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Brain of Book

Varieties.

To those we Love.

To those we love, to those we love, That joy when we rejoice, and weep When grief its gloom imparts; Whose kind and gentle whispers fall As music's sweetest tones, With accents angel-like, to make Our very souls their own! To those we love, to those we love, Affection's warmth belongs, The guardian of our sweetest strains, The tribute of our songs.

Dear, gentle friends! your winning smiles Where joy and love unite, Have to our saddest moments brought A solace and delight, And they have hushed our tearful sighs, When, cheerless and oppressed, The spirit drooped, and sorrow reigned Unfolded in the breast; While whispered words of tenderness The troubled boom calmed, Until the weary heart reposed, In golden slumber bled.

Ye are the radiant orbs that light Life's ever-changing sky; That scatter all our gloomy fears, When they are lowering by, Ye are the gleams that adorn The shrine of happy hours, That make the mournful desert bloom With verdure and with flowers. Ye sympathize, and soothe, and cheer, And oh! to you 'tis given To make this earth seem to us heaven! Bright as the blessed heaven!

Two gardeners had their early crops of peas killed by the frost. One of them was very impatient under the loss, and fretted about it very much. The other went patiently to work at once to plant a new crop. After awhile, the impatient, fretting man went to his neighbor. To his surprise he found another crop of peas growing finely. He wondered how this could be.

"These are what I sowed while you were fretting," said his neighbor. "But don't you ever fret?" he asked.

"Yes I do; but I put it off till I have repaired the mischief that has been done."

"Why, then you have no need to fret at all!"

"True," said his friend; "and that's the reason I put it off."

ENVY.—A Barmese potter became envious of the prosperity of a washerman, and, to ruin him, induced the king to order him to wash one of his black elephants white, that he might be "lord of the vith elephant," which is the East of a great distinction.

The washer-man replied that, by the rules of his art, he must have a vessel large enough to wash him in. The king ordered the potter to make him such a vessel. When made it was crushed by the first step of the elephant in it. Many times was this repeated; and the potter was ruined by the very scheme he had intended should crush his enemy.

A London clergyman informed his people at the close of his sermon, that he intended in a few days to go on a mission to the heathen. After the congregation was dismissed, a number of the members waited for their pastor and, crowding round him, expressed their astonishment at the new turn in his affairs, asking where he was going and how long they would be deprived of his ministrations. He said to them, "My good friends, don't be alarmed. I'm not going out of town."

A citizen of Norwich, Conn., went into a hardware store the other day and inquired, "How much do you ask for a bath tub for a child?" "Three dollars and seventy-five cents," was the reply. "W-h-w!" whistled the customer, "guess we'll have to keep on washing the baby in the coal scuttle till prices come down."

Staunch old lady (who had been buying eggs): "Deed, Mr. McCreedle, butcher's meat's aae dear now-lays al'm no able to buy 'it! Grocer—" "You should turn a vegetarian—" Old lady—"A vegetarian! Na, na! ah was born an' brocht up 't the Free Kirk, an' a'm no gann to change my religion 't m' auld days!"

A resident of North Adams, Mass., recently buried his wife, a woman of unusual size, and a few days after the sad event a neighbor attempted a little in the consolatory line by remarking: "Well, Mr.—, you have met with a heavy loss." "Yes," replied the mourner with a sigh, "she weighed 'most four hundred pound!"

Agriculture.

Maple Sugar.

The Maple Sugar season is approaching, and suggestions as to the best manner of making it are in season also. A correspondent of the Mail says:— The half-inch bit is best for tapping. Ross off the rough bark with a sharp hatchet, but do not cut to the quick any more than you would on your own finger nails. It injures the tree. Bore about two and a half feet from the ground and an inch deep—no more. The sap comes mostly from the pores, near the bark. The Eureka spout does not stop any of these. Deep boring does no good, and injures the tree. In re-tapping, if the season is very long, so as to make it necessary, use a 9-16 inch bit; bore with a steady hand at the same slant as the first, time tapping, and hold the bit back, and you can rim the hole perfectly. Bore half an inch deeper, as it runs nearly as well as a new hole and injures the tree far less. Avoid deep cuts caused by a previous tapping. I usually tap and drive the spouts myself, so as to select the best place to bore, and let a man follow with a load of buckets and covers, and hang and cover as fast as I tap. Thus buckets and covers need never touch the ground. If the buckets (tin) were properly sealed at the close of last season, wiped dry and stored bottom side up in a clean sugar house, they will be all ready for use. The covers should be all placed the same colour up, and pressed firmly against the tree to steady both bucket and cover in case of wind.

