THE MAGAZINE GUARDIAN

For Parents, Pupils, Teachers, Farmers, Dairymen, Horsemen

TO THE FARMER

Farmers and others interested are invited to contribute to The Farm, The Dairy, The Turf, and Good Roads departments of the Guardian either by question, correspondence or otherwise. Answers will be given by experts to all questions of general interest and space will be given to any articles that will in any way help to advance Prince Rdward Island interests.

Contributors are asked to have their articles at this office early each week, as only a short emergency item can be handled as late as one p. m. Wednesday. All received afte that hour cannot appear until the following week.

THE SCHOOL AND THE HOME

Contributions for this Department should be addressed to
P.O. Box No. 116, Charlottetown.

DOMESTIC SCIENCE

Owing to the great demand for complete sets of the Rules, Methods and Receipts given to the Short Course Students in the Cooking Classes, conducted at the Prince of Wales College during January and February last by Mrs. A. E. Dunbreck, Supervisor of Women's Institutes for Prince Edward Island, it has been deemed advisable to print this information in a form of a series of lessons through the medium of the Press. These articles will include the Class Notes given at the Short Course on the principles underlying the preparation of the different foodstuffs for the table with accompaning recipes. Such subjects as Bread Making. Cake, Making Soups, Deep Frying. The Lunch Box, with recipes for salad dressing and sandwich combinations, Candy, Hot Supper Dishes, The Cooking of Meat, Desertt, Pastry, etc., will be dealt with.

RECIPES.

DUCHESS POTATOES: To 2 cups hot riced potatoes add 2 tablesp. butter, one half teaspoon of salt, and yolks of three eggs slightly beaten. Shape using bag and tube, in forms of baskets, pyrimids, crowns, leaves, roses etc. Brush over with beaten egg, diluted with one teaspoon water, and brown in a hot oven.

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RULE: Wash, and pare potatoes thinly, taking out all the eyes. Cover with boiling salted water (1 tp. to 1 pt.) and boil gently until they will easily admit the point of a knife. Drain off the water at once, uncover the pot and shake over the heat to dry them and make them mealy. Cover the potatoes with a cloth to absorb moitture, let stand on back of range five minutes, serve.

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AIR IN ITS RELATION TO COOKERY: We learn that by beating a mixture, a large amount of air is enclosed, and by cutting and folding the air already introduced is prevented from escaping. When a mixture is beaten thoroughly, it is filled with air bubbles, and when this is cooked or baked in a hot oven, each air bubble becomes enlarged by the heat; the heat also dr es the mixtures and forms a wall around each expanded air bubble firmly fixing it in place. In egg mixtures like omelets, the heat congulates the albumen in the egg at a low temperature; this firmly fixes the bubbles in place, leaving a light and porous mixture.

All egg mixtures should be cooked at a moderature temperature—examples, sponge cake, angel's food, &c. A batter containing a large amount of water and baked in a hot oven, puffs up by the steam produced. The steam is formed when the liquid with in the mixtures is sufficiently heated. Water is changing to steam is expanded, more than 1700 times, and consequently puffs up the mixture. Example, Cream, Puffs, Pop Overs, &c.

FLOUR MIXTURES. Mixtures, of flour, meal and liquid are called batters or doughs, according to the quantity of liquid used. Batter is a mixture of flour and liquid, thin enough to be beaten, Pour batter is a thin batter—equal parts liquid and flour. Example Griddle Cakes.

Drop Batter is a thick batter—one part liquid to two parts flour. Example, Muffins.

Dough, is a mixture of flour and liquid stiff enough to be handled on a board.

Soft Dough: One part liquid to three parts flour. Example. Baking Powder Biscuits.

Stiff Dough: One part liquid to four parts flour, example. Pastry.

Note—The proportions vary, according to the flour and liquid used. The liquid ingredients include water, milk, molasses, eggs, &c. The dry ingredients include flour, meal, sugar salt, spices, baking powder, &c. The fats called "shortening" added to make the mixture tender, include butter, lard, dripping, suet, chicken fat &c. A mixture of flour and liquid alone when cooked would be hard and indigestible.

