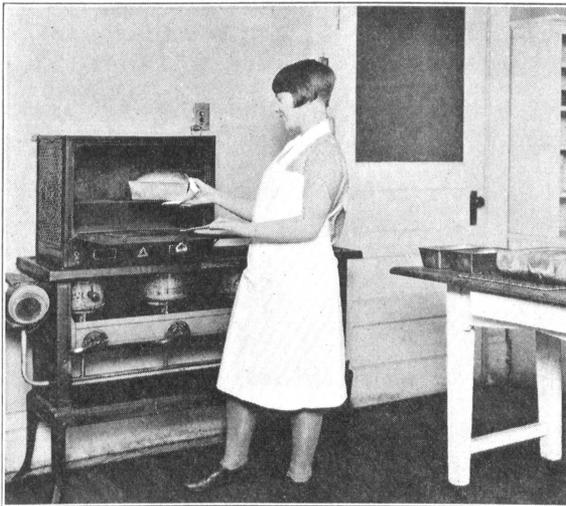


BAKING CLUB I

Boys' and Girls' 4-H Club Circular 19

COLUMBIA, MO.

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED
STATES DEPARTMENT OF AGRICULTURE COOPERATING

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Baking Club I

Of the almost numberless foods in the world the most commonly used one is bread. Since this is true, how extremely important it is for that bread to be well made.

The Boys' and Girls' 4-H Baking Club is organized for the purpose of learning how to make good, wholesome, easily digested breads. To be able to make a perfect loaf of bread is the ambition of every good cook.

The Baking Club is a project for groups of five or more members of boys' and girls' clubs between the ages of 10 and 21 years.

BAKING CLUB PROJECT I

Object.—To teach principles underlying bread making and to develop technique so that girls may be able to make good, wholesome, easily digested bread.

To teach girls the importance of baking good bread.

To develop an appreciation of what good bread is and to interest the members in making bread of good quality in their homes.

To develop community spirit and to train the members in rural leadership.

Work Required.—The first year baking work provides for the making of good, wholesome, easily digested breads. Each club member is required to do at least 16 bakings; yeast bread (7 bakings), quick breads (9 bakings).

Records Required.—Each member is furnished a record book by the Extension Service of the Missouri College of Agriculture in which she is required to keep the number of bakings, record and amount of baking, also an account of each meeting and story of the club work for the year.

Expense.—Each member is required to supply all ingredients necessary for making breads and any tools or equipment needed in baking, and an apron and cap of regulation style for demonstration work.

*Prepared by Miss Essie M. Heyle, In Charge of Home Economics Extension, in collaboration with Miss Jane Hinote and Miss Sara H. Chiles, Assistant State Club Agents, as a revision of the original material prepared by Miss Addie D. Root and Mrs. J. K. Fyfer, with the addition of results of experiments by Miss Laurel E. Davis and Miss Eva Mae Davis on use of soft wheat flour for light bread.

Time Required.—For work on some of the required duties at home.
 For attendance at six or more club meetings.
 For attendance at the local achievement exercise at the close of the year.

Organization.—Any time during the year, with preference for March, April, or May, for summer clubs, and September, October or November for winter clubs.

RESPONSIBILITIES OF DIFFERENT PERSONS IN BAKING CLUB WORK

| Things to be done in the year's program. | Time and place | Duties of: local leaders of the community. | Duties of: agent, or project leader, or Co. Supt. of schools. | Duties of: Specialists of Extension Service of Missouri College of Agriculture. |
|--|---|--|---|---|
| Leaders' Planning Conference | Place----- Date----- | Attend. | Arrange Notify leaders Attend. Conduct. | Provide Specialist. |
| Enroll members to do club work. | Of one community Time----- Place----- | See boys and girls. See parents. Use newspapers. Explain club work in public meeting. | Supply leaders with enrollment blanks. Assist in making financial arrangements, if necessary. | Provide county with enrollment blanks. |
| Organize club. | At community center. Time----- | Arrange Notify members Attend. Direct organization of club. Explain club work. Report on enrollment | Provide leaders with club literature. Assist leaders, if necessary. | Provide county with club literature. |
| Conduct six or more club meetings. | To be decided by leader and club. | Arrange Attend. Instruct. Secure assistance from community. Visit members. | Attend one or more regular club meetings. | |
| Select demonstration team. | In March or April or June or July at community center. | Arrange. Help outline plans. Conduct tryout. Select team of 2 or 3 members. | Assist leaders if necessary. | Provide county with demonstration score card and suggested outlines. |
| Achievement exercise or roundup. | At close of year's work at community center. Time----- | Arrange, Notify. Collect record books. Conduct. | Attend, if possible. Present achievement buttons, if awarded. | |
| County Fair | Depending upon county, date and place. | Arrange locally for exhibits and dem. team. Be responsible for local club. | Arrange. Notify leaders. Secure awards. Secure judges. Conduct. | Specialist may be provided, depending upon conditions. |
| State Fair | At Sedalia in August. | Arrange locally for club. | Notify leaders. Be responsible for county club representation. | Arrange. Notify. Secure awards. Secure judges. Conduct. |

I. Organization of the Club

MEETINGS

Standard clubs are required to hold at least six regular meetings during the club year. These meetings may be held as often as the local club leader and the members desire; however, the meetings usually are held once or twice each month.

Below are subjects suggested for a number of club meetings. It may be necessary to devote two or more meetings to some of the subjects. It is suggested that these subjects be followed in the order named. Local club leaders and clubs are expected to adapt these subjects to local community conditions.

Suggested Subjects of Meetings for the Club Year

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| I. Organization of the Club..... | 5 |
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| III. Baking Yeast Bread; Score Card..... | 7 |
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Suggested Programs for Baking Club Meetings

- I. **Organization of the Club.**—Page 3, Club Secretary's Record Book.
1. The business meeting—The local club leader in charge.
 - (1) Election of club officers from the membership of the club: President, Vice-President, Secretary, Song and Yell Leader, and Club Reporter.
 - (2) Selection of a name for the club. (It is suggested that the name be selected so as to identify the club and the project.)
 - (3) Selection of time and place for regular club meetings.
 - (4) Setting a club goal.
 - (5) Appointment of a committee to work up or select an appropriate song and yell for the club.
 - (6) Assignment of the 4-H club pledge to be learned by all members before the next meeting.
 - (7) Adjournment of business meeting for instructions in club work.
2. Instructions—The local club leader in charge.
 - (1) Explanation of the duties of the club officers and members.
Reference: The Club Secretary's Record Book, page 4.

- (2) Distribution of club literature and explanation of its use as follows:
 - a. A club circular and a club record book, to each member.
 - b. A club secretary's record book, to the club secretary.
 - c. The club book on songs and yells, to the song and yell leader for the club.
 - (3) Explanation of standard 4-H club requirements.
 - (4) Explanation of club project requirements for Baking I.
 - (5) Discussion of main club events for the year.
 - (6) Statement of what each member should do to start the home project work.
 - (7) Assignment of work for the next meeting, including the bringing of record books to the meeting.
3. Recreation.

II. Making Light Bread

1. The business meeting—The club president in charge.

Reference: Duties of club officers in Club Secretary's Record Book, page 4.

 - (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge, as follows: *"As a true club member, I pledge my head to clearer thinking, my heart*

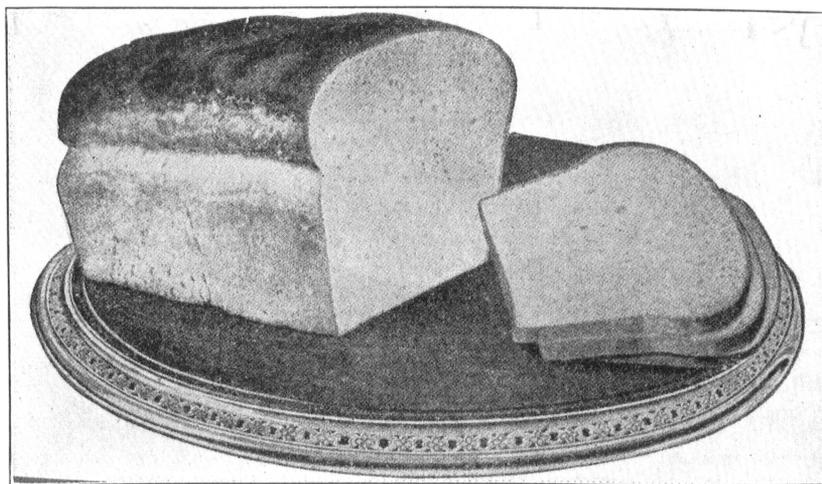


Fig. 2.—A loaf of light bread made from Missouri soft wheat flour.

to greater loyalty, my hands to larger service, and my health to better living—for my club, my community, and my country."

- (2) Roll call by the secretary.
 - (3) Reading of the minutes of the last meeting by the secretary, which should be adopted as a permanent record by the club when approved.
 - (4) Old business:
 - a. Unfinished business from the last meeting.
 - b. Report of the committee on club songs and yells.
 - (5) New business:
 - a. Appointment of a social committee to plan for some games at future club meetings.
 - b. Anything for the good of the club.
 - (6) Songs and yells, led by the song and yell leader.
 - (7) Adjournment for work.
2. Instruction and demonstrations—The local club leader in charge.
 - (1) Discussion—Light Bread page 11.
 - (2) Demonstration—Characteristics of gluten; measuring and making of sponge; girls make sponge.
 - (3) Explanation of the record books.
 - (4) Assignment of work for the next meeting, including writing a report of the work done at the club meeting and bringing the record books to the meeting.
 3. Recreation.

