home. First, at the farm home where the milk is produced as well as cared for and consumed; and, second, the city housewife who receives the milk from the milkman and cares for it after it is delivered. For the purpose of this discussion, the viewpoint of the farm home will be taken.

NATURE OF MILK

Average milk is composed of about 87 per cent water and 4 per cent fats and 9 per cent solids not fat. The solids not fat consist of casein, albumin, sugar, and mineral matter. In other words, milk consists of 87 per cent water and 13 per cent solids. Milk in itself is a well balanced ration for most animals and at the same time seems to be the ideal food for various molds and bacteria. A large percentage of water is required for rapid growth of bacteria and molds, and the various other food elements are present in the proper proportion. This fact must be kept in mind when milk is handled or cared for, as it is impossible to produce or handle milk without some contamination of bacteria. From the fact that milk furnishes perfect conditions for the growth and reproduction of bacteria, it will readily be seen that it is necessary to keep it as cold as possible to prevent contamination wherever it might occur, and thereby preserve it in a sweet and wholesome condition. Where milk, butter, and cream are better cared for, the quality is more attractive and consumption greater. The quality of most dairy products is largely judged by flavor.

The first step in the production of clean milk is to prevent the entrance of dirt and dust at any time. Normal milk in the cow's udder is sterile, and milk drawn with extreme precaution has been kept several weeks without souring. While this would not be practicable for ordinary purposes, it proves that the greater the care given the more it will assist the keeping qualities.

At milking time the person doing the milking must see that the cow is reasonably clean, well brushed, especially on the flanks and udder. If a damp cloth is rubbed over the udder, the teats dampened and the flank also, not a great deal of dirt will be removed but the falling of dust will be prevented during milking. Convenient arrangement of stalls and gutter and proper bedding will prevent the cow from getting unnecessarily dirty. If she is brushed every day, accumulations of filth will not occur.

The type of milk bucket used will influence the quality of milk largely, as the ordinary bucket is made wide at the top, presumably to assist the milker in getting the milk into the bucket. The newer types of milk buckets, with

the hood three-quarters over the top, or a small-topped bucket like the ordinary milk cooler, are best to use. It is true they are a little more difficult to milk in, but this cover will prevent many hairs, small sticks and straws and dirt from falling into the milk. Many think that the use of the strainer will remove everything that gets into the milk bucket. It must be borne in mind that only one-tenth of the dirt and contamination that gets into milk can be removed by the strainer, and that only the larger particles. When hair or straw falls into the milk, the clinging particles of dust and bacteria are dampened and fall away, leaving the particles much cleaner when caught in the strainer than when they fell into the milk bucket. The contamination has been left in the milk.

Various types of strainers are used, such as horse-hair or brass wire. These types are seldom satisfactory, as the meshes are so large they allow large particles to pass through. Faulty construction leaves cracks and open places for milk to collect, which cannot readily be cleaned out. The most satisfactory strainer is a piece of cheesecloth, but many times the cloth strainer had better be left unused and the milk not strained than to pass the milk through a strainer cloth that has not been thoroughly washed and boiled and still has a strong or sour smell. The value of the strainer is very greatly over-estimated. Keep the dirt out of milk rather than to try to strain it out.

The care of milk after milking depends much upon the ultimate disposition of it. If the cream separator is to be used and cream sold or butter made, the milk should be taken immediately from the barn and run through the separator while it is warm, as the separator does its work more efficiently when the milk is run through at a temperature of about 90 degrees. Where milk is to be used for drinking purposes or sold, it should be cooled as quickly as possible. The chilling of milk retards the growth of bacteria and enables it to keep sweet. Without the use of the cream separator, if it is intended to make butter, the milk should be set in deep cans and these cans placed in a tank of cold water or in a box where spring water is flowing through. Many people use shallow crocks or pans. These are objectionable—first, because so much of the surface of the milk is exposed, and, again, the separation of the milk is not as complete as it is in the deep can. There are more cans and crocks to handle and the work is increased with the shallow containers.

When butter is made on the farm, the cream separator can be depended upon to make the best quality and about one-fourth more butter. A better quality of butter can be made from cream that is obtained from the use of the separator as compared with that of the hand-skimmed cream. Rich cream separated immediately from the skim-milk will keep better than the hand-skimmed cream. Many of the objectionable bacteria are removed by the separating process and are carried away in the skim-milk. Considerable sediment is also removed and caught in the separator bowl. It is possible to make a fair quality of butter in the home by churning the whole milk, but since whole milk requires a higher churning temperature and takes a long time to churn, and the cream must ripen in the presence of skim-milk, it is rarely possible to produce as fine quality of butter as can be procured from the churning of cream.

Where milk or cream is to be consumed as a sweet product it is desirable to keep all types of bacteria out of it and retard as long as possible their growth by low temperatures. It must not be thought that all bacteria are harmful; neither is sour milk or cream harmful. The souring of milk or cream is accomplished by the growth of the lactic acid type of bacteria, and these are not objectionable, except where a sweet product is desired, and this type is not harmful at any time. It is necessary that cream be sour for satisfactory churning; and in souring cream for churning, or ripening, as it is called, it is necessary to hold the cream at a temperature of somewhere between 65 and 68 degrees for the growth of the lactic acid bacteria. There are many other types of bacteria, most of which are objectionable, that gain entrance into milk during the time of handling, but the lighter the contamination the better flavor the cream will be. The lactic acid type of bacteria grows rapidly at 65 to 68 degrees, and their rapid growth restricts the growth of other types. Oftentimes in the winter, when the cream stands at a low temperature, it is necessary to warm the cream and to inoculate with some sour milk or buttermilk to start the souring quickly and produce the proper ripeness.

Most of the difficulties in keeping and handling dairy products come from the type and care of milk utensils used. Crocks and jars are always objectionable. Some few jars are made with good glazing, with a very few faults in them, and a small percentage of them may be satisfactory. There is a great deal of very cheap crockery on the market with large pockets in the glazing, allowing milk or cream to be absorbed through the porous walls, and it is almost impossible to keep them of a desirable quality when put into these contaminated jars. A good quality of tin or enameled ware is best for milk containers. There is much cheap folded-seam tinware on the market that is decidedly objectionable, because the joints are not soldered, but folded. Be sure to see that the tin vessels used have the joints well filled with solder. No wooden or fiber buckets should be used in handling milk at any time. The use of the wooden churn is permissible, because it is only used a short while at a time, and before using the pores of the wood are filled with scalding water, after which the churn should be immediately cleaned and scalded and allowed to dry after using. When cleaning milk vessels it should be remembered that there is a quantity of albumin in milk that is readily cooked if hot water is poured into vessels containing a small quantity of milk. This albumin clings to the sides of the vessel and is hard to remove. Therefore, it is best to rinse the milk out of the containers with warm or lukewarm water at first, and then add the soapy water and clean thoroughly with a brush. It is noticeable in many homes that the milk utensils are cleaned after the other dishes are washed, and in the remaining dirty water. A dish-rag is not vigorous enough or clean enough to use with milk vessels. After washing with the soapy water, scald with the hottest water obtainable, and steam afterwards if steam is available. Scalding water is very satisfactory and should be depended upon to dry the utensils rather than to attempt to wipe them dry with a cloth. The heat of the scalding water will heat the vessels and they will dry with their own heat. They should be inverted to drain and placed where the sun can shine on them, but should be protected against the blowing of shifting sand and dust.

As stated before, the quality of the dairy products is judged largely by the flavor, and the flavor is controlled chiefly by preventing the entrance of off flavors by keeping the milk clean and cold. Some flavors can be transferred to dairy products by the food that the cow eats. This is only done in case the cow eats a very strongly flavored feed, such as onion, garlic, cabbage, or turnip. These flavors can be lessened, and many times entirely removed by taking the cow away from such food some three or four hours before milking time. In case of real strong flavors, like the onion, the only possible way is to keep the cow away from them. Most of the ill flavors in milk or cream do not result from feeds eaten by the cow, but are absorbed by the milk after milking by being exposed to flavors which are in the air, such as the flavor of silage, the odor of cooking vegetables, etc., which might be prevented by keeping the milk covered and removed from such flavors. Cold milk absorbs flavors very slowly; warm milk very rapidly.

Where cream is produced in the home for selling to a creamery, care should be taken not to mix the warm cream from the separator in with older cold cream. Each lot of cream should be cooled several hours before mixing with the older cream, and at the time of mixing the entire lot should be thoroughly stirred. This stirring allows the cream to ripen evenly, prevents lumps and the formation of curd particles.

For home butter-making the cream should be ripened until distinctly sour. In the summer time there will generally be little trouble in ripening, the main point being to keep it cool as possible. In the winter time it will be necessary to put the cream next to the fire and increase the temperature, as cream kept a number of days at a low temperature may develop a bitter flavor, which is unpleasant and does not make as good butter as that which ripens normally. In the winter time, if the cream fails to sour as rapidly as it should, bring it to a temperature of about 65 to 68 degrees, add a small quantity of good, clean, sour milk, and it will sour quickly.

Cream is ready to churn when distinctly sour, and it should be at a churning temperature when about 60 to 68 degrees. Cream should stand at churning temperature an hour or two before churning time. For instance, if the cream stood at 70 degrees and was suddenly chilled to 60 degrees and churned right away, the butter would come soft. The globules of butter do not change temperature as readily as the milk serum in which they are contained. Do not pour hot water into cream to change the temperature. It is much better to set the can or jar of cream into a tub or bucket of warm water and stir slowly until it comes to the desired temperature. The housewife can save hours of difficult churning by the use of a small dairy thermometer. Dairy thermometers may be secured at a price not exceeding 25 cents.

Most of the difficulties in churning come from having the cream either too cold or too warm. Cream that is too warm churns too quickly and the butter comes soft. Cream that is too cold will often take an hour or two to churn. It is hard to determine what the churning temperature should be, but any temperature that will bring the butter firm enough to work in 25 to 30 minutes is the proper temperature. Only experimentation can determine this. If dry feeds are being used in the winter-time it is desirable to use butter color. This should be added to the cream just before the churning is started. The proper amount can be determined by experimentation.

The number of drops can be counted that is found to be advisable to use to each gallon of cream.

There are many types of churns, but the most satisfactory is the plain barrel or swing churn that has no dashers or beaters in it. A barrel churn will churn as quickly as the other types of so-called quick churns if the temperature of the cream is the same in both cases. There is nothing to gain by churning in five or ten minutes. Only a poor quality of butter can be obtained, as the cream must necessarily be warm to churn in this time. Other types of churns which have beaters or paddles mix the butter and buttermilk together and gather the butter in large lumps, so it is not possible to wash out the buttermilk. The churning should progress until the granules of butter are about the size of buckshot or peas, and then the churning is done. The buttermilk should be drawn off at the bottom through a sieve or colander which will not allow the butter granules to pass through. The granules of butter going through with the buttermilk may be put back into the churn and the butter washed. The wash-water should be the same temperature of the buttermilk and about the same quantity. Rock the churn back and forth several times and then drain the water off. If the butter comes soft, use the water two or three degrees colder and allow the butter to stand in it until it becomes firmer. Oftentimes a second washing is advisable. Washing this way while the butter is in the granular condition removes the buttermilk. The butter is not yet gathered, and it is not necessary at any time to gather it. It is now ready to salt, and about one ounce of salt to the pound of butter is the quantity generally used. Put the salt in with the butter; take a paddle and work it all together. The butter may then be worked in the churn or taken out and worked in a wooden bowl. Work only enough to distribute the salt well. Remember, the buttermilk has been washed out, and it is not necessary or even advisable to try to work the water out of the butter. Water is necessary in the butter to dissolve and mix the salt, to make the butter spread well, and prevent it from being sticky and greasy. Butter can be easily overworked, and by overworking much of the water is worked out and the quantity of butter reduced. The butter should then be put in neat square blocks or prints and wrapped with butter paper, or parchment paper, as it is generally called. Butter that is to bring the highest price should not be put in round blocks or rolls and decorated with various designs. After it is put in square prints, the size of the ordinary creamery print, it can be wrapped more economically and disposed of to better advantage.

