

# About the House

DOMESTIC SCIENCE AT HOME

## Thirteenth Lesson—Bread.

When making bread use a thermometer and scale for accuracy, so that you will have a positive knowledge of how and what you are doing. Modern inventors have made it possible for the baker to manufacture bread of a uniform quality.

The housewife's lack of knowledge of this most important part of the home cooking has resulted in the numerous large baking plants that are a feature of all large cities. They have caused many failures; few women really understand the underlying principles of fermentation.

History tells us that the Egyptians were probably the originators of bread. The following fable illustrates the discovery of the method of converting grain into bread.

The story goes that a slave, while grinding the grain one day between two stones, a sudden shower wet the meal. The slave fled from the storm, forgetting in his haste about the meal. When the storm was over and the sun had come out he returned to his grinding. He found that the sodden mass that was the grain before the storm had come was now a dry hard cake. This was the first production of unleavened bread.

Modern breadmaking dates back from the Romans, who derived the art from their Greek and Egyptian captives of war. Historians state that the Romans made unleavened bread in 200 B. C.

In many portions of the Old World this style of bread is still made. In this country unleavened bread is made into biscuits and crackers, sometimes called beaten biscuit. It depends upon the amount of air that is beaten or incorporated into the dough to give it its lightness.

### Flour.

A knowledge of flour is necessary for successful baking. There are two distinct kinds. One is known as spring and the other as winter wheat. Spring wheat flour contains the largest percentage of gluten. This spring wheat is ground into two distinct varieties, known as soft spring wheat, and hard spring wheat.

Winter wheat is divided into two varieties similar to that of the spring wheat flour, namely, red winter flour, which is the hard winter wheat flour, and the soft winter wheat flour. The last-named flour contains a large percentage of starch. It is used for pastry and cakes.

To get successful results the flour must be blended. The fancy patent flours that are on the market are especially prepared for all-around family baking purposes.

Pastry flour, or soft winter wheat flour, will not make good bread, owing to the low percentage of gluten. The flour should be kept or stored in a room that averages about 70 degrees Fahrenheit and in a container that may be kept closed and away from all foods that have a strong odor. For successful results the home baker must have:

- Good flour of a reliable brand.
- Good, active fermentation.
- Yeast food.
- The proper amount of salt.
- The proper temperature.
- The proper manipulation.
- The proper baking.

When starting to make bread select a reliable brand of flour. Store it in a proper container in a place that has the right temperature. Sift the flour before using. The use of compressed yeast eliminates all doubt and uncertainty of the old style liquid and dry yeast.

For successful results it is necessary to supply the yeast with a food for active development. This food is not found in the flour, therefore it must be supplied. The food necessary for the active development of the yeast is sugar. Sugar supplies the carbon which is a necessary principle of the process of fermentation.

Salt is added to the bread for two purposes—first, to flavor the bread and make it palatable, and also to supply one of the mineral elements essential to the human body. Second, to control the process of fermentation. If too little salt is used the bread will lack flavor and be of a coarse, rough texture, while if too much is used the action of the yeast will be retarded and the bread will show a loss of volume.

Temperature is the controlling factor in successful bread-making. The room in which the bread is made must be free from all drafts. The proper temperature is 78 degrees Fahrenheit in summer and 80 degrees in winter. Use a thermometer and eliminate the guesswork.

By this is meant that the dough must be worked sufficiently by rolling and kneading, if made by hand. If a breadmixer is used the bread must be worked for the period of time as per instructions as supplied with the machine.

Time for hand manipulation is from fifteen to twenty minutes and from five to ten minutes when using the mixer.

### Baking.

The baking of the bread will require care. It must not be placed in an oven of uncertain temperature, then the door closed and the bread left to luck. The oven should register 325 degrees Fahrenheit when the bread is placed in it. The bread should be watched carefully and if the heat of the oven is not evenly distributed (that is, if one part of the break bakes

faster than the other), the bread must be moved or turned.

Remember that while the oven registers a high degree of heat, if you were to place a thermometer in the center of the loaf of bread you would find that it requires nearly fifteen minutes for the heat to reach the center of the dough to heat it to the boiling point or 212 degrees Fahrenheit. For this reason sufficient time must be given after the bread is well colored for the interior of the bread to be well baked.

The time allowance should be from thirty-five to forty minutes for medium-sized loaves, weighing about sixteen to eighteen ounces before baking; from forty to sixty minutes for loaves weighing from eighteen to twenty-six ounces.

