

Foods - Home

June, 1919

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A Study in Foods For Home Demonstration Clubs

Mrs. Cornelia C. Morris



N. C. State College of Agriculture and Engineering
N. C. State Department of Agriculture
N. C. Agricultural Experiment Station, and
U. S. Department of Agriculture, Cooperating

Agricultural Extension Service

B. W. Kilgore, Director
Raleigh and West Raleigh

INTRODUCTION

The Division of Home Demonstration work has felt the need of some elementary text on the care and preparation of food to be used in carrying out its program with the girls and women of the State, and to that end the following program of work has been outlined by Mrs. Cornelia C. Morris, Tidewater District Agent.

The purpose of this bulletin is to set before the club members and such rural teachers as may desire to fit themselves to help the girls under their charge in proper methods of preparing and caring for food, in giving a knowledge of its use in the body, and in teaching the value of a properly balanced meal for the family.

This bulletin purposes, also, to demonstrate the value of home conveniences and a properly arranged kitchen, and stresses the necessity for sanitation and a convenient water supply in the home.

The main food groups and the process of cookery are discussed with specific reference to elementary work both in the home and in the rural school.

The Home Demonstration Agent is asked to use this outline in her yearly program of work as she thinks best. If only a part of her program can be given to foods, the course suggested may be stretched over two or more years.

Many references are made in the outline to certain Government or State bulletins that treat the subject more fully than could be done in a pamphlet of this kind. State bulletins may be had from the Agricultural Experiment Station, the Agricultural Extension Service and the State Department of Agriculture, Raleigh, N. C. Government bulletins may be had from the United States Department of Agriculture at Washington, D. C.

JANE S. MCKIMMON,
State Home Demonstration Agent.

A Study in Foods For Home Demonstration Clubs

By MRS. CORNELIA C. MORRIS, *District Agent, Division of Home Demonstration Work.*

VALUE OF HOME ECONOMICS IN HOME-MAKING

It has been said that "When one's knowledge of a subject has passed the stage of drudgery and becomes a science its performance immediately becomes a pleasure. The ability to do a thing, in the highest known perfection, is always a source of delight, and it matters little what that something is."

One of the first essentials in successful home-making is proper training in Home Economics. Home-making is a many-sided business, and this study lays the foundation for the housewife to build upon.

On her depends the comfort and happiness of the home. She plans the building, chooses the furnishings and equipment, buys and makes the clothing, selects and prepares the food, looks after the health of the family, beautifies the premises, and is responsible for the expenditure of about three-fourths of the family income. To make a success of this combination of varied tasks it will be necessary for the housekeeper to plan the business of her home with system and to select tools and equipment which will eliminate drudgery and leave time for recreation and pleasure.

AIR AND VENTILATION

Fresh air and sunshine are necessary in promoting the health of the family. The proper ventilation of the cellar is of prime importance, as a large amount of this air finds its way to the rooms above. Sleeping rooms should have a good cross-ventilation and the living room should at all times have a circulation of pure fresh air. Light airy store rooms and pantries will do much to prevent moths, mold and decay.

SWEEPING AND DUSTING

In sweeping, take short even strokes, holding the broom close to the floor. Sweep from the sides toward the center of the room. Collect dust in a dust-pan and burn immediately.

A piece of soft cheese-cloth makes a good dust cloth. The object in dusting is to remove the dust and not to scatter it. Shake cloth frequently out of doors and wash after using. Use a little household ammonia in place of soap, in the water, when washing windows.

CARE OF THE PREMISES

The grounds surrounding the home should be well drained with no stagnant pools to breed mosquitoes. Trees and shrubbery should be so placed that an abundant supply of fresh air and sunshine will be available to all parts of the house.

Garbage should be disposed of promptly and unslacked lime should be freely used in damp or shady places.

Where there is stock, manure bins should be used. Fly-traps should be placed near all out-buildings and outside the kitchen door. The well should be located as far from sources of contamination as possible. Impure water is the cause of typhoid fever, dysentery and other intestinal diseases.

Last, but not least, beautify the premises with native shrubs, a few flowers, and a well-kept lawn.

PERSONAL CLEANLINESS

Personal cleanliness is a vital matter, and as most personal habits are formed before the age of 20 or 25, we should impress on the young the value of the daily bath, and train them to care properly for the teeth, nails and hair.

Underclothing should be changed at least once a day. Washable dresses are preferable for housework. When cooking or handling food, an apron should be worn and the hair carefully covered with cap or net.

If it becomes necessary to use a handkerchief, the hands should be washed before proceeding with the work.

A generous supply of both hand and dish towels should be conveniently near. Holders made of heavy denim are necessary when handling cooking vessels.

THE KITCHEN

The kitchen should have good cross-ventilation to dispose of cooking odors. Painted walls that may be wiped off with a damp cloth are best; and unless hardwood can be afforded for the floor, good linoleum, properly laid, will prove to be the most satisfactory finish. If linoleum is washed and the pores filled with wax paste, it will last indefinitely. These floors are easily cared for and are clean and sanitary.

The color scheme of the kitchen will depend entirely on the exposure. If the kitchen is a sunny room, blue or gray, with white, will be cool and restful. A northern exposure will require a warm yellow.

Dark cheerless walls take all of the joy out of housework. The kitchen is a woman's workshop and should be cheerful and bright with good furnishings and equipment. A cabinet, where she can sit comfortably, with supplies within easy reach, is a great step-saver. The sink should be 34 or 35 inches from the floor. Whatever fuel is used, the range should be the best on the market. A small oil stove in addition to the range will make summer cooking less fatiguing. A fireless cooker is a

necessity throughout the year. Cabinet, cooker, wheel-tray and many other labor-savers can be made at home with the assistance of a car-



FIG. 1—A HOME DEMONSTRATION KITCHEN

penter. Too many utensils clutter up a kitchen and make additional work. Try and have only the necessary tools and have them of good quality. Sharp knives, a food chopper, mixing bowls, a corkscrew, can-opener and other devices save time and temper. Aluminum cooking

vessels last a lifetime if cared for properly. For baking, the new glass-ware is excellent. The storage closet should be ventilated. The shelves and walls should be painted.

A comfortable chair with magazines conveniently near will be restful during spare moments. Plan work at least a day in advance and avoid monotony in the menu.

FOOD

In order to understand food and its relation to the body it is necessary to study something of the composition of food.

As our bodies are composed of different elements uniting to form different substances, bone, flesh, muscle, hair, teeth, skin, etc., so also are the foods that are used in the building up of these bodies composed of different elements.

The chief elements which enter into our food products are carbon, oxygen, and hydrogen from the air, and water; nitrogen from the air through plants; calcium, phosphorus, sulphur and potash from the rock and soil through vegetables.

These elements unite in different proportions to form our foods, and for convenience we have named some of the combinations, and we find that food consists of five compounds: (1) Proteids; (2) Fats; (3) Carbohydrates; (4) Mineral matter; (5) Water.

(a) Organic Food

(1) <i>Proteids</i> —composed of:	<table> <tbody> <tr> <td>Nitrogen</td> <td rowspan="6"> <table> <tbody> <tr> <td>White of eggs, <i>i. e.</i>, albumen.</td> </tr> <tr> <td>Curd of milk, <i>i. e.</i>, casein.</td> </tr> <tr> <td>Legumen of peas and beans.</td> </tr> <tr> <td>Lean of meat, myosin.</td> </tr> <tr> <td>Gluten of wheat.</td> </tr> </tbody> </table> </td> </tr> <tr> <td>Carbon</td> </tr> <tr> <td>Oxygen</td> </tr> <tr> <td>Hydrogen</td> </tr> <tr> <td>Sulphur</td> </tr> <tr> <td>Phosphorous</td> </tr> </tbody> </table>	Nitrogen	<table> <tbody> <tr> <td>White of eggs, <i>i. e.</i>, albumen.</td> </tr> <tr> <td>Curd of milk, <i>i. e.</i>, casein.</td> </tr> <tr> <td>Legumen of peas and beans.</td> </tr> <tr> <td>Lean of meat, myosin.</td> </tr> <tr> <td>Gluten of wheat.</td> </tr> </tbody> </table>	White of eggs, <i>i. e.</i> , albumen.	Curd of milk, <i>i. e.</i> , casein.	Legumen of peas and beans.	Lean of meat, myosin.	Gluten of wheat.	Carbon	Oxygen	Hydrogen	Sulphur	Phosphorous
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FOOD ADJUNCTS

Food adjuncts are not classed with the food principles, but are of importance because they stimulate the appetite by adding flavor to the