The score-card used for scoring butter indicates the importance of the various qualities of the butter. A score-card showing the points allowed for a perfect score is as follows:

Flavor	45 points
Body or texture	25 points
Color	15 points
Salt	10 points
Package	5 points
	100 points

ALVIN J. REED,
In Charge Dairy Farming Investigations, Animal Industry Division,
N. C. Agricultural Experiment Station, West Raleigh, N. C.

SOUPS

Bones and the joints with the hard, sinewy muscle fiber on them are used to make soup. These should be started **in cold water** and kept at a low temperature. By this method a small quantity of the soluble protein is dissolved; also a large part of the extractive or flavor of meat, and the minerals are dissolved. Soups should be kept at the simmering point several hours. The fireless cooker is of excellent merit in making soups.

Clear soups are stimulants only, and are generally used in the beginning of a long, heavy dinner.

Cream soups are very nutritious. They have for their foundation one quart of milk, 2 tablespoons of flour and 2 of butter, to which is added the pulp of any vegetable, thus making a great variety of soups. Cream soups are used at luncheon or dinner when the meat or other protein food is scarce.

CHICKEN AND CELERY SOUP.—In making chicken salad, keep the bones and skins of the chicken, and the rough outer stalk and roots of the celery, for soup. Cover the skins, bones, and the celery with cold water, and cook slowly until the celery is tender. Drain, reheat, and thicken with 2 tablespoons of flour and 2 of butter, to the quart of stock. Season with salt, pepper, and celery salt.

SOUP STOCK.—Beef, 1 shin; cold water, 5 quarts; onion, 1; carrot, 1; salt, 1 tablespoon; turnip, 1; bay leaves, 2; parsley, 1 sprig; pepper-corn, 6.

Crack the bones, remove the marrow and put it in the bottom of the kettle; put the bones and meat, cut into pieces, over it; add the seasoning, and cover with cold water; allow this to stand until red, and then simmer slowly for several hours. Strain and can as vegetables.

CLEAR SOUP.—Strain soup stock, and add the white of egg and the shell; bring to the boiling point, stirring constantly. Strain and reheat.

TOMATO SOUP.—Tomatoes, 1 quart, stewed; stock or water, 1 pint; butter, 2 tablespoons; flour, 2 tablespoons; sugar, 1 teaspoon; onion, 1 small; parsley, 1 sprig; salt and pepper to taste.

Cook tomatoes, parsley, onion, and stock for fifteen minutes; strain, put back on the stove and add the creamed flour and butter, stirring until smooth; add seasoning. Serve hot.

POTATO SOUP.—Potatoes, 4 good sized; milk, 1 quart; onion, 1 slice (if you like); parsley, 1 sprig; celery, 1 stalk; butter, 2 tablespoons; flour, 1 tablespoon; salt and pepper.

Wash and pare the potatoes; cook until tender. Cook the onion, celery and parsley in the milk in a double boiler. When the potatoes are tender, pour the hot milk and seasoning over them; put through a vegetable press, and reheat. Put the creamed butter and flour into the hot soup. Cook until creamy.

CORN SOUP.—Milk, 1 pint; water, 1 pint; corn, 1 pint; salt, 2 teaspoons; flour, 2 tablespoons; butter, 2 tablespoons.

Husk, silk, wash, and grate the corn, or cut fine with a sharp knife. Boil the cobs a few minutes in the water, remove the cobs, add corn, and cook

until tender. In the meantime, heat the milk, add the creamed flour and butter, stirring until smooth, and strain the water and corn through a puree sieve into the milk. Press as much of the milky pulp through as possible, rejecting the husky part. Season with salt and pepper. If milk is plentiful, use the whole quart of milk instead of one part water and one part milk.

BEAN SOUP.—Beans, 2 cups (cooked); tomatoes, 2 cups; stock or water, 1 quart; onion, 1 medium; parsley, 1 sprig; butter, 2 tablespoons; flour, 1 tablespoon; pepper to taste; salt to taste.

Use beans that have been left from dinner. Cook the tomatoes, stock, parsley, and beans until tender. In the meantime, cook the onions to a golden brown in the butter, and add the flour. Strain the tomatoes and beans through a puree sieve, pushing all of the pulp through and rejecting only the skins and seeds. Reheat, and when steaming add the onion, butter and flour. Season with salt and pepper, and serve.

CREAM OF TOMATO SOUP.—Tomatoes, 1 quart; soda, ¼ teaspoon; flour, 2 tablespoons; butter, 2 tablespoons; milk, 1 quart.

Heat tomatoes and press through puree sieve; reheat. Heat the milk in a double boiler and season with salt and pepper and thicken with the creamed flour and butter. When smooth and creamy, add the soda to the hot tomatoes and pour the tomato juice slowly into the hot milk. **Do not put the soup back on the stove.** Serve at once.

GREEN VEGETABLES

Ash or Mineral Matter Found in Green Vegetables, Fruits and Salads

In the recent past, little or no thought was given to the real need for the foods found in green vegetables and fruits. These foods not only furnish nutriment for the bones and teeth—the structure of the body—but they aid (1) in keeping the body cleansed; they form the bulky part of food which aids peristalsis, or bowel movement, thus keeping the system cleansed. (2) In summer, when they should be used in abundance, by their watery content of salts and acids, they keep the system cool. (3) The mineral matter is needed for the life of the cells of the body. Our bodies are made up of tiny cells. These cells are always active, and to keep up their activity they need these mineral salts in making their chemical changes. These chemical changes are necessary to keep the body young and supple.

ASH OR MINERAL MATTER

The **ash** or mineral matter found in green vegetables, fruits and salads furnish the cell-salts, which, when united with the proteins, make the chemical changes that must be made to keep an even balance or health in the body. If the body is burned, the ashes that are left contain these inorganic cell-salts—iron, magnesia, potash, and lime.

The operation of the daily process of body-building may be likened to a brick structure. The bricks and mortar represent the proteins, sugars, and fats—organic material, out of which the house is built. The inorganic salts of iron, lime, magnesia, and potash found in green vegetables and fruits represent the brickmasons that build the house. The organic material is inactive without the aid of inorganic or cell-salt material to make the proper chemical changes in the body.

Different kinds of cells build up different tissues and organs of the body; hence different cell-salts or mineral salts are needed for the organs and tissues.

(1) The mineral salts needed for nerve cells are magnesia, potash, soda, and iron, and are found largely in vegetables, grains, and fruits.

(2) The mineral salts needed for bone cells are lime, magnesia and potash, and are found in milk, fruits, grains, and vegetables.

(3) The mineral salts needed for muscle cells are magnesia, potash and iron, and are found in green vegetables, fruits, and grains.

IRON found in spinach and all greens, dried beans, dried peas, whole wheat, lean meat, egg yolk, prunes, raisins, dried figs.

CALCIUM found in milk, dried beans, dried peas, celery, cabbage, cauliflower, parsnips, citrous fruits, cheese, dried figs, egg yolk, cress.

MAGNESIA in peas, beans (Lima, dried), milk, prunes, whole wheat, oatmeal, peanuts, walnuts, chocolate, cocoa.

POTASSIUM found in potatoes, parsnips, turnips, cocoa, raisins, cabbage, apples, prunes (dried).

PHOSPHORUS found in meat, milk, whole wheat, cocoa, dried beans, cheese, egg yolk, chocolate, dried peas, peanuts.

Carrots and apples are laxative when properly masticated.

Dates, figs, and prunes are very nourishing, and prevent constipation.

The juice of grapes is laxative, but the skins may be constipating, as well as the seeds.

Lettuce and celery, when properly masticated, are good for the nerves.

Parsley is a liver stimulant. EAT IT.

Asparagus stimulates the kidneys.

Boiled onions dressed with butter sauce are not commonplace, but are good food for weak stomachs and tired nerves.

Cabbage and turnips have sulphur in them, and when cooked in salt water or with salt pork will turn yellow or dark. A chemical change takes place.

Rheumatic people should eat sparingly of lean meats, **liberally** of milk, green vegetables, fruits and water.

The system that does not get enough of these mineral foods found in green vegetables and fruits will show anæmia in some form. Green vegetables are so easily cultivated and the work of cultivation so attractive that it should be every woman's privilege to see these plant foods growing in her own garden. These foods are threefold in their economic value. The work of cultivation is uplifting both to the mind and the body of the worker. The gain in good blood and health to the family whose habit it is to eat green vegetables, summer and winter, is inestimable; and, last of all, the clear gain in dollars and cents, while far from most important, is not to be despised.

BOILED POTATOES.—Wash the potatoes, let them stand in cold water a few minutes, then put into boiling water. Cook until tender, drain, and set back on stove to dry out.

BAKED POTATOES.—Wash and bake in a hot oven until tender (about 45 minutes). When soft, break the skin. This gives the steam a chance to escape and leaves a mealy potato. Serve at once.

CREAMED POTATOES.—Potatoes, 1 quart, cooked; sweet milk, 1 pint; salt, 1 teaspoon; butter, 3 tablespoons; flour, 2 tablespoons; pepper, 1-8 teaspoon; parsley, 1 sprig, if liked. Cut the potatoes into blocks, melt the butter, stir in the flour, and add the hot milk, stirring over the fire until thick. Add salt, pepper, and pour over the potatoes, and brown in the oven. A little chopped parsley may be added, if desired.

CANDIED SWEET POTATOES.—Potatoes, 4 medium size; sugar, 1 cup; water, 2 cups; butter, 2 or 3 tablespoons; cinnamon, 1 teaspoon. Pare and slice the potatoes, put in a baking dish, cover with water, sugar, butter and cinnamon. Cook with a cover on the baking dish until nearly done, then remove the cover, and brown. Baste as you do meats, if you cook uncovered. Success with candied potatoes comes by slow cooking.

BOILED OKRA.—Cut the stems from tender okra, simmer about 30 minutes or until tender; drain; season with salt, pepper, butter and vinegar.

STUFFED ONIONS.—Boil Spanish onions in salted water until nearly tender; drain and remove core; chop a little cold boiled ham or beef and mix with the core, adding salt and pepper to taste; stuff the center of the onion with the meat; cover with cream sauce or tomao sauce.

TURNIPS.—Wash, pare, and cut into cubes, put into a saucepan and cover with boiling water; boil until tender, drain, add salt, and cover with cream sauce.

TURNIP GREENS.—Greens, ½ peck; water, 2 quarts; bacon to season; salt, 1 teaspoon. Wash the meat, put into cold water and boil some time before the tops are put in to cook; wash tops carefully, cook until tender—from 45 minutes to one hour and a half.

CREAMED CABBAGE.—Cut cabbage into eighths, or shred it, just as you like; wash; cook in plenty of boiling water until tender; drain, salt, and dress with rich cream sauce. The insipid vegetables are not good served with cream sauce unless the sauce is rich and highly seasoned.

CARROTS.—Wash, scrape, and cut into cubes, and cook in boiling water which has been salted until tender; drain and dress with well seasoned cream sauce.

STRING BEANS.—String and break fresh beans; wash and cook with enough bacon to season; cook slowly from 3 to 4 hours or until very tender and practically all the water has evaporated.

SALADS

COLD SLAW.—Shred the cabbage; soak in salted water half an hour; squeeze dry, and cover with dressing.

SALAD DRESSING.—Butter, 1 tablespoon; vinegar, ¼ cup, heated; egg, 1; salt, ½ teaspoon; sugar, 1 teaspoon; milk, ½ cup; celery salt, ½ teaspoon; cayenne to taste.

Beat the egg; add milk, salt, sugar, and cayenne; pour the hot vinegar over the mixture and return to the stove; cook **very, very** slowly, or the mixture will curdle. This is a nice dressing for lettuce or tomatoes, and is an excellent dressing for potato salad.

POTATO SALAD No. 1.—Potatoes, 1 pint, cold (left from dinner); parsley, 1 tablespoon; Salad Dressing No. 1.

This may be varied by grating a little onion and adding a little chopped celery or finely chopped white cabbage.

POTATO SALAD No. 2.—Potatoes, 1 pint (cold); shredded cabbage, 1 cup; parsley, 2 tablespoons; black walnut meats, to taste; onion chopped to taste; salt to taste.

Mix with mayonnaise or any good vinegar dressing.