Shortening is used to make the bread tender and to neutralize the acid in the flour; it also furnishes fat to the food value of the bread.

Two methods are employed for the making of bread.

First, the sponge method. This calls for a sponge of light batter. The mixture is set to rise and then the remainder of the flour, salt and shortening is added. The dough is then worked for fifteen minutes. After this it is allowed to rise for the second time. Now it is molded into loaves, given a short proof and then baked.

Second, the straight dough method. In using this method the salt, shortening, sugar and flour are mixed with the liquid and yeast into a stiff dough that can be worked without sticking to the hands. This method is quicker, because it is possible to have the bread finished in about four and three-quarters hours. This method gives very satisfactory results.

Milk, part water and part milk, or all water may be used in making bread. One medium-sized potato may be added when the water is used. Milk increases the food value of the bread. The milk must always be scalded and cooled before using.

### The Sponge Method.

Sift the flour and then set it in a place where it will have a temperature of 80 degrees. Now to prepare the sponge. Heat the utensil in which the sponge is to be made by filling it with hot water. Let the water stand in the utensil until it is heated thoroughly; then empty out the water and dry the vessel.

Then place in a bowl three cupsful of liquid, testing it with a thermometer to see if it is exactly 80 degrees Fahrenheit. Crumble in the yeast cake and add two tablespoonfuls of sugar and three cupsful of sifted flour. Beat with a spoon for five minutes. Cover and set in a place free from all draft for one and one-half hours. Then add six cupsful of flour, one and one-half tablespoonfuls of shortening and two teaspoonfuls of salt.

Knead for fifteen minutes, then put the dough in a greased bowl; now turn it over. This will grease the dough and prevent it forming a crust while rising. Cover and let rise for two hours.

Mold into loaves, place in well greased pan, and set away to rise for one hour. At the end of this time bake the loaves in an oven registering 325 degrees Fahrenheit for forty-five minutes.

Use a scale when ready to mold the loaves. Weigh twenty ounces to each loaf. Divide the balance of the dough into rolls, weighing two ounces each. This recipe will make two loaves of bread, weighing, after baking, about seventeen and one-half ounces apiece, and ten rolls.

### Straight Dough Method.

Two cupsful of water, 80 degrees Fahrenheit, one and one-half tablespoonfuls of sugar, one and one-half tablespoonfuls of shortening, one and one-half teaspoonfuls of salt. Mix well. Crumble in one yeast cake, stir until dissolved; now add six cupsful of flour. Work to dough and then knead well for fifteen minutes. It must now be smooth and elastic. Put in a greased bowl and set to rise in a place free from all drafts, with a temperature of 80 degrees Fahrenheit for three hours. At the end of this time mold into two loaves. Put in greased pans and let rise again for fifty minutes. Now, bake in an oven of 325 degrees Fahrenheit for thirty-five minutes.

This amount of dough makes two loaves of bread, that will average about fourteen ounces apiece, or one loaf and eight rolls, weighing two ounces each.

### Points to Remember.

Use good flour.  
Sift the flour.  
Scald and cool all milk or water used in making bread.

The temperature for success must be 78 degrees in summer and 80 degrees in winter; also the room must be free from all drafts.

Thorough manipulation.  
Follow the recipe closely. Remember that judgment must be used. It is impossible to gauge the accurate amount of flour to any given amount of liquid. Flours vary in the amount of moisture they absorb; for this reason it easily will be seen that one brand of flour will require a little more or a little less moisture than another. When the amount of liquid

is known, it is a very easy matter to withhold one or two tablespoonfuls of flour or to add the same amount.

The yeast must be fresh. By this is meant that it must have good color, a pleasant yeasty odor and be firm to the touch. The compressed yeast is the best kind to use.

Brush the top of the loaves of bread, when taken from the oven, with melted butter.

Place a pan of boiling water on the floor of the gas oven while the bread is baking.

Use a thermometer first, last and all-ways. Don't guess at your work. Know what you are doing. This is the baker's greatest tool. He takes no chances; he knows, and in knowing lies the secret of his success. Any thermometer will do that will register from the freezing point to 100 degrees Fahrenheit, when preparing the bread, but do not use this thermometer in the oven. A regular oven thermometer can be purchased at a very reasonable price. It will save its cost in three months. The assurance that the oven temperature is of the right degree conveys to you a peace of mind that is above money value.

