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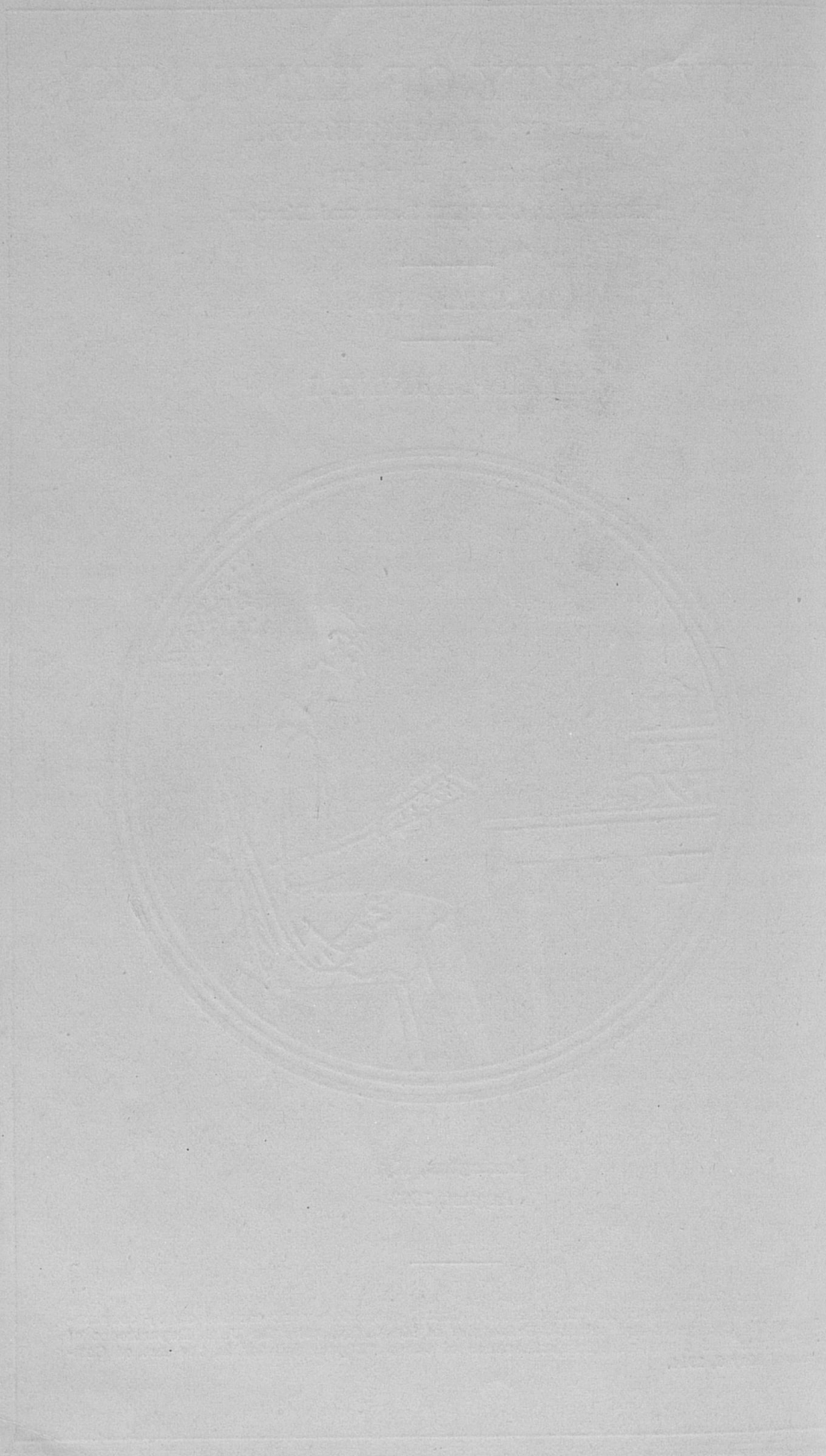
MEAL PLANNING, I



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**Circular No. 316\***

**MEAL PLANNING, I**

By **FLORENCE IMLAY** and **PEARL J. HAAK**

**PROBLEMS OF MEAL PLANNING**

Planning the meals for the day would be simple if all members of the family were of about the same age, doing similar work, in good health, and if the family income were sufficient to purchase all needed foods. Most families are not so ideal, however. There may be children of different ages, or aged or frail persons so that the food requirements may be different for each one. Of the adult members some may be at hard labor, others at light labor, or the family income may make it necessary to do careful economical buying.