III. Baking Yeast Breads; Score Card

1. The business meeting—The club president in charge.
 - (1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by reporting on the kind of flour, soft or hard wheat flour, used in their homes, and by handing in the record books for use in the club meetings.
 - (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Old business:
 - a. Unfinished business from the last meeting.
 - b. Report of the social committee.
 - (5) New business:
 - a. Appointment of committees.
 - b. Anything for the good of the club.
 - (6) Songs and yells.
 - (7) Adjournment for work.
2. Instruction and demonstrations—The local club leader in charge.

- (1) Discussion—Baking Yeast Breads, page 23.
 - (2) Demonstration—Making light bread from sponge that the leader has made previous to the club meeting. Each girl kneads some dough and makes loaf and rolls.
 - (3) Discussion and demonstration—Scoring bread, page 26.
 - (4) Bake bread. Discuss oven temperatures.
 - (5) Demonstration—Care of bread after baking.
 - (6) Assignment of work for the next meeting, reporting the number of bakings of bread that have been made at home between this meeting and the next one and bringing the record books to the meeting.
3. Social hour—games, refreshments, etc.

IV. Fancy Light Breads

1. The business meeting—The club president in charge.
 - (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by reporting on the previously assigned topic, and by handing in the club record books for use in the club meeting.
 - (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Old business:
 - a. Report of the social committee.
 - (5) New business:
 - a. -----
 - (6) Songs and yells.
 - (7) Adjournment for work.
2. Instruction and demonstrations—The local club leader in charge.
 - (1) Discussion—Fancy Light Breads, page 28.
 - (2) Demonstration—Fancy Light Breads.
Club members make the things that the leader has demonstrated. Bake and glaze.
 - (3) Making a study of the record books.
 - (4) Assignment of work for the next meeting. Make and bake breads at home that have been made at the club meetings; make bread to be used at the next meeting and write up the record book.
3. Recreation.

V. Quick Breads; Muffins and Corn Bread

1. The business meeting—The club president in charge.
 - (1) Meeting called to order—members repeating the 4-H club pledge.

- (2) Roll call—members responding by giving a progress report of their home project work, and by handing in the club record books for use in the club meeting.
 - (3) Old business: a. -----
 - (4) New business: a. -----
 - (5) Songs and yells.
 - (6) Adjournment for work.
2. Instructions and demonstrations—The local club leader in charge.
 - (1) Discussion—Quick breads; Muffins and Corn Bread, page 29.
 - (2) Club members score the bread that has been brought to the meeting.
 - (3) Bread-making demonstration by a team of two girls.
 - (4) Assignment of work for the next meeting, including the bringing of all record books to the club meeting.
 3. Recreation.

VI. Biscuits; Other Uses of Biscuit Dough

1. The business meeting—The club president in charge.
 - (1) Meeting called to order—members repeating the 4-H club pledge.
 - (2) Roll call—members responding by giving a progress report of their home project work and by handing in the club record books for use in the club meeting.
 - (3) Old business:
 - a. -----
 - (4) New business:
 - a. -----
 - (5) Songs and yells.
 - (6) Adjournment for work.
2. Instructions and demonstrations—The local club leader in charge.
 - (1) Discussion.—Biscuits; Other Uses of Biscuit Dough, page 32.
 - (2) Demonstration—Making biscuits and using biscuit dough in various ways.
 - a. Discussion of doughs, measurements, leavening agents and oven temperatures.
 - b. Club members make biscuits.
 - c. Demonstrations by team of two girls.
 - (a) Uses of biscuit dough.
 - (b) Wheat or corn meal muffins.
 - (2) Selection of teams and demonstration subjects for the next meeting.

- (3) Assignment of work for the next meeting, including the bringing of record books to the meeting and each member coming prepared to help give a team demonstration.
- 3. Social hour.

VII. Public Demonstrations

- 1. The business meeting.—The club president in charge.
 - (1) Meeting called to order—members repeating the 4-H club pledge.
 - (2) Roll call—members responding by reporting the recipes that their fathers particularly like and by handing in the club record books.
 - (3) Old business:
 - a. -----
 - (4) New business:
 - a. -----
 - (5) Songs and yells.
 - (6) Adjournment for work.
- 2. Instruction and demonstrations—The local club leader in charge.
 - (1) Public demonstrations, page 37.
 - (2) Tryout for the demonstration team by individual club members.
 - (3) Selection of the demonstration team to represent the club.
 - (4) Final instructions on completion of the club record books for the year's work.
 - (5) Final instructions on the club round-up or achievement exercise.
 - (6) Instructions to the club reporter on news items for the local papers.

VIII. The Club Achievement Exercise

The club round-up or achievement exercise should be held at the close of the work for the club year.

Each club member should hand in to the local club leader the completed record book so that the results of all the work of the club may be summarized for the year in the Club Secretary's Record Book.

At the Club Achievement Day each club member should bring an exhibit of baked products.

SUGGESTED PROGRAM

- 1. A typical club meeting by the club.
- 2. A brief history and a short statement of the club's achievements by a club member or by local club leader.
- 3. One or more demonstrations by club teams.

4. A talk on 4-H club work.
5. Awarding a 4-H achievement button, if given, to each member of the club who hands in a completed record book to the local club leader.
6. Announcement of club plans for the coming year.
7. Adjournment.

SUGGESTIONS

Only club members who make a complete report or have their records up-to-date, should be eligible to take part in county or state contests.

The events of the club round-up and the results of the club work for the year should be carefully prepared and offered to the local newspapers for publication.

II. Making Light Bread

THE CHIEF INGREDIENTS

In making bread there are three important ingredients or food materials which must be used and there are some others that are added to improve the flavor, texture, or appearance of the bread.

The three necessary ones are:

1. Flour
2. Liquid
3. Leavening agent.

1. Flour.—Flour from the wheat grain is best for bread making because it contains a large amount of gluten. This is the part of the flour that mixes with water, giving an elastic, sticky material that makes it possible to form dough. The gummy mass left in the mouth after chewing a wheat grain is gluten.

When bread dough is light the little gas bubbles in it stretch the gluten to form the framework of the loaf. The heat of the oven hardens or stiffens the gluten and the loaf keeps its shape.

Different types of wheat contain different amounts of gluten. As a rule, winter wheats are soft and more starchy and make what is

called a soft wheat flour. The spring wheat is harder and contains a larger amount of gluten and is called a hard wheat flour.

CHARACTERISTICS OF HARD AND SOFT WHEAT FLOURS

| Soft wheat flour | Hard wheat flour |
|--|--|
| <p>Grown in the winter. Larger and softer grains. Shows imprint of fingers when pressed in hand. Flour has a smooth, powdery texture when rubbed between fingers. Small proportion of gluten (usually). Will absorb a small quantity of water. Known as soft flour and sometimes as a "weak" flour. Often called pastry flour.</p> | <p>Usually grown in the spring. Harder and smaller grains. Falls loosely apart when pressed in hand. Flour has a granular, gritty texture when rubbed between fingers. Large proportion of gluten (usually). Will absorb large quantity of water. Known as a strong, hard wheat flour. Often called "bread" flour.</p> |

Samples of hard and soft wheat flour should be shown and differences pointed out by the Leader.

As a rule, housewives prefer soft wheat flour for biscuits, pastry and cake because it gives a more tender and lighter product than does hard wheat flour. For light or yeast breads, however, housewives and bakers have been in the habit of using flours made largely from hard wheat because this flour contains a larger proportion of gluten. It, therefore, absorbs more water, making a larger but not more nutritious loaf, and the dough can be kneaded more than can that made from soft wheat flour. Satisfactory and delicious bread can be made from the soft wheat which is grown in Missouri, but a different recipe must be followed. It is hoped that all club girls will try the recipe given for making bread of soft wheat flour.

Graham and Whole-Wheat Flour.—There is no standard method of manufacturing graham or whole-wheat flour and samples from different mills vary considerably. If made according to the definitions given of these flours, graham flour would be made by grinding the whole wheat grain, while whole-wheat flour would be flour made from wheat that has the outer bran layer removed.

2. Liquid.—The liquid used in bread-making may be either water, milk, half water and half milk, potato water, or whey. The moistness of the bread does not depend upon the kind of liquid used so much as upon the amount used, and the way in which the bread is baked and cooled.

Water makes a bread of good flavor and texture and a white color. Texture is the fineness of the holes and the evenness with which they are found in the bread.

Sweet milk makes a bread of good keeping quality. It is claimed that it gives greater elasticity and tenderness to the crumb and improves the color of the crust. Buttermilk or whey gives much the same results as milk except that less time is required for rising and the loaf is usually larger and of better texture.

Potato water also makes excellent bread. The minerals it contains seem to strengthen the gluten and hasten the fermentation so that bread can be made in less time than with plain water.

3. Yeast.—Yeast consists of masses of tiny, colorless, oval-shaped plants, too small to be seen with the naked eye. Each plant looks like a tiny sack filled with a clear liquid and will grow in darkness as well as light. As it grows it produces the gas called carbon dioxide which raises the dough and makes the bread light. There are many varieties of yeast, but only a few are useful in bread making. Sugar or starch for food, moisture, and the right temperature are required for its growth.