MAYONNAISE DRESSING.—Olive oil, 1 pint; vinegar or lemon juice, 2 tablespoons; eggs, 2 yolks; salt, 1 teaspoon; a dust of cayenne.

Beat the eggs, add a little of the salt, then add the oil a little at a time, until the first gill has been added. The oil may be added more rapidly after this. When too thick, add a little good vinegar or lemon juice. Add the seasoning.

Wesson's Snowdrift Oil makes a good dressing and costs about one-fourth as much as olive oil. The Wesson oil dressing will separate if set on ice. Keep in a cool place, but not in a refrigerator.

TOMATO JELLY.—Tomatoes, 1 quart can; onion, 1 small; pepper, 1-8 pod (hot) or less; sugar, ½ tablespoon; vinegar, 1 cup; water, ½ cup; salt, 2 teaspoons (scant); gelatine, ½ box; cold water, ½ cup.

Soak gelatine in cold water; boil the tomatoes, onion, pepper, sugar, vinegar, water, and salt until tender; strain, pressing the hot juice and pulp over the dissolved gelatine; mould, serve on lettuce with mayonnaise. This salad may be varied by cutting the jelly into squares and mixing chopped celery or shredded green bell peppers with it.

OTHER SALADS.—A pretty salad is made of crisp lettuce leaves, garnished with thin slices of stuffed olives. A half-dozen olives will garnish several plates.

Garden peas left from dinner mixed with beets make an attractive salad.

FRENCH DRESSING.—Olive oil, 3 tablespoons; vinegar, 1 tablespoon; salt and pepper to taste.

TOMATOES.—When the tomatoes are abundant in the summer and fall, many attractive salads may be made:

1. Tomatoes pared and sliced, with a grating of onions on top.

2. Pare tomatoes and chill; then cut into quarters down to the stem end; fill the centers with grated cucumber or grated onion, or both.

CEREALS

Cook cereals directly over the fire until they begin to thicken; then put the vessel in another large one, holding boiling water, and cook, as in a double boiler, as long as possible; or, if you have a steamer, start the cereal over the fire, and when thick put it in the steamer and cook as long as desired. This is excellent for oatmeal.

Granular cereals require four times the quantity of water to the cereal.

Rolled cereals require twice the quantity of water to the cereal.

Whole grains require four times the quantity of water to the cereal.

1 cup	Cream of Wheat	to 4 cups boiling water
1 cup	Graham flour	to 4 cups boiling water
1 cup	meal	to 4 cups boiling water
1 cup	grits	to 4 cups boiling water
1 cup	rice (as a cereal)	to 4 cups boiling water
1 cup	rolled oats	to 2 cups boiling water.

PERCENTAGE COMPOSITION OF CEREALS (Hutchinson)

	Water.	Protein.	Fat.	Carbo-hydrates.	Cellu-lose.	Mineral Matter.
Wheat	12	11.0	1.7	71.27	2.2	1.9
Oats	10	10.9	4.5	59.1	12.0	3.5
Rye	11	10.2	2.3	72.3	2.1	2.1
Corn	12.5	9.7	5.4	68.9	2.0	1.5
Rice	12.4	6.9	.4	79.4	.4	.5
Buckwheat	13	10.2	2.2	61.3	11.1	2.2

OATMEAL.—Oatmeal, 1 cup; salt, ½ teaspoon; boiling water, 2 cups.

Sprinkle the oatmeal into boiling salted water and let it boil a few minutes; then put the vessel into a pan of boiling water or a double boiler, and cook slowly from 1½ to 3 hours. **Do not stir.** If the oatmeal is stirred the grains are broken and it becomes a sticky, gluey mess. When properly cooked, oatmeal is of a jelly-like consistency. The steamer and the fireless cooker are excellent for cooking oatmeal, because the large amount of cellulose is broken down and softened by the long, slow cooking.

RICE (as a cereal).—Rice, 1 cup; salt, 1 teaspoon; milk or water, 4 cups.

Wash thoroughly and cook in a double boiler or a steamer until the grains are soft. Season with cream or butter.

RICE (as a vegetable).—Rice, 1 cup; salt, 1 tablespoon; boiling water, 2 quarts or more.

After the rice has been thoroughly washed, sprinkle it into the rapidly boiling water. Cook from 13 to 20 minutes, according to the age of the rice. If rice is cooked a little too long, the starch grains will be broken and the rice will be sticky. When tender, drain and place on the back of the stove, where the steam will be driven off. Every grain should be whole and separate. If rice is washed in soda water, it will be whiter.

GRITS.—Grits, 1 cup; salt, 1 teaspoon; water, 4 cups or more.

When the water reaches the boiling point, add the salt and the grits and stir a few minutes. Place the vessel on the back part of the range, where the grits will cook slowly, but steadily. Grits should be cooked at least half an hour.

CORN MEAL MUSH.—Meal, 1 cup; salt, 1 teaspoon; water, 4 cups.

Bring the water to the boiling point, add the salt, and beat the meal in with a wire egg-beater. Cook as long as possible on the back of the stove, where it will not burn.

GRAHAM FLOUR MUSH.—Graham flour, 1 cup; salt, 1 teaspoon; water, 4 cups.

Follow directions for corn meal mush. Graham mush is an excellent food, as practically the whole grain of wheat is used.

CREAM OF WHEAT.—Cream of wheat, 1 cup; salt, 1 teaspoon; water, 4 cups.

Bring the water to the boiling point, add the salt, and sprinkle in the cream of wheat. Cook at least half an hour immediately over the fire.

BATTERS

POPOVERS.—The popover is a thin batter and is made light by the expansion of air and steam. The hot pan begins the baking of the shell or crust, and as the shell continues to harden by the heat, the air, beaten into the popover, expands and the great amount of liquid is converted into steam, and in trying to escape it swells and pops over the crust. The popover must be baked until light and dry, or it will fall.

Eggs, 2; flour, 1 cup; milk, 1 cup; salt, ½ teaspoon. Beat the eggs just enough to mix, add them to the milk, and pour the mixture into the flour. Pour into hot greased muffin rings and bake in a moderately hot oven from 30 to 40 minutes. The popovers may be filled with strawberries or jelly and whipped cream or any custard.

CREAM PUFFS.—Boiling water, 1 cup; flour, 16 level tablespoons (¾ cup); butter, 4 level tablespoons (½ cup); eggs, 4.

Drop the butter into the boiling water, add the flour, and stir quickly over the fire until it forms a ball and leaves the pan. Stand away to cool. When cool, add one egg at a time, beating vigorously. Stand in a warm place for half an hour or less; drop by spoonfuls on a buttered pan, leaving a space of 2 inches between the puffs. Bake in a moderately hot oven until light. When done, the puffs may be filled with any custard or jelly and whipped cream.

What makes the cream puffs light?

Why are they baked in a moderately hot oven?

Why should the batter stand in a warm place for a while?

Is the principle the same as in the popover batter?

What changes take place? Physical or chemical?

The muffin and waffle, heavier batters, are made light by the expansion of **air incorporated into the well beaten eggs** and **by the addition of baking**

powder, or soda and sour milk. A gas, carbondioxide, is generated by means of the baking powder, or soda and sour milk.

MUFFINS.—Eggs, 2; milk, 1 cup; flour, 1½ cups; butter, 1 tablespoon; salt, 1 teaspoon (scant); baking powder, 2 teaspoons.

Separate the eggs. To the beaten yolks add the milk, the flour, salt and melted butter. When the oven is ready, add the baking powder, and carefully **fold** in the whites of the eggs. Bake in a quick oven. If the oven is too hot, the muffins will run to a peak in rising.

Why should muffins be baked in a quick oven, while the cream puffs had only moderately quick oven?

Why should the baking powder not be put into the batter until oven is ready?

Why should whites of eggs be folded in?

What changes take place?

CORN MEAL MUFFINS.—Eggs, 2; sour milk, 1 cup or more; meal, 1 cup; flour, ¼ cup; salt, 1 teaspoon; butter, 1 tablespoon; soda, ¼ level teaspoon; baking powder, 2 level teaspoons.

Separate the eggs, and to the beaten yolks add sour milk, salt, meal, flour, melted butter. When the oven is ready and pans greased and hot, add the soda (dissolved in a little lukewarm water) and the baking powder; beat vigorously and quickly, but carefully fold in the beaten whites; pour into hissing-hot greased pans, and bake in a quick oven.

Corn meal muffins bake at a little higher temperature than the muffins made of flour.

GRAHAM AND MEAL MUFFINS.—Eggs, 2; milk, 1 cup or more; salt, ½ teaspoon; baking powder, 2 teaspoons; butter, 1 tablespoon; Graham flour, 1 cup; corn meal, ½ cup. Proceed as above.

WAFFLES.—Eggs, 1; milk, 1 cup; salt, ½ teaspoon; flour, 2 cups; butter, 1 tablespoon; baking powder, 2 teaspoons.

Separate the eggs, and to the beaten yolks add the milk, salt, flour, melted butter, and, when the irons are hot, add baking powder and fold in the whites of the eggs. Bake in a hot greased waffle iron.

WHOLE WHEAT GRIDDLE CAKES.—Egg, 1; stale bread, ¾ cup; hot milk, 1 cup; butter, ½ tablespoon; salt, ½ teaspoon; Graham flour, ⅜ to ½ cup; baking powder, 2 teaspoons.

Heat the milk, add the butter and salt, and pour over the crumbs. When cool, add the yolk of the egg and Graham flour. When the griddle is hot, add the baking powder and fold in the beaten white of egg. Bake a nice brown and **turn once only.**

WHOLE WHEAT BISCUIT.—Whole wheat flour, 2 cups; salt, ½ teaspoon; baking powder, 3 teaspoons; fat, 2 tablespoons; milk, ¾ cup or more; egg, 1.

Mix the salt and baking powder with the flour; cut the lard in with two knives; beat the egg into the milk, and mix; toss on a floured board and roll lightly. Bake in a quick oven.

BREAKFAST PUFFS.—Eggs, 1 or 2; salt, ½ teaspoon; thin cream, 1 cup; butter, 1 tablespoon; flour, 1½ cups or more; baking powder, 2 teaspoons.

Beat eggs separately, and to the yolks add the milk, salt, flour, melted butter, and when the pans are hot and greased add baking powder and carefully fold in the white of the egg. Bake in a quick oven.

BATTER BREAD.—Meal, 1 cup; boiling water, 1 cup; sour milk, 1¾ to 2 cups; salt, 1 teaspoon; egg, 1; soda, 1 teaspoon (level).

Scald the meal with the boiling water, add milk, beaten egg, salt, soda, and bake in a hot oven. Cold rice, grits, or cream of wheat may be added to this batter.

CORN MUSH BREAD.—Milk, 1 pint; meal, ⅔ cup; butter, 1 tablespoon; salt, 1 teaspoon; eggs, 3 (if fresh).

Make a mush by adding the meal to the hot milk. Cook until the mush is thick; add the butter and salt, and when cool add the beaten yolks and carefully fold in the whites of the eggs. Bake in a moderately quick oven 25 to 30 minutes.

Should the oven be as hot as in "Corn Muffins" lesson? Why not?

What gives the lightness in the mush bread?

What changes take place?

GRIDDLE BREAD.—Scald one cup of good corn meal with boiling water; mix well; add salt if you wish; allow the dough to stand a few seconds, then stir again a few seconds; bake on a hot griddle; cover with a deep pan and cook slowly.

What is the reason for this manipulation?

DECEPTION WAFERS.—Egg, 1; salt, a pinch; flour, ½ to ¾ cup; deep fat; powdered sugar.

Beat the egg slightly and mix with the flour; roll thin as a wafer; cut into shape; drop separately into deep, hot fat; drain and sprinkle with powdered sugar. The white of the egg only may be used if there is one left over.

GRAHAM FLOUR CAKES.—Egg, 1; sour milk, 1 cup; butter, 1 level tablespoon; Graham flour; ¾ cup; salt, ½ teaspoon; soda, ¼ level teaspoon; baking powder, 1 level teaspoon.