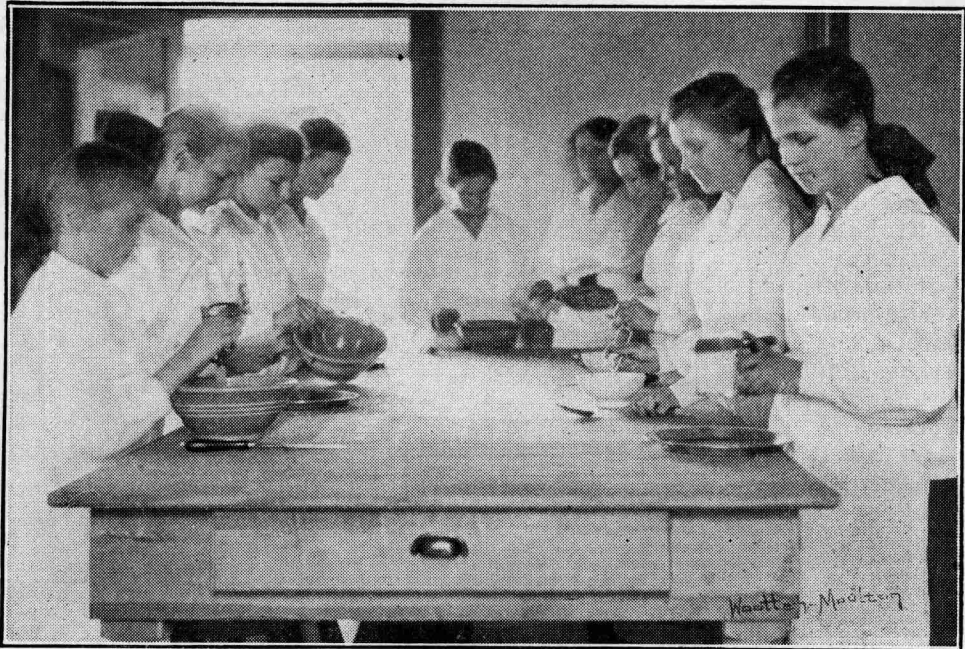


FIG. 2—PREPARING A SCHOOL LUNCH

food. In some cases they aid digestion by exciting the flow of the digestive juices. Among the food adjuncts are spices, flavoring substances, fruit acids and the mild stimulants found in tea, coffee, etc.

USES OF DIFFERENT FOODS

- (a) *Proteids*.—Build tissue and yield heat and energy.
- (b) *Carbohydrates*.—Give heat and energy.
- (c) *Fats*.—Give heat and energy.
- (d) *Mineral Matter*.—Builds bone and aids digestion.
- (e) *Water*.—(1) Carries nourishment to different parts of the body and removes waste. (2) It helps to form a part of the tissues, making about two-thirds the body weight. (3) It moistens the different tissues. (4) It helps to regulate the temperature of the body.

Composition of Some Common Foods

	REFUSE	WATER	PROTEIN	FAT	CARBO- HYDRATES	ASH	FULL VALUE PER LB.
	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	<i>Per ct.</i>	
Beef, round	7.2	60.7	19.0	12.8	.....	1.0	890
Beef, sirloin	12.8	50.0	16.5	16.1	.....	.9	975
Mutton, flank	9.9	39.0	13.8	36.9	.....	.6	1,770
Cod	29.9	58.5	11.1	.2	.....	.8	220
Oysters .....	.....	88.3	6.0	1.3	3.3	1.1	225
Whole milk .....	.....	87.0	3.3	4.0	5.0	.7	310
Butter .....	.....	11.0	1.0	85.0	.....	3.0	3,410
Cheese, cheddar .....	.....	27.4	27.7	36.8	4.1	4.0	2,075
Cheese, full cream.....	.....	34.2	25.9	33.7	2.4	3.8	1,885
Entire wheat flour.....	.....	11.4	13.8	1.9	71.9	1.0	1,650
Corn meal .....	.....	12.5	9.2	1.9	75.4	1.0	1,635
Oat breakfast food.....	.....	7.7	16.7	7.3	66.2	2.1	1,800
White bread .....	.....	35.3	9.2	1.3	53.1	1.1	1,200
Rice .....	.....	12.3	8.0	.3	79.0	.4	1,620
Sugar, granulated .....	.....	.....	.....	.....	100.0	.....	1,750
Beans, dried .....	.....	12.6	22.5	1.8	59.6	3.5	1,520
Potatoes	20.0	62.6	1.8	.1	14.7	.8	295
Eggs	11.2	65.5	13.1	9.3	.....	.9	635

Adapted from Bulletin No. 142, U. S. Dept. of Agriculture.

Two pounds of solid food and three pints of water is about the amount required each day for the body of an adult.

Food that is used by the body is either tissue-building or heat-producing. The proteins largely include the first class, the carbohydrates and fats the latter. The fuel value of food is measured in calories, as heat in the body or atmosphere is measured by degrees.

CALORIES

A calorie is the common measure for the heat-producing property of foods. It is the amount of heat required to raise the temperature of one pound of water 4 degrees F.

Thus we speak of potatoes having a fuel value of 295 calories per pound. The following table gives the fuel value of most of our common foods. From a careful study of both, it will be seen that careful planning of the bill of fare is important both winter and summer. For example: oatmeal contains about 92 per cent of food properties and has a fuel value of 1,800 calories per pound; whole rice contains 87 per cent of food properties and has a fuel value of 1,620 calories per pound, and should be preferred for a summer food.

Fuel Value of One Pound of Food

	<i>Calories</i>		<i>Calories</i>
Beef, round	890	Potatoes	295
Beef, sirloin	975	Beans, dried	1,520
Mutton	1,770	Rice	1,620
Cod	220	Cornmeal	1,635
Oyster	225	Oatmeal	1,800
Milk	310	Wheat flour	1,650
Butter	3,410	Wheat bread	1,200
Cheese	2,075	Sugar	1,750
Cheese, full cream	1,885		

Table of Abbreviations

Tsp. or t.— <i>Teaspoonful.</i>	Qt.— <i>Quart.</i>
Tbsp. or T.— <i>Tablespoonful.</i>	Pt.— <i>Pint.</i>
Ssp.— <i>Saltspoonful.</i>	Oz.— <i>Ounce.</i>
C.— <i>Cupful.</i>	Lb.— <i>Pound.</i>
M.— <i>Minute.</i>	H.— <i>Hour.</i>

Accurate measurements are necessary to success in cooking. The standard measuring cup holds one-half pint. All measurements given in these recipes should be leveled off with a knife. All dry materials should be sifted before measuring, and never packed into a cup but put in lightly. Half a spoonful is measured by dividing in halves lengthwise.

Table of Weights and Measures

4 ssp.—1 t.	2 pts.—1 qt.
3 t.—1 T.	4 qts.—1 gal.
4 T.— $\frac{1}{4}$ c.	4 c. flour—1 lb.
8 oz.—1 c.	2 c. solid butter—1 lb.
2 gills—1 c.	3 c. meal—1 lb.
2 c.—1 pt.	2 c. granulated sugar—1 lb.

DISH WASHING

Collect dishes, scrape and pile all of a kind together. Have dishpan half full of hot, soapy water. Use soap-shaker and dish-mop. Wash glass, silver, cups and saucers, plates, larger dishes, tins and cooking utensils in order given. Rinse in clear hot water, wipe with clean, dry towels and put them in their proper places, handling them as little as possible. Wipe greasy dishes with paper before washing and burn the paper.

CARE OF THE REFRIGERATOR

Wash the refrigerator several times a week with a solution of washing soda, and flush the pipes with the same. Wipe as dry as possible and leave open until thoroughly dry.

TABLE SETTING AND SERVICE

Care of the Dining-room.—See that the dining-room is well aired and in perfect order before the meal.

Setting of the Table.—1. Lay a felt cloth or one of canton flannel on the table. 2. Put on the tablecloth with the folds straight and even, being careful that the part which hangs over is equal at each end. 3. Consider the number to sit down and divide off the space so that the distance between the plates may be equal. At the right of the plate place the knives, soup spoon and oyster fork, if oysters are served. Arrange in the order of courses. Just above the knife place the tumbler. At the left of the plate place the fork, then the napkin, and above the napkin the bread and butter, or butter plate. The tines of the forks should be up, also the bowls of the spoons. The knives should be turned with the sharp edge toward the plate. Have a bowl of fruit or a few flowers in the center of the table.

For breakfast place the coffee pot, sugar bowl, cream pitcher, cups and saucers in a semi-circle in front of the hostess. The host serves the main dish.

Serving.—Dishes on which hot foods are to be served should be hot. Pass everything to the left when a person is to help himself, holding the tray firmly, and low, near enough that the dish may be within easy reach. When setting a thing down before a person go to the right, as in the case of soup, coffee, etc. In filling a tumbler, take it near the bottom, draw to the edge of the table, and fill three-fourths full. When ready for dessert, remove individual dishes first, then meat platter and all dishes holding food. Take off salt, pepper, and all dishes not necessary for the next course, then brush the crumbs from the tablecloth.

METHODS OF COOKING

1. *Boiling.*—Cooking in water at a boiling temperature, 212 degrees Fahrenheit (F).

2. *Stewing.*—Cooking in water below the boiling point, 160-198 degrees (F).

3. *Frying.*—Cooking in deep fat (cooked foods require more heat and less time for frying than uncooked). Have enough fat to cover or float the article.

4. *Sautéing.*—Cooking in a small amount of fat, commonly called frying.

5. *Broiling.*—Cooking over hot coals, or under a gas flame, or in a hot pan. Sear the surface and then cook more slowly. This preserves all of the juices and flavors of the meat. Never pound steak before broiling it.

6. *Roasting.*—Cooking meat by surrounding the whole surface with heat.

BEVERAGES

Thirst is the natural craving of the body for water, hence water is the best beverage, other beverages are valued for their stimulating or nourishing qualities, as well as their refreshing property.