The amount of yeast used in bread making depends upon the time allowed for the process. The form of yeast used in bread making, that is whether dry, compressed, or liquid, is not important, but the condition of the yeast is of the greatest importance. It should be in a fresh, live, growing condition.

Liquid Yeast.—Liquid yeast is sometimes spoken of as a starter. In this form the one doing the baking grows the yeast plants in a liquid which contains some substance that the yeast plant uses for food. The food substance may be sugar, flour, potatoes, or potato water. When bread is made a certain amount of liquid yeast is used and more food is added to what is left, so that more yeast plants may grow for the next batch of bread. Unless one bakes very often and keeps this form of yeast under the most sanitary conditions in clean, well covered utensils, and in a cool place, bacteria are likely to get into it and a sour tasting bread will result.

This form of yeast has its disadvantages because the cook or baker has no way of telling how many active, living, growing plants there are in a certain measure of the starter. It must be kept in a cool place or it will grow too rapidly and will produce an acid. This acid will make the bread sour. The pan or crock in which the yeast is kept should be scalded with boiling water before using so that it will be free from bacteria. If this is not done, certain bacteria may grow in the yeast and give an acid or sour taste to the bread. From three to five days is as long as liquid yeast will usually keep without souring and give good results in

baking unless more food is added. If the liquid yeast is old or uncertain, it is best to throw it away and use fresh yeast to make a new supply. One cup of liquid yeast in a good live state is equal to one cake of dry yeast.

Dry Yeast Cake.—In this form the yeast plants are kept in a dry state. The yeast is mixed with corn meal, pressed into cakes and the moisture dried out. There is no growth when the plants are kept in this manner. Dried yeast, if stored in a clean, dry place, will keep in a good condition for a longer time than the other kinds of yeast. However, if kept too long, the plants will die and it is best to test it to see if the yeast is alive before using.

To test dry yeast, place in one-fourth cupful of lukewarm water to soften, add one tablespoonful of sugar to it, and if it is alive it will begin to foam or bubble in fifteen to thirty minutes. It is just as well to add the sugar to the bread in this manner as to add it later. Here a test of the dry yeast should be made by the Club Leader.

Before dried yeast is put into bread it should be brought to a good growing state by supplying it with moisture and food. Yeast grows more quickly in a thin batter than in a thick dough. A thin batter in which yeast is placed is called a sponge. A small amount of yeast may be allowed to grow and reproduce in the sponge and then the sponge made into the bread dough. This is called the sponge or long process of bread making. This method is best when dried yeast is used.

Compressed Yeast.—Compressed yeast can only be used when a market is close at hand as it will keep in good condition only four or five days. In compressed yeast the plants have been raised in large vats. After all of the impurities have been washed out, the pure yeast plants are mixed with cornstarch or tapioca flour as a drier and pressed into cakes and packed in tinfoil. The plants are ready to grow because the starch is present as food and the yeast is moist. Therefore, when compressed yeast is in good condition it gives quick and sure results. It must be kept in a cool place before using in order to prevent it from growing, using up the food supply and then dying. Mold and bacteria will also grow upon it if it is not kept in a cool place. This spoils it for bread making. Compressed yeast in good condition should be of uniform creamy color, and should break with a clean break. If it is stringy or ropy it should not be used. On account of its quick action, when compressed yeast is used, the bread may be made by the short process or straight dough method.

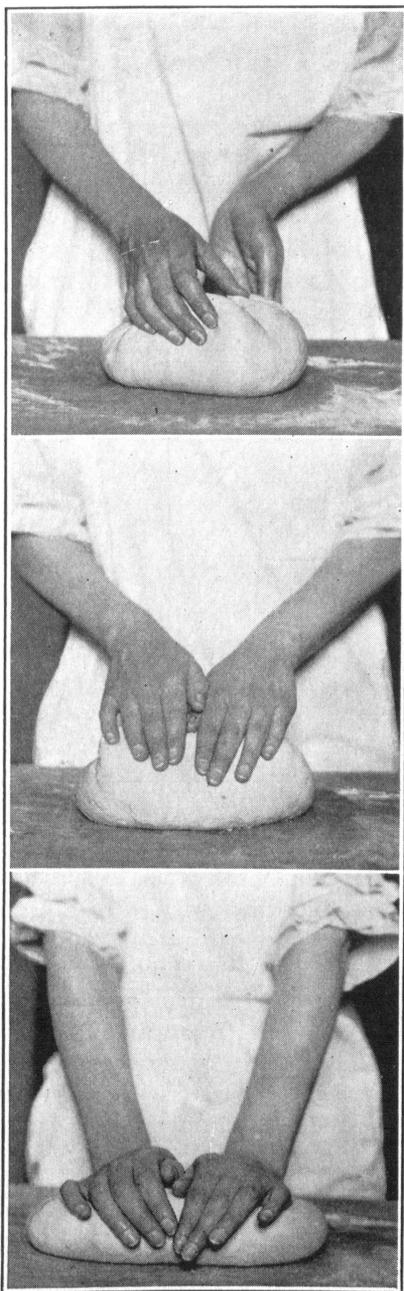


Fig. 3.—The kneading process.

INGREDIENTS THAT IMPROVE THE FLAVOR OF BREAD

Salt.—Salt is added to bread to improve the flavor. One teaspoonful to a cupful of liquid gives good results. Too much salt hinders the growth of the yeast plant, thus making a heavier, smaller loaf, and causes the crust to lose its golden brown color and become a dull gray-brown.

Fat.—Fat is not a necessary ingredient in bread. When used it gives a finer, more silky texture, prevents drying, adds nourishment, improves flavor and makes the crumb a little more tender. Either butter or lard or half butter and half lard or a substitute for either may be used. Butter gives a little better flavor and lard a little whiter loaf. In large amounts, fat will make a heavy crumbly loaf. One tablespoonful of fat to a one-pound loaf of bread is sufficient for good results.

Sugar.—Sugar hastens the growth of yeast, being the food which yeast requires. It is not a necessary ingredient, however, but it does improve the flavor of the bread. As the amount of sugar is increased, the volume of the loaf increases and the color of the crust deepens. Too much sugar, however, gives a toughness to both crust and crumb. Good results are secured by using one tablespoonful of sugar to each one-pound loaf of bread.

MEASUREMENTS, ABBREVIATIONS, EQUIPMENT

Measurements.—Measuring carefully and following the recipe are important points for success in the Baking Club. Utensils, materials, and scales should be brought to the meeting and each club member should measure and weigh materials to correspond to the table on page 8 to prove for himself that it is true.

Most recipes that are found in women's magazines at the present time, and the newer cookbooks, call for level measurements and for the use of standard one-half pint measuring cups. In trying a new recipe, it is desirable to measure very accurately in order to test the recipe. Afterward one may use her own judgment as to how accurately the foodstuffs used in the recipe should be measured, but the only certain way of getting good results every time from a tested recipe is to measure carefully and accurately and to use level measurements.

When measuring flour, sugar, or other dry ingredients, do not shake the cup or press the foodstuff down in it or on the spoon. Since the flour packs rather solidly from standing, all recipes take for granted that flour will be sifted once before it is measured. Such materials as baking powder should be stirred in the can and soda should have the lumps pressed out, before they are measured. To measure fat, as butter lard, etc., pack it solidly into the spoon or cup. When measuring molasses or oil in a tablespoon, scrape off the surplus on the bottom of the

spoon, as there may be as much clinging to the underside of the spoon as is held in the bowl.

Cupful.—Fill the cup and level with the straight edge of a knife except for liquids when the cup should be filled as full as possible. A cupful of liquid is one-half pint.

Spoonful.—Fill the spoon by dipping it into the material, lifting and leveling it off with the straight edge of a knife. Notice precautions given for measuring molasses and dry ingredients.

One-half spoonful.—Measure a level spoonful as above and divide the material by cutting with a knife lengthwise, which is from the handle of the spoon to the tip, and pushing off one-half of the material with a knife.

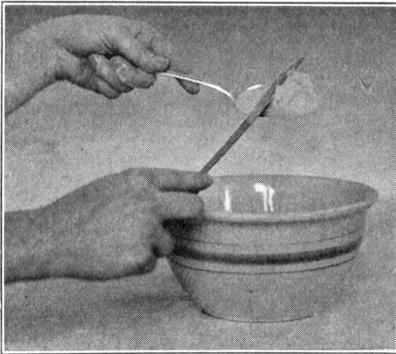


Fig. 4.—Leveling off a spoonful.

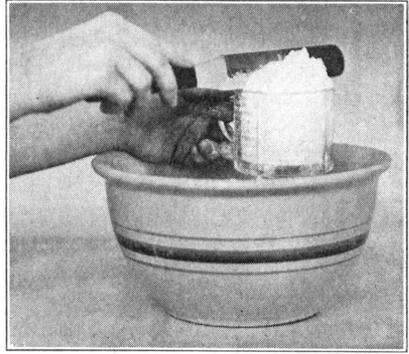


Fig. 5.—A cupful-stroke measure.

One-third spoonful.—Measure a level spoonful and divide into thirds crosswise of the spoon.

One-fourth spoonful.—Measure a half spoonful and divide this crosswise into equal parts.

One-eighth spoonful.—Divide one-fourth spoonful crosswise into equal parts.