Separate the eggs, and to the beaten yolks add the milk, salt, melted butter and flour, and when the griddle is ready add the soda (dissolved in a teaspoon of lukewarm water) and the baking powder, and fold in the whites. Cook on a hot griddle. **Turn cakes only once.**

STALE BREAD GRIDDLE CAKES.—Stale bread, 1½ cups; hot milk, 2 cups or less; butter, 1 tablespoon; egg, 1; salt, 1 teaspoon; baking powder, 2 teaspoons; flour or meal, ¾ to 1½ cups, depending on the freshness of the crumbs.

Pour the hot milk over the crumbs, add butter and salt, and when cool add the beaten yolks. When the griddle is hot add the baking powder and fold in the whites of eggs. Cook each griddle cake on one side until it is thoroughly set and full of air bubbles, then turn only **once.**

To what class do these foods belong?

What effect do the foods of this class have on the human body?

GENERAL RULES.—

1. Pastry flour is best for these recipes. (a) Pastry flour is white in color, smooth and velvety in texture, and takes the form of the hand when pressed closely. (b) Bread flour is creamy in color, loose or granular in texture, and falls loosely apart when squeezed in the hand.
2. Bake as soon as mixed. Why?
3. Griddle cakes should be baked on a soapstone or iron griddle sizzling hot.
4. Do not grease soapstone.
5. Grease iron griddle with unsalted fat.
6. Drop griddle batter by spoonsfuls, and when puffed and full of bubbles, turn.
7. Turn griddle cakes **but once.** Serve at once.

RULES FOR WAFFLES.—

1. Heat iron on both sides; grease with unsalted pork or lard.
2. Turn iron to make fat run evenly on all sides.
3. Fill each compartment two-thirds full.
4. Cook until crisp and brown on both sides. Serve at once.

CARE OF IRONS.—If new, grease and heat, then wash in soapy water. when ready for use, grease again with brush or clean paper. To put irons away for a long time, grease with unsalted fat.

JUMBLES.—Flour, 2 cups; salt, a pinch; soda, ⅛ teaspoon; baking powder, 1 level teaspoon; butter, 4 tablespoons; sugar, ¾ cup; egg, 1; milk, (sour), ½ cup.

Sift and measure the flour, mix in the dry ingredients, then carefully cut in the butter; add the sugar gradually to the beaten egg, then add the milk and mix with the dry ingredients. Roll out about one-fourth of an inch thick, put into a slightly greased pan, and bake in a moderately hot oven.

OATMEAL JUMBLES.—Flour, ½ to ¾ cup; salt, a pinch; baking powder, 2 teaspoons; butter, 2 tablespoons; sugar, one-third cup; oatmeal, ½ cup; egg, 1.

Sift the flour, salt, and baking powder, cut in the butter, then mix the oatmeal with flour, etc.; dissolve the sugar in the beaten egg and make into a rather stiff dough; roll thin, and bake in a moderately hot oven. Use a little milk if the egg is not sufficiently liquid for the flour.

DOUGHNUTS.—Egg, 1; butter, 1 level tablespoon; sour cream, one-third cup; sugar 2½ tablespoons; soda, a pinch; baking powder, 1¼ teaspoons; flour, 1¾ cups; nutmeg or cinnamon, a little.

Beat the egg, add sugar gradually to dissolve it, add the milk; sift the baking powder with the flour and mix all together with a spoon; roll ¼ inch thick, and fry in hot, deep fat.

To test fat: A crumb of bread, in 60 seconds for uncooked food; in 40 seconds for cooked food.

To clarify fat: Drop a few slices of raw white potato into it, then strain through cheese-cloth. This fat may be used over and over for frying, in case it is not allowed to burn. When fat becomes rancid after long use, it may be used for making soap.

The lesson in doughnuts is the first work in dough. It is based on knowledge gained in making batters. What keeps the fat from penetrating the doughnut? What changes have taken place? Are they similar to those met with in former lessons? To what class of foods do all belong?

SOFT GINGERBREAD.—Eggs, 2; lard, ½ cup; milk, ½ cup; flour, 3 cups; soda, 1 teaspoon (round); molasses, 1½ cups; ginger, 1 tablespoon.

Mix lard and yolks of eggs, beat soda and molasses, then add ginger, molasses, milk, and flour; beat whites of eggs and carefully fold into the batter. Bake in a very slow oven three-quarters of an hour or until done.

Why is the soda used with molasses?

What changes take place in the making and baking?

Why should the oven be a very slow one?

What is the combination of foods in this lesson?

Under which head does each belong?

In what way do these two classes of foods benefit the body?

During which season do we most need these foods?

MOLASSES SAUCE FOR GINGERBREAD.—Molasses, 1 cup; lemon, ½ (juice and rind); butter, 1 tablespoon (level); ginger, to suit the taste—about 1 teaspoonful. Mix and boil to a thin syrup.

BREAD-MAKING

In making bread it is well to remember that if a soft, open bread is wanted, the dough should be made very soft and handled as little as possible—just enough to hold together. On the other hand, if a smooth, close-grained, flaky bread is wanted, the dough should be made stiff enough to handle easily and should be well kneaded.

Three things are necessary in making soft biscuit, provided the proportions are correct and the material good:

(1) The dough should be made too soft to handle easily.

(2) It must be quickly and lightly handled.

(3) A quick oven is necessary.

To keep biscuit from being too thick, roll about ¼ inch thick, place in the pan so they will touch, and bake with a strong undercurrent until smooth on the top, then place on the rack to brown. The result will be a very light, wholesome biscuit, with two crisp brown crusts and very little crumb.

If biscuit are too thick and baked too rapidly, the crumb becomes a paste, which cannot be reached by the digestive juices. The crusty ones are partly digested in the baking.

SOFT SOUR-MILK BISCUIT.—Flour, 1 quart; salt, 1 teaspoon; soda, 1 teaspoon; baking powder, 1 teaspoon; fat, 5 tablespoons; sour milk, 1 to 1½ cups.

Sift flour, soda, baking powder, and salt thoroughly, cut in the fat, then add nearly all of the milk at one time, and mix with a spoon just enough to hold together. When all is mixed, turn on a floured board and toss until smooth. Roll, cut, and bake in a quick oven.

SOFT CREAM OF TARTAR BISCUIT.—Flour, 4 cups; salt ½ teaspoon; cream of tartar, 2 teaspoons; soda, 1 teaspoon; lard, 5 tablespoons; sweet milk, 1 to 1½ cups.

Mixing, the same as soft sour-milk biscuit.

SOFT BAKING POWDER BISCUIT.—Flour, 1 quart; salt, 1 teaspoon; baking powder, 5 teaspoons; fat, 5 tablespoons; sweet milk, 1 to 1½ cups.

Mixing, same as soft sour-milk biscuit.

KNEADED BAKING POWDER BISCUIT.—Flour, 1 quart; salt, 1 teaspoon; sweet milk, ½ cup or enough to make a firm dough; baking powder, 5 teaspoons; fat, 4 tablespoons.

If fine, even-grained bread is wanted, make a stiff dough and knead thoroughly.

One word of caution about kneaded biscuit doughs. After the kneading is begun, do not leave it until the biscuit are put into the oven. If dough is worked for a time, then allowed to stand, the result is always a tough, spongy dough. Sponginess or elasticity is a quality desired in lightbread, and is brought about by kneading, then standing. The gluten (protein) is made spongy or elastic in that way. Crispness is the quality desired in biscuit, and is the result of quick work or continued kneading.

BEATEN BISCUIT.—Flour, 1 quart; salt, 1 teaspoon; fat, 5 tablespoons; ice water, ¾ cup or enough to make a very stiff dough.

The old-fashioned beaten biscuit was pounded or beaten, but to save time a meat chopper may be used. In that case the dough must be made very, **very** stiff, as it gets heated in the metal chopper and becomes too soft. The brake makes the ideal beaten biscuit. A perfect beaten biscuit should be rich brown on bottom and top, white in center, and should have a crack around the sides.

Mixing: Make a stiff dough, knead until smooth, then pound until white and full of air bubbles. Roll, cut with a small cutter, prick with a fork, and place in the pan so they will not touch. Leave the oven shut five minutes, when first put in, to give the biscuit a chance to rise and crack around the sides. Bake in a hot oven until thoroughly done. The constant pounding not only distributes the air in small bubbles throughout the dough, but it whitens the gluten and makes it crisp instead of spongy.

MOCK BEATEN BISCUIT.—Flour, 1 quart; salt, 1 teaspoon; sweet milk, to make a very stiff dough; baking powder, 1 teaspoon; fat, 5 tablespoons.

Mixing, same as beaten biscuit, but less kneading is necessary.

BROWN BREAD.—Graham flour, 3 cups; meal, 1 cup; baking powder, 1 teaspoon; brown sugar, ½ cup; raisins, 1 cup (with or without); molasses, ¾ cup; soda, 1 teaspoon (round); sour milk, 2 cups; egg, 1.

Mix Graham flour, meal, baking powder, sugar and raisins in a large bowl. In another bowl beat the egg, add sour milk, and the soda and molasses after they are thoroughly mixed. Turn the liquid into the dry ingredients, mix well, and turn into wet moulds. Steam in boiling water from 1 to 3 hours, depending on size and shape of mould. Coffee cans or baking powder cans are good shapes for use.

YEAST-BREADS

BREAD SCORE CARD

Flavor	25
Lightness	20
Grain and texture	20
Crust (color, depth)	10
Crumb (moisture, elasticity)	15
Shape and size	10
	100

Yeast is a microscopic plant. For growth it requires food, moisture, warmth and air. The flour furnishes food. Some of the starch in the flour is changed into sugar. The yeast, in growing, changes the sugar into alcohol and gas. This gas, in trying to escape, makes the bubbles in the dough. In the process of baking, both the alcohol and gas are driven off.

The compressed yeast is the best on the market. It **may be kept under water** for two weeks at a time. Remove the tin-foil, drop the yeast in a jar of clean, cool water, and keep in a cool place.

The rule for soft and stiff doughs applies also to yeast breads. For a very soft, fluffy roll, make a very soft dough, and handle as little as possible. If you wish to save time, increase the quantity of yeast, and make a soft dough. The result will be a soft, fluffy roll, without the perfect form, but with a delicious flavor. In using a small quantity of yeast and making the usual stiff dough, the time required for growth of the few plants gives a chance also for the growth of bacteria, which may spoil the flavor.

QUICK ROLLS No. 1.—Flour, 2 cups; salt, ½ teaspoon; sugar, 1 teaspoon; butter, 2 teaspoons; yeast, 1 cake; milk, ⅔ cup.

To the lukewarm milk add the dissolved yeast, salt, sugar, and melted butter, and mix with the flour. Set in a warm place to rise. When light, toss on a board, in plenty of flour. Make into small biscuit, dip in melted fat, drop in one division of a muffin ring, allowing three small biscuit to each division. Set in a warm place to rise the second time. When light, bake in a quick oven.

QUICK ROLLS No. 2.—Flour, 1 quart; sugar, 1 tablespoon; salt, 1 teaspoon; fat, 1 tablespoon; yeast, 1 to 2 cakes; milk, 1½ cups or more.

Mixing: Dissolve the yeast in a little of the lukewarm milk. Mix dry ingredients with flour and rub in the fat with a wire spoon or with tips of fingers; add yeast and milk, making a soft dough of the consistency of soft baking-powder biscuit. Knead thoroughly, grease on top, and set in a warm place to rise. When full of air bubbles, pinch off medium size rolls, dip into melted fat or Wesson oil, place in the pan sufficiently far apart to keep from touching, and set in a warm place to rise. When the rolls feel like feathers, bake in a quick oven. These rolls do not keep a perfect form, but are puffy, light and wholesome, since they are largely crisp crust.

The greatest recommendation for these rolls is that, on the second and third days after baking **they reheat** beautifully. In the summer this roll is made and baked in two hours.

POCKETBOOK ROLLS.—Flour, 2 cups; milk, ½ cup (or more); lard, 1 tablespoon; salt, 1 teaspoon; sugar, 1 tablespoon; yeast cake, one-half to one-third or one-fourth cup yeast.