The person who plans the meals should have a thoro knowledge of the food requirements of the body, and of the nutritive values of the various foods, in order that she may provide the children of the family with food elements needed for growth, and both the younger and older members with foods needed for energy, for keeping the body in good condition, and for building up resistance against disease.

Housewives often imagine that it is impossible to serve attractive and palatable meals which include all the essential elements for growth and health, at a low cost. This is a false idea. The woman who knows food values, the food requirements of the members of her family, and who makes a systematic study of the prices of products in the market is able to serve her family attractive, well-planned meals at low cost. The farm family which has a well-planned garden; uses a budget system for canning and storing garden products for the non-growing season; stores eggs for winter use; produces the family supply of milk and other dairy products, some sugars, such as honey and molasses, most of the supply of fresh meat and all the canned and cured meat, can have adequate, well-planned meals the entire year at a small expenditure of money.

\* To supersede Circular No. 228, of the same title.

## IMPORTANT CONSTITUENTS OF FOODS, AND THEIR FUNCTIONS

The following table gives the important constituents of foods and the part which each plays in the body processes of children and adults.

Classification of the food constituents, and their chief sources		General functions
<b>CARBOHYDRATES</b>		
Sugar	Macaroni	Produce energy for work and warmth, and for carrying on the general body processes.
Jellies	Potatoes	
Jams	Sweetpotatoes	
Syrups	Dates	
Molasses	Bananas	
Candy	Cereals	
Breads	Dried beans	
Rice		
<b>FATS</b>		
	Butter	Produce energy for work and warmth, and for carrying on the general body processes.
	Lard	
	Vegetable oils	
	Corn oil	
	Cotton seed oil	
	Olive oil	
	Pork	
	Bacon	
	Cream	
	Nuts	
<b>PROTEINS</b>		
Lean meat	Cheese	Build new body tissue of children and convalescents and keep body tissues of children and adults in repair.
Beef	American	
Mutton	Cottage	
Lamb	Eggs	
Chicken	Milk	
Pork	Beans (dried)	
Fish	Mature and dried peas	
<b>CELLULOSE</b>		
Coarse cereals		Aid digestion. Help in preventing or overcoming constipation.
Coarse fruits and vegetables		
<b>MINERALS</b>		
<b>Calcium</b>		Help to build and repair bony and muscular tissues and build new red blood corpuscles. Help to keep body in good condition. Aid in body processes such as digestion, heart action, secretions, etc.
Milk		
Cheese		
<b>Phosphorus</b>		
Lean meat		
Egg yolk		
Cheese		
Whole-grain cereals*		
Milk		
<b>Iron</b>		
	Liver	Help to build and repair bony and muscular tissues and build new red blood corpuscles. Help to keep body in good condition. Aid in body processes such as digestion, heart action, secretions, etc.
	Oysters	
	Dried beans	
	Beef (lean)	
	Heart	
	Greens	
	Molasses	
	Egg yolk	
	Blackberries	
	Prunes	
	Whole-grain cereals	
	String beans	
	Peas	

\* Made from whole-grain.

Classification of the food constituents, and their chief sources				General functions
<b>VITAMINS</b>				
<b>Vitamin A</b>	<b>Vitamin B</b>	<b>Vitamin C</b>	<b>Vitamin D</b>	Help to promote growth and optimum health.
Butter	Greens	Oranges	Egg yolk	
Cream	Fresh green peas	Grapefruit	Cod liver oil	Vitamin G
Carrots	String beans	Tomatoes	Liver	
Eggs	Whole milk	Cabbage (raw)	Beef	
Liver	Whole-wheat yeast breads	Bananas	Milk	
Milk (whole)	Whole-grain cereals	Apples	Eggs	
Spinach		Lettuce	Greens	
Cod liver oil		Potatoes	Apples	
	Carrots			
	Oranges			
	Grapefruit			
	Pineapple			
	Peas			
	Tomatoes			

Note that *carbohydrates* and *fats* do not have building power, but only produce energy for warmth and activity. When more carbohydrates and fats are eaten than are needed for energy and the body processes they are stored in the body as fatty tissue.