Cups that contain a little more than one-half pint may be bought for measuring liquids, so that when a full cupful is needed measuring can be done without spilling the liquid. Glass measuring cups are desirable because if less than a cupful is to be measured the cup can be held level with the eye so as to get the foodstuffs at the exact division of the cup desired.

A Table of Equivalents and Abbreviations in Baking.

| | | |
|------------------------------------|---|----------------------|
| 3 teaspoonfuls (t) | = | 1 tablespoonful (tb) |
| 16 tablespoonfuls (tb)* | = | 1 cupful (c) |
| 2 cupfuls (c) | = | 1 pint (pt) |
| 2 cupfuls sugar (c) | = | 1 pound (lb) |
| 2 cupfuls butter (c) | = | 1 pound (lb) |
| 4 cupfuls flour (c) | = | 1 pound (lb) |
| 2 tablespoonfuls butter or fat | = | 1 ounce (oz) |
| 2 tablespoonfuls liquid (tb) | = | 1 ounce (oz) |
| 4 tablespoonfuls sifted flour (tb) | = | 1 ounce (oz) |
| 16 ounces (oz) | = | 1 pound (lb) |



Fig. 6.—Equipment needed for Baking Club I.

Necessary Equipment for Baking Club.—As certain tools are quite necessary in baking club work to do the work well and quickly, a list is given below.

- Two measuring cups (1 for dry materials; 1 for wet materials.)
- Mixing bowls (varying in size for quick and yeast breads.)
- Teaspoons
- Tablespoons
- Bowl and egg beater when eggs are used.
- Mixing spoon
- Knife or spatula

*If the tablespoons used in measuring liquids are filled absolutely brimming full, twelve of them are enough to fill a cup.

LIGHT BREADS

Breads are divided into two classes; light or yeast breads and quick breads. There is a mistaken idea that light breads can not be successfully made in cold weather. They can be made at any season of the year, but perhaps are a little more troublesome in winter as care must be taken to keep the yeast from chilling.

Recipe for One Loaf of Bread.—The following amounts are given for one loaf of bread of the average size, about one pound in weight or 4 by 5 by 9 inches in size. These amounts may be multiplied by the number of loaves desired for a family baking. The measurements are level. Flour is sifted before measuring.

| | |
|---|--|
| 1 cupful liquid | $\frac{1}{4}$ dry yeast cake or $\frac{1}{4}$ cake |
| $\frac{1}{2}$ to 1 tablespoonful of fat | of compressed yeast or |
| $\frac{1}{2}$ to 1 tablespoonful of sugar | $\frac{1}{4}$ cup of liquid yeast |
| 1 teaspoonful of salt | 3 to 4 cups of flour |

Methods.—There are two methods of making bread, using the above proportions of ingredients; long process or “sponge” bread and short process or “straight dough” bread.

METHOD OF MAKING LONG PROCESS BREAD

| What to do | Reason for doing |
|---|--|
| Boil water or scald milk. | This is to kill any bacteria in the liquid that might spoil the flavor or texture of the bread. |
| Place yeast, if in cake form, in $\frac{1}{4}$ cupful of lukewarm water to soften. Test water by dropping it on the inside of the wrist, and if it gives no feeling of heat it is lukewarm. | The yeast needs to be softened so that it can be distributed through the sponge. Hot water would kill the delicate yeast plants. They are killed at 131° Fahrenheit, which is only 35° above the body temperature. |
| Add scalded liquid to sugar, salt, and shortening in the large bowl in which bread will be set to rise. | This is an easy way to dissolve sugar and salt, and melt fat, so that they can be more evenly mixed through the dough. |

| What to do | Reason for doing |
|--|--|
| <p>When mixture is lukewarm add softened yeast.</p> | <p>If the mixture is not cooled until it is only lukewarm it will kill the yeast plants and the dough will not rise and make light bread.</p> |
| <p>Add about one-half of the flour or enough to make a batter that can be beaten. Beat well.</p> | <p>When dry or liquid yeast in which there are not many live yeast plants is used, it is best to make a sponge because yeast plants grow more readily in a batter than in a dough. Beating incorporates air, which assists in the growth of the yeast plants.</p> |
| <p>Cover with a clean cloth and let stand in a warm place until light and bubbly. Usually the sponge is set in the evening and allowed to stand overnight. In cold weather the bowl of sponge can be put on the back of the stove, in the fireless cooker, in a clean bucket with hot bricks or bottles of hot water slipped down at the sides, or next to a jug of hot water with which it is covered by a thick cloth.</p> | <p>The sponge should be covered to keep out dirt and undesirable germs. Yeast grows best at 80° F., which is a little hotter than room temperature. If chilled it will stop growing and will make a dough that is not elastic so that the bread will be small and heavy.</p> |
| <p>In the morning or when the batter is light, gradually add the remainder of the flour or just enough so the dough can be kneaded.</p> | <p>Different flours absorb different amounts of water, so the exact amount of flour needed can only be found out by experience. The flour should be added gradually because if too much is used the bread will be harsh and dry.</p> |
| <p>Sprinkle a small amount of flour on a dry, clean board.</p> | <p>The flour keeps the dough from sticking, but if much flour is used the dough may get too stiff.</p> |
| <p>Knead thoroughly until dough does not stick to hands or board, and until it is smooth, spongy, and elastic to the touch. This usually takes</p> | <p>Kneading is necessary to thoroughly mix the ingredients, to distribute the gas bubbles which the yeast plants form so the big bubbles</p> |

| What to do | Reason for doing |
|---|---|
| <p>15 or 20 minutes, but the length of time is not so important as the method of kneading. Use a quick even stroke, gathering up the dough with the fingers, pushing this lifted portion down twice with the lower part of the palms and turning the dough one quarter of the way around on the second downward stroke.</p> | <p>are broken up and the bread has a firm texture with small, even holes all through it. Kneading of dough made with hard wheat flour also makes the gluten more elastic unless it is continued too long.</p> |
| <p>After kneading, place dough in a clean bowl, cover tightly, and set in a warm place to rise.</p> | <p>All utensils used in bread making should be clean so no bacteria will get into the dough that will give the bread a bad flavor or texture. The dough should be covered tightly so a crust will not form that when kneaded into dough may cause streaks in the bread. If the dough gets too warm when it is rising the bread may have a coarse texture and sour flavor.</p> |
| <p>When dough has doubled in bulk, turn on to a board, knead lightly, and shape into loaves. Place each loaf in a single oblong bread pan which has been oiled.</p> | <p>Since the object of the second kneading is only to break up and distribute the gas bubbles, long kneading is not required. If dough more than doubles its bulk it may have a sour, fermented flavor. Bread baked in single loaves bakes more perfectly and has a better crust, color, and shape than when several loaves are baked in the same pan.</p> |
| <p>When loaf has doubled in bulk put in medium hot oven and bake 45 minutes. After the first 10 increase heat for 15 minutes, then let it cool a little for 20 minutes. Bread should shrink from pan at end of baking period.</p> | <p>If dough more than doubles in bulk bread will probably be coarse; if it does not double its bulk, unless special care is taken in baking, the bread will be heavy. See "Baking of Light Bread" for reasons for oven temperatures.</p> |
| <p>Remove from tin and place on rack or across bread pan to cool.</p> | <p>Placing the loaf on a rack or across the bread pan so the air can circu-</p> |

| What to do | Reason for doing |
|--|---|
| <p>Store in stone jar or bread box that is emptied, scalded, and sunned often.</p> | <p>late around the loaf allows the steam to escape so the crust is crisp; the loaf is not moist enough for mold to grow on it easily and the bread does not acquire undesirable flavors as it does occasionally when it is wrapped at once in a cloth or put in a box while warm.</p> <p>Tin and earthenware containers keep the bread moist, but since mold grows readily in a moist place they must be cared for often or the bread will acquire bad smells and flavors, and will mold.</p> |

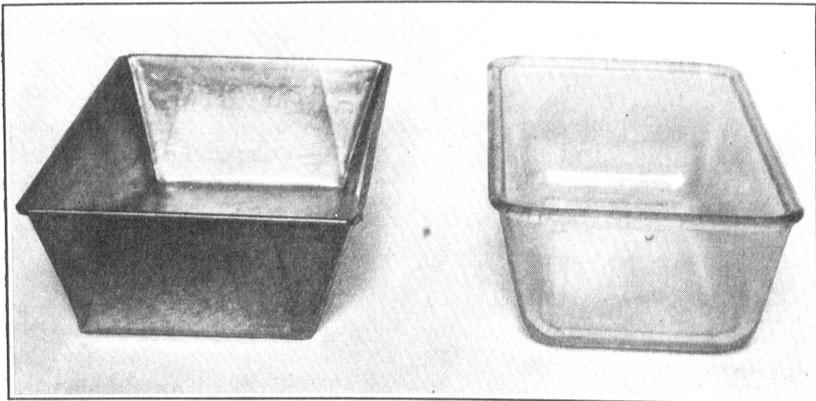


Fig. 7.—The best type of pans for baking bread.

SHORT PROCESS OR “STRAIGHT DOUGH” BREAD

The method of making short process bread differs from the long process only in the method of adding the flour. No sponge is set over night. All of the flour is added at the time of mixing, which is usually in the morning of the day the bread is to be baked, making a straight dough instead of a sponge and thus shortening the process. It is necessary to use yeast which is in a growing condition such as compressed or liquid yeast in making the “straight dough” bread.

III. Baking Yeast Bread

SKILL AND EQUIPMENT

More batters and doughs are spoiled in the baking than in the making. Baking is an art that requires practice and attention.