Mixing: Scald the milk, and when lukewarm add dissolved yeast and sugar. Beat in enough flour to make a drop batter, and set in a warm place to rise. When light, add salt, lard, and flour; set to rise, and when light pinch off in rolls without breaking the bubbles. Press down the center of the roll, brush with melted butter, fold one half over the other, brush the top with butter. Put the rolls in a greased pan some distance apart; set again to rise; when very light, more than double in size, bake in a moderate oven to a very rich brown. (This dough can be kneaded just before it is made into rolls, and it will be finer grained and the rolls will puff apart better, but it is not so wholesome when thus prepared. The dough may be rolled and cut with a biscuit cutter, but the rolls are not as pretty and some of the gas bubbles are destroyed.)

PLAIN BREAD.—Flour, 1 quart; milk or water, 1 cup; yeast, ½ cake or ½ cup; sugar, 1 tablespoon; salt, 1 teaspoon.

Mixing: Make as pocketbook rolls. When light, mold and brush over the top with lard or melted butter; let stand until double its size; make three cuts over the top, brush again with butter, and bake in a moderate oven in an increasing heat until brown, then bake more slowly.

LIQUID YEAST.—Water, 1 quart; potatoes, 3 large; bunch of hops (tied in cloth); salt, ¼ cup; sugar, ¼ cup; yeast, ½ cup.

Mixing: Put the hops and potatoes in the water and boil until the potatoes can be mashed. To the mashed potatoes add the water, sugar, and salt, and, when cool, the old yeast. Keep in a cool place. It is ready for use as soon as it ferments.

PASTRY

Good pastry is (1) tender, (2) light, (3) flaky.

The lightness of pastry is dependent largely upon the temperature of the ingredients and upon skill in manipulation. The materials should be kept cold, in order that the expansion of air may be greater when exposed to high heat.

A pair of knives may be used in cutting in the fat, and by that means the fat remains solid. Flaky pastry results when the fat is mixed in layers.

SCORE-CARD FOR PASTRY AND PIE (Lemon)

Tenderness	20
Flakiness	20
Lightness	20
Flavor	25
Consistency, appearance	15
	100

PASTRY FOR GENERAL USE.—Flour, 2 cups; salt, ½ teaspoon; baking powder, 1 saltspoon; fat, 4 tablespoons; ice water, to make a stiff dough.

FRUIT PUDDING (Substitute for Pies).—Pare and cut the fruit and put in a deep pudding dish without a crust. If the fruit is juicy, put a cup mouth downward, in the center, to take up the juice; add sugar and water (if the fruit needs it) and cover with a top crust. Bake slowly. Serve with hard sauce or brown sugar caramel.

DRIED FRUIT PIE.—If the fruit is cooked in the water in which it is soaked, without sugar, the flavor will be better. When the pastry is ready, put in the fruit, add very little sugar, and bake. When ready to serve, put a slight covering of honey over the crust, cover with whipped cream, and you will not realize that there has ever been any commonplace idea regarding dried fruit pies.

PASTRY (Plain Paste).—Flour, 3 cups; butter, 1 cup; ice water, 1 cup (nearly); salt, 1 teaspoon; sugar, 1 teaspoon.

Have everything as cold as possible. Sift the flour, add salt and sugar, and chop two-thirds of the butter into the flour; add the ice water gradually, lifting the wet portion to one side of the bowl; continue until all of the flour has been moistened. Handle just enough to get the paste in shape. Flour the board, turn the paste out on it, roll lightly and quickly from you into a thin sheet. Put the remainder of the butter over the thin sheet in small bits; fold over the sides of the sheet and then the ends; roll again. Always roll **from you** to keep from breaking the air bubbles. This may be repeated several times. Bake in thin sheets on deep pie plates in a moderate oven. By very careful manipulation, numbers of little bubbles of air are held in the dough. The heat expanding these little bubbles of air gives the crust the flaky lightness so much desired in good pastry.

PUMPKIN PIE.—Pumpkin, 4 cups; milk or cream, 2 cups; eggs, 2 or 3; sugar, 1¼ cups; vanilla, 1 teaspoon; cinnamon, 1 tablespoon; butter, 1 tablespoon.

Wash the pumpkin, cut in half, remove the seeds and strings, and bake in a moderately hot oven. Mash the baked pumpkin, add sugar, yolks of eggs, milk and butter, or cream, vanilla, cinnamon and whites of eggs. Bake in a deep pudding dish without crusts.

To serve: Cut the crust, which is baked separately, and with a tablespoon heap the pumpkin loosely and roughly on the crust. If you wish, serve whipped cream over the top.

For Hallowe'en the crusts should be baked in heart shapes and other attractive forms.

LEMON PIE.—Corn starch, 2 level tablespoons; bread crumbs, 3 level tablespoons; sugar, 1 cup; water, 1 cup; butter, 1 level tablespoon; lemon, 1 (juice and rind) large or 2 medium; eggs, 2.

Dissolve corn starch in a little cold water, add sugar, butter, and boiling water, and boil until thick and smooth, about 5 minutes. When cool, add bread crumbs, lemon and eggs. Bake the crusts in individual shells and when they are nearly done, fill with lemon custard, using white of egg as a meringue. The custard is a thick, heavy mush, but not soft enough to run. The pastry is tender, light, and flaky.

SUGAR CAKES

GENERAL RULES

The oven must be ready for baking, the pan thoroughly greased and lined with greased paper.

Sift flour before measuring. Pastry flour is best.

Fine granulated sugar should be used.

Cream butter; add sugar **very** slowly, making a sauce.

The yolks and whites should be beaten separately and the yolks added to the butter and sugar sauce.

The bowl in which eggs are beaten should be rinsed with the milk.

Milk and flour may be added alternately; then the flavoring, baking powder, and, last, carefully fold in the whites of the eggs.

COOKIES.—Butter, ⅔ cup; sugar, 1½ cups; eggs, 3; flour, 3 cups; baking powder, 4 teaspoons; milk or cream, 1 cup; lemon rind, 1 grated.

Cream the butter; add the sugar gradually; when thoroughly creamed, add the well beaten eggs, milk, and lemon rind. Sift the baking powder in with the flour, and drop by teaspoonfuls on a greased pan. Bake in a moderately hot oven.

These cookies may be varied by placing a nut or raisin in center of each just before the batter is set by the heat.

CHEAP CAKE.—Butter, ½ cup; sugar, 1 cup; eggs, 2; cinnamon, ½ teaspoon; milk, ½ cup; flour, 1¾ cups; baking powder, 3 level teaspoons; raisins, 2 dozen.

Cream butter, add sugar gradually, add well beaten yolks and milk, then flour and cinnamon. When oven is ready, add the baking powder, floured raisins, and carefully fold in the whites of eggs.

BOILED FROSTING.—Sugar, 1 cup; water, ½ cup; whites of eggs, 2; lemon juice, ½ teaspoon.

Stir the sugar and water until it is dissolved. Heat gradually to the boiling point, and boil without stirring until syrup spins a heavy thread from the tip of spoon. Pour the syrup over the beaten whites, beating constantly until the frosting is right consistency to spread. Add flavoring and spread evenly over the cake.

BOILED CHOCOLATE FROSTING.—To the boiled frosting add 1½ squares of melted chocolate.

SPONGE CAKE.—Eggs, 2; sugar, one-third cup; lemon juice, ½ teaspoon; flour, one-third cup; lemon rind, ¼ teaspoon.

SUNSHINE CAKE.—Eggs, 8 whites; eggs, 5 yolks; flour, 1 cup (measured before sifting); sugar, 1 cup; cream of tartar, 1 teaspoon; vanilla, 1 teaspoon.

Beat the whites of eggs stiff, add cream of tartar, then carefully add the sugar, yolks of eggs, and vanilla. Carefully fold in the flour. Bake in an ungreased pan, in a very slow oven, about one hour.

WHITE CAKE.—Eggs, 4 whites; butter, 1 cup; sugar, 2 cups; water, 1 cup; flour, 3 cups or less; juice and rind of half lemon; soda, 1 level teaspoon; cream of tartar, 2 teaspoons.

Cream butter, add sugar very, very gradually; then add water and flour alternately, juice and rind of the lemon, and when the oven is ready beat the whites until nearly light, and add one-half of the cream of tartar to them and beat until thoroughly light. Add the remainder of the cream of tartar and soda dissolved in a tablespoon of lukewarm water to the batter; beat vigorously, and carefully fold in the whites. Bake in a moderately slow oven.

CUP CAKE.—Eggs, 5; flour, 3 cups; sugar, 2 cups; milk, 1 cup; butter, 1 cup; cream of tartar, 2 teaspoons; soda, 1 teaspoon (level).

Separate the eggs. Cream the butter and add the sugar to butter gradually. Mix in the well beaten yolks of eggs, milk and flour. Dissolve soda in a tablespoon of warm water, and, if the oven is ready, add the cream of tartar, soda water, and vanilla. Give the batter a good beating; then quickly and carefully fold in the beaten whites of the eggs. Do not stir any more than is absolutely necessary. Bake in a moderately quick oven.

Soda and cream of tartar make a soft, moist cake. Baking powder dries out a cake.

MARSHMALLOW FILLING.—Sugar, 1 cup; water, ½ cup; juice of half lemon; marshmallow, ¼ pound; white of 1 egg.

Dissolve marshmallows in double boiler. Make a syrup of sugar, and water, and when the syrup spins a good thread from the spoon pour carefully over the beaten white of egg. When it begins to thicken, add marshmallow, and beat until thick and heavy.

CHOCOLATE ICING.—Sugar, 2 cups; butter, 1 tablespoon (scant); chocolate, ¼ cake; milk, 1 cup; vanilla, 1 teaspoon; a pinch of salt.

Boil sugar, chocolate, butter and milk until a soft ball is formed by dropping a small quantity in ice water. Beat the icing until cool, add the vanilla, and spread on the cake.

COFFEE CAKE.—Egg, 1; sugar, ½ cup; salt, ½ teaspoon; milk, ½ cup; flour, ¾ cup; baking powder, 2 teaspoons; brown sugar, 1 tablespoon; cinnamon, 1 teaspoon.

Beat the egg thoroughly, add the sugar gradually, then the melted butter, salt, milk, flour, and, last, the baking powder. Pour into the oiled pan and sprinkle the top with brown sugar and cinnamon. Bake in moderate oven.

COTTAGE PUDDING.—Butter, 3 tablespoons; sugar, ⅔ cup; egg, 1; milk, 1 cup; flour, 2 to 2½ cups; salt, ½ teaspoon; baking powder, 3 teaspoons.

Beat the egg thoroughly, add sugar gradually, then add butter, salt, milk, and flour alternately, and, last, the baking powder. Bake in a slow oven. Serve with chocolate syrup.

CHOCOLATE SYRUP.—Chocolate, 1 ounce (4 tablespoons); boiling water, ¾ cup; sugar, 1½ cups; vanilla, a few drops.

Melt the chocolate and sugar in a little of the boiling water, add the remainder of the boiling water, and boil to a syrup. When cool, add a few drops of vanilla. Bottle and keep in a cool place.

Theory: In cake-making we combine sugar and starch, making a sweet batter. The principle is the same as in muffins and other batters—the lightness is brought about by entangling the air in the eggs and by the formation of gas, resulting from the union of soda and cream of tartar and a liquid. A much more moderate heat is needed in baking sweet batters, since the sugar and eggs burn easily.

In sponge cakes—those made without butter—expansion of air is the only means of lightness; therefore, a slow oven is necessary.

SCORE-CARD FOR CAKE

Flavor	35
Texture or grain	20
Lightness	20
Baking (crust and color)	15
Appearance	10
	100

DESSERTS

FRUIT GELATINE.—Fruit juice, 1 pint; lemon juice, 1 tablespoon; gelatine, 1½ tablespoons, granular; sugar to taste, depending on the kind of fruit used; whipped cream.

Soften the gelatine in a little cold water; pour over it the hot fruit juice with the lemon and sugar in it. Chill. When ready to harden, put into frappe glasses and serve with whipped cream.

For Washington's birthday use cherry juice with a few cherries in the whipped cream.

CHARLOTTE RUSSE.—Milk, 1⅓ cups; sugar, ½ cup (scant); whipped cream, 1½ cups; gelatine, 1½ tablespoons.

Dissolve the gelatine in one-third cup of cold milk; pour the cup of hot milk over it, with sugar in it, and stir it until the jelly begins to mold; then fold in the whipped cream and flavoring.

Or mold with sponge cake if you wish, or pour in a wet mold and place on ice to harden.