Batters and doughs are made light or porous by the introduction of a gas which is expanded by the heat applied during the cooking. The gases that aid in making the dough light or porous are air, steam, and carbon dioxide. Air may be introduced into the mixture directly, or may be first beaten into the mixture directly, or may be first beaten into the eggs and then added to the mixture. Carbon dioxide may be formed within the mixture by the action of yeast during fermentation or it may be set free by chemical action from substances, containing the elements of which it is composed Example, Baking powder.

Macaroni & Peanut Butter (Baed). 1 cup of macaroni, broken in 1 inch pieces. 2 cups of milk. 3½ tablesps. peanut butter. 1 tsp. salt. ¾ cup buttered bread crumbs.

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Cook macaroni in rapidly boiling salted water twenty minutes or until soft, drain in strainer and pour over one quart cold water to prevent pieces from adhesing, then put in buttered baking dish. Heat milk in double boiler and add gradually to peanut butter. Pour over macaroni cover and bake until crumbs are brown. (For butter crumbs allow about 1-3 cup melted butter to 1 cup rolled cracked or grated bread crumbs.)

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CAULIFLOWER IN CROUSTADE. Remove leaves, cut off stalk and soak a cauliflower 30 minutes (head down) in cold water to cover. Cook (head up) 25 minutes or until soft in boiling, simmering pt., salted water to cover. Drain and separate into flowerets, and pour over the following sauce: Mix the yolks of two eggs, slightly beaten, one fourth cup of cream, one-half tsp. of salt, 1-8 tsp. of nutmeg, and the juice of ½ lemon. Cook in double boiler, stirring constantly, until mixture thickens. Add 2 tablsp. butter bit by bit, and when butter is melted pour over cauliflower. Serve in bread croustade and decorate with aprsley.

EMERGENCY PUDDING. 1 cup of bread flour ½ tsp. of salt.

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ORANGE SAUCE. 1 tablsp. Bk. Pdr. milk. Canned peaches or any fruit.

Mix and sift flour, salt and baking powder and moisten to a soft dough with milk, the amount required being about 1-3 cup. Drop a tablsp. in each buttered individual mould, add a small section cut from a canned peach, cover with another tablsp. dough and steam ten minutes. Other fruits or jams can be used. Serve wieh Orange Sauce.

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ORANGE SAUCE. Grated rind of half a lemon. Juice half a lemon. ½ cup orange juice. 1-3 cup sugar. Few grains salt. Yolks two eggs. Whites two eggs. 1 tablespoon vanilla.

Mix grated rind, fruit juices, sugar salt and egg yolks, beaten slightly. Put on range and stir constantly until mixtures thickens. Add gradually while beating constantly two whites eggs, beaten until stiff. Cool and flavor with vanilla.

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HAWAIIAN 5 O'CLOCK TEA: Allow to each cup five o'clock tea three cubes of prepared pineapple cubes and sugar to taste. For pineapple cubes put one half cup of syrup drain from canned pineapple in small sauce pan, add two tablespoons suggar and half a cup of canned sliced nine apple, cut in half inch tubes. Bring to the boiling point and let simmer until syrup has been almost absorbed by fruit.

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TEA: Allow three teaspoons to to two cups of boiling water. Scald the teapot and put in the tea, add the boiling water. Cover closely and steep five minutes in a warm place, but where it cannot boil. Serve at once. (Water for tea must be freshly boiled.

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CORN TOAST- ½ Tablsp. finely chopped onions. 1½ Tablsp. butter. 1½ cups canned corn. ½ teasp. salt. ¼ teasl. paprika, 6 slices toasted bread. 1 tablsp. butter. 1 tablsp. flour. 1 cup milk. 1 egg.

Cook onions with butter, two minuses, stirring constantly. Add corn cream and seasoning, bring to the boiling point and let simmer five minutes. Pour over toast (from which crusts have been removed garnish with toast points and serve at once. (toast dipped in chopped parsley).

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MARSHMELLOW GINGERBREAD PUDDING— Cream ½ cup shortening. 1 cup molasses. 1 egg. 2 1-3 cups flour. 1½ teasp. soda. 1 teasp. alt. 1 teasp. ginger. 1 cup sour milk..