Water.—Good drinking water is clear, colorless and almost tasteless. If there is any doubt as to its purity, it should be boiled ten or twenty minutes to kill the germs.

Tea.—The best black tea comes from India and Ceylon. Some familiar brands are Oolong, Formosa, English Breakfast, Orange Pekoe, and Flowery Pekoe. The best green tea comes from Japan. Some familiar brands are Hyson, Japan, and Gunpowder. The stimulating property of tea is due to the alkaloid, theine, together with an essential oil; it contains an astringent, tannin. Tea should always be infused, never boiled. Long steeping destroys the delicate flavor by developing a large amount of tannic acid.

Coffee.—The best coffee is composed of two parts of Java to one part Mocha. The stimulating property of coffee is due to the alkaloid caffeine, together with an essential oil. Like tea, it contains an astringent tannin which is developed by long cooking. Coffee is often adulterated with chickory and other seeds. If this is done it may be quickly detected by a coloring of the water and sinking of the grounds when a little is put in a glass of water.

CHOCOLATE

Chocolate and cocoa are prepared from the seed of the cacao tree. They are nourishing drinks and especially desirable for growing children. Theo-bromine, the active principle, is almost identical with theine and caffeine in its composition and effects.

Boiled Coffee

4 T. coffee

1 pt. boiling water

¼ egg, white

Scald coffee pot. Mix the egg and coffee with 2 tablespoonfuls of cold water. Put this into pot and pour on freshly boiled water. Boil 3 minutes. Pour a little coffee from the spout to remove grounds and pour back into pot, adding ¼ cup cold water to settle the grounds that may be floating in the coffee. Eggshells may be used instead of eggs to clarify coffee.

Tea

2 tsp. tea

1 pt. boiling water

Scald teapot, put in tea and pour on freshly boiled water. Steep 3 minutes.

Russian Tea

Put a slice of lemon in each cup and pour in hot tea.

Iced Tea

Pour hot tea into a vessel, add 2 tablespoonfuls of sugar. Cool with ice and add lemon. If the hot tea is poured on ice the flavor is better.

Chocolate

1 oz. chocolate	2 cups scalded milk
3 T. sugar	1 cup boiling water
½ t. flavoring	

Melt the chocolate, stir in water a little at the time. Add sugar and cook 2 minutes. Pour into a double boiler with scalded milk. Add flavoring (vanilla), beat and serve.

Punch for One Hundred

3 doz. lemons	1 can raspberries
1 doz. oranges.	2 qts. carbonated water
2 cans grated pineapple	1 qt. ginger ale
1 can red cherries	8 lbs. sugar
1 can white cherries	1 cup tea leaves
1 pt. Maraschino cherries	2 gals. boiling water.

Steep tea in boiling water 3 minutes; pour over sugar and stir until dissolved. Add fruit juices and fruit. Cool quickly by pouring over ice. When ready to serve, add carbonated water and ginger ale.

Iced Tea Punch

1 qt. tea	6 lemons
1 can chunk pineapple	2 cups sugar
1 qt. carbonated water	

Mix lemon juice, sugar, and pineapple with cold tea. When ready to serve add 2 pounds of ice (shaved fine) and the carbonated water. Cherries, strawberries, raspberries and oranges may be used in this punch.

SOUPS

Soups may be divided into two classes: those with stock and those without stock. Those with stock have meat as a basis; those without stock are made of vegetables, fish and milk. Cream soups, or those without stock, are quickly prepared, are palatable and nutritious, and with bread and butter furnish a satisfactory meal.

For all cream soups, allow ½ to 1½ tablespoonfuls of flour to one pint of liquid. The liquid consists of milk and the water in which the vegetables were cooked. About twice as much milk should be used as vegetable pulp.

Cream soups should be thickened slightly or "bound," otherwise they will separate. To bind them, soften the butter, add an equal quantity of flour, rubbing the mixture to a cream. Add this to the soup. Cook 5 minutes or longer, stirring constantly.

Tomato Bisque

1 can tomatoes	⅓ t. pepper
¼ t. soda	3 T. butter
2 t. salt	4 T. flour
1 qt. milk	

Stew tomatoes until soft enough to strain; heat milk in double boiler; rub butter and flour together; add to hot milk and stir until smooth; cook 10 minutes; add seasoning and strained tomatoes to which soda has been added; serve at once. (The soda prevents the acid in the tomatoes from curdling the milk.)

Potato Soup

3 potatoes	1½ t. salt
1 qt. milk	¼ t. celery salt
3 slices onion	⅓ t. pepper
3 T. butter	1 t. chopped parsley
2 T. flour	

Cook potatoes in boiling salted water; when soft, rub through a strainer. Scald milk with onion, remove onion and add milk slowly to potatoes. Melt half the butter, add dry ingredients, stir until well mixed, then stir into boiling soup. Cook 1 minute, strain, add remaining butter and sprinkle with parsley.

Cream of Green Peas

1 pt. peas	Half small onion, sliced
2 c. water	2 T. butter
1 t. sugar	2 T. flour
1 t. salt	Pinch of white pepper
2 c. milk, scalded	

Wash the peas if fresh, and drain if canned; cook peas, onion, sugar and water together until the peas are very soft. Wash the peas in the water in which they were boiled, and strain. Melt the butter, add the flour, stir well, and add a portion of the strained liquid. Boil 3 minutes, stirring constantly. Add the remainder of the strained liquid, thin with hot milk, and add salt and pepper. Reheat to the boiling point and serve.

Asparagus, celery and other vegetables may be used in a similar manner for soups.

CLEAR SOUPS

Soups with stock have, for their basis, beef, veal, mutton, fish, poultry, or game, separately or in combination. They are classified as:

Bouillon, made from lean beef, delicately seasoned and usually cleared. Exception, clam bouillon.

Brown soup stock, made from beef two-thirds lean meat, and remainder lean and fat highly seasoned with vegetables, spices, and sweet herbs.

White soup stock, made from chicken or veal, with delicate seasonings.

Consommé, usually made from two or three kinds of meat, beef, veal, and fowl, being employed, highly seasoned with vegetables, spices, and sweet herbs. Always served clear.

Lamb stock, delicately seasoned, is served as mutton broth.

CEREALS

Cereals are valued chiefly for the large amount of starch which they contain, and for a small amount of protein. If thoroughly cooked, they

are very nutritious. They contain but little water; hence several times their bulk of water should be used in cooking. Long thorough cooking is necessary to render the starch easy of digestion. Cereals should be thoroughly masticated as the digestion of starch begins in the mouth.

GENERAL RULES FOR COOKING CEREALS

Have salted water boiling rapidly, using about one teaspoonful of salt to each quart of water. Cook longer than directions call for.

Oatmeal in Fireless Cooker

6 c. water 2 t. salt 2 c. oatmeal

Add oatmeal gradually to boiling salted water; cook rapidly for 10 minutes, stirring constantly. Place in fireless cooker overnight. Reheat by placing cooker pan in a pan of hot water over the fire.

Apple and Cereal

3 apples 2 tbsp. sugar
2 c. cooked cereal 1 c. water

Make a sirup of the water and sugar. Pare and core the apples and cook until tender in the sirup. Put a spoonful of cereal into a cup; set an apple on this and fill the cup with more of the cereal; chill and turn out. Serve with the fruit juice or with cream and sugar.

Fried Hominy

$\frac{1}{2}$ c. flour 1 egg
 $\frac{1}{8}$ t. salt $\frac{1}{4}$ c. sweet milk
8 slices cold cooked hominy 4 slices bacon

Make a batter of the flour, egg and milk; add the salt, and dip the hominy into the mixture. Fry the bacon crisp and brown the hominy in the fat.

Spoon Bread

2 c. cold cooked hominy $\frac{1}{2}$ c. cornmeal
2 T. butter 1 t. baking powder
2 eggs 2 c. sweet milk
 $\frac{1}{2}$ t. salt

Scald meal in the milk; beat the eggs and add them to the salt and hominy. Cool milk slightly and combine mixtures. Bake in a buttered pudding dish. Bacon fat may be used instead of butter.

POTATOES

Potatoes are about three-fourths water, the solid part being largely starch, with a small amount of protein and mineral salts. They contain a bitter juice which is drawn out in cooking.

Cooking swells and softens the starch, and thereby causes the breaking of the cell walls. When this is done the digestive juices can act upon the starch more easily.

Potatoes are valued chiefly for the starch which they contain, but are too bulky to give sufficient nourishment unless served with some proteid food.