Thermometers help to secure more exact results. Those on the doors of some ovens are often of help, but as a rule they cannot be depended upon. Oven thermometers can be purchased for about \$2.00 and may be placed on the shelf of the oven. If thermometers are used whether the scale is Centigrade, abbreviated C., or Fahrenheit, abbreviated F., use the figures for the particular thermometer that is at hand.

Practice in baking helps one to tell much about the heat of the oven from placing the hand inside the oven. Inexperienced cooks will find testing the oven with plain white composition or tablet paper a help. Since the grade of paper makes so much difference, this is by no means an accurate test. In using the paper test, first get the oven regulated to a uniform heat which is thought to be of the right temperature, place the paper on the shelf of the oven, and close the door for five minutes. The paper should be barely colored for a slow oven, a light tan for a moderate oven, a good rich tan color for a moderately hot oven, and a good medium brown for a hot oven.

When bread is put into an oven which is not hot enough to form a crust immediately and thus stop the rising, the bread will continue to rise. Bread which is allowed to rise partially in the oven has a larger loaf and a firmer texture than that which is allowed to rise more in the pan. When bread is allowed to rise in the oven it should be evenly heated so rising will take place during the first 10 minutes of baking. Then increase the heat to stop the rising or the bread will get too light and bulge over the sides of the pan. If bread is put into a very hot oven when it has not risen enough, a crust will form over the top too quickly and in rising further the crust will crack. A hot oven from the first will also make a thick crust of a dark color. If the oven door is opened far enough to chill the dough while it is baking, the dough may fall. So the temperature of the oven should be governed by the lightness of the bread. The dough is in the best condition for baking when it is twice its original bulk. After the first 10 minutes let the oven get hotter for 15 minutes, then let it cool a little for the last 20 minutes. The bread should finish rising during the first 10 minutes. It should be browning over in patches at the end of 15 minutes. It should be sufficiently brown at the end of 30 minutes and finish baking in 45 minutes. Authorities differ some-

what in baking temperatures. Very good results have been obtained, however, by placing the bread in the oven at 356° Fahrenheit or 180° Centigrade and increasing the heat to 428° Fahrenheit or 220° Centigrade for the next 20 minutes, and then to 380° Fahrenheit or 139° Centigrade for finishing.

Bread Pans.—It is best to bake bread in a single pan. This insures thoroughness of baking and aids in producing a loaf with a uniform shape, size, and color. The bread pans should not be too large. A good size is about 8½ by 4 inches at the bottom and 9 by 5 at the top with a depth of 3 inches. It is more satisfactory to have the bottom a little narrower than the top.

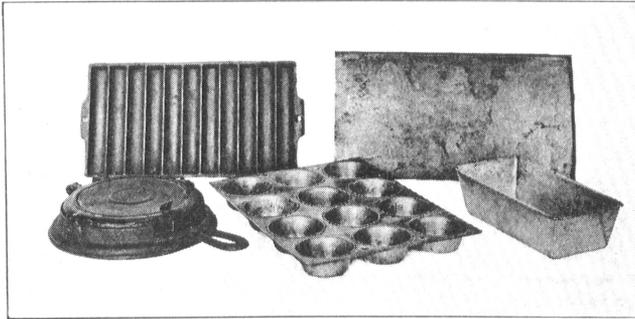


Fig. 8.—Baking equipment.

The material of the bread pan must be taken into consideration in the baking. When the same temperature of oven is used for all materials, experiments show that the tin pan gives a satisfactory crust both in color and texture, while in the sheet iron pan the crust shows over-baking and is much thicker. Granite-ware pans produce a hard shiny under-crust and the loaves are likely to draw up from the bottom of the pan. In order to get as satisfactory results from granite or sheet iron pans as from tin, a lower temperature must be used in baking. Bread bakes very evenly in a glass bread pan and has an excellent quality.

GRAHAM AND WHOLE-WHEAT BREAD

Graham and whole-wheat bread can be made in the same way as white bread is made, by substituting whole wheat or graham flour for one-half of the white flour.

MISSOURI SOFT WHEAT FLOUR BREAD

Bread made from soft wheat flour requires the use of more sugar, more yeast, and less water. A softer dough must be used than in making bread from hard wheat and the dough must be kneaded less, and handled

more gently. The following recipe (in proportions for one 1-pound loaf) has been worked out by Miss Eva Mae Davis of the University of Missouri

| | |
|--------------------------|--------------------|
| 3½ c. flour | 5½ t. sugar |
| 4 tb. flour for scalding | 1 t. lard |
| ½ c. potato water | 1 t. salt |
| ½ c. buttermilk | ¼ cake dried yeast |

Note.— $\frac{7}{8}$ c. potato water and no buttermilk may be used.

1. Sift, then measure 4 tb. flour and add just enough of the warm potato water to form a soft paste or batter.

2. Heat remaining potato water and buttermilk to boiling point, add about $\frac{1}{3}$ of it to flour paste, beat vigorously, add remaining $\frac{2}{3}$ in two installments, stirring all of the time.

3. When above mixture is lukewarm add 4 teaspoonfuls sugar, and yeast and set in a warm place (80 to 90°) for 12 hours.

4. At end of 12 hours add to this mixture 1½ t. sugar and pour into a bowl containing the melted lard, salt, and enough warmed flour to make a thin batter.

5. Beat for a minute, then add the rest of flour gradually. (The dough should be so soft that it must be handled quickly to prevent its sticking to the fingers and to the board. Soft winter wheat flour requires a soft dough for the best results.)

6. Turn dough on board and knead quickly until dough is soft, velvety and elastic (about 10 minutes).

7. Place dough in a slightly greased and warmed mixing bowl, cover tightly, and set in warm place, 80-90° F.

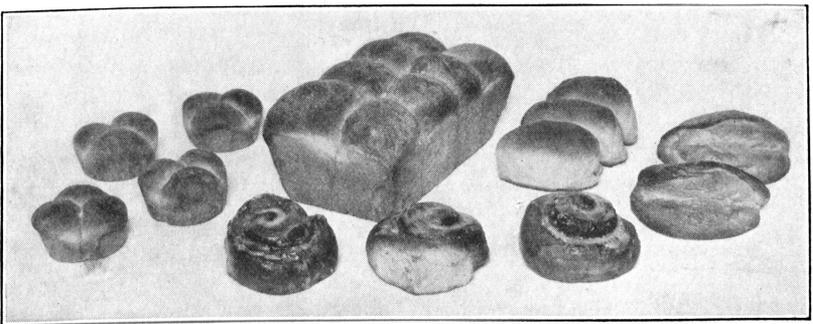


Fig. 9.—Plain and fancy light breads.

8. When dough has doubled in bulk, turn on board and knead gently until gas bubbles are small and evenly distributed. Mold and place in a warm greased pan, turning dough so all surfaces will be greased. (About 3 minutes for kneading and molding.)

9. Cover and set in a warm place until dough is trebled in bulk.

10. Bake in a moderately warm oven (350° F.) for 10 minutes, then increase to hot oven (400-420° F.) and continue baking for 25 minutes. (Total time 35 minutes.)

SCORE CARD FOR LIGHT AND QUICK BREADS

In order that there may be a uniform standard by which bread can be judged, a score card for this purpose has been made. Bread that club members have made at home should be brought and scored by this card.

| | | Points | Points |
|------------------------|---|------------|--------|
| I. Flavor | { | Odor | 15 |
| | | Taste | 15 |
| II. Crumb | { | Texture | 6 |
| | | Moisture | 6 |
| | | Lightness | 6 |
| | | Color | 6 |
| | | Elasticity | 6 |
| III. Crust | { | Color | 8 |
| | | Depth | 6 |
| | | Crispness | 6 |
| IV. General Appearance | { | Size | 10 |
| | | Shape | 10 |
| | | Total | 100 |

EXPLANATION OF TERMS USED IN SCORE CARD

Flavor is made up of the two elements, odor and taste, because a well-trained nose can detect a lack of flavor or an approach to sourness before it can be detected by taste. The ideal flavor is the same as that obtained by chewing wheat grains. A loaf which tastes of sugar, soda, baking powder, salt, or any ingredient in the bread besides the natural sweet flavor of the wheat grains, or a loaf of light bread that has a yeasty, fermented, or sour taste, is not ideal.

Crumb.—The crumb has five points to consider:

1. Texture
2. Moisture
3. Lightness
4. Color
5. Elasticity

Texture.—Refers to the degree of fineness of the holes or mesh; also to the evenness with which they are scattered throughout the loaf.

Moisture requires that the crust must not be dry, harsh, and crumbly nor must it be doughy.

Lightness is determined by the size of the loaf in relation to its weight. If allowed to rise too long it will become over-light.

The color should be an even creamy one throughout the loaf. Streaks of any kind should not appear.

Elasticity may be tested by cutting the loaf through the center and pressing the cut edges together. If they spring back to their original position when the pressure is removed the loaf has the proper elasticity. Elasticity depends to a great extent upon thoroughness of baking.

Crust.—In the crust there are three points to observe: color, crispness, and depth.

The color of the crust should be a bright golden brown, of uniform color, called "bloom."

The crispness of the crust must have a crackly, pliable, smooth feel.

Depth refers to the thickness of the crust, which should be about one-eighth inch.

General Appearance.—This refers to the size and shape of the loaf.