Begin to gather and boil as soon as possible, even if the buckets are not half full. Gather the works twice over in a day if possible. The sooner the sap is boiled after leaving the tree the better the syrup and sugar. It is well to tie a flannel strainer over the funnel though if the buckets are clean and well covered there will be little dirt. In emptying the bucket a green hand invariably stoops down five times for nothing. At the first stoop he sets the pail on the ground; at the second he puts the cover on the ground; at the third he empties the sap into his pail on the ground; at the fourth he stoops for the cover, and at the fifth he stoops for his pail of sap. He has doubled his back five times for nothing, besides spilling some sap and getting dirt on the cover. Try the next bucket; stand erect; hold the pail in your left hand to the left of the bucket; put the cover under your left arm; grasp the bucket by the rim (or under the bottom with your right hand, turn it on the spot for a pivot till the sap is all in your pail; replace the cover (or side up), and go to the next tree, or to the cask, with a straight back. There is always a right way for everything. Five stoops to each one of a thousand buckets will make a lame back.

The boiling should begin as soon as the first cask of sap is in the vat. A good fire of fine, dry, three-foot wood will make a fifteen feet evaporator foam its whole length. The sap should not be more than an inch or an inch and a quarter deep over the fire, and half to three-fourths of an inch deep at the chimney end. It evaporates far more rapidly, turns to syrup sooner, and makes better syrup when shallow in the pan. Draw off a pail of sap every few minutes at first from the faucet and will continue so. I have drawn a gallon of finished syrup every twenty minutes all day long. Syrup made in this way from clean, sweet sap (not soured) has the true maple flavour, not only in the "first run," but during the whole season. It needs no cleansing, for the sap had no dirt in it.

The syrup should be strained through flannel white hot, to separate the fine particles of silica (usually supposed to be lime) which are held in suspension at first in all syrups. It should also be left to settle. No dirt should ever appear, but a sediment of these fine white particles of silica which have escaped the flannel will be found.

The standard weight of maple syrup is eleven pounds (pump weight) per gallon. If made heavier, it will crystallize, or "grain," badly in the cans or jugs. Dark-colored syrup is nearly always made of sap more or less sour. Such syrup will not grain if made heavier. The colour of maple syrup is as sure a test of quality as its cane sugars and syrups, and even more sure. Dark-colored maple syrup never has the real maple flavour. The sap of each day should be turned to syrup by continuous rapid boiling, even if it takes all night.

Sugar may be made in the evaporator by letting it remain in the chimney end of it till it "grains," and then stirring to "padding" and running into moulds, or "stirring it dry," or

stirring it a little and putting it into a cask with holes in the bottom to drain. A thick, damp cloth spread over the top of the sugar while draining, and frequently moistened, will add to its whiteness. Good, well drained maple sugar is nearly as white and dry as "A" coffee sugar.

The buckets should be washed (with hot water if possible) and wiped dry with a flannel cloth as often as there is the least appearance of sourness. Sourness is at once detected by a thin white film on the bottom of the bucket. It does not show at first, except on tin, but it is really worse by far in wooden buckets! A good hand will take a cask of hot water and go around to the trees and wash and wipe 600 buckets in a day. My own buckets and fixtures are usually washed six or eight times each season. In Vermont the season is shorter and cooler. But even there "eternal vigilance is the price of it"—good syrup. At the end of the season wash, scald, and fix, dry every bucket, cask, vat, and fixture, store the buckets bottom side up in the sugar house, and put every thing away so that it shall be ready next spring at a moment's notice. It is especially adapted to grain and root crops. But for squashes, melons and cucumber vines, hen manure or guano would be better. For corn I apply the phosphate from 200 lbs. of bone per acre, which ought, if the bone is pure, to furnish soluble phosphoric acid enough for 50 lbs. of shelled corn, and if the land is good and has a fair dressing of stable manure spread on besides the superphosphate it will give a good crop.