Serve with caramel sauce.

CARAMEL SAUCE.—Brown sugar, 1 cup; water, 1 cup; butter, 1 level tablespoon; flour, 1 level tablespoon.

Melt the sugar in a heavy iron pan; add boiling water and stir until the hard lumps are dissolved, then add a little butter and flour to give a creamy consistency.

PRUNE WHIP.—Cook prunes in as little water as possible. When cool, remove the seeds and mash fine or run through a meat chopper. Sweeten to taste, and add the juice and rind of one-half lemon. Fold in two or three tablespoons of whipped cream, and serve.

STUFFED PRUNES.—Remove the seeds from the cooked prunes by cutting an opening down the side. Stuff with nuts and serve with cream or whole milk.

STRAWBERRY MOUSSE.—Gelatine, ½ box; water, cold, ¼ cup; boiling water, ½ cup; cream, 1 cup; sugar, ¾ cup; strawberry juice and pulp, 1 cup.

Soften the gelatine in cold water; then dissolve it in the boiling water. Wash, cap, and mash, then strain the berries through a sieve; add the sugar to the berries and pour into the gelatine. When ready to harden, **fold** in the whipped cream. If cream is scarce, the white of an egg may be used to make the quantity desired. Mold and serve with whipped cream and fresh strawberries.

PLUM PUDDING.—Suet, 1½ cups; brown sugar, 1 cup; molasses, 1 cup; soda, 1 teaspoon (level); egg, 1 or more; lemon juice and rind, ½ cup; cinnamon, nutmeg, cloves and vanilla to taste; flour, 4 cups; baking powder, 4 teaspoons; sour milk, ½ cup; raisins, 1 cup; currants, 1 cup; nuts, ½ cup.

Chop the suet, clean the fruits and nuts, and dredge the fruit with one-half of a cup of flour used in the recipe. Mix suet, brown sugar, cinnamon, nutmeg, cloves, and baking powder with the flour. Put soda in the molasses and beat vigorously; then add the well beaten eggs, juice and rind of the lemon, and the sour milk, and pour into the flour. When well mixed, add the floured fruits and nuts; pour into a wet mold and steam 3 or 4 hours, then brown in the oven. Serve with whipped cream, plain cream or maraschino sauce.

PARFAIT.—Cream, 1 cup; egg whites, 1 to 2; sugar, ½ cup; raisins, to taste; nuts, to taste; gelatine, 1 tablespoon (granulated); cold water, ½ cup.

Soften the gelatine in a little cold water, make a thin syrup of the sugar and water and pour over the gelatine just before mixing with the cream. Whip the cream, beat the egg and mix. Pour the syrup over it and fold in the nuts and fruits. Serve with caramel sauce.

PRUNE JELLY.—Prunes, 2 cups; juice of half lemon; sugar ¾ cup; boiling water, 1½ cups; gelatine, 1 tablespoon (granulated).

Cook and seed the prunes and grind in a meat chopper; add sugar and lemon juice; soften the gelatine with a little cold water; then dissolve with the boiling water, pour into the prunes, mix and put in a cool place to mold. Serve with plain or whipped cream.

PRUNE SOUFFLE.—Prunes, 3 cups; whites of 2 eggs; sugar, ½ to ¾ cup; lemon juice, 3 tablespoons.

Cook prunes in very little water. When thoroughly tender, seed, run through a meat grinder and mix well with the sugar and lemon juice, carefully fold in the beaten whites of eggs and bake in a moderate oven. Serve with plain or whipped cream.

The cheapest grade of prunes may be used for these desserts.

GRAPE FRAPPE.—Grape juice, 2 cups; lemon juice, 1 cup; sugar, ¾ cup or more; water, 1½ cups.

Make a thin syrup of the sugar and water; mix grape juice, lemon, and strain through a cheese-cloth into the syrup; freeze to a mush, and serve in tall frappe cups, with or without whipped cream.

GRAPE JELLY.—Gelatine, 1 tablespoon (granulated); water, cold, ¼ cup; water, boiling, 1½ cups; sugar, 4 tablespoons; juice of half lemon or more; grape juice, 1 cup.

Soak gelatine in cold water, dissolve in the hot water, add sugar, lemon juice and grape juice, and strain through a chesse-cloth. Set in a cool place to harden.

JELLIED APPLES.—Apples, 11 or 12 medium size; sugar, ½ cup or more; nuts, to stuff the center; raisins, to stuff the center; gelatine, 1 tablespoon.

Pare and core the apples. Cook the parings and cores in a little water. When tender, strain and use the juice for basting the apples. Stuff the apples with raisins and nuts, sprinkle the sugar over them, and pour the juice from the parings over them. Bake until tender. Add the dissolved gelatine to the fruit juice and pour over the apples. Serve with plain or whipped cream.

CARAMEL BLANC MANGE.—Gelatine, 1 tablespoon; cold water, to soften; hot milk, 1 pint; whipped cream, 3 tablespoons; caramel, ½ cup.

Soften the gelatine in two or three tablespoons of cold water and dissolve it with the hot milk; add caramel and fold in the whipped cream.

DATE PUDDING.—Dates, ½ pound; water, 1½ cups; juice of half lemon; juice of 1 orange; sugar, 2 tablespoons; gelatine, 1 tablespoon (heaping).

Take the stones out of the dates, put them through a meat chopper, then add the gelatine softened in a little cold water and dissolved with the boiling water, orange, lemon juice, and sugar, and turn into a wet mold. Serve with plain or whipped cream.

JELLIED PEARS.—Gelatine, 1 tablespoon; pears, 6 or 8; sugar, 1 cup; cinnamon, ½ teaspoon; juice of half lemon.

Core and pare the pears and cut into halves or fourths, and bake with the sugar, cinnamon, and slices of lemon. When tender, put into a serving dish, add the gelatine, dissolved in a little cold water, to the hot juice, and pour over the pears. Serve with cream or maraschino sauce.

APRICOT SOUFFLE.—Apricots (dried), 3 cups; sugar, to taste; whites of 1 or 2 eggs.

Soak the apricots and cook slowly in as little water as possible. Mash fine, sweeten to taste, fold in the beaten whites, and bake in a moderate oven.

PEACH WHIP.—Peaches, 3 cups; whites of 2 or 3 eggs; sugar, to taste.

Cook the peaches in as little water as possible; mash them fine, sweeten and fold in the whites of the eggs. Bake in a moderate oven.

CHERRY MOUSSE (or any kind of fruit juice).—Fruit juice, ¾ cup; white of 1 egg; sugar, to taste; cream, 1 cup; gelatine, 1 level tablespoon.

CREAMS

MOUSSE OR PARFAIT.—Whipped cream with nuts, flavored and sweetened to taste. Frozen in molds.

ICE CREAM.—Cream, 1 quart; fresh milk, 1 pint; sugar, 1 cup or more; vanilla, 1 tablespoon.

Heat one-half the cream and milk, add the sugar, and when cool mix with the cold milk and vanilla. Freeze, using two parts ice and one part salt. When well frozen, remove the dasher and pack to ripen.

For Packing: When ice is scarce, use ice and salt as far as possible, then pack close and tight with old newspapers. When salt is left in the freezer, put it in a jar and place in the sun to dry out. It may be used again.

CANDY

FONDANT.—Sugar, 1 cup; water, ¼ cup.

Boil, without stirring, until a soft ball is formed on the tip of a silver spoon in **ice** water; pour on a damp or greased platter and let it cool until the finger leaves a print in the candy. Color with any **vegetable coloring matter;** work with the hands until creamy. Make out of this the chocolate drops, stuffed dates, nut and other cream candies.

PEPPERMINTS.—Sugar, 1 pint; water, 1 cup; butter, ⅛ pound.

No. 1: Boil sugar, water, and butter until a soft ball is formed in ordinary cold water; pour out on a damp platter to cool. When sufficiently cool to permit handling, add 3 or 4 drops of extract of peppermint or 1 drop of oil of peppermint, and work with the hands until creamy. Put away in a ball to ripen, and when ready to serve, break into pieces. Keep this in a tin box, between pieces of paraffin paper.

No. 2: Boil the same proportions of sugar, water, and butter until a hard ball is formed in cold water; pour on a greased marble slab, and when cool add the extract of peppermint or a drop or two of oil of peppermint and 2 or 3 drops of **vegetable** coloring matter. Pull until the candy is light and fibrous; cut with scissors and put between layers of paraffin paper.

THE FOUNDATION FOR THE DEVELOPMENT OF THE HIGHEST TYPE OF CITIZENSHIP DEPENDS UPON THE HOME-MAKER

COMMON-SENSE METHOD OF BALANCING MEALS

During the past few years the men of this country have been studying the soil and its needs in order that they may realize the greatest yield per acre for the money, time and labor expended. In the same way, they have studied the scientific feeding of their cattle and pigs in order that they may realize the greatest money value from them. The worthwhileness of this is evident on almost every farm you visit, not only in money value, but in the entire attitude of mind. Farming has changed from drudgery to a **live,** pleasurable occupation. The joy of seeing things **grow** and **develop** under the guidance of his mind and hand has revolutionized life for the farmer.

It is a good thing to **learn** how to **feed** a **thoroughbred** pig. How much more important is the feeding of our boys and girls!

If our girls are given the training that **fits** them for their life-work—if they are taught **how** to **plan** meals for the growth of bone and blood, how to **repair** waste tissue, how to **eliminate** waste matter, and how to prepare these meals from a hygienic, economic, attractive standpoint—is it not reasonable to believe that such training will produce better management in the homes, less friction as a result, and, in the end, develop a higher and better type of citizenship?

Our bodies are made of cells.

The proteins—eggs, lean meats, milk, cheese, fish, peas and beans, and some nuts—furnish the **material** out of which these cells are built.

The sugars, starches, and fats furnish the heat.

The ash or mineral matter found in green vegetables, fruits, and melons furnish the cell-salts, which, when united with the proteins, make the **chemical changes** that must be made to keep an even balance or health in the body. These are the bulky foods taken as an aid to peristalsis or bowel movement. They contain the cell-salts of iron, lime, magnesia, potash, etc., so necessary in building the structure of the body and keeping it renewed and refreshed.

The mineral or cell-salts needed for nerve cells are magnesia, potash, soda, and iron, and are found largely in vegetables, grains, and fruits.

The mineral salts needed for bone cells are lime, potash, and magnesia, and are found in milk, potatoes, fruits, and grains.

The mineral or cell-salts needed in muscle cells are magnesia, potash, and iron, and are found in green vegetables, fruits, and grains.

This brief study of the **needs** of the **human** body gives the home-maker a glimpse of the importance of her position as caretaker of her family. It gives, also, an **idea** of the practical training given to the young woman who elects home economics. However, for our purpose, a common-sense method in the distribution of the different kinds of food will enable an intelligent housewife to feed her family well, if not wholly scientifically. In our daily dietary we should have one part lean meat or its equivalent,

to five or more parts of bread, butter and potatoes, with the green foods and water in addition. For example, if a roast of beef is the principal dish, we should not go to the expense of buying, cooking, and digesting another dish composed of the same tissue-building materials, as chicken or turkey, but we should serve Irish potatoes with it, because beef, being rich, coarse protein, calls for a rich, heavy carbohydrate, or starch; and the same is true of the green vegetable. The coarser, heavier ones are chosen to accompany beef and potatoes, as cabbage, turnips, kale, beets, etc.

On the other hand, **chicken or turkey,** being lighter in flavor and texture and a more delicate protein, calls for rice in the starch group, and the more delicate green vegetables, as asparagus, green peas, celery, cucumbers, tomatoes.

Mutton, like beef, calls for potatoes, turnips, or cauliflower, with Chili or Caper sauce.

Lamb, being less mature and more delicate than mutton, calls for peas, rice, and tomatoes, mint sauce.

Wild duck calls for sweet potatoes and tomatoes.

Game calls for hominy, in croquettes or squares, and asparagus.

Opossum calls for sweet potatoes and tomatoes.

Goose calls for mashed potatoes, watercress, and apple sauce.

Clear soup, a stimulant, is served before a heavy meal to bring the blood to the stomach and cause the flow of the digestive juices.