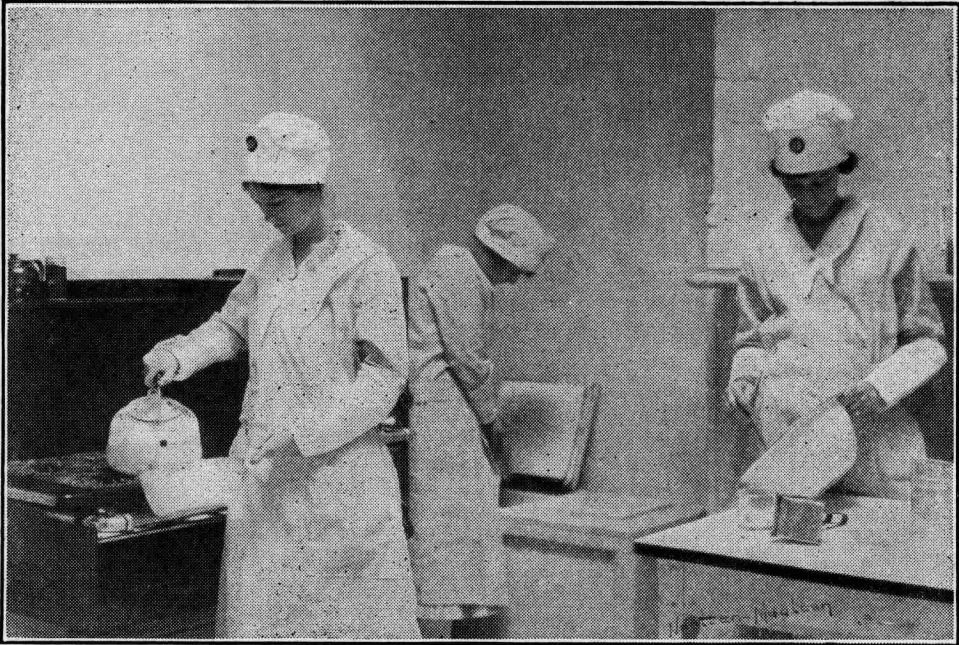


FIG. 3—PREPARING A DINNER IN A FIRELESS COOKER

Boiled Potatoes

Wash, scrub, and pare potatoes and put in cold water. Drop in boiling salted water and cook until tender (about 30 minutes). Drain off every drop of water and put uncovered on back of stove, shaking gently to make them as mealy as possible and allow steam to escape.

Mashed Potatoes

Mash potatoes in the kettle in which they were boiled, using a wire masher. To 1 pint of potatoes add 1 tablespoonful butter, one-half teaspoonful salt, a little pepper and hot milk to moisten. Beat until creamy and free from lumps. Pile lightly in a hot dish and serve.

Shadow Potatoes

Wash and pare potatoes. Slice thinly (using vegetable slicer) into a bowl of cold water. Let stand 2 hours, changing water twice. Drain, plunge into a kettle of boiling water and boil one minute. Drain again, cover with cold water. Take from water and dry between towels. Fry in deep fat until light brown, keeping in motion with a skimmer. Drain on brown paper and sprinkle with salt.

French Fried Potatoes

Wash and pare potatoes, cut in eighths lengthwise and soak one hour in cold water. Take from water, dry between towels and fry in deep fat. Drain on brown paper and sprinkle with salt.

Care must be taken that fat is not too hot as potatoes must be cooked as well as browned.

Stuffed Potatoes

Bake the potatoes on the rack of the oven. Cut them into halves and remove the inside, keeping the skins in shape. Prepare as for mashed potatoes; refill the skins and bake till a delicate brown. Grated cheese may be added.

Candied Yams

4 medium potatoes	$\frac{1}{2}$ tsp. cinnamon
1 c. sugar	2 c. water
3 tbsp. butter	

Pare the potatoes and cut into slices one-fourth of an inch thick. Arrange in a baking dish and pour over them the water, in which has been mixed the butter, sugar and cinnamon. Bake slowly for a long time till the water is absorbed and the potatoes are brown. Cold boiled potatoes may be used, in which case decrease the amount of water.

SUGAR

Sugar is a valuable fuel food and energy producer. It is pleasing to the taste and relieves fatigue.

Source of Sugar.—Cane, beet, fruit, milk, etc. In the manufacture of cane sugar, the cane is crushed and the sap is boiled in large copper kettles. When this is done a part crystallizes; this is raw sugar; the part that does not crystallize is molasses. Raw sugar is refined by dissolving it in boiling water and adding a little lime to neutralize the acid. It is then strained through flannel and filtered through bone-black to remove impurities. This product is then boiled in vacuum pans to a thick sirup. It is next put in a machine, where rapidly revolving cylinders throw out the uncrystallized part, leaving the white crystals, which we know as granulated sugar.

The following temperatures will be helpful in cooking sugar:

Small thread	215° F.
Large thread	217° F.
Soft ball	238° F.
Hard ball	248° F.
Caramel	350° F.

Cocoanut Bar

4 c. sugar	$\frac{1}{2}$ c. grated cocoanut
1 c. water	1 tsp. flavoring
$\frac{1}{2}$ tsp. cream of tartar	

Dissolve the sugar and cream of tartar in water. Cook without stirring until a soft ball will form when tried in cold water. Remove from fire and cool until the hand can be held on outside of saucepan, then beat until it thickens. Add cocoanut and flavoring; pour into buttered pans, cool, and cut into bars or squares.

Peanut Brittle

Use equal parts granulated sugar and chopped peanuts. Melt the sugar in a shallow pan; when it becomes a clear golden brown sirup, add the nuts and put on the bottom of an inverted pan; press into shape with two knives, crease it and put away to harden.

Oatmeal Cookies

$\frac{3}{4}$ c. shortening	1 tsp. cinnamon
1 c. sugar	$\frac{1}{2}$ tsp. salt
2 eggs	2 c. flour
4 tbsp. milk	2 c. dry rolled oats
$\frac{3}{4}$ tsp. soda	1 c. chopped raisins (or more)

Sift salt, soda and spice with the flour; mix in the order given; drop by teaspoonfuls on a buttered pan and bake.

MILK

Milk is considered to be a perfect food as it contains all the essential elements for normal growth and development. If used as the sole food it will sustain life and allow growth, but for many reasons a mixed diet is better than an exclusive milk diet, after infancy.

Milk contains an abundance of substances known as vitamins or growth determinants which control growth and health.

The cream of a quart of milk contains as much of this vital substance as is found in all the skim milk left after the cream is removed. Skim milk, however, is a valuable tissue-builder.

Milk should be cooled as soon as possible after milking and should be kept in a cool place in covered vessels.

Pasteurized Milk

Set the bottle containing the milk on a rack in a vessel large enough to permit the cover to fit well down over the vessel. Pour into the vessel enough water to cover the rack just below the bottles. Put on the pot cover and let the water simmer 20 minutes. The temperature should not be more than 170° F. Cool as quickly as possible and do not uncork the bottles till ready to use the milk.

White Sauce

No.	Milk	Flour	Butter	Salt
1	2 cups	1 tablespoon	1 tablespoon	$\frac{1}{2}$ teaspoon
2	2 cups	2 tablespoons	2 tablespoons	$\frac{1}{2}$ teaspoon
3	2 cups	3 tablespoons	3 tablespoons	$\frac{1}{2}$ teaspoon
4	2 cups	4 tablespoons	4 tablespoons	$\frac{1}{2}$ teaspoon
5	2 cups	5 tablespoons	5 tablespoons	$\frac{1}{2}$ teaspoon
6	2 cups	6 tablespoons	6 tablespoons	$\frac{1}{2}$ teaspoon

Melt the butter in a saucepan and stir in the flour. Scald the milk and pour it slowly into the butter and flour mixture. Stir constantly, cooking till smooth.

White sauce is the foundation for all cream soups, gravies and sauces.

Boiled Custard

1 qt. sweet milk	2 t. flavoring
1 c. sugar	$\frac{1}{8}$ t. salt
4 eggs	

Scald the milk, beat the yolks and sugar; pour the scalded milk into the eggs and sugar, beating all the time; turn the mixture back into the double boiler and cook till the mixture coats the spoon; remove from the fire, cool slightly, and mix in the beaten whites of the eggs; add salt, cool and flavor. This custard may be frozen for ice cream. The addition of 1 pint of cream makes a richer dish.

Cup Custard

Instead of turning the custard mixture into a double boiler, pour it into cups and dust over with nutmeg. Set the cups in a pan of hot water and bake in a slow oven till set.

Creamed Asparagus on Toast

Cook asparagus until tender in boiling, salted water. Arrange slices of toast on chop dish; lay asparagus on toast and cover with white sauce; garnish with parsley.

Creamed Green Peas

Reheat canned peas in white sauce. Serve in Swedish timbales.

Creamed Sweetbreads

Place sweetbreads in boiling, salted, acidulated water; simmer on back of stove 20 minutes. Remove membrane, cut in small pieces; reheat in white sauce. Serve on toasted crackers, toast or in timbales.

Creamed Oysters

Clean oysters and simmer until gills curl. Drain, cover with white sauce highly seasoned.

Pimento and Cottage Cheese Roast

2 c. of cooked lima beans	$\frac{1}{4}$ lb. cottage cheese
3 canned pimentos, chopped, salt	Bread crumbs

Put the first three ingredients through a meat chopper. Mix thoroughly and add bread crumbs until it is stiff enough to form into a roll. Brown in the oven, basting occasionally with butter or other fat and water.

Cottage Cheese Balls

Make small balls of cottage cheese; roll in chopped nuts; cover with salad dressing and serve on lettuce leaves.

EGGS

White of egg contains albumen in its purest form. Albumen coagulates at a temperature of from 136°F-160°F. Hence eggs should be cooked at a very low temperature. Eggs perfectly cooked should be placed and kept at a temperature of 175°F. Boiling renders the albumen tough and indigestible. Eggs are a highly concentrated food, and should be used in combination with carbohydrate foods.