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MARSHMELLOWS. Melt shortening, (chicken fat may be used to excellent advantage) and add molasses egg, well beaten, flour mixed and sifted with soda, salt and ginger and our milk. Beat vigorously. Turn into a buttered and floured dripping pan and bake in a moderate oven twenty-five minutes. Remove from an, cut in halves, crosswise and put marshmellows between layers. Put in oven and let stand three minutes. Remove to serving dish, cool, slightly, cut in squares and serve with whipped cream, sweetened and flavored with vanilla.

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COD FISH BALLS. 1 cup salt cod fish. 2 cups potatoes. 1 tsp. good dripping, ¼ tsp. pepper. 1 egg.

Wash codfish well in cold water. Cover with warm water and let soak over night, drain. Pick apart, removing all bones. Put into a sauce pan. Pare the potatoes, cut in quarters, measure. Put with codfish and over with boiling water, cover aucepan and cook until potatoes are under. Drain, add dripping and pepper. Beat mixture until very light. When slightly cool, mix in the well beaten egg, drop by spoonful into hot fat. Drain on own paper.

POINTS TO BE REMEMBERED:

LESSON 2.

When STEAMING foodstuffs, have water boiling previous to placing food in steamer; keep water boiling while food is cooking; if necessary to replenish water, add it as quickly as possible, and have it boiling; keep steamer tightly covered; if advisable place cloth over steamer before putting on cover to hold moisture, thus preventing same from dropping on food which will cause sogginess.

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SIMMERING is cooking in water at a temperature between 180.200 F. and is used when cooking tough cuts of meat and strong smelling vegetables, such as cabbage.

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STEEPING is the metbod employed in the making of infusions such as tea. The boiling water is poured over the article, the vessel covered and allowed to stand, where the temperature does not go below 160 degrees F. Object is to extract flavor without poison.

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When TOASTING to hold bread some distance from fire or hot surface to dry it out; then hold nearer to brown evenly on both sides.

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When BROILING to have good bed of hot coals; to hold meat or fish close to fire at first to seer it; turning frequently, to hold farther from fire until cooked, turning less frequently.

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In PAN-BROILING to have pan sizzling hot. Lay meat in flat. Turn immediately, count three, turn again repeat and after surface is well seared, place pan on range, where the surface is not so hot and finish cooking; not to pierce meat with fork when turning, as it allows the juices to escape.

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In FRYING in deep fat, that fat should be deep enough to cover the material to be cooked; the fat used for cooking may be Olive oil, lard, beef dripping, cottolene, cocoa butter, crisco, &c. A combination of two thirds lard and one third beef dripping is considered better than lard alone. Mutton may be used in the place of beef dripping; the fat should be hot enough to form a crust on the food cooked in it. So long as the fat bubbles it is not hot enough. Anything that cools the fat tends to make the food greasy: not to put too much food into the fat at a time as it lowers the temperature: to reheat the fat after each frying; that all foods should be drained on soft paper, that when the fat begins to smoke drop into it an inch cube piece of bread. If this browns in forty seconds, the fat is hot enough for cooked mixtures, excroquettes, cod fish balls &c., and if it browns in sixty seconds it is hot enough for uncooked mixtures, for example, doughnuts; that nearly all food not containing eggs, is dipped in egge and crumbs, flour or meal to protect it from absorbing fat. The heat of the fat hardens the albumen of the egg and forms a coating.

POINTS TO BE REMEMBERED. CONT'D.

In BAKING that a slow oven registers between 260 degrees-300 degrees F. a moderate oven between 350 degrees 400 degrees F. a hoe oven 430 degrees to 500 degrees F. a hot oven is the turning brown of unglazed paper in five minutes when placed in oven and the browning of flour in one minute for a very hot over; that when baking one should have sufficient fuel to supply heat for entire baking: that the oven door should be opened and closed very gently in cases of egg mixtures; that the initial temperature should be somewhat higher than temperature required.

LESSON 3.

(Instructor Mrs. A. Ethel Dunbrack)
BREAD MAKING

The different points to know in bread making are:

1st Yeast.
How it grows,
What it feeds on.
What it does when it is growing.
Why we put it into bread.
Why we use wheat flour.
The temparature best for the growth of this plant.
2nd. Dough.
The incorporation of air while mixing.
The blending of the ingredients.
The making of the gluten elastic.