*Proteins* are the tissue builders and are needed in comparatively small amounts. The protein requirement for young children will be met if a quart of milk, an egg and a serving of whole cereal are used daily, with an occasional serving of meat. A serving of meat may be added daily for older children. A pint of milk, one egg, whole cereal in some form, and a liberal serving of lean meat or cheese is sufficient to meet the adult's daily protein needs.

*Minerals* are needed only in small amounts, but they are very important in building bone and muscle, making blood, and aiding in all the body processes. Altho many minerals are required to keep the body in good condition, most of them are needed in such small quantities that they are supplied in a diet that includes the quota of milk, liberal servings of a variety of fruits and vegetables and whole-grain cereals daily. However, iron, calcium and phosphorus are so necessary that special attention should be given to

them in planning the menu. *Calcium* (lime) is necessary to harden the bones and teeth and to stimulate heart action. Milk contains a larger proportion of calcium than other foods, and is our best source of this element. A quart of milk should be used daily in some form by children and at least a pint by adults. With our present knowledge of food requirements it is practically impossible to get sufficient calcium from other foods alone. *Iron* is essential in building red blood corpuscles. It is undoubtedly the most difficult food constituent to supply, because foods contain it in such small quantities. An insufficient amount of iron in foods leads to lowered resistance to disease, lowered vitality, fatigue, and eventually an anemic condition. For this reason, persons who have finicky appetites, especially teen-aged girls, are apt to become anemic.

*Phosphorus* is necessary in building bone and muscle, but since foods rich in calcium and protein also contain phosphorus, the requirement usually is met when materials containing sufficient amounts of these substances are included in the diet.

*Vitamins* stimulate growth and help to build up resistance to certain diseases and keep the body in a condition of optimum health. A deficiency of vitamin A in the diet results in stunted growth in children; a decreased resistance to nose, throat and bronchial infection; impaired vision and lowered vitality at all ages. Vitamin B is necessary for growth, helps to stimulate the appetite, and aids digestion. A lack of vitamin B eventually results in nervous instability. Vitamin C promotes normal growth and health, and helps to keep the teeth and blood vessels in good condition. A lack of vitamin C results in a loss of appetite, lassitude and eventually a disease known as scurvy. Vitamin D is essential for the prevention of rickets in children and keeping the bones of adults in good condition.

It is true that a housewife may supply all the essential ingredients in a menu, but have an uninteresting, unpalatable meal because she has not arranged good combinations in flavor, texture and color. Again, she may serve attractive meals but cater to the food likes or dislikes of her family or be so limited in the supply of food materials that her meals do not adequately supply the food require-

ments essential for growth and health. The following suggestions for planning menus, if kept in mind, will help to make the meals appetizing, interesting, and attractive, while supplying the essential food ingredients.