A *size* which will bake the crumb thoroughly without making the crust too hard is the best.

The *shape* should be symmetrical; that is, the loaf should be straight on the sides, not showing a bulging over the top of the pan. It should be well rounded over the top and should not sink in the middle of the loaf.

SOME CAUSES OF IMPERFECT BREAD

1. Sour fermented flavor—may be caused by impure yeast, dirty vessels, too hot a temperature while rising, allowing dough to stand too long before kneading or baking.

2. Coarse texture may be due to too soft a dough, too cool an oven, or to dough rising too long before baking.

3. Heavy or soggy bread may be caused by too large a proportion of water to flour, by too little or too poor yeast, by insufficient kneading, rising, or baking.

4. Loaves which bulge over at the top are the result of too soft a dough or too cool an oven.

5. Loaves with cracks, and one side higher than the other may be due to too stiff a dough, too hot an oven, or oven with uneven heat.

VI. Fancy Light Breads

PARKER HOUSE ROLLS

The Club Leader should demonstrate the making of Parker House rolls, which can be scored after the baking.

1 cupful of milk
 1 tablespoonful of sugar
 1 tablespoonful of butter
 Flour for dough

1 tablespoonful of lard
 $\frac{1}{2}$ teaspoonful salt
 $\frac{1}{4}$ to $\frac{1}{2}$ cake of compressed or
 dried yeast or $\frac{1}{4}$ to $\frac{1}{2}$ cupful of
 liquid yeast.

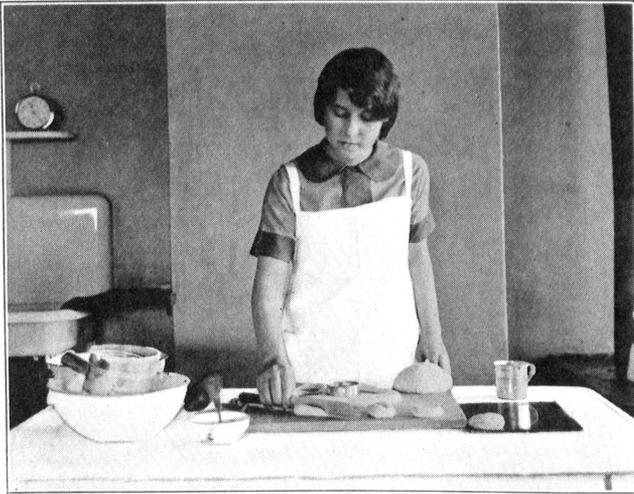


Fig. 10.—Making Parker House rolls.

Scald milk, place the yeast in one-fourth cup of lukewarm water, and add sugar to the water. Measure the butter, lard, and salt and place in a mixing bowl. Add the scalded milk and cool to lukewarm, stirring occasionally. Stir yeast, water and sugar together and add to milk mixture. Add the flour gradually, beating thoroughly until no more can be worked in with a spoon. Cover tightly and let rise until twice its original bulk. Turn out on lightly floured board, knead slightly, and roll three-fourths inch thick. Cut with a round or oval, floured biscuit cutter, crease in the middle with a floured knife, rub one-half with melted butter and fold over. Place one inch apart in an oiled tin and let rise until double in size. Bake in a hot oven 15 to 20 minutes.

WAYS TO GLAZE PARKER HOUSE ROLLS OR OTHER FANCY BREADS

To give a glaze or finish to bread—

1. Brush with melted butter or milk and sugar (1 tablespoonful of sugar to one-fourth cupful of milk) before baking.
2. Brush bread with egg, slightly beaten and diluted with 1 tablespoonful of water or milk, when it is taken from oven, and return it for a few minutes to glaze the top. The egg yolk or the egg white diluted with water or milk may be used instead of the whole egg if desired.
3. When baked and nearly cool, brush over with powdered sugar, flavored and moistened with enough boiling water so that it will spread.

CLOVER LEAVES OR SHAMROCKS

Grease a muffin tin. Take small bits of dough, knead until smooth, shape in balls and fit three in each tin. Let rise and bake.

BREAD STICKS

Use the same ingredients as for Parker House Rolls. When ready to shape, form in small balls, then roll on an unfloured board with the hands until strips are formed uniform in size and the shape of a thick lead pencil. Place on a greased baking sheet or pan some distance apart, or in a tin designed for the purpose. Bake, when light, in a hot oven, reducing the heat that the sticks may be crisp and dry.

CRESCENTS

When the dough is light, roll in a sheet one-eighth inch thick and cut into strips about four inches wide; cut these into sharp pointed triangles, then commencing at the base, roll them up; bring the ends toward each other, keep the points in the middle of the roll to give the shape of a crescent. Place them in greased baking tins some distance apart. When light, bake 15 to 20 minutes.

V. Quick Breads, Muffins and Corn Bread

Muffins, corn bread, griddle cakes, biscuits, and other breads in which yeast is not used and which therefore can be made in a short time are called quick breads.

Instead of being leavened or made light with yeast, baking powder or soda is usually used. Baking powder is made of about one part of soda to two of cream of tartar or some other acid substance. When water or milk is added to the baking powder, the same carbon dioxide gas is

formed that is produced when yeast grows in a dough. When soda is the leavening agent, a food material containing acid, as sour milk, molasses, cream of tartar, is used with it to produce this gas. The air which is beaten into a batter or into egg and folded into the batter also helps to make batters light.

The tiny bubbles of gas which are formed, or of air which is beaten in, are made larger by the heat of the oven and as they expand they push up the batter or dough. The flour mixture then is set by the heat and the bread remains light and porous while the gas escapes with the steam. Very thick batters as those of baking powder breads or soft doughs as biscuit dough have enough flour in them so that the gas does not easily escape and it is not important that such mixtures go into the oven at once, but such mixtures should be put in the pan ready to bake before standing, or the later rolling or other handling will allow much of the gas to escape and result in a flat product. Soda may be mixed with the other dry ingredients or with the sour milk. If added to the sour milk some of the gas escapes. This does not matter if some baking powder is also used. When air is to be one of the leavening agents and it is beaten into egg the beaten egg must be carefully folded into the batter or the bubbles will break and the air escape without leavening the mixture.

Quick breads are divided into two classes according to the proportion of flour and liquid. They are (a) batters, (b) doughs.

(a) Batters are flour mixtures that are thin enough to be beaten and there are two kinds of them; the "pour" batter and the "drop" batter.

The "pour" batters are thin enough mixtures to pour from a vessel in a continuous stream. Three-fourths to one cupful of liquid is used to one cupful of flour. *Examples:* Popovers and griddle cakes.

"Drop" batters break off or drop when poured and will not run in a continuous stream. One cupful of liquid is used to two cupfuls of flour. *Examples:* Muffins and cake batters.

(b) Doughs are mixtures that are stiff enough so they can be worked with on a board. A soft dough is made of about three parts of flour to one part of liquid. *Example:* Biscuit dough.

SOME PROPORTIONS TO REMEMBER IN MAKING BATTERS AND DOUGHS

Two level teaspoonfuls of baking powder will leaven one cupful of flour.

One-half teaspoonful of soda should be used with each cup of well soured milk, and less, if milk is only beginning to turn.

One-half teaspoonful of soda is needed for one pint of molasses, although if the molasses is quite acid more may be needed.

One-half teaspoonful of soda is equal in leavening ability to two level teaspoonfuls of baking powder and will leaven one cupful of flour. If more than one cupful of flour is needed for each cupful of sour milk, add baking powder in the proportion of two teaspoonfuls to each additional cupful of flour.

The amount of baking powder needed can be figured by basing the amount on the total number of cupfuls of flour used. When soda is also used baking powder can be omitted in proportion to the amount of soda needed for the molasses or sour milk. For example, if a recipe calls for three cupfuls of flour, six level teaspoonfuls of baking powder would be needed. If one wishes to use with this, $1\frac{1}{2}$ cupfuls of sour milk for which $\frac{3}{4}$ teaspoonful of soda is needed, three teaspoonfuls of baking powder might be omitted and only three used.

One beaten egg will leaven about as well as one teaspoonful of baking powder.

One-fourth to one-third teaspoonful of salt is used for one cupful of flour in quick bread mixtures.

RECIPES FOR QUICK BREADS

The following recipes are given for quick breads and some of the members should demonstrate the making of muffins.

Muffins

| | |
|---------------------------|---------------------------|
| 2 c. flour | $\frac{2}{3}$ t. salt |
| 4 t. baking powder | 1 c. milk |
| 2 to 4 tb. sugar | 2 tb. butter or other fat |
| (may be omitted entirely) | 1 egg |

The amount of sugar and butter used depends upon taste.

Mix and sift flour, salt, sugar, and baking powder. Beat eggs slightly and add milk. Gradually stir milk and egg into dry ingredients, and beat just enough to remove lumps. Add melted fat. Fill greased muffin pans two-thirds full and bake in hot oven about 25 minutes. If iron pans are used, heat them before filling with batter. If there is not enough batter for all of the cups, partially fill the empty ones with water.

Corn Meal Muffins

Make as muffins, using one-third corn meal and two-thirds flour.

Graham Muffins

Make as muffins, using equal parts of graham and white flour.

Fruit Muffins

Add $\frac{1}{2}$ to $\frac{3}{4}$ cupful of currants, chopped raisins, or dates to the

batter. Save out a little flour from the amount called for to mix with the fruit so it will not sink to the bottom of the pan.