Cream soups are served for luncheon, or when meat or protein food is not heavy.

Peas and beans, rich vegetable protein, are also rich in starch and call for the eliminative foods, such as tomatoes, onions, kale, collards, beets, etc.

The addition of fat meat in cooking peas or beans makes them a better balanced food, though more difficult of digestion.

The system does not need lean meat served with peas or beans, because both are rich in protein.

Fish, a compact form of protein, calls for potatoes, cold slaw, cornbread, coffee, and semi-acid desserts.

Rabbit calls for potatoes, onions, tomatoes.

Pork, rich in fat, has also good protein content, and calls for potatoes, or big hominy and the coarser green vegetables and apple sauce.

Rice and potatoes are not needed at the same meal. Serve one or the other, and save the digestion as well as the purse.

In the recent past little or no thought was given to the **real need** for the foods found in green vegetables, fruits, and melons. **During the whole of life** this kind of food is essential; so keep your summer and winter garden and let your **abundance** of food be green vegetables and fruits instead of the exclusive meat and bread diet, which is too often in evidence in the winter. The system **craves** a heating diet in cold weather and the fats, starches, sugars, and meats are necessary to keep up the heat of the body, but the winter diet of heat-producing foods should not be used exclusively. **Eat plenty** of good winter foods, such as meat, pork, potatoes, cornbread, peas, and beans, but balance it with plenty of green vegetables and fruits. Serve onions with potatoes, tomatoes with beans, apple sauce with meat. Balance your diet and you will be better able to resist the changes of winter.

During the heat of summer the green foods—fresh vegetables, fruits, and melons—should predominate, because the system is kept cool by these mineral salts that are so abundant in this class of foods.

If a woman wishes to become a lawyer, or doctor, or nurse, she must take the **training** necessary for that profession before she is licensed to practice it. What profession can compare in honor and in responsibility to home-making and motherhood?

Is not the feeding of the child's body—the growth and development of bone, blood, and tissue—of **equal** importance with the work of any other profession?

Every housewife is responsible, in a great measure, for the health and happiness of her household. Right at her own table is to be found the cause of much of the **unrest** and irritability so often exhibited in her household.

Examples of simple breakfasts based on scientific principles:

I

Fruit
Bacon Eggs
Coffee
or
Tea

II

Fruit
Omelet
Toasted Rolls
Coffee

III

Oatmeal
Baked Apples
Bacon
Coffee

IV.

Fruit
Baked Omelet
Toasted Rolls
Coffee

V

Baked Pears
Whole Wheat Mush
Bacon
Coffee

VI

Oranges
Brains
Toast
Coffee

VII

Grapefruit
Sausage
Grits Toasted Rolls
Coffee

Examples of simple suppers based on scientific principles:

I

Tomato Jelly with Grated Cheese
Bread and Butter
Coffee
or
Tea

II

Rarebit
Muffins Butter
Fruit
Coffee

III

Curd Cheese Salad
Bread Butter
Fruit Compote
Coffee

IV

Potato Salad with Hard
Cooked Eggs and Nuts
Bread and Butter
Canned Fruit
Coffee or Tea

V

Macaroni and Chicken
with Cream Sauce
Bread Butter
Fruit

VI

Rice with Poached Eggs
in Cream Sauce
Muffin Butter
Fruit
Tea or Coffee

VII

Hamburg Steak blended with
Thick Cream Sauce
Grits Rolls
Coffee

Examples of simple, inexpensive meals based on scientific principles:

WINTER DIET

I

Pork Roast
Collards Hominy
Cornbread
Apple Sauce

II

Rabbit in Tomato Sauce
Potatoes Boiled Onions
Cornbread
Baked Apples

III

Beef Stew in Tomato Sauce
Potatoes Cabbage
Onions
Cornbread
Fruit Pudding

IV

Steamed Steak
Potatoes Tomatoes
Onions
Stuffed Prunes

V

Baked Beans
Onions Tomatoes
Brown Bread

VI

Peas
Collards Onions
Cornbread
Peach Souffle

Examples of more expensive meals based on scientific principles:

I

Duck
Potatoes (sweet)
Creamed Artichokes
Lettuce Salad
Persimmon Pudding

II

Turkey
Rice Asparagus
Cranberries
Celery
Pumpkin Pie

III

Roast Hen
Rice Peas (garden)
Celery
Peach Pudding

IV

Leg Lamb
Rice Peas
Buttered Beets
Prune Whip

Examples of simple meals, using meat substitutes as a basis for balanced meals:

I

Macaroni and Chicken
with Cream Sauce
Turnip Salad garnished with
Hard Cooked Eggs
Baked Apples

II

Rice with Creamed Eggs
Fruit Salad
Brown Bread

III

Stuffed Onions (left-over meats)
Potatoes Cabbage
Cornbread
Fruit Jelly

IV

Bean and Tomato Soup
Brown Bread and Butter
Baked Apples

INFANT FEEDING

Infant feeding is a question that all women should study, in order that more of the helpless children should have a chance to live. My knowledge of the subject has been limited to the study of other people's babies and to my knowledge of food as a science, and to knowledge gained from Dr. Holt's writings. I am writing this in the hope that you, mothers, will go out where I cannot go, and help other mothers who are not so fortunate as you.

If young mothers knew the necessity for the **immediate** care of the babies' eyes, steps would be taken to secure a doctor who **knows** his **business,** and a **nurse capable** of **following** his **instructions.**

The body of the new-born babe should be oiled and the eyes carefully cleansed with a saturated solution of boric acid, and **the doctor or nurse** should put two or three drops of 2 per cent solution of nitrate of silver in the eyes to prevent possible blindness. **Notice,** I said the doctor or nurse. If you wish to know facts about this problem of blindness in children, write to Superintendent Ray, State School for the Blind, Raleigh, for literature. I know of no one, doctor or layman, who is doing more for the enlightenment

of the masses than Mr. Ray. The child should then be placed in a quiet, darkened room, properly protected against cold, but not surrounded with too many hot-water bottles.

The child should not be put to the breast for five or six hours. During the first twenty-four hours he should be fed four times, taking each breast at each feeding, to stimulate the flow of the milk. If the child cries, give him a little cooled boiled water—no tea of any kind or sweetened water.

The milk usually begins to come on the third day, and from that time the child should nurse regularly every three hours, alternating the breasts or taking both each time, as the case demands. About 20 minutes is as long as the child should remain at the breast.

The times for nursing should be as regular **as the clock.** Regular feeding means regular sleep, regular habits of all kinds, and a much easier life for both mother and child.

Until the child is four months old, he should nurse every three hours up to 10 p. m., and only once during the night—seven nursings in all.

Between four and six months of age, he should have six nursings in twenty-four hours. Omit all night nursings.

When he is six months old, nurse every four hours—usually both breasts—five nursings in twenty-four hours.

If the child cries between feedings, give him cooled boiled water, without anything in it. If you think he is not well nourished, consult a good physician.

There is no perfect substitute for breast milk, and ten bottle-fed babies die to one fed on mother's milk. If mothers could realize not only how much better was the chance for life, but how much more full and buoyant life was likely to be for their child, every sacrifice would be made to feed the child its natural food—mother's milk.

ARTIFICIAL OR BOTTLE FEEDING.—Clean, fresh cow's milk, properly modified, is the best substitute for mother's milk.

Use whole milk from a shaken bottle, and dilute it according to age and power of digestion, 3 ounces of milk diluted with 7 ounces boiled water; add 1 tablespoon of lime water and 2 level teaspoons of sugar. This is to begin on the third day and be given in seven feedings.

At one week the average child requires 5 ounces of milk daily, which should be diluted with 10 ounces of water, 1½ level tablespoons of sugar and 1 ounce lime water. This is for seven feedings.

Milk should be increased ½ ounce about every four days. Water should be increased ½ ounce about every eight days.

AT THREE MONTHS the average child requires 16 ounces of milk daily, diluted with 16 ounces boiled water, 3 tablespoons sugar and 2 ounces lime water, for six feedings.

Milk should be increased by one-half ounce about every six days. Water should be reduced ½ ounce about every two weeks.

AT SIX MONTHS the average child requires 24 ounces of milk daily, which should be diluted with 12 ounces of water. Add 2 ounces of lime water and 3 level tablespoons of sugar. This is to be given in five feedings.

Amount of milk should be increased about ½ ounce every week if the child is hungry and is digesting his food well.

AT NINE MONTHS the average child requires about 30 ounces milk daily, which should be diluted with 10 ounces of water; add 2 level tablespoons of sugar and 2 ounces lime water. Give in five feedings.

At three months, barley water may be used to dilute instead of plain water. Use ½ level tablespoon of barley to 16 ounces of water; cook 20 minutes.

At six months, 1½ level tablespoons barley cooked in 12 ounces of water.

At nine months, 3 level tablespoons barley cooked in 8 ounces of water.

If a child's bowels are not loose, from 1 to 3 tablespoons of strained fruit juice—orange juice—should be given once per day after he is seven or eight months old.

After a child is nine months old, he may have beef juice, chicken broth, mutton broth, once a day.

AT TEN MONTHS OLD he may have part of an egg, a small piece of toast, or a crust of bread to chew after his feeding.

AT TWELVE MONTHS the child may have his milk undiluted, and a little thoroughly cooked strained cereal may be given twice a day. Fruit juice.

The child should have four regular meals a day, with nothing but water between meals. He should have four cups of milk a day, one cup at each meal.

When he is fifteen months old he may have 1 teaspoon of scraped rare beef, mutton, or chicken; later, 1 tablespoon may be given.

AT EIGHTEEN MONTHS he may have one-half of a mealy potato.

WHEN TWO YEARS OLD he may have most of the tender green vegetables, cooked without meat, dressed with butter or cream sauce, and mashed fine or pressed through a puree sieve.

Fruit juices should be given daily after the child is twelve months old.

Cooked fruit, as baked apples, apple sauce, baked pear, may be given once a day after the child is eighteen months old. Cook thoroughly and press through a puree sieve.

Stale, raw fruits are dangerous.

TWO TO THREE YEARS.

7:30—Breakfast: Juice of 1 orange or pulp of ½ dozen prunes, or apple sauce; thoroughly cooked cereal with ½ teaspoon sugar; whole milk, or soft poached or boiled egg, stale bread or toast, glass of milk.

10:30 a. m.—Glass of milk.

1:30—Dinner: Cup of broth; small serving of rare roast, or tender chicken, or broiled white fish; baked potato; creamed asparagus, or peas, or carrots, or spinach thoroughly cooked and strained; baked apple, or junket, or cup custard, or stewed prunes (without skins).

5:30 p. m.—Supper: Cereal and milk, or bread and milk; stewed or baked fruit; glass of warmed milk.

Nothing but water should be given between meals.

I am responsible to Dr. Emmett Holt for help in infant feeding.

A few years ago the Department of Interior, Washington, D. C., sent out a booklet on "Infant Feeding," written by Dr. Holt and Dr. Shaw. If you can buy one of these booklets from the Department, it will be invaluable to you in helping others who are less fortunate than yourself.

THE CHILD'S DIET.—At no time in life, perhaps, is the mineral, or ash, more needed than during childhood, while the framework is developing. These foods not only furnish nutriments for the bones and teeth, aid in making the chemical changes of growth, but they aid peristalsis, or bowel movement, thus keeping the system cleansed.

DIET FROM TWO TO THREE YEARS.—Milk, eggs, pulp of ripe, baked banana, baked pear, baked apple, sweet and white potato, thoroughly cooked cereal, cream soups (home-made), such as cream of celery, rice, tomato, potato; the pulp of a few thoroughly cooked vegetables (puree), peas, asparagus, squash, corn. Orange juice and prune pulp are invaluable in the small child's dietary.

SIMPLICITY IN FEEDING.—Avoid too much and too many things at the same meal. From one to three articles are sufficient. Sweets, except natural sugars, are bad for children. Honey, pulp of prunes, and other sweet fruits, sponge cake, and baked custards may be given.

BREAKFAST—I. Whole wheat mush; whole milk; prunes. **II.** Soft egg; bread and butter; orange.