Home-made Superphosphate. The following hints on making that very useful fertilizer, Superphosphate of lime, by a correspondent of the New England Farmer, are worth the attention of our farmer friends. Superphosphate of lime is a special fertilizer which may be used profitably on more soils, and on a greater variety of crops than any other special fertilizer. Nearly all of our clay loams, as well as some lighter soils, are deficient in this element. Especially is it needed on most farms from which large quantities of milk, live stock or grain, have been sold. The habit which cows and young stock often form of chewing bones, leather, or boards, is a special indication of its deficiency in the soil on which they feed. The cheapest and best way to obtain super-phosphate of lime, is to purchase the material, consisting of sulphuric acid and fine ground bone, using one carboy of about 175 lbs., 66° strength, to 500 lbs. of bone. Many newspaper men and scientific lecturers, try to discourage farmers from making it themselves, telling them that it is better to buy it of phosphate dealers, but such advice helps to enrich the fertilizer men by increasing their business, but at the expense of the farmer. There is little danger of difficulty in the manufacture of it, if due care is used in handling the acid to avoid spilling it or splattering it on the clothes or flesh. It is well to wear old woolen mittens, and over-clothes which are not very valuable, so if you burn a few holes it will be but a small loss. If the acid is pouring out with a steady hand, and quite slowly, it will seldom spatter. I am using one-half ton of fine steamed bone and two carboys of acid a year. I buy the bone from a local mill, where I can see it ground, and I know it to be pure.

I prefer steaming bone to any form in which it is ground. It is better than raw bone, because it contains less water, is more soluble, and the grease, which is not a fertilizer, but is a damage, is also removed by steaming.

In a ton of dry steamed bone we get more pounds of phosphoric acid, and if it is not steamed too long, nearly as much nitrogen as in raw bone, while bone charcoal is entirely destitute of nitrogen.

In preparing superphosphate I use a round tub, two of which I make by dividing a molasses hogshead. This tub may not be as durable as Dr. Nichols' square box lined with lead, but it works very well, and a tub will last several years if properly cared for, and after washing and soaking it may be used for scalding hogs.

I put about 150 lbs., or three-fourth of a barrel of bone in the tub, then in water enough to moisten it well. I then apply the acid by pouring it out carefully into an earthen pitcher which I keep for this purpose, which holds about three quarts or ten pounds. I measure or weigh out 70 lbs. of acid and apply to the bone, stirring it with each new addition, and after making sure that it is well mixed from the bottom, I leave it until next day, and then stir in the remaining 50 lbs. or 1/2 bar of bone, adding more water if needed to mix well; after it has stood a short time, I shove it out on the barn floor and mix with saw dust, or fine meek or other soil, occasionally shovelling it over and crushing the lumps until it is fine. If made early in the spring long before it is to be used, so as to give ample time to dry it, there will be no need of using a dryer like saw

dust, or meek, but it may be used pure and in smaller quantities. The best result I ever obtained from superphosphate was from a lot I made several years ago, from Darling's fine steamed bone, and used it without any dryer. I put only one-half teaspoonful of the pure dissolved bone in a hill for corn, and it went far ahead of corn planted beside it on a handful of hen manure in each hill, but I took much care to cover the phosphate with dirt before I dropped the seed, as it would surely have killed the corn if they had come in contact. It will be seen that I use 70 lbs. of acid to 200 of bone, but I apply all of the acid to three-fourths of the bone to take up any free acid which may be left in the mass. Probably 35 lbs. of acid to 100 of bone is out quite enough to render all of the bone immediately soluble, and if a very quick action is wanted, it works better to use more of the acid, but this gives very good results and what is not available at first will become so in time by the action of the elements in the soil. I usually apply the phosphate in the hill or drill, covering it with soil before dropping the seed. It is especially adapted to grain and root crops. But for squashes, melons and cucumber vines, hen manure or guano would be better. For corn I apply the phosphate from 200 lbs. of bone per acre, which ought, if the bone is pure, to furnish soluble phosphoric acid enough for 50 lbs. of shelled corn, and if the land is good and has a fair dressing of stable manure spread on besides the superphosphate it will give a good crop.