Corn Bread

| | |
|--------------------|------------------------------|
| 2 c. corn meal | 1 t. salt |
| 1 t. soda | 2 c. buttermilk or sour milk |
| 1 t. baking powder | 2 tb. fat |
| 1 tb. sugar | 2 eggs |

Mix dry ingredients thoroughly. Add sour milk gradually and stir until batter is smooth. Add melted fat and beaten eggs. Put in greased muffin or bread pan and bake in medium hot oven for about 25 minutes

Spoon Corn Bread

| | |
|---------------------------|-----------|
| 2 c. water | 1 tb. fat |
| 1 c. milk (whole or skim) | 2 eggs |
| 1 c. corn meal | 2 t. salt |

Mix water and corn meal and bring to the boiling point and cook 5 minutes. Beat eggs well and add with other materials to the mush. Beat well and bake in a well-greased pan for 25 minutes in a hot oven. Serve from the same dish with a spoon. Enough for six.

Corn Dodger

| | |
|----------------|----------------------------------|
| 2 c. corn meal | 1 tb. fat |
| 1 t. salt | 1 $\frac{3}{4}$ c. boiling water |

Pour the boiling water over the other materials. Beat well. When cool, form into thin cakes and bake 30 minutes in a hot oven. Makes 14 biscuits. These crisp little biscuits are good with butter or gravy. Eat them with your meat and vegetables.

VI. Biscuits; Other Uses of Biscuit Dough

STANDARD RECIPES

Biscuits

| | |
|-----------------------|---|
| 2 c. flour | 2 tb. butter, lard, or other shortening |
| 4 t. baking powder | |
| $\frac{2}{3}$ t. salt | $\frac{3}{4}$ c. milk |

Mix and sift dry ingredients. Work in shortening and gradually add the liquid, mixing with knife to soft dough. Put on a floured board, pat or roll lightly to one-half inch in thickness. Cut with a floured cutter, place on greased tin, and bake in hot oven twelve to fifteen minutes. Use as little flour as possible on molding board. Do not let flour stick to outside of biscuits.

Drop Biscuit

Biscuit dough can be dropped from a spoon onto the greased pan instead of being rolled out. They are then called drop biscuits.

Biscuit dough is used for covering meat pies, with slight variations for dumplings and short cakes, and may be made into such fancy quick breads as cinnamon rolls, sometimes called pin wheel biscuits, Swedish tea rings, and Dutch apple cake.

Meat Dumplings

Use biscuit dough recipe, but use only 2 t. of fat instead of 2 tb. Mix as biscuit dough, drop from spoon or roll and cut out and place on top of boiling meat or chicken, cover and steam about 15 minutes. Do not remove cover while cooking.

Fruit Dumplings

Use regular biscuit or short cake dough. Roll to $\frac{1}{4}$ inch thickness and cut in squares four or five inches across. Place thinly sliced apples or other fruit on each piece. Sprinkle with sugar and spice if desired. Fold dough so that corners meet in center and pinch the edges together. Place on a floured pan and bake in a moderate oven until the crust is brown and the fruit is tender. Serve with cream or sauce.

Cinnamon Rolls or Pinwheel Biscuits

Make biscuit dough or if desired short-cake dough. Roll to $\frac{1}{4}$ inch thickness, spread with butter and sprinkle with a mixture of cinnamon

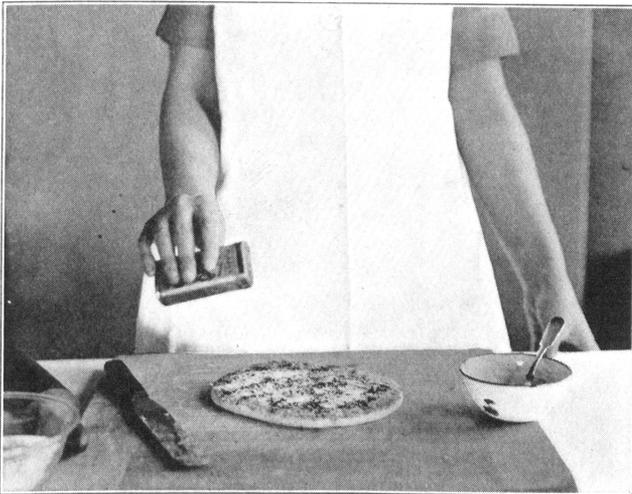


Fig. 11.—First step in making cinnamon rolls.

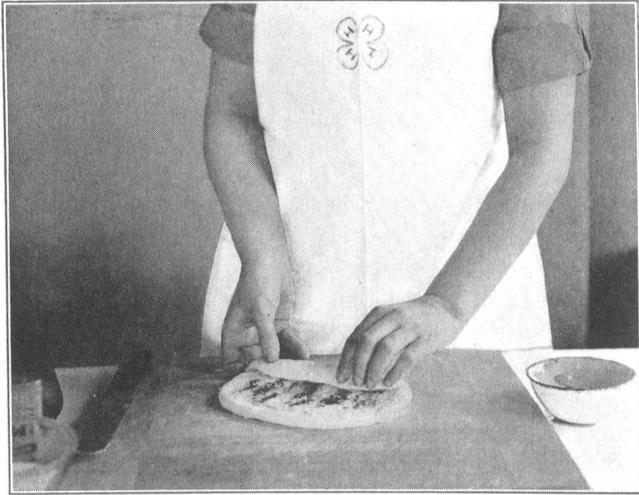


Fig. 12.—Rolling the prepared dough (cinnamon rolls).

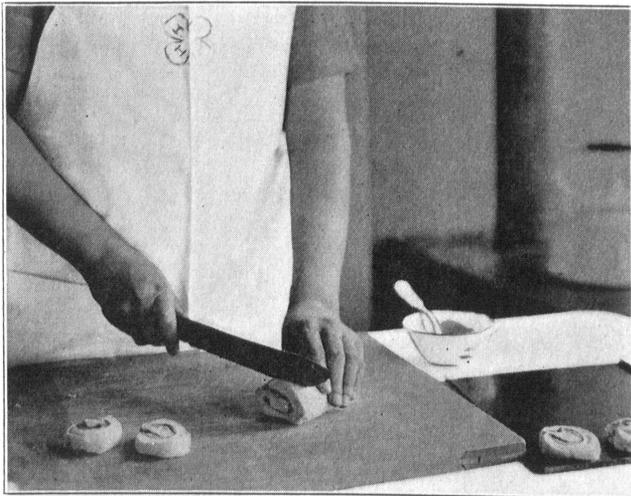


Fig. 13.—Cutting the sections for the finished cinnamon rolls.

and sugar in the proportion of 2 tb. of sugar to $\frac{1}{3}$ t. of cinnamon, and if desired add washed raisins. Roll like jelly roll and cut in pieces about $\frac{3}{4}$ inch thick, place on a greased pan with cut edges at top and bottom, and bake in hot oven.

Dutch Apple Cake

Make biscuit dough using 3 instead of 2 tablespoonfuls of fat. Roll dough about $\frac{1}{2}$ inch thick and place flat upon greased pan. Spread melted butter on dough, and press sliced apples into dough in rows, with sharp edge of sliced apple downward, until top of dough is covered with apples. Mix cinnamon and sugar and spread over top. Bake in moderately hot oven for about 30 minutes. Serve with sugar and cream or with pudding sauce.

ADDITIONAL BREAD RECIPES

Steamed Brown Bread

(Four loaves if pound baking powder cans are used.)

| | |
|---|---|
| $\frac{1}{2}$ c. brown sugar | 1 c. raisins |
| $\frac{1}{2}$ c. brown corn syrup or molasses | 1 t. salt |
| 1 egg | 2 t. soda (less if milk is not clabber) |
| 2 c. sour milk ($1\frac{7}{8}$ if milk is not solid clabber) | 1 $\frac{1}{4}$ c. sifted white flour |
| | 2 c. graham flour. |

Combine sugar, molasses and egg; add the milk. Sift together the white flour, soda and salt. It is especially important that the soda be sifted and well mixed with the flour. Blend thoroughly with the graham flour. Combine dry and liquid ingredients and beat until thoroughly mixed. Add the raisins which have been cut in two and dredged thoroughly with flour. Pour into well greased and lightly floured moulds or pound baking powder or coffee cans, filling them about $\frac{2}{3}$ full. Be very careful in filling moulds to distribute the raisins evenly throughout. Place lids on cans or tie oiled paper over the tops of cans and steam three hours. A steamer placed over boiling water, or a kettle of boiling water containing a rack may be used. If the latter is used the water in the kettle should come halfway to the top of the moulds. As the water evaporates, add more boiling water. Less time is required if the mould is thus placed directly in the water. Remove the covers, after steaming, or remove the bread from the cans and place in oven for 10-15 minutes. Remove to a rack to cool.

If preferred, the covered bread moulds may be placed in a moderate oven (350°) for 40-50 minutes, then lids removed and temperature increased for 10-20 minutes, total baking period of 50-60 minutes. Loaf pans may be used if they have well fitted lids, but most people prefer the cylinder shaped loaves.