Being deficient in starch they are usually served with bread in some form.

Eggs are preserved by: (1) Keeping in cold storage; (2) packing in salt; (3) putting in lime water; (4) preserved in water glass (sodium silicate).

Creamed Eggs

3 hard cooked eggs	½ t. salt
1 T. butter	⅓ t. pepper
1 T. flour	5 slices toast
1 c. milk	Parsley

Make a thin white sauce with butter, flour, milk and seasonings. Separate yolks from whites of eggs. Chop whites finely and add them to the sauce. Cut four slices of toast in halves lengthwise. Arrange on platter and pour over the sauce. Force the yolks through a potato ricer or strainer, sprinkling over the top. Garnish with parsley and remaining toast, cut in points.

Soft Cooked Eggs

Have a saucepan nearly full of boiling water. Add eggs, carefully; cover and set on back of stove where the water cannot boil. For very soft cooked eggs let stand 5 minutes; medium, 8 to 10 minutes.

Hard Cooked Eggs

Follow above directions, letting eggs stand 30 minutes, being careful to keep water just below the boiling point.

METHODS OF COMBINING MIXTURES IN QUICK BREADS

Quick breads are those that are made light without the use of yeast, as biscuits, muffins, waffles, etc.

Dough is stiff enough to be handled. Batter contains more liquid and should be beaten.

(a) *Stirring*.—Move the spoon steadily in a widening circle.

(b) *Beating*.—Tip the bowl slightly and with a spoon carry it swiftly through the material so that air is taken in with each stroke.

(c) *Folding*.—Put the spoon in edgewise; lift the ingredients and turn them over; repeat until thoroughly mixed. Never stir after folding.

Pour Batters.—Mixtures of about equal parts flour and liquid, as popovers and pancakes.

Drop Batters.—Mixtures of about two parts flour to one of liquid, as muffins and cakes.

Soft Dough.—Mixtures of about three parts flour to one of liquid, as biscuits.

Stiff Dough.—Mixtures of about four parts flour to one of liquid, as yeast bread.

BAKING POWDER

There are three kinds of baking powder—cream of tartar, acid phosphate, and alum. Baking powder is a combination of some one of these acids with bicarbonate of soda. A little starch is added to keep the mixture dry. Cream of tartar is obtained from crystals deposited on the inside of wine casks. These crystals are called argols or crude cream of tartar. When purified and ground, the pure white powder is obtained. Soda is obtained from common salt.

Effect of the heat of the oven upon baking powder mixture:

(a) As the ingredients become heated the acid in the baking powder acts more readily upon the soda, and the gas forms rapidly, filling the batter with little bubbles.

(b) The heat now causes these gas bubbles to increase in size.

(c) The moisture is partially changed to steam, and this also helps to lift up the dough or batter.

(d) The heat of the oven now hardens the walls of the bubbles, and keeps them from breaking.

Baking Powder Biscuit

2 c. flour	2 T. lard
4 t. baking powder	$\frac{3}{4}$ c. milk
1 t. salt	

Mix dry ingredients and sift twice; work in lard with tips of fingers; add gradually the liquid, mixing with knife or spoon to a soft dough. Place on floured board, pat and roll lightly to one-half inch in thickness; cut out and bake in hot oven.

Buttermilk Biscuits

2 c. flour	$\frac{1}{4}$ t. soda
1 t. salt	3 T. shortening
$\frac{1}{2}$ to $\frac{2}{3}$ c. buttermilk	1 t. baking powder

Mix as in Baking Powder Biscuit.

Waffles

2 c. flour	2 eggs
3 t. baking powder	$1\frac{1}{2}$ c. milk
$\frac{1}{2}$ t. salt	1 T. melted butter

Mix in order given, adding beaten yolks with milk, then the butter, and fold in the beaten whites last.

Flour Batter Cakes

Use the same recipe as Waffles.

Corn Meal Muffins

1½ c. corn meal	½ c. flour
1 t. salt	1½ c. buttermilk
½ to 1 t. soda	1 egg
2 T. lard	

Beat egg, add milk and salt. Sift the flour and meal together, then stir into it the liquid. Pour in the melted lard and add soda mixed with 2 tablespoonfuls of water. Pour into a hissing hot greased pan and bake in a hot oven.

Sour Milk Griddle Cake

2 c. flour	1 t. soda
½ t. salt	1¾ c. sour milk
2 eggs	

Mix and sift salt, soda and flour. Add sour milk and beaten yolks. Fold in the beaten whites, bake in a hot greased griddle. Serve with brown sugar sirup.

Brown Sugar Sirup

2 c. light brown sugar	½ c. water
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Stir sugar and water over fire until the mixture begins to boil; cook until it forms a sirup (about 5 minutes). A little lemon juice and melted butter may be added if liked.

Air Expansion

Popovers, omelets, cream cakes, sponge cake and angel cake are made light by the expansion of air beaten into the mixture. No leavening agents are used. They require a slow oven. If failures are made, they are usually traced to having too slow an oven or removing from oven before thoroughly done.

Popovers

1 c. flour	2 eggs
1 c. milk	½ t. melted butter
¼ t. salt	

Set muffin pans on stove to heat; grease with lard or butter, using just enough to keep the batter from sticking. Sift the flour and salt together; add the milk gradually and the well-beaten egg. Beat with a Dover Egg Beater 3 minutes or more. Bake in a hot oven 30 to 35 minutes. Unless the popovers are baked until they are hard and crisp they will fall.

Plain Omelet

4 eggs	4 T. hot water
½ t. salt	1 T. butter
Few grains pepper	1½ c. thin white sauce

Separate yolks from whites; beat yolks until thick and lemon-colored; add salt, pepper and hot water. Beat whites until stiff and dry, cutting and folding them into first mixture until they have taken up mixture. Heat omelet pan and butter sides and bottom. Turn in mixture, spread evenly, place on range where it will cook slowly, occasionally turning the pan that omelet may brown evenly. When well "puffed" and delicately browned underneath, place

pan on center grate of oven to finish cooking the top. The omelet is cooked if it is firm to the touch when pressed by the finger. If it clings to the finger like the beaten white of egg it needs longer cooking. Fold and turn on hot platter and pour around $1\frac{1}{2}$ cupfuls thin white sauce.

Cream Cakes

$\frac{1}{2}$ c. butter	4 eggs
1 c. boiling water	1 c. flour

Put butter and water in a saucepan; as soon as boiling point is reached add flour all at once and stir vigorously until smooth. Remove from fire, add eggs, one at a time; beat until thoroughly mixed between the addition of the eggs. Drop by spoonfuls on a buttered sheet $1\frac{1}{2}$ inches apart, shaping as nearly circular as possible, leaving mixture slightly piled in the center. Bake 50 minutes in a moderate oven. With a sharp knife make a cut in each large enough to admit the cream filling. If cakes are removed from the oven before they are thoroughly cooked they will fall.

Cream Filling

1 scant c. sugar	$\frac{1}{8}$ t. salt
$\frac{1}{3}$ c. flour	2 eggs
2 c. scalded milk	$\frac{1}{2}$ t. lemon extract

Mix sugar, flour and salt, and add gradually to scalded milk. Cook in a double boiler, stirring constantly until the mixture thickens. Cook about 15 minutes before the addition of the beaten eggs. Cook for a few minutes longer, then flavor cream. When adding eggs, add gradually, stirring constantly to prevent curdling.

Angel Cake

8 whites of eggs	1 c. powdered sugar
1 t. cream tartar	$\frac{3}{4}$ c. flour
$\frac{1}{4}$ t. salt	$\frac{3}{4}$ t. flavoring

Beat whites on large platter; add salt and cream of tartar; whip in sugar; sift flour into lower end of platter and fold into mixture; add flavoring. Cook in a new pan or in a pan lined with ungreased paper. Bake in a slow oven.

BREAD

Hard spring wheat makes the best bread flour, owing to the fact that it contains a larger amount of gluten. Soft winter wheat is best for pastry, as it is rich in starch. Yeast is a mass of tiny, colorless plants, each a single, rounded cell consisting of a sac filled with watery matter. Under a microscope new cells may be seen budding out of old ones.

The home of the yeast is on the skins of grapes and on parts of some other plants.

Yeast requires the same conditions as other plants for its growth, with the exception of sunlight. Just as other plants may be forced to grow unnaturally fast by warmth, so the growth of the yeast plant may be hastened by keeping it in a warm place.

Yeast for the manufacture of yeast cake is obtained from breweries and distilleries. Yeast plants are in the scum on top of fermenting liquors. It is washed to free it from impurities, mixed with starch to the consistency of paste, pressed into cakes and wrapped in tinfoil for market. A fresh cake is essential for good results.

By its growth in the dough it brings about changes by which a gas is produced called carbon dioxide. This gas fills the dough with bubbles; these are expanded by the heat of the oven and produce the light, porous loaf.

There are three kinds of yeast—the liquid, the compressed, and dry. The compressed is the most convenient form, as it is easily obtained and is in such a condition that the growth is rapid. The dry yeast must be allowed to grow in a “sponge” before it is ready to use in dough.

If a small quantity of yeast is used it is best to set the bread in form of a “sponge.”