States besides Maine are awakening to the importance of the earnest question. There is an earnestness about the movement which shows that something will come of it, or, at least, the experiment of making sugar from beets will be thoroughly tested before it is pronounced a failure. If successful, and there is hardly room for doubting it, in Maine and elsewhere men of capital and farmers in New Brunswick will be very much encouraged to go into the business with vigor. The Maine Farmer says:— A new impetus seems to have been recently given to the beet sugar industry in the United States, and the movement is not confined to our own State alone. Delaware is awakening to its importance, and recently sent a Legislative Commission to Portland to examine into the working of the works of the Maine Beet Sugar Co. The Commission invited Mr. Ernest Th. Gennert, the Superintendent of the Company to address the Legislature of that State on the subject at an early date. Mr. Gennert is also to give an address on the subject at some place in Pennsylvania this month. New Yorkers are also alive to the importance of this matter, and when it is remembered that the State annually consumes \$15,000,000 worth of sugar annually, which may be raised within its borders—it will be seen how necessary it is for the farmers of that State to engage in the business. Distinguished Canadian gentlemen also came to Portland last week to inspect the process of making beet sugar. Who knows but this industry started amid many discouragements in our own State, is soon to become a vast national industry in this country?

Eggs from Different Breeds. A correspondent of the Ohio Farmer says: "After repeated experiments with the different varieties of fowls, and comparisons with others who have experimented in the same direction, I have concluded that the laying capabilities of the principal varieties are about as follows: Dark Brahmans—eight to the pound; 120 per annum. Light Brahmans and Partridge Cochins—eggs, seven to the pound; 10 per annum. Black, White and Buff Cochins—eight to the pound; 125 per annum. Plymouth Rocks—eight to the pound; 50 per annum. Houdans—eight to the pound; 150 per annum. La Flech—seven to the pound; 130 per annum. Black Spanish—seven to the pound; 140 per annum. Leghorns—nine to the pound; 160 per annum. Hamburgs—nine to the pound; 150 per annum. Polish—nine to the pound; 150 per annum. Bantams—sixteen to the pound; 90 per annum.

Napoleon the First said that agriculture was the body and soul in the empire; and in the height of his glory he gave the subject much attention and encouragement, and established in France a department of agriculture.

Frequent Causes of Disease in Pigs.

The disease which affects the animals generally originates from their being kept in loose-houses and uncomfortable situations, inhaling the most infectious exhalations, and being at one time stunted with food, and at another fed to the extreme. The hog, although wallowing in the filthiest mire, and sometimes feeding upon the most disgusting kind of food, both animal and vegetable, and often when in a decomposed state, does not always do so with impunity. We are convinced that many animals of this class are annually lost from the effects of improper food, or from living in an atmosphere surcharged with poisonous effluvia, the product of animal or vegetable decomposition; and we think that owners of pigs often make great mistakes in not paying more attention to the quality of their food and the condition of their lodgings. Decomposing substances, both animal and vegetable, grain that has undergone a change from long keeping or exposure to damp, and which is loaded, perhaps, with the spores of poisonous fungi, brine from the meat tub, and these and other similar substances are frequently given to pigs as food, and in many instances have been known to cause great losses. Much that we have seen convinces us of the necessity of more attention being paid to the quality of the food of these animals than is generally being done, and also to the nature of their lodgings, as well as the air they breathe. As a rule, we believe that old and strong hogs are not so easily affected by improper food as young ones, and we have sometimes known sows to appear in perfect health when suckling their pigs, and yet to have their milk so altered in quality from the effects of bad food as to destroy the pigs.—Live Stock Journal.

Exercise of Cattle. A farmer writes the following terms to the Country Gentleman, on a subject which we spoke of last week: I want to protest again against "exercising" cows in the barnyard in winter. During the past few days I have had an opportunity of seeing a number "exercising." They stood on the manure heap with their feet very close together, their backs arched like a ram's head, and water, or tears, running from their eyes. Now, I want to ask, in all candor, if there is any sense in this kind of management. If these cattle, and everybody's cattle, thus exposed, had been left in the stable, would their feet all have been in a heap, their backs arched, their hair standing out straight, and their eyes running with water? If the stable was anything as a stable should be, there would not be any such evidence of being chilled.