## PROBLEM OF THE WORLD'S WAR

### THE BRITISH NAVY HOLDS THE KEY TO ITS SOLUTION.

#### Her Ships Patrol the Seas Day and Night in Ceaseless Vigil and Maintain Empire's Supremacy.

By H. E. Bywater, Editor, "Palmerston Spectator."

Great Britain depends mainly upon her fleet for her existence. Over the sea in calm majesty lies the proud island, whose Empire is stronger and vaster than any coalition of other states, and whose web encompasses the whole world within her dominions, for she possesses the resources of all continents. There is no part of the world that she has not established her garrisons or her colonies, and her unrivalled fleet dominates every sea. Ever since the days of Queen Elizabeth, when the great Spanish Armada was destroyed by British sea power, she has been the controlling genius of the world, scattering the fleet of Napoleon, who grasped for world power (like the German Kaiser at the present time), and forever destroying his hopes of world-wide empire. "To me," said Napoleon, "God has committed the mastery of the land; to England, the mastery of the sea."

#### "Keys to the Nations."

In Holy Writ it is written Israel in the last days "will possess the gates of her enemies" (the strategic points of the world). According to Anglo-Israel theories advanced by the late Prof. Totten of Yale University, Rev. Dr. Poole and others, no other nation but our own can possibly measure up to the claim. The word "gate" is from the Hebrew word "Shaar," which according to the most noted Hebrew writers means "the place of entrance." Rev. Dr. Poole, in his annotations, says, "The gates means the fortified places of a nation." Morse, in his geography, calls them "the keys to the nations." Great Britain, through her sea-power, holds all the important "gates" of the world, and without this power all Europe would to-day be at the feet of the Kaiser, humiliated and broken. The following strategic "ocean gates" give our Empire world dominion: The Channel Islands, Gibraltar, Malta, Cyprus, Acre, Suez Canal, Aden, Babel-Mandeb, Perim, Sxortra, Bombay, Madras, Peshawub, Rangoon, Calcutta, Burma, Penang, Singapore, Malacca, Egypt, Borneo, Hong-Kong, Australia, New Zealand, the Falkland Islands, Fiji Islands, Mauritius Island, Africa, Sierra Leone, Cape Colony, St. Helena, Ascension, Tasmania, Jamaica, Bahamas, Bermudas, Nova Scotia, Newfoundland Islands, Quebec, and numerous other Empire gates. Without the British fleet, a world-wide Empire was an utter impossibility. The fleet has given us wealth, honor and power without the cost of maintaining a huge and costly army. It was for the purpose of wresting supremacy and possessing the "ocean gateways" of the world, that Germany has challenged Great Britain, and as a result half of the world is now locked in a deadly struggle. No citizen of the British Empire can fail to have his patriotic pulse stirred with pride, when he contemplates his citizenship, for we are subjects of an Empire, which dwarfs into insignificance, that of Rome in its palmy days—an Empire upon which the seal of Divine approval has been signally placed—an Empire with which the highest destinies of the ages are fraught—an Empire into whose keeping God has committed the "gates" of the earth, the lamp of her faith kindled at the apostolic altars burns as a beacon to all mankind.

#### Superiority of Great Britain.

Great Britain, from the wooden ships of Nelson's day, has kept pace with the world's progress, and for the

past twenty-five years, the best brains of the world—the greatest mathematicians, the greatest chemists, no less the greatest masters of applied science—have been engaged in a world-struggle, in which each great power has sought to outdo the others in what might be termed "destructive efficiency." Great Britain, for years, maintained the policy of laying down two ships to Germany's one, and her superiority at sea is complete. To maintain the ascendancy at sea is a great problem at the present time, since the menace hidden in torpedo or mine is a potential disaster. If a mine explodes beneath a ship, there is little chance that she will remain afloat as a fighting unit. To have to move much in mined waters, or to be continually exposed to submarines, imposes a strain on officers and men that can be easily understood. It is generally believed to be part of Germany's war policy to wear down British numerical superiority at sea by mines and torpedoes, that the German high-seas fleet will at last be in a position to meet the British fleet in actual battle for sea supremacy, but after two years the British Navy is stronger than when she first faced the issue at the outbreak of the war. The silent vigil of the British fleet in the North Sea has saved all Europe, and France particularly pays a generous tribute to the sea-power of Great Britain.