A “sponge” should be used with dry yeast to hasten the process of growth.

When eggs are used, the bread is first allowed to rise as a “sponge.”

The yeast plant is killed at 212° F.; life is suspended, but not entirely destroyed at 32° F. The temperature best suited for its growth is from 80° to 87° F.

Bread is baked: (1) To kill ferment; (2) to make soluble the starch; (3) to drive off alcohol and carbon dioxide, and (4) to form a brown crust of pleasant flavor. Bread should be baked in a hot oven. If the oven be too hot the crust will brown quickly before the heat has reached the center, and prevent further rising; the loaf should continue rising for first fifteen minutes of baking, when it should begin to brown, and continue browning for the next twenty minutes. The last fifteen minutes it should finish baking, when the heat may be reduced. When bread is done, it will not cling to sides of pan, and may be easily removed. Biscuits require more heat than loaf bread, should continue rising the first five minutes, and begin to brown in eight minutes. Experience is the best guide for testing the temperature of the oven. Hard wheat should be made into a soft dough and soft wheat into a stiff dough.

Parker House Rolls

2 c. scalded milk	1 t. salt
3 T. butter	1 yeast cake dissolved in $\frac{1}{4}$ c.
2 T. sugar	lukewarm water
Flour	

Add butter, sugar and salt to milk; when lukewarm, add dissolved yeast cake and 3 cups flour. Beat thoroughly, cover and let rise until light; cut down and add enough flour to knead (about $2\frac{1}{2}$ cups). Let rise again, toss on floured board, knead, pat and roll one-third inch in thickness; shape with biscuit-cutter, first dipped in flour, and with it make a crease through the middle of each piece. Brush over one-half of each piece with melted butter,

fold and press edges together. Place in greased pan, one inch apart, cover, let rise, and bake in hot oven 12 or 15 minutes. As rolls rise they will part slightly, and if hastened in rising are apt to lose their shape.

Salad or Dinner Rolls

Use same ingredients as for Parker House Rolls, allowing one-fourth cup butter. Shape in small biscuits, place in rows on floured board, cover with cloth and pan, and let rise until light and well puffed. Flour handle of wooden spoon and make a deep crease in middle of each biscuit; take up and press edges together; place closely in buttered pan, cover, let rise and bake 12 to 15 minutes in hot oven. From this same mixture, crescents, braids, twists, bow-knots, clover leaves, and other fancy shapes may be made.

DEEP FAT FRYING

Frying is a process of cooking in enough hot fat to float or cover the article to be cooked.

Utensils.—A deep, heavy iron kettle, frying basket, and pan covered with soft paper.

Fats Used.—Lard or lard substitutes, such as cottolene, cocoanut oil, Wesson's cooking oil, beef drippings, cotton-seed oil, etc.

Temperature of Fat.—(a) Cooked articles: Fat should brown a cube of bread in 40 counts. (b) Uncooked articles: Fat should brown bread in 60 counts.

Precautions.—(1) Do not cook too many articles at a time; (2) Let fat reheat after addition of each set; (3) Do not have kettle too full of fat; (4) Take care not to burn the fat; (5) Have all articles for frying as dry as possible.

Order for Frying.—(1) Potatoes and uncooked articles, as doughnuts, fritters, etc.; (2) Croquettes or breaded meats, like veal cutlets, etc.; (3) Fish.

Care of Fat After Using.—The fat used for frying can be used repeatedly if proper care is taken. When fat has become cool but not solid, strain through a cheese-cloth and set away in a covered dish to cool. When heating it before a second using, add several slices of raw potato and let them heat with the fat. When brown, remove; they will absorb the odors in this way.

Doughnuts

Yolk of 4 eggs or 2 whole eggs	4 t. baking powder
1 c. sugar	½ t. salt
½ c. milk	¼ t. each cinnamon and nutmeg
½ c. water	Flour to make a dough just stiff
3 T. melted butter	enough to handle

To the beaten eggs add sugar and butter. Beat well, add water and milk, then the baking powder, salt and spices sifted with two cups flour. Add more flour until the right consistency is reached. Put one-third the mixture on a floured board; knead lightly; roll to one-third inch in thickness. Cut with a

doughnut cutter and fry in fat hot enough to brown a piece of bread in 60 counts. Avoid turning more than once. Drain well. When they are slightly cool put them in a paper bag, one at a time, with 3 or 4 tablespoonfuls powdered sugar and shake gently to coat them with sugar.

Chicken Croquettes

1 c. cold minced chicken	1 t. pepper
$\frac{1}{2}$ t. salt	$\frac{1}{2}$ c. white sauce
$\frac{1}{4}$ t. celery salt	1 t. lemon juice
1 t. parsley	

Mix the ingredients, adding the white sauce a little at a time until a stiff mixture is obtained. Shape into croquettes; roll in crumbs, then in egg, and into crumbs again. Fry in fat. Croquettes may be baked instead of fried. Other meats, such as veal, fish, brains, and sweetbreads, may be substituted for the chicken.

Fritters

1 c. flour	1 T. butter
$\frac{1}{4}$ t. salt	1 t. baking powder
$\frac{1}{2}$ c. sweet milk	1 T. sugar
2 eggs	

Mix and sift dry ingredients. Beat the yolks and add to them the milk. Stir the liquid into the dry ingredients and drop the melted butter in. Fold in the beaten whites. Slices of any fruits may be stirred into this batter and fried by spoonfuls immediately in deep fat. Serve with lemon sauce. Oysters may be used if sugar is omitted.

Clam Fritters

1 pt. clams	2 t. baking powder
2 eggs	Salt
$\frac{1}{3}$ c. milk	Pepper
$1\frac{1}{3}$ c. flour	

Clean clams, drain from their liquor and chop. Beat eggs until light, add milk and flour mixed and sifted with baking powder, then add chopped clams and season highly with salt and pepper. Drop by spoonfuls and fry in deep fat. Drain on brown paper and serve at once on folded napkin.

Rice Croquettes with Jelly

$\frac{1}{2}$ c. rice	$\frac{1}{2}$ t. salt
$\frac{1}{2}$ c. boiling water	Yolks of 2 eggs
1 c. scalded milk	1 T. butter

Wash rice, add to water with salt, and steam until rice has absorbed water. Then add milk, stir lightly with fork; cover and steam until rice is soft. Remove from fire, add egg yolks and butter; spread on shallow plate and cool. Shape in balls, roll in crumbs, then shape in nests. Dip again in egg and crumbs, fry in deep fat and drain. Arrange on folded napkin and garnish with parsley or serve around game.

Cutlets of Sweetbreads

2 pairs par-boiled sweetbreads	Slight grating nutmeg
2 t. lemon juice	1 egg
$\frac{1}{2}$ t. salt	1 t. finely chopped parsley
$\frac{1}{3}$ t. pepper	1 c. thick white sauce

Chop the sweetbreads, of which there should be two cups; if not enough, add chopped mushrooms to make two cups, then season. Add egg, slightly beaten, to sauce and combine mixtures. Cool, shape, crumb, and fry. Make a cut in a small end of each cutlet and insert in each a piece of cold boiled macaroni $1\frac{1}{2}$ inches long.

Swedish Timbales

$\frac{3}{4}$ c. flour	$\frac{1}{2}$ c. milk
$\frac{1}{2}$ t. salt	1 egg
1 t. sugar	1 T. olive oil

Mix dry ingredients, add milk gradually and beaten egg; then add olive oil. Shape, using a hot timbale iron; fry in deep fat until crisp and brown; take from iron and invert on brown paper to drain.

Fill cases with creamed oysters, chicken, sweetbreads, or chicken and sweetbreads in combination with mushrooms.

Banana Fritters

3 bananas	$\frac{1}{4}$ t. salt
1 c. flour	$\frac{1}{4}$ c. milk
2 t. baking powder	1 egg
1 T. powdered sugar	1 T. lemon juice

Mix and sift dry ingredients. Beat egg until light, add milk and combine mixtures; add lemon juice drop by drop and banana fruit forced through a sieve. Drop by spoonfuls; fry in deep fat and drain. Serve with a sauce.

FISH

Fried Fish

Clean fish and wipe as dry as possible. Sprinkle with salt, dip in flour or crumbs, eggs and crumbs, and fry in deep fat.

Sauce Tartare

$\frac{1}{2}$ t. salt	Few grains of cayenne
$\frac{1}{2}$ t. mustard	Yolks of 2 eggs
$\frac{1}{2}$ c. olive oil	$\frac{1}{2}$ shallot, finely chopped
$\frac{1}{4}$ t. powdered tarragon	$\frac{1}{2}$ tbsp. olives, parsley, pickles,
$1\frac{1}{2}$ tbsp. vinegar	capers, each finely chopped

Mix mustard, salt and cayenne; add yolks of eggs and stir until thoroughly mixed, setting bowl in pan of ice water. Add oil, at first drop by drop, stirring with a wooden spoon or wire whisk. As mixture thickens, dilute with vinegar, when oil may be added more rapidly. Keep in cool place until ready to serve, then add remaining ingredients.