#### SUGGESTIONS FOR PLANNING MEALS

1. Use the day as a unit and make at least one day's menus or, better, one week's, at a time.
2. Distribute the protein, carbohydrates and fats thruout the day so that one type of food does not predominate at any one meal, such as a menu of meat, a cheese dish and custard, or of potatoes, sweetpotatoes, and rice.
3. Do not serve the same food twice in one meal, as tomato soup and tomato salad, or creamed carrots and carrot salad.
4. Do not serve more than one strongly flavored food at a meal, as onions and cabbage.
5. Balance the soft, solid and crisp foods. That is, do not serve all soft foods at one meal and all solid or dry at another.
6. Do not serve several acid or several sweet foods at one meal.
7. Season foods mildly, but tastily.
8. Avoid serving several foods difficult to digest at the same meal, such as pork chops, other fried foods and pie.
9. Serve left-overs in a new form and always attractively. When possible, do not serve them the next meal.
10. Have foods prepared in a palatable form. Greasy meats and vegetables, and poorly seasoned foods are not appetizing to most persons.
11. Include in the daily menu:
  - a. One quart of milk for each child and at least one pint for each adult.
  - b. Two liberal servings of vegetables besides potatoes, one raw. (Green leaf vegetables three times a week.)
  - c. Two liberal servings of fruits, one raw.
  - d. Either a green or a yellow fruit or vegetable daily.
  - e. Whole cereal in some form.
  - f. One egg and a serving of meat for adults and older children. (A small serving of meat for young children about three times a week.)
12. Serve light desserts, as raw fruits, fruit sauces or gelatine and ices, with a heavy meal.
13. Serve rich desserts, such as pie, steamed puddings, shortcakes and rich ice creams and gelatin desserts, only with a light meal.
14. Let a starchy salad, as potato or macaroni, be the main carbohydrate dish. Likewise, if a protein salad, as chicken or fish, is used, serve it as the main protein dish.
15. Serve only one relish or jam at a meal.
16. Avoid serving colorless meals.

17. Lay the table carefully, using cut flowers, a small plant or some simple decoration to make it attractive.
18. Serve cooling foods in summer and warming foods in winter.
19. Serve hot things hot and cold things cold.
20. Plan simple menus.
21. Consider cost carefully.

#### **DISTRIBUTION OF THE DAY'S FOOD**

The distribution of the day's food in the different meals need not vary much for children, but for adults it depends to a great extent upon occupation and habits. Breakfast probably varies more than any other meal. For the adult who does sedentary work and who eats a good lunch, a light breakfast of fruit, toast or rolls, an egg or bacon, and a beverage is sufficient; but for the person who does heavy muscular work more food is needed. Breakfast for everyone should include foods with laxative qualities such as cereals in some form and fruits, either raw or cooked, and slightly sweetened.

When possible, it is a good plan to serve foods at the evening meal which can be digested easily, such as creamed soups, creamed or buttered vegetables, souffles and scalloped vegetables, fruit or vegetable salads, eggs, cottage cheese dishes and simple desserts as fruits, custards, puddings, ice creams, sponge cakes, plain cookies, etc. If it is necessary to have a light lunch at noon, and if the family retires late, a more substantial meal may be served in the evening, including meats, pastries, cakes, puddings and sauces.

The day's meals should be considered as a unit to include all the nutritive properties necessary for growth, energy, keeping the body in good condition and building up the resistance to infection and disease, but care should be taken that no one group of food constituents, as carbohydrates, proteins, or fats, predominate at a meal. It is much easier to use the full quota of milk per person if it is distributed thruout the day. Special care should be taken to include in every meal a food containing an excellent source of iron and the various vitamins.

The analysis of the following menus is suggestive of the manner in which they should be built up and adapted to the seasons of the year.



SUMMER MENUS

I

BREAKFAST

Fresh berries  
Shredded wheat with  
cream  
Bacon  
Toast—butter  
Milk for children  
Coffee for adults  
(if desired)

DINNER

Baked potatoes  
Swiss steak  
Buttered beet tops  
Fruit salad  
Corn sticks—butter  
Caramel custard  
(baked)  
Milk for children

SUPPER

Cheese souffle  
Fresh vegetable salad  
Bread—butter  
Ice cream  
Cookies  
Milk

II

Cantaloupe  
Poached egg on whole-  
wheat toast  
Butter  
Milk for children  
Coffee for adults  
(if desired)

Smothered chicken  
Mashed potatoes  
Carrots—turnips  
Lettuce salad  
Biscuits—butter  
Sherbet—cookies  
Milk for children

Vegetable cutlets  
Cucumber salad  
Rolls—butter  
Peaches and sponge  
cake  
Milk

III

Apple sauce  
Omelet  
Bran muffins  
Butter-honey  
Milk for children  
Coffee for adults  
(if desired)