#### Huge Floating Forts.

When the great battle fleet assembled at Spithead in July, 1914, at a time when, though few of us realized it, the war clouds were already gathering, and the chancelleries of seven or eight capitals were filled with doubts and fears—this great fleet, more formidable than any ever seen before, was visited by thousands upon thousands of sightseers, not only from the far inland towns of Britain, but of the very heart of Central Europe. The thing about the great armada that impressed most were the guns, which exercised a wonderful fascination. It was so wonderful that out of the simple-looking tubes that bristled on the super-Dreadnoughts, could issue missiles that would travel accurately for twenty miles or more, or at half that distance send to the bottom the mightiest ship afloat. The modern battleship like the Iron Duke or Queen Elizabeth, is simply a huge floating fort. She is designed for the purpose of hurling at the enemy as great a weight of armor-piercing shells as possible—the result of naval battles depending almost altogether on the weight of metal and the accuracy of the range. An engagement of modern battleships, such as occurred in the North Sea a few months ago, between Great Britain and Germany, which sent the German fleet into hiding, is the most terrible inferno that the mind can conceive. It is the most nerve-racking experience that men can endure, and on their powers depend the ultimate issue of battle. We trusted entirely to British naval science in marine artillery, and the high quality of British seamanship, and the victory was ours.

#### Our Invincible Armada.

The destiny of the British Empire, and the world at large, does not depend on the army, but on its navy. Its colonies and the Empire Islands could not exist but for its grand fleet. Its commerce would disappear in a night, and the citizens of the snug little islands set in the silver sea would starve in a few months. Britain's very existence depends on her navy. The greatest and most surprising development of modern warfare is the sudden evolution of the submarine. It can navigate the stormiest sea in perfect calm, perfectly invisible to the enemy. It is the most terrible menace that British merchant vessels have to face. It is the greatest danger on the high seas. Great Britain has lost 2½ per cent. total gross tonnage of merchant vessels, but the menace in the future will have to be met by new methods, and possibly new men.

The British Navy, which is the veins and arteries of the Empire, with its innumerable cruisers, dreadnoughts, torpedo boats and mine sweepers, is the most formidable armada on earth, and on its strength and power alone, backed by iron destiny, depends the present and future of the world. With the fleet intact, Germany can never possess the "gates" of the world, or secure world power.

#### WHAT A "TOMMY" COSTS.

##### Weekly Expenditure Upon Imperial Infantryman is Sometimes \$24.

The weekly value of the state's expenditure on the infantry private with a wife and two children, corresponding to the wage payable in civil life, is approximately as follows:

Pay, 7s to 10s 6d, of which 3s 6d goes to the wife as compulsory allotment; clothing, 3s; board and lodging, 20c; separation allowance, 17s 6d to 21s (plus the man's 3s 6d allotment); civil liabilities grant, average 7s 6d, maximum 40s. Cost per week 47s 6d to 94s 6d.

For single soldiers the cost varies from 30s without civil grant to 73s 6d with the grant.

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### "MOVE UP."

Make Room For Old Uncle Sam.  
"Move Over! You hard-hitting sons of King George,  
Move Over! You heroes of France,  
Make room for the legions of ole Uncle Sam,  
We've been waitin' two years for the chance.

"In spirit we've been by your side right along,  
'Cause we never were keen for the Hun,  
Now we've joined, we'll keep scrap-pin' with you to the end,  
And back up your play with a gun.

"Hey, Little old Belgium, we'll take the right flank!  
We'll get back your homeland for you,  
For the Star-Spangled banner in glory shall wave,  
Backed by a million or two.

"Put it there, brother Serb, you're a hard-fightin' kid,  
Will we muss up the Bulgars a bit?  
Come on, brother Russian, let's jam the line hard,  
And show Kaiser Bill he ain't IT.

"All right now! Together, let's end the thing quick!  
Fix bayonets! The Boche don't like steel,  
We'll help you to finish the thing now we're here,  
And show them our army is real.

"Two million Yankees can make quite a dent,  
When they're trailin' a yellow-streaked knave,  
And there's eight million more who will come at the call,  
From the land of the free and the brave."

—Kenneth MacDougall.

### A Haig Story.

Here is a story brought back from the front about Sir Douglas Haig. Sir Douglas was, some few weeks ago, in a great hurry to get to a certain place. He found his car, but the chauffeur was missing. So Sir Douglas got in the car and drove off by himself. Then the driver appeared, and saw the car disappearing in the distance. "Great Scot!" cried the driver, "there's 'Aig a-driving my car!" "Well, get even with him," said a Tommy, standing by, "and go and fight one of 'is battles for him."

Those who take up the study of the bee have need to handle the subject gently.