Since I sent you my last article in regard to the unnecessary exposure of cattle in barnyards, I have had the pleasure of meeting Mr. Birnie, the president of the Ayrshires Breeders' Association, and I find that he used to turn his cattle out pleasant days for a short time, but he now agrees with me that it is not at all necessary, as the amount of exercise which cattle thus receive is not of any material benefit, and that they would do better not to be exposed at all. It is my deliberate judgement that cattle would do better if kept in the stable the entire winter without being turned out once.

The more uniform the temperature can be made for them, the healthier and more productive they will be. They can rest and change their position, relieving any strain which may be brought upon their legs, by lying down. It must be borne in mind, however, that under these and all circumstances there should be a free use of the currycomb and brush.

Weaning Pigs.—The following plan was furnished for weaning pigs by a New Jersey farmer:— When the pigs are of the proper age to be taken from the sow, shut them up in the pen in the morning; let them out a little while at noon, and again at evening. The second day let them out at morning and evening, keeping them up at night. On the third day let them out at noon for the last time.

When doing this let them have all the slop they want, but refuse the mother everything except scant feeds of corn and water. This will insure the sow's drying up at once, and without any evil effect.

On the Canada border it is alleged that a shrewd Vermont lures farmer to bring him butter from the Dominion, offering a fancy price therefor, and then as soon as they have crossed the line informs on them and brings about the confiscation of butter and vehicle.

Milk vs. Meat.

For years past the milk production power of cows has diminished very greatly. There appears to be a sort of natural opposition between those improvements in our breeds of cattle which favor the production of meat, and that condition of body that is most favorable for the yield of milk. The reason is not difficult to discover. The improvements we establish in cattle, although they accomplish the special object we desire, and render those animals most economical producers of meat, are, after all departures from the natural character, and they make these cattle more tender and delicate in constitution. They do not retain that vigor which distinguished the unimproved breeds from which they have been obtained, consequently the laws of animal life make themselves felt, and difficulties arise in breeding from these improved cattle. It is also observed in practice, any course of procedure which weakens the breeding powers equally affects the production of milk. There is a natural connection between these two functions, and as a rule, our best milkers are not our best fattening animals. The alterations produced in our improved breeds have given a strong tendency for the formation of fat and flesh, and in these animals we have a vigorous influence seeking to use the nutriment in the blood for that purpose; at the same time the tendency to form milk is weak.

Making Cream Cheese. The London Dairyman gives the following directions for making this variety of cheese which is in great repute in England:— Take a quart of cream, and if not desired to be very rich, add thereto one pint of milk; warm it in hot water till it is about the heat of milk from the cow, add a teaspoonful of rennet, let it stand till thick, then break slightly with a spoon and place it in the frame in which you have previously put a fine canvas cloth; press it lightly with the weight; let it a few hours, then put a finer cloth in the frame, and shift the cheese in it. Sprinkle a little salt over the cloth. It will be ready for use in a day or two. To make a rich cream cheese without rennet, take any quantity of cream and put it into a wet cloth, tie it up and hang it in a cool place for seven or eight days. Then take it from the cloth and put it into a mould in another cloth with a weight upon it for two or three days longer. Turn twice a day, and it will be fit for use. Or, take a quart of fresh cream and a pint of warm new milk, fill a vat made in the form of a brick, of wheat straw or rushes sown together, rest the vat on a square or straw of rushes, and cover it up with another square, the vat being open top and bottom. Next day take it out, turn daily till dry, from one board to another, cover with nettles or clean cloth leaves, and put between two pewter plates to ripen.

Management of Rams. The following sensible advice is given by the correspondent of the Ohio Farmer:— The first step to be taken is to secure a thoroughbred ram with good form and fleece, without which no sane person need expect to succeed. One week, at least, before you commence breeding him, he should be kept up and fed grain and choice hay, for he is no more fit for service when on grass, than a horse is to perform heavy work while running out. Select your ewes; put them in a small enclosure—your sheep pen will answer—put your ram with them; after he has served a ewe catch her, mark on, and put her out, so on, allowing him to serve one ewe but once. After breeding three, take him to his stall and there let him remain quiet for several hours, after which he may be returned to the flock.