Boiled potatoes with  
parsley sauce  
Cold sliced tongue  
Fresh soybeans  
Cabbage slaw with  
cream dressing  
Rolls—butter  
Tapioca cream  
Milk for children

Creamed potatoes  
Cottage cheese balls  
Sliced tomatoes  
Bread—butter—jelly  
Berries—cookies  
Milk

## WINTER MENUS

## I

BREAKFAST	DINNER	SUPPER
Tomato juice	Franconia potatoes	Vegetable soup—wafers
Scrambled eggs with bacon	Roast beef (canned)	Celery and cream cheese
Whole-wheat muffins	Baked onions	Rolls—butter
Butter—molasses	Raw carrot salad	Gingerbread with fruit sauce
Milk for children	Bread—butter	Milk
Coffee for adults (if desired)	Brown Betty	
	Milk for children	

## II

Sliced orange	Stuffed pork chop	Creamed eggs on toast
Cooked whole-grain cereal with raisins	with tomato sauce	Harvard beets
Toast—butter	Baked sweetpotato	Bread—butter
Milk for children	String beans, French style	Baked pears
Coffee for adults (if desired)	Combination vegetable salad	Milk
	Whole-wheat biscuits	
	Fruit jello—cookies	
	Milk for children	

## III

Grapefruit	Broiled liver	Noodles au gratin
French toast	Scalloped corn	Waldorf salad
Crisp bacon	Tomato aspic salad	Bread—butter
Butter—honey	Corn muffins—butter	Raspberry junket
Milk for children	Peach upside down cake	Crisp cookies
Coffee for adults (if desired)	Milk for children	Milk

In analyzing each day's menu, notice that the following food classes are included:

- a. At least two vegetables, one raw, besides potatoes.
- b. At least two fruits, one raw.
- c. A green or yellow fruit or vegetable.
- d. Whole-grain cereal in some form.
- e. One serving of meat.
- f. One quart of milk for children, a pint for adults (one cup in cooked foods, the rest as a beverage).
- g. One egg per person, either served as such or in cooked foods.

The essential food properties necessary for energy, growth and health are found in each day's menu. In the first day's menu, vitamin A is found in the butter, cream and beet tops. Vitamin B is found in the milk, beet greens and whole cereal. Vitamin C is in the berries and fresh vegetable salad. Vitamin D is found in the egg yolk, and vitamin G in the fresh meat, egg, milk and vegetables.

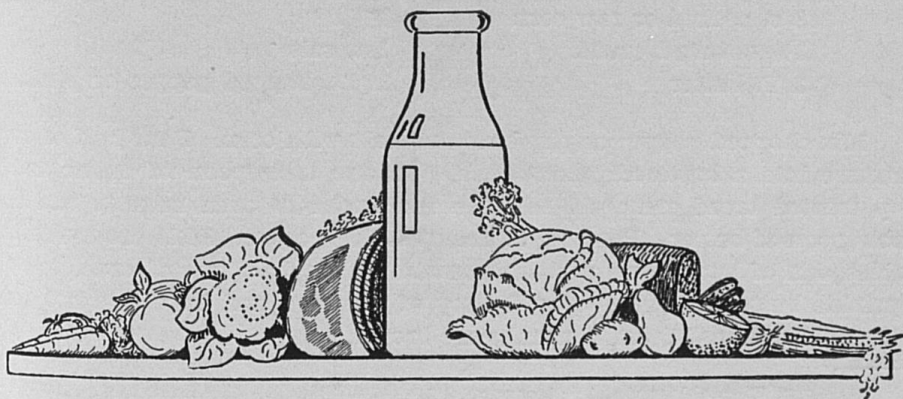
One quart of milk for children and one pint for adults supplies the calcium requirement.

Iron is supplied by the egg yolk, beef, beet tops, peaches and whole cereals.

The protein is contributed by the egg, meat and milk.

The energy is supplied by the cereal, potatoes, bread, butter, cream and sugar.

The whole-grain cereals, coarse-fibered vegetables and fruits have laxative qualities.



Types of food which should be included in the daily diet.