Yeast is a small microscopic plant which grows by budding.

Yeast grows in sprouting grains, finding in them favorable soil for growth.

The yeast plants are obtained from distilleries (beer froth).

Three kinds of yeast are used in bread making. Liquid, dry and compressed. Compressed yeast is probably the most commonly used. In compressed yeast, the plants are mixed with potato starch and are pressed into cakes. These are cut into smaller cakes and are wrapped in tin foil to keep them moist and clean.

Food, air, and moisture are necessary for the growth of the yeast plant, oxygen, some nitrogencus matter, salts or mineral matter and carbohydrates, especially sugar substances are needed for its growth. The most favorable temperature is between seventy degrees and ninety degrees F. 'Cold checks the growth, while heat (130 degrees F. or more) will kill the yeast plant,

When yeast is mixed with flour and a luke warm liquid, and kept in a warm place, the action of the yeast changes the starch of the flour into sugar, and then into alcohol and carbon dioxide.

This process is known as fermentation.

The production of this carbon dioxide is gradual, and as it forms the dough is filled with bubbles (rises) and the elastic gluten of the flour gives to the dough its power to stretch and rise, as the gas expands making the dough light and porous.

If fermentation is allowed to continue long, or at too high a temperature, so much alcohol is formed that the yeast stops growing and bacteria begin to grow; the alcohol unites with oxigen plus bacteria and the dough becomes sour.

When bread is baked, the yeast plants are killed, the alcohol and carbon dioxide are driven off, the starch is cooked and a delicious flavor is developed.

The liquids used may be water, potato water, milk, or milk and water. Milk makes a more tender loaf of bread than water.

Yeast acts more quickly if a sugar or glucose is added at first. Soft and fats hinder the growth of yeast.

The water should be boiled, the milk should be scalded.

The hot liquids should be added to the salt, sweetening and shortening This should be cooled before the yeast mixture is added.

A quarter yeast cake is usually llowed one pint of liquid of mixture, if set to rise in the morning.

One yeast cake is usually allowed to one pint liquid of mixture if set in the morning and a quick process is required.

The mixture should be beaten thoroughly to mix the ingredients and to enclose air.

The mixture should be covered to prevent a crust forming.

It should be put into a warm place about 70 degrees until enough gas is formed to make it rise, to double its bulk. It should be kneaded the second time to distribute the gas bubbles evenly, and to make a fine grained loaf Well greased pans, should be half filled with the mixture. The mixture should rise in the pans to double its bulk and no more, and then be baked in a hot oven, forty five minutes, or until brown on all sides and until a hollow sound can be produced when the loaf is tapped with the finger.

Then baked, loaves should be placed so that air can circulate freely around them until cooked. They should be put away unwrapped in a tin box or stone jar.

RECIPE FOR HOME MADE YEAST

5 small or four large grated potatoes.
Half a cup sugar.
Two tablespoons salt.
1 quart boiling water.
1 yeast cake mixed with half cup uke warm water.

Add grated potatoes to boiling water, and boil five minutes while stirring, cool add sugar, salt and yeast cake mixture. Pour into a stone jar over and let stand in a warm place or three hours or more. Each time mixture reaches top of jar, stir it down. Do this until fermentation ceases, then put away in a cool place. Cover. Use half cup full of this in place of one yeast cake. Use until there is only half cupful left, then prepare according to recipe above, using the half cupful of yeast in place of the yeast cake.

The mechanical processes in bread making are:
1st mixing.
2nd beating.
3rd Kneading and molding.

MIXING. The flour should be horoughly mixed with a sufficient quantity of liquid, so that each grain of flour may be thoroughly ydrated. (Water soaked), the sugar dissolved and the gluten sufficiently moistened.

BEATING:—The mixture should be thoroughly beaten to enclose as much air as possible, and to distribute these air cells. Beating the mixture will make it elastic, the longer it is beaten the less kneading is required.

KNEADING.—The mixture should be kneaded thoroughly to make the gluten elastic, to break the bubbles and to distribute evenly the carbon dioxil.

MOLDING:—Is simply the shaping of the dough into loaves.