Planked Shad

Clean and split a three-pound shad. Put skin side down on an oak plank one inch thick and a little longer and wider than the fish; sprinkle with salt and pepper and brush over with melted butter. Bake 25 minutes in hot oven. Remove from oven, spread with butter and garnish with parsley and lemon. The fish should be sent to the table on plank. Planked shad is well cooked in a gas range, having the flame over the fish.

Serve with white sauce to which has been added two hard cooked eggs finely chopped and parsley.

To Broil Fish

Bluefish and mackerel are split down the back and broiled whole, removing head and tail, or not, as desired. Smelts and other small fish are broiled whole without splitting. Clean and wipe as dry as possible; sprinkle with salt and pepper and place in well-greased wire broiler. Fish should be first broiled on flesh side, then turned and broiled on skin side just long enough to make skin brown and crisp. To remove from broiler, loosen fish on one side, turn and loosen on the other side; otherwise flesh will cling to broiler. Slip from broiler to hot platter.

Baked Fish

Clean and wipe the fish, remove the backbone by running the knife down the back, keeping it close to the bone. Lay one side of the fish on the pan in which two one-inch strips of cloth have been placed to help lift the fish. Lay on the stuffing, pressing firmly into place, cover with the other half and fasten with skewers. Sprinkle with salt, pepper and flour and dot with bits of butter. Put a little hot water into the pan and bake until brown and the flesh flakes. Garnish with parsley and slices of lemon.

Fish Stuffing

½ c. cracker crumbs	¼ t. salt
½ c. bread crumbs	1 t. chopped pickle
¼ c. hot water	Few drops onion juice
1 t. chopped parsley	⅓ t. pepper
2 T. butter	Mix all together

Moulded Fish

Remove skin and bones from a thick piece of boiled fish. Chop and force through sieve (there should be about 1½ cups). Pound in mortar, adding gradually whites of 2 eggs. Add 1¼ cups heavy cream, and salt, pepper and cayenne to taste. Turn into a buttered mould, cover with buttered paper, set in a pan of hot water and bake until fish is firm. Turn on serving dish and serve with Normandy Sauce.

Normandy Sauce

Cook skin and bones of fish with 3 slices carrot, 1 slice onion, sprig of parsley, bit of bay leaf, ¼ teaspoonful pepper corns and 2 cupfuls cold water 30 minutes and strain. There should be one cup. Melt 2 tablespoons butter and 3 tablespoons flour, add fish stock, ⅓ cup heavy cream and yolks 2 eggs. Season with salt, pepper and cayenne.

Soft-shell Crabs

Clean crabs, sprinkle with salt and pepper, dip in crumbs, egg, and again in crumbs; fry in deep fat and drain. Being light, they will rise to top of fat and should be turned while frying. Soft-shell crabs are usually fried. Serve with sauce tartare.

Frogs' Hind Legs

Trim and clean. Sprinkle with salt and pepper, dip in crumbs, egg, and crumbs again; fry in deep fat and drain.

Little Neck Clams

Little neck clams are served raw on the half shell in same manner as raw oysters.

OYSTERS

Oysters are Mollusks, having two shells. They contain a tough muscle by which they are fastened to the shell. The body is made up largely of liver, which contains glycogen (animal starch), and is partly surrounded by fluted layers which are the gills.

Oysters are five years old before suitable for eating.

They contain about the same amount of nutriment as an equal amount of milk.

Oysters with Bacon

Clean oysters, wrap a thin slice of bacon around each, and fasten with a small wooden skewer. Put in a broiler, place broiler over dripping pan, and bake in a hot oven until bacon is crisp and brown, turning broiler once during the cooking; drain on brown paper.

Oyster Cocktail

8 small raw oysters	¼ t. celery salt
2 drops tabasco	1 tbsp. vinegar or lemon juice
½ t. Worcestershire sauce	Grated horseradish

Mix ingredients, chill thoroughly and serve in cocktail glasses or cases made from green peppers placed on a bed of crushed ice.

POULTRY

Poultry is the flesh of domestic birds. Game includes wild birds and some animals. The light meat in poultry is found on the breast and wings, where the muscles are little used. In the case of game, since the wing and breast muscles are much used, the darker and juicier meat is found there. Poultry and game are easily digested.

Roast Chicken

Dress and wash fowl, stuff and rub with salt and flour. Tie into shape. Place in pan and add a little hot water. Cook in a hot oven and when the flour begins to brown baste with hot water. Reduce the heat of the oven and baste every 10 minutes. Cook until the breast meat is tender.

Fried Chicken

Clean and cut in pieces for serving. Sprinkle with salt and pepper and coat thickly with flour. Cook in deep fat until a golden brown.

Chicken Stew

Dress and cut up a fowl. Put in a stew pan, cover with boiling water and cook slowly until tender, adding one-half tablespoonful salt and one-eighth teaspoonful pepper when fowl is half cooked. Thicken with one-third cup flour diluted with cold water. Serve with pastry. Butter may be added to give a richer flavor.

BEEF

Good beef is fine-grained, of a bright red color, firm to the touch, and is well marbled with yellowish fat. The muscles which are the least used are the most tender, but have the least flavor and nourishment. The beef when slaughtered is divided into sides, and the sides into the hind and fore-quarter. The principal cuts of the hind-quarter are the loin, rump and round. The small end of the loin is divided into steaks called porterhouse. The large end of the loin is sold as sirloin steaks. The rump is used for steaks and stewing. The skin is used for soups. The fore-quarter contains the ribs, which are used for roasts. The first or prime ribs are the best; those near the shoulder, called the chuck ribs, are cheaper. The brisket and flank are used for corning and stewing. The neck is used for stewing. The shoulder is used for steaks and stewing.

In veal, lamb and pork, the ribs and loin are sliced and used as chops, or are left whole and used for roasting.

As soon as meat is brought into the house, remove the paper, wipe with a damp cloth, cut out any parts discolored by a meat hook, put on an earthen dish and set in a cool place.

Broiled Steak

Trim steak, heat pan, rub with piece of fat. Lay in steak with fat towards handle, cook over coals, turn every 10 counts. Allow 8 minutes for steak one inch thick. This may be broiled in a pan.

Rolled Flank Steak

3 lbs. flank steak
2 strips salt pork

1 onion
1 stalk celery

Stuffing

2 c. bread crumbs
1 t. chopped parsley
1 t. chopped onion

2 t. salt
 $\frac{1}{8}$ t. pepper
2 T. melted butter

Wipe meat and remove all membrane. Make stuffing by moistening bread crumbs with hot water. Add seasoning and butter, spread over the meat and roll up. Tie or skewer it and sear in a hot pan. Place in a heavy cooking vessel, put in onion and 1 pint boiling water. Cover closely, bring to the boiling point, and cook in fireless cooker. Potatoes, carrots or turnips may be added one hour before it is done.

Hamburg Steak

1 lb. lean beef	3 crackers
2 rings onion	$\frac{1}{8}$ t. pepper
1 egg	1 t. salt
1 T. lard	2 T. flour

Chop meat, removing all stringy pieces. Roll crackers and mix with egg, seasoning and meat. Make into balls, using 2 tablespoons for each ball. Dust with flour and flatten. Heat lard in pan and brown balls quickly over a hot fire. This may be made into a loaf and baked. Serve with tomato sauce.

Boiled Ham

1 ham	2 bay leaves
1 doz. pepper corns	1 doz. cloves

Wash well with a brush in cold water and soak overnight in water in which a little soda or borax has been dissolved. Wash ham in warm water, but do not let it soak in water. Put ham into the boiler, cover with hot water, add seasoning and simmer. Allow 20 minutes to the pound. Let ham cool in its own liquor, skin and serve. It may be boiled 2 hours, then covered with paste of flour, brown sugar and water and baked one hour.

Boiled Tongue

Wash tongue and trim away rough end at base. Put on in boiling water and simmer until tender. Add salt and any seasoning desired to the water. When cooked, remove skin and press until cold. This is excellent when prepared in the fireless cooker.

Beef Stew

2 lbs. beef	2 t. salt
1 onion	$\frac{1}{2}$ ssp. pepper
$\frac{1}{2}$ c. carrot	1 c. turnip
6 small potatoes	Water to cover

Wipe meat and cut in 2-inch pieces. Put the meat with onion into a kettle, and cover with boiling water. Add the salt and pepper and set back to simmer slowly. Cook until meat is tender—about 2 $\frac{1}{2}$ hours. Boil the vegetables in a separate saucepan, starting about one-half hour before stew is to be served. Just before serving, remove meat and vegetable stock and thicken with flour mixed with cold water. Cook 5 minutes and pour over meat and vegetables.

Pan-broiled Chops

Wipe chops clean and put into a hot frying pan without fat; turn as soon as seared; brown nicely on both sides; put on hot platter; season with salt, pepper and butter. Beefsteak may be cooked in the same way. Never put fat into the frying pan for beef or mutton.

Beefsteak with Oyster Blanket

Wipe a sirloin steak, cut 1 $\frac{1}{2}$ inches thick, broil 5 minutes, and remove to platter. Spread with butter and sprinkle with salt and pepper. Clean one pint oysters, cover steak with same, sprinkle oysters with salt and pepper and dot over with butter. Place on grate in hot oven and cook until oysters are plump.