**RECIPES\*****BUTTERED BEET TOPS**

4 c. cooked beet tops	1 t. salt
2 T. butter	

Clean carefully young, tender beet tops and wash in several waters. Cook until tender, adding salt but no water except that which clings to the leaves when they are washed. Drain, chop, add butter. Reheat and serve at once.

**BUTTERED CARROTS AND TURNIPS**

2 c. cooked diced carrots	2 T. butter
2 c. cooked diced turnips	

Combine vegetables, add seasoning, reheat and serve.

**BAKED ONIONS WITH CREAM DRESSING**

12 medium onions	$\frac{1}{2}$ c. water
$\frac{1}{4}$ c. thick cream	Parsley
1 t. salt	

Peel and wash onions. Arrange in a casserole, add water and seasoning and bake in a moderate oven (375 - 400 degrees F.) until tender. Add cream, sprinkle with chopped parsley and serve.

**SCALLOPED CORN**

3 c. cooked or raw corn	Milk†
$1\frac{1}{2}$ c. bread crumbs	1 t. salt
3 T. butter	1 T. chopped pepper or pimiento

Mix chopped pepper or pimiento and salt with corn. Pour half of corn mixture into a buttered baking dish, add one tablespoon of butter and 1 cup toasted bread crumbs. Add the remainder of corn mixture and one tablespoon of butter. Pour on sufficient milk to cover. Melt the remaining tablespoon of butter and add the remaining one-half cup of crumbs to it. Sprinkle buttered crumbs over the top of the corn and bake in a hot oven (400 - 425 degrees F.) until crumbs are brown.

\* c = cup, T = tablespoon, t = teaspoon.

† If a canned corn with a creamy texture is used, it will not be necessary to add milk.

**VEGETABLE CUTLETS**

1 c. cooked carrots	½ c. nuts
1 c. cooked potatoes	1 c. milk or vegetable stock
1 c. cooked string beans	4 T. flour
1 c. peas	1 t. onion juice
4 T. butter	1 egg
Dry bread crumbs	½ t. salt

Cut vegetables in small pieces. Make a white sauce with butter, flour and liquid. Add seasoning. Mix sauce, vegetables and nuts. Place on buttered plate and cool. Form into cutlets. Dip in beaten egg, roll in crumbs and again in egg. Fry in deep fat or bake in hot oven (400 degrees F.) until a golden brown. Other vegetable combinations may be used.

**CHEESE SOUFFLE**

3 egg yolks	4 T. flour
3 egg whites	1 c. grated cheese
2 T. Butter	1 t. salt
1 c. milk	

Make a thick white sauce of butter, flour and milk, using the directions given for medium white sauce. Add the grated cheese and salt. Remove from the fire and add well-beaten egg yolks. Cool mixture slightly, cut and fold in stiffly beaten whites. Pour into a buttered baking dish. Set the baking dish in a pan of water and bake in a moderate oven (350 - 375 degrees F.) until firm. Serve at once.

**CREAMED EGGS ON TOAST**

6 hard cooked eggs	6 slices toast
1½ c. medium white sauce	Parsley

Separate the yolks from the whites. Chop the whites and add to the white sauce. Arrange four slices of toast on a platter and pour the white sauce over them. Force the egg yolks thru a strainer and sprinkle over the top. Cut the remaining slices of toast in triangles and arrange around the edge of the platter. Garnish with parsley and serve at once.

**SWISS STEAK**

2 lbs. round steak cut 1½ inch thick	2 c. tomatoes
½ c. flour	1 green pepper
2 T. melted suet	1 onion
1 t. salt	4 carrots

Mix salt and flour and pound into steak. Sear the steak in the hot fat in a heavy skillet or pan. Add vegetables. Cover and simmer for 2 hours or until meat is tender. Add more liquid if necessary.

**BAKED CUSTARD**

2 c. hot milk	¼ c. sugar
2 large or 3 small eggs	½ t. vanilla or other flavoring
⅓ t. salt	

Beat the eggs slightly, add sugar, salt and hot milk. Pour into individual molds or into a large enough baking dish so that the custard is not more than two inches thick. Set molds or baking dish into a pan of water and bake in a moderate oven (350 - 375 degrees F.) until firm, or 25 minutes.