Waffles

| | |
|---------------------------------|---------------|
| 1 $\frac{7}{8}$ c. sifted flour | 1 c. milk |
| 3 t. baking powder | Yolks 2 eggs |
| $\frac{1}{2}$ t. salt | Whites 2 eggs |
| 2 tb. melted butter | |

Mix and sift dry ingredients. Add milk gradually, yolks well beaten, melted fat, and whites beaten stiff. Before the waffle irons are used, they should be heated slowly on both sides and greased thoroughly. Aluminum irons do not need greasing. Pour batter quickly into center of hot irons, close irons at once and mixture will spread to fill iron. Brown waffles on both sides. If sufficiently heated, the irons should be turned almost as soon as filled and closed. Special care must be taken in greasing a new iron or waffles will stick. Never wash irons with soap and water. Wipe off thoroughly after using. A steel waffle iron brush is very convenient to have in case the waffles stick the first time.

Eggs need not be beaten separately. They may be beaten vigorously, milk and butter added, then the dry ingredients sifted in. If self-rising flour is used, omit the baking powder and salt.

Griddle Cakes

| | |
|-----------------------------------|-------------|
| 3 c. flour | 2 c. milk |
| 1 t. salt | 1 egg |
| 1 $\frac{1}{2}$ tb. baking powder | 2 tb. fat |
| | 1 tb. sugar |

Mix and sift the dry ingredients and add the milk gradually, beating constantly to make a smooth batter. Add the beaten egg and the melted fat and bake on a hot, ungreased griddle.

Sour Milk Griddle Cakes

Use recipe for sweet-milk griddle cakes, substituting thick sour milk for sweet and using 1 t. soda instead of the baking powder.

Corn Meal Griddle Cakes

| | |
|--------------------|-------------------------|
| 1 c. corn meal | 1 $\frac{1}{2}$ c. milk |
| 1 tb. sugar | 2c. flour |
| 1 t. salt | 4 t. baking powder |
| 2 c. boiling water | 2 eggs |
| | 2 tb. fat |

Put the meal, sugar, and salt in a mixing bowl, and pour over them the boiling water. Let stand until the meal swells, then add the cold milk. When the mixture is quite cool, stir in the flour and baking powder, mixing well; add the egg, well beaten, and lastly, the melted fat. Bake on a hot, ungreased griddle.

Bread Crumb Griddle Cakes

| | |
|--------------------------|--------------------|
| 1½ c. stale bread crumbs | 2 eggs |
| 1½ c. scalded milk | ½ c. flour |
| 2 tb. fat | ½ t. salt |
| | 4 t. baking powder |

Soak the crumbs in the milk and fat until they are soft. Add eggs, well beaten, and the dry ingredients, mixed and sifted. Bake on a hot griddle. The cakes are very tender and should be turned carefully.

Nut Bread I

| | |
|--------------------|-------------------|
| 3 c. flour | 1 c. sweet milk |
| 1 t. salt | 1 c. chopped nuts |
| 6 t. baking powder | 6 tb. butter |
| ⅔ c. sugar | 1 beaten egg |

Mix and sift dry ingredients together. Add milk to beaten egg and gradually mix this with dry ingredients. Add melted butter and chopped nuts. Put in deep greased pan and let rise 20 minutes. Bake forty-five minutes to one hour in a medium slow oven.

Nut Bread II

| | |
|----------------------------------|-------------------|
| 2 c. whole wheat or graham flour | ½ c. sugar |
| 2 c. white flour | 1½ c. milk |
| 1 t. salt | ½ c. fat |
| 8 t. baking powder | 2 eggs |
| | 1 c. chopped nuts |

Mix and bake as Nut Bread I.

VII. Public Demonstrations

In so far as possible, all club members should be instructed in the regular club meetings by the demonstration method. As a usual thing one or more members of each club can begin doing useful phases of the work program before the club soon after the processes have been demonstrated by the club leader.

After two or three months of practical experience in handling real things, all mature club members should be able to give public team demonstrations. The scope of the team demonstration usually should be limited to the essential processes of some phase of the club work of the current year in one subject. A team of two or three of the best demonstrators, according to the number needed, should be selected from the membership of one club, either by mutual consent or by competition. All teams should have an opportunity to demonstrate before the local club group and the people of the home community, and the championship team should represent the local club at the county round-up.

SCORE CARD FOR JUDGING PUBLIC TEAM DEMONSTRATION

| | Perfect Score | Actual Score |
|--|---------------|--------------|
| 1. Subject Matter----- | 30 | |
| (1) Importance of the subject matter presented and relation to fundamental problems of home or farm. | | |
| (2) Accuracy of statements made in oral presentation and proper methods in doing the work. | | |
| (3) Completeness with reference to the giving of all steps necessary to clear understanding of the process. | | |
| (4) Clearness and definiteness of statements made in simple language easily understood. | | |
| (5) Replies to practical questions. Judges' questions only should be considered in team scores. Team should give authority for subject matter presented. | | |
| 2. Team Work----- | 20 | |
| (1) Preparation, arrangement and use of materials. The team will be responsible for the arrangement and preparation of equipment and its use. | | |
| (2) Organization of work, each member in so far as practical to be kept busy with a definite part so that the work and instructions given will proceed without delay, but each member of the team should be able to demonstrate the whole process. | | |
| (3) Appearance and conduct of the team. Appearance and conduct includes the personal appearance of the members, and of the team as a whole. They should be business-like, pleasant and so far as possible, a unit in action and appearance. | | |
| (4) The team members not actually directing the demonstration should reinforce the point at hand or at least should not detract from the theme of the demonstration. | | |
| 3. Skill----- | 20 | |
| (1) Ease in procedure. | | |
| (2) Workmanship and efficiency of manipulation. | | |
| (3) Neatness and cleanliness in doing work. | | |
| (4) Speed, system or dispatch. | | |
| 4. Results----- | 15 | |
| (1) Effect upon the audience, and also upon materials used in the demonstration, as may be shown in the finished product. | | |
| (2) All processes made clear. | | |
| 5. Practicability----- | 15 | |
| (1) Value of principles given for the home and community. | | |
| (2) Actual club practices shown. | | |
| Total Score----- | 100 | |

SUGGESTED OUTLINE OF A DEMONSTRATION ON LIGHT BREAD

This demonstration is arranged for a team of two members designated as "A" and "B".

References: Boys' and Girls' 4-H Club Circular No. 19 "Baking Club I", Circular 102 "Making Light Bread," and "Missouri Soft Wheat Flour," Bulletin of Missouri State Board of Agriculture.

Equipment: 3 mixing bowls, small bowl or cup for soaking yeast 2 measuring cups—1 for dry materials and 1 for liquids, spatula, knife, 2 tablespoons, 2 teaspoons, cover or towels for covering bread while rising, pans for baking, dish pan, stove with an oven, wash basin, 2 hand towels, chart showing recipe, ingredients for bread, as flour, yeast, salt, sugar, fat and liquid, and bread in the following stages:

1. One loaf, previously prepared, in oven ready to take out during the demonstration.
2. One loaf ready to bake.
3. One loaf rising in tins.
4. One loaf rising in bowl.
5. Sponge for one loaf of bread.

The demonstration should be presented in a forceful manner and should be continued with each member working or speaking all the time.

It is suggested that each demonstrator wear a white dress and cap.

In as far as practicable, members should arrange their own equipment and stage, and should clean up after the demonstration.

Time: Fifteen to thirty minutes.

Procedure

“A”

“B”

| <i>“A” Speaks</i> | <i>“B” Assists</i> |
|---|--|
| <p>“A” addresses the audience; makes a brief statement about the club which the team represents, leads in repeating the 4-H Club pledge or in giving a spirited club song or yell, and introduces team mate and self. Tells that they will demonstrate the making of light bread. Discusses recipe of long process bread.</p> | <p>“B” stands at attention; joins in repeating the 4-H club pledge or in giving the song or yell; and stands at attention while being introduced. Gets bread-making equipment and materials ready for use.</p> |
| <p>Discusses flour, kinds, test of good bread flour. Discusses yeast—puts yeast to soak—tests for luke-warm water. Measures ingredients and demonstrates making of sponge. Puts sponge aside. Demonstrates kneading of dough.</p> | <p>Assists with measurements and prepares bowl for dough. Sees about oven heat. Gets bread ready for kneading. Cleans up.</p> |

| | |
|--|---|
| <p style="text-align: center;"><i>"A" Assists.</i></p> <p>Cleans up.</p> <p>Gets all needed things ready for "B."</p> <p>Removes loaf from oven.</p> | <p style="text-align: center;"><i>"B" Speaks.</i></p> <p>Gives introductory sentence in regard to dough. Demonstrates kneading and making dough into loaf. Puts into bread pan and puts pan in warm place. (May make into rolls or fancy bread, if time permits.) Shows other loaf that is ready for baking. Discusses heat for baking.</p> <p>Demonstrates care of loaf when taken from oven. Demonstrates storage of bread.</p> <p>"----- will conclude the demonstration."</p> |
| <p style="text-align: center;"><i>"A" Speaks.</i></p> <p>Gives a brief summary of points made in the demonstration.</p> <p>Asks for questions pertaining to the demonstration.</p> | <p style="text-align: center;"><i>"B" Assists.</i></p> <p>Assists "A" if necessary.</p> <p>Quietly collects equipment and cleans up the table, if time permits.</p> |
| <p style="text-align: center;"><i>"A"</i></p> <p>Leads in giving a spirited club song or yell.</p> <p>Thanks the audience for its attendance and attention</p> | <p style="text-align: center;"><i>"B"</i></p> <p>Stands at attention.</p> <p>Joins in giving club song or yell.</p> <p>Stands at attention.</p> |