If this simple breakfast were analyzed, we would find the whole wheat mush rich in cell-building material (protein) and in starch, the energy-giving food, as well as rich in iron, phosphorus and calcium. The whole milk has a good protein content and the milk sugar and fat for the energy food, in addition to the calcium and citric acid for the necessary chemical changes going on in the body. Prunes are rich in natural sugar, as well as in iron, calcium, and magnesium.

In Breakfast No. II we find in the egg valuable protein content, in addition to a rich and easily assimilable quality of fat or energy food, and iron and phosphorus compounds. The orange is valuable for the sugar, iron, and calcium.

DINNER.—Rice or Irish potatoes (thoroughly cooked), tender green vegetables, served with milk sauce, as a puree; little white meat of chicken (cooked without salt); baked apples, or pear or cup custard; or cream soup —puree; rice or Irish potatoes; junket, or baked fruit, or any easily digested sweet.

SUPPER.—Toast and milk; baked fruit; or whole wheat mush and milk; prunes, or baked apples or pears.

BEVERAGES

Freshly boiled water should be used for making hot beverages. Vessels used for making beverages should be scalded before and after each use.

TEA.—The commercial tea which we use is prepared from the leaves of a shrub cultivated in China, Japan, India, Ceylon, and other parts of Asia.

There are two kinds of tea—green and black. The difference is in the method or preparation for use. Green teas are quickly dried and fired; black teas are allowed to ferment before drying and firing.

Tea is a stimulant rather than a food. Its principal constituents are caffein, tannic acid, and a volatile oil.

If boiling water is allowed to stand on the tea leaves **only a few moments,** less of the tannic acid is dissolved; therefore, tea made in this way is less harmful, since it is the tannic acid that interferes with digestion.

COFFEE.—Coffee is prepared from the seeds of the coffee tree, which grows in many warm countries. The active principles of coffee are the same as tea. A part of the volatile oil is lost both in the roasting and the boiling of coffee; hence care should be taken in the preparation.

CHOCOLATE AND COCOA.—Chocolate and cocoa are prepared commercially from the bean of the cocoa tree. The fruit goes through a process of fermentation; the beans are then dried in the sun and roasted. Chocolate is then prepared by grinding the broken cocoa beans between hot rollers. The great amount of fat causes it to form a paste.

Cocoa has less fat than chocolate, and often sugar and starch are added to it.

Chocolate and cocoa are rich in food value, but they, like tea and coffee, contain a little volatile oil, a smaller amount of tannic acid, and a stimulating principle resembling caffein.

FRUIT JUICE (ALBUMINIZED).—Fruit juice, ½ glass; white of 1 egg; shaved ice, ½ glass; sugar to taste.

Mix fruit juice, sugar, and white of egg, shake well and pour over the shaved ice. This is very nourishing and refreshing in case of fever.

CHOCOLATE.—Chocolate, 2 ounces; sugar, 2 or 3 tablespoons; a pinch of salt; milk, 1 quart; water, 1 cup.

Dissolve the sugar, chocolate, and salt in a little water, and add one cup of boiling water; boil. In the meantime, heat the milk in a double boiler. When the milk is hot, pour in the syrup and whip with an egg-beater. Serve with or without whipped cream.

COCOA.—Cocoa, 4 teaspoons or more; sugar, 4 teaspoons; salt, a pinch; water, 1 cup; milk, 3 cups.

Heat the milk in a double boiler. Mix cocoa, sugar, and a little of the water to a paste, add the remainder of the water, and boil to a thin syrup; pour into the hot milk. Beat with an egg-beater.

MINT PUNCH OR TEA.—Tea, 4 teaspoons; lemons, 3; mint sprigs, 3 or 4, or creme de mint, ½ teaspoon; boiling water, 4 cups; sugar, 4 tablespoons.

Pour the hot lemonade over the tea. When tea has steeped, strain and add sugar and mint. Chill and serve with slice of lemon, a mint leaf or two, and broken ice. Refreshing.

GRAPE PUNCH.—Grape juice, 1 quart; lemons, 3; oranges, 6; sugar, 1 cup; water, 1 quart or more.

Boil the sugar and water 10 minutes; pour over the mixed fruit juice; chill and serve with chopped ice. Nourishing and refreshing.

COLD-WATER COFFEE, No. 1.—*Coffee, 1 tablespoon (heaping); cold water, 1 cup (½ pint).

Scald the coffee pot; pour the cold water over the ground coffee and bring **very, very** slowly to the simmering point. **Stir** the grounds and they will fall to the bottom just before the boiling point is reached. Close watching is needed to prevent the coffee from boiling. This is an excellent method when large quantities are wanted.

COFFEE, No. 2.—Coffee, 1 tablespoon (heaping); a very little egg; boiling water, 1 cup.

Scald the coffee pot; have freshly boiled water and let the coffee boil just a moment; take off, settle with a little cold water. Serve.

TEA.—Tea, 1 teaspoon; boiling water, 1 cup or more.

Scald the pot, put in the tea, pour the boiling water over it, and serve at once. Tea is never boiled.

ICED TEA.—Tea, 1 teaspoon; boiling water, 1 cup.

Make in the same way as for hot tea. Pour the tea off the leaves as soon as drawn. Serve with lemon and sugar.

HOW TO SET A TABLE

Cover the table with a silence-cloth and carefully spread the white linen over this. On an attractive centerpiece place a low jar or vase for cut flowers. Let the flowers be of one kind and color, as far as possible, and without a **heavy** fragrance.

Place the napkins, carefully folded, to the left of the plates. In placing the silver, arrange it so that each piece shall come in the order for use from the outside toward the plate. Knives, with blades turned in, to the right of the plates; spoons to the right; all forks to the left, unless an oyster fork is used, in which case it should be on the right, with the tines resting on the plate. The plates, knives, forks, spoons, and napkins should be placed one inch from the edge of the table. The glass should be at the end of the knife blade, and the salt should be placed in front of the plate.

The bread and butter plate should be at the end of the forks to the left. Soup ladles, bonbon spoons, and rest for carving set should be on the table.

Olives, almonds, celery, and bonbons are placed on the table.

*To make good coffee the tablespoon should be more than two levels.

SUGGESTIONS FOR HOME ECONOMICS TEACHERS IN PRACTICAL WORK WITH WOMEN OF COMMUNITY

HOME PROBLEMS

November Meeting:

I. Home Nursing.
   (a) How to make the sick bed.
   (b) How to keep sick room as to lights, air, hangings.
   (c) Emergencies—best remedies for burns, fainting, shock, drowning, convulsions.

II. Colds and their Danger.
   (a) Methods to prevent spread.
   (b) Simple disinfectants.
   (c) Simple remedies.

III. The Open Closet—its Dangers.
   (a) How to correct this evil.

December Meeting:

I. The Christmas Spirit.
   (a) Christmas fifty years ago.
   (b) Practical Christmas giving.
   (c) Home Decorating for Christmas.

II. Practical Work.
   (a) Christmas candy. (See this Circular.)
   (b) Christmas cake.
   (c) Christmas pudding.

January and February Meetings:

I. Cold Weather Cookery. (See this Circular.)
   (a) Soups—their place in the dietary; their value.
   (b) Tough cuts of meats—food value and how to retain it. (Fireless Cooker and Steamer Demonstrations.)
   (c) Tender cuts—value and how to keep it.

March Meetings:

I. Home Gardening and Poultry.
   (a) Some **unusual** untried vegetable. (Exchange of ideas.) Have an authority on the subject to meet with your club or get information from the State Department.

April Meeting:

I. Meat Substitutes—their economic and dietetic value. (See this Circular.)

II. Practical Work.
   (a) Macaroni and chicken with cream sauce.
   (b) Macaroni and beef with tomato sauce.
   (c) Creamed eggs.
   (d) Curd cheese and nuts with mayonnaise.

May Meeting:

I. Breads, muffins, or biscuit, or rolls. (See this Circular.)

June Meeting:

I. Home Canning.
   (a) Contests for best jar of canned fruit (judged by State Standard).
   (b) Contests for best jar of preserves (judged by State Standard).
   (c) Contests for best jar of sweet pickles (judged by State Standard). (See Extension Circular No. 11.)

July Meeting:

I. Dietetic Value of Green Vegetables and Fruits. (See this Circular.)
II. Practical Work.

COMMUNITY CLUBS

Organized Clubs with President, Vice-President, and Secretary.

Club should meet .....

Club should be called .....

THE PURPOSE OF THE ORGANIZATION

1. To offer systematic plans and conveniences to save time and labor.
2. To build better living conditions.
3. To teach the nutritive and economic value of foods.
4. To demonstrate good, wholesome cooking, better balanced food.
   (a) To develop stronger manhood and womanhood.
   (b) To build better homes.
5. To create a fine community spirit.
   (a) By exchange of ideas.
   (b) By developing the social life.

PLANS FOR CLUB WORK

I. Methods of Saving Time and Labor by the Use of Labor-Saving Devices. Study the BUILDING and USE of Each.
   1. Fireless cooker demonstration.
   2. Roller tray.
   3. Mop for polished or stained floors.
   4. Dust mop.
   5. Table on rollers with conveniences attached.
   6. Iceless refrigerator.
   7. Home-made ice-box.
   8. Ironing board.
   9. Convenient flour bin.
   10. Improved fly trap.
   11. Use of a steamer.
   12. Home waterworks.
   13. Garbage box.

   A tentative Plan for Study of Foods.

II. Cooking of Proteins (during cold weather).
1. Apply the principle of cooking tough meats on:
(a) Rabbit.
(b) Hen or duck.
(c) Steaks (tough).
(d) Any old fowl or tough meat.
2. Apply the principle of cooking tender meats on:
(a) Chicken (fried).
(b) Chicken (smothered).
(c) Chicken (stewed).
(d) Tender steaks.
3. Apply the principle of cooking fat meats (carbonaceous) on:
(a) Sausage.
(b) Liver pudding.
(c) Ribs and backbones,
or
(d) Boiled ham in fireless cooker.

III. Soups (during cold weather).
1. Tomato and bean.
2. Cream of tomato.
3. Vegetable.
4. Potato.

IV. Study of Starch in:

Muffins.	Doughnuts.	Brown bread.
Waffles.	Stale bread griddle cakes.	Mock beaten biscuit.
Corn meal muffins.	Griddle bread.	Beaten biscuit.
Batterbread.	Corn mush bread.	Soft sour milk biscuit.

IV. (Continued) Study of Starch and Yeast in Warm Weather in:
Quick rolls No. 1.
Quick rolls No. 2.
Plain bread.

V. Study of Starch and Fat in Pastry:
Pumpkin pie.
Lemon pie.
Fruit pudding.

VI. Study of Starch and Sugar in:

Soft gingerbread.	Cup cake.
Cookies.	Coffee cake.
Cheap cakes.	Cottage pudding.

VII. Study of Protein and Starch in:
Cereals.

VIII. Study of Ash in Green Vegetables:

Potatoes.	Cabbage.	Turnip greens.
Onions.	Carrots.	Collards.
Beets.	String beans.	Kale.
Okra.	Turnips.	Spinach.

IX. Study of Fruits in Desserts:

Prune whip.	Strawberry mousse.	Grape jelly.
Prune souffle.	Frozen strawberries.	Jellied apples.
Prune stuffed.	Grape frappe.	Baked pears.

X. Study of Simple Balanced Meals Based on Scientific Principles, Winter Diet.

1. Pork Roast,
   Collards,
   Hominy,
   Corn bread,
   Apple sauce.

2. Rabbit in Tomato Sauce.
   Potatoes,
   Boiled onions,
   Corn bread,
   Baked apples.

XI. Study of More Expensive Meals Based on Scientific Principles:

1. Duck,
   Sweet potatoes,
   Creamed onions,
   Lettuce salad,
   Persimmon pudding.

2. Turkey,
   Rice,
   Peas (garden),
   Cranberries,
   Celery,
   Pumpkin pie.

XII. Study of Simple Meals, Using Meat Substitute as a Basis for Balanced Meals:

1. Rice with creamed eggs,
   Fruit salad,
   Brown bread.

2. Macaroni and chicken,
   with cream sauce.
   Turnip salad, garnished
   with hard-cooked eggs,
   Baked apples.

3. Bean and tomato soup,
   Brown bread and butter,
   Baked apples,
   Cookies.

Lend This to a Neighbor