Dates, cocoanut, or marshmallow may be added for variation, or a different flavoring may be used, such as nutmeg, cinnamon, caramel or maple. Plain custard may be served with sliced peaches, berries or jam.

**BROWN BETTY**

4 c. sliced apples	½ c. water
2 c. bread crumbs	½ t. cinnamon
¼ c. butter	1 T. lemon juice
¼ c. brown sugar	Grated rind of ½ lemon

Melt the butter and add the crumbs. Place one-half of apples in buttered baking dish. Sprinkle one-half of sugar, cinnamon, lemon juice and rind on apples. Cover with one-half of crumbs. Repeat, pouring the water over the mixture before the last crumbs are added. Bake in a moderate oven (350 degrees F.) until apples are tender, or about 40 minutes. Serve with cream or fruit sauce.

**SPONGE CAKE**

6 egg yolks	6 egg whites
1 c. sugar	1 c. flour
1 T. lemon juice	¼ t. salt
Grated rind ½ lemon	

Sift the flour, measure, add the salt and resift. Beat the egg yolks until thick and lemon-colored. Add the sifted sugar gradually to the egg yolks, beating constantly. Add the flavoring and fold in the egg whites beaten stiff but not dry. Cut and fold in the flour and salt. Do not stir or beat after the flour is added or the cake will be tough. Bake in slow oven (300 degrees F.) about one hour.

**GINGERBREAD**

1 c. molasses	1 t. ginger
½ c. sugar	½ t. cloves
½ c. melted fat	¼ t. allspice
1 egg, well beaten	½ t. salt
1 c. boiling water	2½ c. flour (sift before measuring)
1½ t. soda	

Mix molasses, sugar, melted fat and well-beaten egg and beat until all are well combined. Add spices, salt and soda to the flour and sift into molasses mixture, stirring until flour is just dampened. Add hot water to the mixture and beat until smooth. Pour into muffin tins or a shallow pan and bake in a moderate oven (350 - 375 degrees F.) about 25 minutes for muffin tins or 35 for shallow pan.

#### MOLASSES COOKIES

1 c. brown sugar	1 t. soda
$\frac{1}{2}$ c. sorghum molasses	$\frac{3}{4}$ t. ginger
1 c. fat, melted	$\frac{1}{4}$ c. hot water
2 eggs, well beaten	Flour to make soft dough
1 t. salt	(about 4 c.)

Mix the sugar, molasses, melted fat and eggs. Pour hot water into molasses mixture and stir until well blended. Add dry ingredients well sifted. Chill, roll, cut and bake in a moderate oven (350 degrees F.). Chopped nuts may be sprinkled over the top before baking.

#### FRUIT SAUCE

1 egg	Rind of 1 lemon
2 T. flour	Juice of 1 lemon
$\frac{1}{2}$ c. sugar	8 - 10 marshmallows
$1\frac{1}{2}$ c. hot water	1 c. chopped fruit (cherries, pineapple, peaches, pears, etc.)
2 T. Butter	

Melt the butter in a double boiler, add sugar and flour, sifted together, to the butter and stir until well blended. Add hot water gradually to the butter mixture and cook in a double boiler until the consistency of thick cream. Add the well-beaten egg and continue cooking, stirring constantly, for about 5 minutes. Add the lemon rind and juice. Remove from fire, add chopped marshmallows and fruit. Let stand until cool.