If your flock is large, get them in once a day; if otherwise, each alternate day. The more common way of "turning" is a slack expensive way. What is worth doing at all is worth doing well. I would rather a ram would serve fifty ewes as I have described, than twenty by the "turning" system; besides, your sheep will not lose its flesh, your lambs will be stronger when dropped, more uniform, and of higher excellence.

There is no interest that better or more uniformly holds its own than the poultry interest, and there is none on the farm more slighted.

A Newburyport man exhibited a Brown Leghorn rooster that cost \$75 in Italy, at the recent fowl show in Newburyport, Connecticut, and the judges awarded him the third prize,

Breadmaking.

Bread, according to the old saying, is "the staff of life," that is good bread, for bad bread, heavy and ill made, is the very mischief. All ladies, farmers' wives especially, should know to make it, and to acquire the art in perfection requires knowledge, practice and experience. The following from a paper by a lady on theory and practice in breadmaking, is interesting and instructive:— Wheat will sustain life longer than any other food excepting milk, because it contains within itself elements in the best proportions for the growth of bone, muscle, nerve and flesh; hence, for bread making, wheat flour must rank first. It contains a greater per cent. of gluten which is the element necessary to give it elasticity and a capability of being raised or aerated by fermentation or chemical substances. There are tests which every experienced cook understands by which to judge the quality of flour; it should not be lumpy and hard, neither should it be gritty, but such as pressed in the hand shows a light impression. The surest test is in the baking, and the skilled bread maker can tell in the early stages of the process, whether the result will be satisfactory. Firm, elastic dough rising above the edge of the bread bowl keeping itself upright, is a sign of good flour, but if the mixture runs over the edge or flattens in the centre the flour must be condemned, provide all the other conditions have been right. There is, however, no lack of ignorance about these various conditions, for it is easy to mismanage good flour so as never to have good bread from it; it is possible for one cook to make excellent bread of flour from which another can never obtain a good result. Experience soon learns one how to treat the various conditions. Perfect bread is not the work of chance, but the direct results of certain chemical changes, and when these are once understood it is easy to see what to avoid to ensure good success. Too few who are born cooks such care and foresight may not be necessary but to most women there is no royal road to bread making, and the perfect loaf represents labor and skill.

The first requisite is good flour; that part of the wheat next the covering or husk is called the most nutritious and in bolting some of this is lost, leaving in consequence a white flour at the expense of nutrition. This often serves as an argument for using second rate flour, but we never saw the woman who refused the best and whitest flour she could get. It is the one who buys the flour who makes so much of the little nutriment that lays next the wheat hull. If our diet was bread alone there might be reason in saving this portion, but its loss is easily made up by the other articles of food. All cooks know that the best grade of flour makes the nicest bread which is never a drug on the table, but poor flour is sure to be followed by scraps and crusts which are wasted.

The most common way of raising bread is by yeast, which added to the mixed dough, soon induces a fermentation by which carbonic acid is evolved. This gas is held by the tenacious gluten of the flour, and because of the large amount in wheat flour we are able to raise it more than twice the original bulk. Good bread has passed through two stages of fermentation, the sweet and the vinous. The latter stage is well known by the agreeable odor; at that stage it must be checked, (and right here are the majority of failures in bread making,) or the third or sour fermentation will soon take place if the cook allows her attention to be divided, then recourse must be had to soda which only partially remedies the fault, because it is not possible to know just how much to use. This will be the bread that is a sin to put upon the table—it is as much like bread as husks to corn.

Yeast, being a plant of the fungus tribe, is always essentially the same, but there are many rules for making it differing mostly in the proportion of the ingredients. We notice when it is fresh, it is always in motion and we speak of it as "lively." Malt, potatoes, and hops are commonly used in yeast; the hops to prevent souring; as they tend to check fermentation; potatoes hasten it, and are better left out in warm weather. Yeast mixed with meal and dried becomes the convenient yeast cake.