Roast Beef

4 lbs. rib roast
2 t. salt

1 t. pepper
Flour to dredge

Wipe roast with damp cloth, dry, weigh and dredge with flour. Set on a rack in a roasting pan, and put salt and pepper with one cup of hot water in pan. Brown on top rack of stove and then remove to lower part of oven. Baste with drippings, cover, and cook, allowing 8 to 10 minutes to the pound. Baste frequently.

Roast Mutton

A leg of mutton is roasted like beef. The bone may be removed and space filled with stuffing.

FRUITS

Fruits are valuable for their sugar, acids, and salts, and are cooling, refreshing, and stimulating. They act as a tonic, and assist in purifying the blood. Bananas, dates, figs, prunes, and grapes, owing to their large amount of sugar, are the most nutritious. Melons, oranges, lemons, and grapes contain the largest amount of water. Apples, lemons, and oranges are valuable for their potash salts, and oranges and lemons especially valuable for their citric acid. Plums, peaches, apricots, and raspberries have less sugar than other fruits; apples, sweet cherries, grapes and pears contain the largest amount. Fruits should always appear on the breakfast table.

Baked Apples

Wipe and pare apples, put in baking dish and fill cavities with sugar and spice. Use $\frac{1}{2}$ cupful sugar, $\frac{1}{4}$ teaspoonful cinnamon, few gratings nutmeg and a few drops lemon juice. Cover bottom of dish with boiling water and bake in hot oven until soft. Baste often with sirup in dish. Serve either hot or cold with whipped cream.

Bananas with Cream

Slice bananas, sprinkle with powdered sugar. Serve with cream.

Sliced Oranges

Remove skins, slice thinly, place on bed of crushed ice and serve with powdered sugar.

SALADS

Salads are valued for the mineral salts contained in the fresh, green, uncooked vegetables and fruits, and for oil contained in dressing, as well as for mild acid. They are refreshing and stimulating to the appetite.

Have everything cold and crisp. The ingredients should be carefully proportioned for the dressing and should be well blended so that it will be neither oily nor acid. It is necessary to have the whole well mixed.

French Dressing

3 T. olive oil	$\frac{1}{8}$ t. pepper
$\frac{1}{2}$ t. salt	$\frac{1}{2}$ t. sugar
$1\frac{1}{2}$ t. vinegar	

Put the oil into a bowl. Stir in the salt, pepper and sugar. Stir in the vinegar, a few drops at a time. Serve on lettuce. Lemon juice may be used for the vinegar. Onion juice and chopped parsley may be added when the dressing is for vegetables.

Boiled Dressing

2 eggs	2 T. butter
2 T. sugar	1 T. corn starch
$\frac{1}{4}$ t. pepper	1 T. mustard

Mix the butter, mustard, pepper, salt and sugar in the vinegar. Place on the fire to heat. Beat the eggs in a double boiler with the corn starch. When the vinegar is hot pour it into the eggs, stirring until the mixture thickens. Cool. One-fourth cup whipped cream folded in just before serving adds to the richness of the dressing.

Mayonnaise

1 t. salt	2 c. salad oil
$\frac{1}{8}$ t. cayenne pepper	1 T. lemon juice
1 T. vinegar	2 egg yolks

Have all the ingredients cold. Set the bowl containing the egg yolks into a bowl of crushed ice; add the salt and pepper; beat well. Add 2 tablespoonfuls of oil, a few drops at a time, stirring constantly. Now alternate oil with vinegar, putting in larger quantities each time. If the mixture curdles, add it to another egg yolk.

Waldorf Salad

1 c. tart apples, diced	$\frac{1}{2}$ c. chopped nuts
1 c. tender celery, diced	Lettuce leaves

Toss apples, celery and nuts together lightly, dress with mayonnaise and serve on lettuce leaves or in the apple shells.

Asparagus Salad

1 c. cold asparagus tips	Lettuce leaves
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Wash lettuce carefully, arrange tips on the lettuce, dress with mayonnaise. Serve immediately.

Asparagus may be made into little bundles held by a ring of green pepper and served on lettuce.

Potato Salad

2 c. cold potatoes	$\frac{1}{8}$ t. cayenne
1 c. celery	2 T. red bell pepper
2 eggs, hard cooked	$\frac{1}{2}$ onion
1 t. salt	

Cut potatoes and celery into dice, chop the onion, eggs and pepper. Mix with mayonnaise or boiled dressing and serve on lettuce.

Grape Fruit, Ginger and Pineapple Salad

3 grape fruits	1 pineapple
$\frac{1}{4}$ lb. Malaga grapes	$\frac{1}{4}$ lb. crystallized ginger

Prepare fruit and cover with French dressing or mayonnaise with a little whipped cream added.

Lettuce and Tomato Salad

Arrange heart lettuce and slices of tomato on salad dish. Cover with crushed ice. Serve with mayonnaise.

Bananas and Peanut Salad

Arrange sliced bananas on lettuce leaf on salad plate. Pour over this one tablespoonful crushed peanuts. Mask with mayonnaise.

Stuffed Tomatoes

Select medium sized tomatoes of uniform size. Remove skins by immersing in boiling water one minute. Remove inside of tomato carefully. Mix with a little cold, finely chopped meat, season highly, refill tomatoes, cover with mayonnaise and serve very cold.

Left-over vegetables and fruits may be combined in many attractive ways and served with a dressing, making a delicious salad.

INVALID COOKERY

Dietaries are frequently classified as follows:

1. *Liquid Diet*, including—broths, meat extracts, milk, gruel, egg nog, beverages, etc.
2. *Soft Diet*, including—cereals, cream soups, soft-cooked eggs, milk and cream toast, custards, junket, jellies, etc.
3. *Light Diet*, including—eggs, sweetbreads, chicken, squabs, quail, tenderloin steak, scraped beef, bacon, baked potatoes, asparagus, peas, cornstarch and gelatine desserts, sponge cake, baked apples, oranges and other fresh fruits, excepting berries having small seeds, which may prove irritating to the digestive tract.

Milk is of great value in invalid feeding, and agrees with most people. Two quarts per day must be allowed if no other nourishment is given.

Wine Whey

$\frac{1}{4}$ c. milk	3 T. sherry
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Scald milk, add wine, and let stand 5 minutes. Strain through cheesecloth.

Milk Punch

$\frac{1}{2}$ T. sugar	1 T. brandy or other flavoring
$\frac{2}{3}$ c. cold milk	Few grains salt

Put ingredients in a clean jar and shake until frothy. Strain in glass jar for serving.

Egg Nog

1 egg	$\frac{1}{4}$ t. vanilla or
$\frac{3}{4}$ t. sugar	$\frac{1}{2}$ T. brandy
Few grains salt	$\frac{2}{3}$ c. cold milk

Beat egg yolk, add sugar, salt and flavoring, add gradually the milk; strain and add white of egg beaten stiff. Serve in a glass.

Oatmeal Gruel

$\frac{1}{4}$ c. rolled oats	$\frac{1}{2}$ t. salt
$1\frac{1}{2}$ c. water (boiling)	Milk or cream

Add oats mixed with salt to boiling water; let boil 2 minutes, then cook over boiling water 2 hours. Strain and add milk or cream. Serve hot.

Orangeade

Juice of 1 orange	2 t. sugar	$\frac{1}{2}$ c. crushed ice
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Mix orange juice and sugar. Strain in cracked ice.

Beef Broth

1 lb. lean beef	1 qt. water
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Cut meat in $\frac{1}{2}$ -inch cubes to expose a large surface to water. Put in granite saucepan, add the water and let stand 45 minutes. Heat gradually to simmering point and cook at that temperature for 2 hours. Remove from fire, pour through a strainer sufficiently coarse to remove all pieces of beef, but to allow the flakes of coagulated albumen to pass through. When cold, remove all fat. When ready for use, reheat, season with salt and serve. Always stir before pouring from dish as coagulated albumen settles, leaving clear liquid above. As the amount of liquid becomes diminished in cooking, more water may be added.

Chicken Broth

3 lbs. chicken	3 pts. water
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Clean chicken, disjoint, gash meat and crack the bones. Cover with cold water, allowing it to stand 45 minutes, and cook at simmering point for 2 hours.

Egg in Nest

1 egg	1 slice toast	Few grains salt
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Separate white from yolk; beat with silver fork; add salt and pile on circular piece of toast which has been dipped in boiling salted water. Make a depression in center of white and drop in yolk. Season and bake in a moderate oven until delicately browned.

Scraped Beef Balls

Select a piece of round steak. Scrape with silver spoon on both sides of steak till all pulp is removed, leaving connective tissue. Form in balls three-fourth inches in diameter. Heat a frying pan, rub quickly with a piece of beef fat, add balls and shake till balls are slightly brown. Season with salt, pepper and butter. Arrange on slice of toast and serve hot.

This is excellent when formed into thin cakes and boiled 2 or 3 minutes on a wire broiler over hot coals.

CREDITS

To the following sources, credit is due for valuable help in the preparation of this bulletin.—*Cornelia C. Morris.*

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Cottage Cheese Dishes.....	<i>Circular No. 109</i>
Handbook in Domestic Science.....	<i>Nashville Grammar Schools</i>
A Brief Course in Domestic Science.....	<i>Catharine A. Mulligan</i>
The Business of Being a Housewife.....	<i>Jean Prescott Adams</i>
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