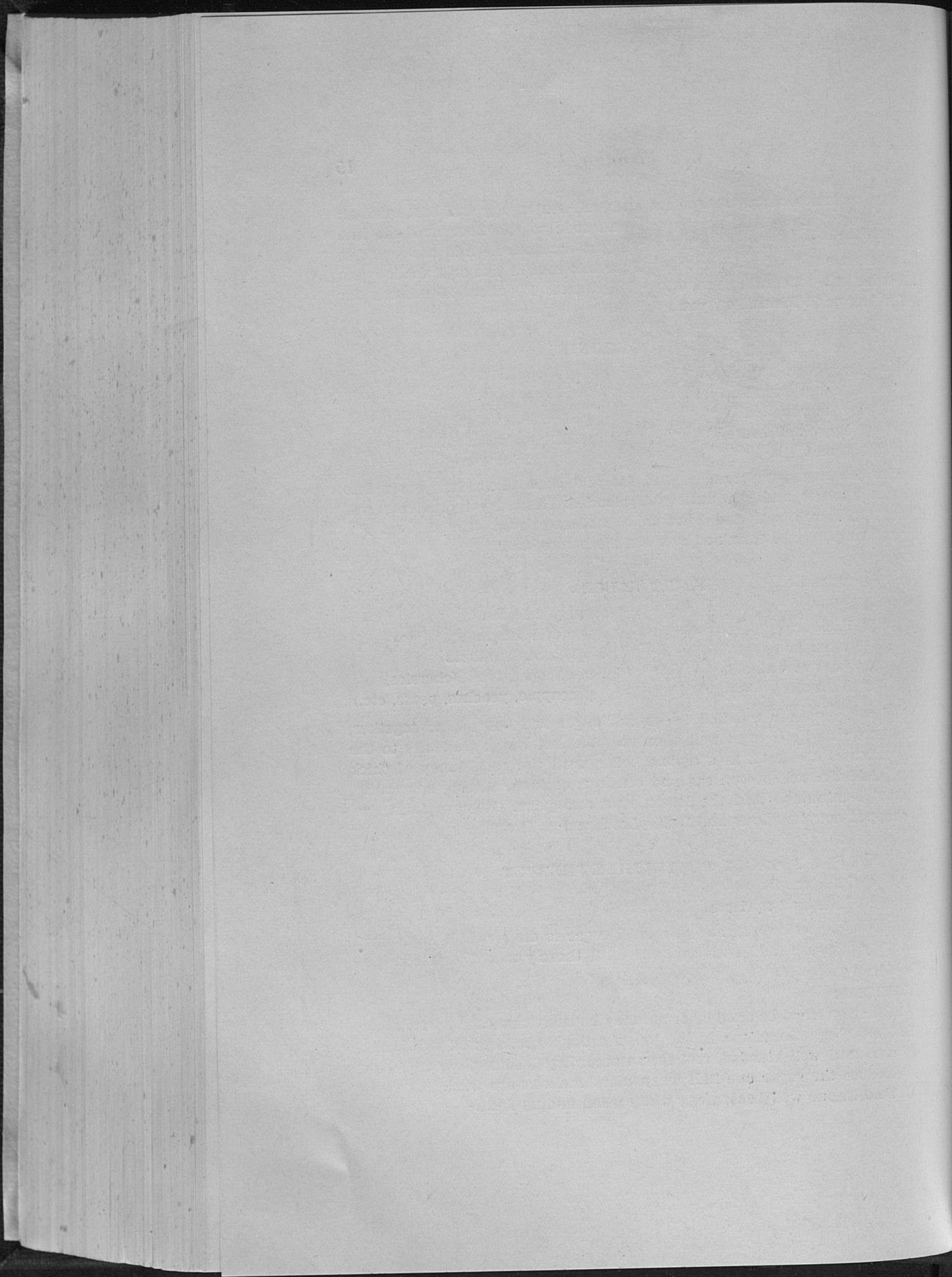
#### APRICOT-BUTTERMILK SHERBET

4 c. buttermilk	1 c. sugar
2 c. strained apricots	

Add sugar to buttermilk and stir until sugar is dissolved. Freeze until consistency of mush, add fruit and stir until thoroly mixed, and continue freezing.

#### VARIATIONS:

- A. Other strained or crushed fruits may be substituted for apricots.
- B. Melt 12 marshmallows in the top of a double boiler, add buttermilk, stir until well blended, and freeze according to directions in recipe. Reduce the sugar one-half when marshmallows are used.
- C. Fold in one well-beaten egg white when adding fruit.



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