Leaven as an aid to fermentation is as old as the time of Moses, and we learn that the leavened bread of those days was not baked in a thick loaf but in thin cakes which were always broken. A piece of sour fermented dough called leaven added to the fresh dough "leaveneth the whole." Bread raised by this means is apt to be sour, as the leaven generally induces sour fermentation, but in France where it is much used, and the bread is of the

best quality, they are skilled in the use of it and never allow it to reach the third stage of fermentation. It is a method little used in this country. Another method of raising bread is the milk yeast or "salt risings." Milk, flour, and salt are mixed in the proper quantities and kept at the temperature necessary to develop the yeast plant, which is 90°; afterwards sufficient flour is added to mix the bread which, when baked, is light and very white, but it has an unsavory odor while making, and after it is a day or two old, which suggests that it may not be wholesome. Aerated bread is made without yeast or chemicals; carbonic acid gas added to the water with which the dough is mixed sufficiently inflates the bread. The whole process is done by machinery and the method is impracticable for the housewife. In the accumulation of cases which modern times have brought into our homes, there is often a temptation to make use of means to lighten labor at the expense of the best results. Such an effort is never more misplaced than when soda, cream tartar, phosphate of lime and other chemicals are made to take the place of good yeast. As a convenience, these articles may be used for making bread to be eaten warm, and their limited use is not hurtful, but to take into the stomach acid as much of these materials as it is necessary to use in bread making cannot fail to injure the health. Self-raising flour can now be bought which only needs mixing with water, and the bread or biscuit is ready for the oven. The component parts of the "baking powders," added to the flour, do not act upon each other without moisture and can be kept indefinitely in a dry place.

It is not long since these chemicals were in common use, and our ancestors used pearl ash, a substance so strong that it was difficult to use little enough of it. The ashes of burnt coals dissolved in water well supplied the lack of pearl ash.

Hygienists have said much against the use of fermented bread; they represent our taste for it to be a morbid one, and that a large amount of sickness arises from it; that the original combination of elements in wheat flour is the most useful, and fermentation, or the first stage of decomposition, renders it unwholesome. This might be true of sour bread, or the baker's loaf that is raised very light, and by the addition of salt and alum made to take up water to increase its size until it is as substantial as air; but the sweet home made loaf must be the standard bread; the infant and invalid, as well as the strong man, eat and digest such bread, which is more than can be said of the pasty gem, dry cracker, or any unleavened bread.

Having successfully prepared the bread for the oven, it may yet be rendered unfit for eating; too little heat, or less than 212°; will not kill the yeast plant and check the rising; more heat is required to bake the bread; too much will form a hard crust, leaving the inner portion uncooked and clammy. It is a common mistake to speak of stale bread as dry bread. New bread is nearly half water, and the loaf a week old has lost only about a hundredth part of its moisture.

Unbolted wheat finds favor with many, and bread made from it has a disputed reputation as a means of cure for dyspepsia and other ills. The flour is subject to adulteration, and however wholesome, when sweet and fresh, it often contains elements which are irritating to the digestive organs. If made from freshly ground meal or flour, the bread is an agreeable change from that made of white flour. Rye flour, formerly more used for bread than now, is not so good as wheat owing to its tendency to sour; lacking the proper amount of gluten to make it rise well, it often makes heavy bread. Corn meal cannot be made into fermented bread without the addition of rye or wheat flour, and then it is but slightly raised; it can be made light with baking powders, if flour is added.

SPROUTING POTATOES.—Sprouting the white potato will advance the crop two weeks. They should be planted in hot-beds with very thin covering of soil; or it is better to plant in boxes and set these in a hot bed, so that after they are properly sprouted they can be at once carried to the place of planting. If the nights should be any way cold, protect with a thin covering of straw when the plants make their appearance above ground. Some persons, who want a large quantity sprouted, cut the potatoes as desired, and spread them on boards boxes or crates in a dark place, and when sprouted, say from an inch to an inch and a half, expose them to the light, moistening two or three times a week with tepid water. They should be planted out so that there is not more than two inches of soil over the top of the sprouts.—German Telegraph.