BAKING:—Bread is baked: (1) to cook the starch, (2) to expand the gases and to harden the cell walls. (3) to kill the yeast plants. (4) to evaporate the alcohol formed. (5) to brown the crust.

The stages in bread making include:

1. Ferment, which is a thin liquid, made of boiled and mashed potato water, to which is added raw flour and yeast. The effect of a ferment is the reproduction of yeast cells of a vigorous description.

2. Sponge; Part of flour, with, part or all of the water made into a batter with the yeast added and fermentation allowed to proceed.

3. Dough. Includes all ingredients mixed off hand.

SPONG AND DOUGH METHOD

1. Make from one third to one half the flour and the other ingredients into a batter.

2. Beat thoroughly (to entangle the air, blend thoroughly and make the gluten elastic).

3. Make a well of remaining flour pour batter into this, and set away in a warm place to rise.

4. Make the sponge into a dough, by mixing with remaining flour, and knead until smooth and elastic.

Cover and set away to rise, until it boubles its bulk. (77 degrees or 95 degrees.)

5. Shape the dough put in pans to double its bulk. 6. Baking.

WHITE BREAD

1 cup scalded milk.
1 cup boiling water
1 tablespoon butter.
1 tablespoon lard.
1½ teaspoons salt.
1 tablespoon sugar.
1 yeast cake mixed with
¼ cup lukewarm water. ...
6 cups flour.

Add butter, lard, salt and sugar, to the milk and water, let stand until lukewarm; and yeast cake, mixed with luke warm water and five cups flour. Stir until smooth, then add enough flour (gradually) to make a dough stiff enough to knead until smooth and elastic to the touch. Return to bowl, cover closely and let it stand in a warm place until double its bulk. Bake in a hot oven 50—60 minutes.

PARKER HOUSE ROLLS

1 cup boiling water.
1 cup scalded milk.
3 tablespoon sugar.
1 teaspoon salt.
3 tablespoon butter
Flour.
1 yeast cake mixed with
¼ cup luke warm water.

This recipe can be made according to directions for white bread, namely offhand dough: or; add butter, sugar and salt to milk and water, when lukewarm, add dissolved yeast cake and two cups of flour, beat thoroughly, cover, and let rise until light, cut down and add enough to knead (it will take about two and a half cups) flour. Let rise again, toss on floured board, knead, pat and roll out to one third inch thickness. Shape with biscuit cutter, first dipped in flour. Dip the handle of a case knife in flour and with it make a crease through the middle of each piece, brush over half of each piece with melted butter, fold, and press edges together. Place on greased sheet, one inch apart, cover let rise and bake in hot oven, 12 to 15 minutes. As rolls rise they will part slightly, and if hastened in raising are apt to lose their shape.

SWEET ROLLS

1 cup milk.
1 teaspoon salt. ...
¼ cup sugar ...
¼ cup melted butter.
Yolkes of three eggs.
Grated rind of one lemon.
1 yeast cake, mixed with ¼ cup lukewarm water. Flour.

Scald the milk, add the salt and sugar, when lukewarm, add the yeast mixture, and 1 1-3 cups flour; beat well, cover and let rise until double its bulk. Add the butter, well beaten yolks, lemon rind and enough flour to knead. Knead, let rise again until double its bulk, shape, place in a butter pan, let rise again, and bake.

NOTE:—Use as little flour as possible on the board when kneading the dough. Remove biscuits from the pan, as soon as baked, and cool so the air may circulate freely around the biscuits. If tender crust is desired, rub the crust with a little butter, just before taking the biscuits from the oven.

WHOLE WHEAT BREAD

½ cup liquid.
½ teaspoon salt.
1 teaspoon butter. ...
¼ yeast cake.
1 teaspoon sugar.
Flour.

Whole wheat bread does not need two fermentations. If we give whole wheat bread too much fermentation, it is apt to become sticky. Do as much work in the beating as possible.

GENERAL DIRECTIONS FOR FOR BATTERS AND DOUGHS

Sift flour before measuring.

Put flour by spoonfuls into the cup, do not press or shake down.

Mix and sift dry ingredients.

Measure dry and then liquid ingredients. Add the liquid to the dry ingredients.

Shortening may be rubbed or chopped in while cold, or creamed; or if it may be melted and then added to

(Continued on page ten.)