

## SOME SANITARY ASPECTS OF BREAD MAKING.

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Health Commissioner, New York City.

It is necessary, if one would understand the sanitary aspects of bread making, to fully comprehend the present theory held by scientists of germs and the part played by them in disease. The theory of disease germs is merely the name given to the knowledge had of those germs by medical men, a knowledge which is the result of innumerable experiments. Being this, the old term of a "theory" has become a misnomer. A germ of a disease is a plant, so small that I do not know how to express intelligibly to the general reader its lack of size. When this germ is introduced into the blood or tissues of the body, its action appears to be analogous to that which takes place when yeast is added to dough. It attacks certain elements of the blood or tissues, and destroys them, at the same time producing new substances.

But the germs of the greater part of the germ diseases, that is, of the infectious and contagious diseases, will develop or increase in number without being in the body of a human being,

found their way into the blood and that the call for our services which followed, has rounded off this sequence of events.

I have already pointed out that the germs of disease are to be found in the air and dust. The longer any substance to be eaten is exposed to the air, the greater the chance that germs will be deposited on it. Bread raised with yeast is worked down or kneaded twice before being baked and this process may take anywhere from four hours to ten. It has, then, the chance of collecting disease germs during this process of raising and it has two periods of working down or kneading during each of which it may gather the dirt containing the germs from the baker's hands. As no bread save that raised with yeast, goes through this long process of raising and kneading so no bread save that raised with yeast has so good a chance of gathering germs.

What is meant by "raising" bread is worth a few words. The introduction of the yeast into the moist dough and the addition of heat when the pan is placed near the fire produces an enormous growth of the yeast fungi—the yeast "germ," in other words. These fungi effect a destructive fermentation

of a portion of the starchy matter of the flour—one of the most valuable nutrient elements in the flour. The fermentation produces carbonic acid gas, and this, having its origin in every little particle of the starch which is itself everywhere in the flour, pushes aside the particles of the dough to give itself room. This is what is called raising the bread.

It needs but a glance to see that it is, in its effects on the dough, purely mechanical. The dough, which was before a close-grained mass, is now full of little holes, and when cooked in this condition is what we ordinarily call light. This porous quality of bread enables the stomach to rapidly and easily digest it, for the gastric juices quickly soak into and attack it from all sides. The fermentation of the dough, however, uses up a portion of the nutrient elements of the loaf. If it be possible, therefore, to produce a light porous loaf without this destruction and without the "kneading" process, which fills the dough with germs and filth, and without the long

period during which the raising process goes on, the gain in food and the gain in the avoidance of the germs is exceedingly plain.

But while we can easily see the dangers which attend the use of yeast it is certain that the vesiculating effect produced by it on the dough is the last degree perfect. By this I mean that every particle of gluten produces its little bubble of gas and that therefore the bread is properly raised—that is, it is raised everywhere. It is apparent that if we are to substitute any other system of bread making we must have one which will give us, first, mechanical results equally as good, that is, that will produce minute bubbles of carbonic acid gas throughout the mass of dough. Now it is in no way difficult to produce carbonic acid gas chemically, but when we are working at bread we must use such chemicals as are perfectly healthful. Fortunately these are not hard to find.

The evils which attend the yeast-made bread are obviated by the use of a properly made, pure and wholesome baking powder in lieu of yeast. Baking powders are composed of an acid and an alkali which, if properly combined, should when they unite at once destroy themselves and produce carbonic acid gas. A good baking powder does its work while the loaf is in the oven, and having done it, disappears.

But care is imperative in selecting the brand of baking powder to be certain that it is composed of non-injurious chemicals. Powders containing alum or those which are compounded from impure ingredients, or those which are not combined in proper proportion or carefully mixed and which will leave either an acid or an alkali in the bread, must not be used.

These are placed in the oven and baked. But the very moment the warmth and moisture attack the mixture of cream of tartar and soda, these two ingredients chemically combine and carbonic acid or leavening gas is evolved. The consequence may be seen at a glance, the bread is raised during the time it is baking in the oven, and this is the most perfect of all conceivable methods of raising it.

Here, then, there is no chance for germs of disease to get into the dough and thence into the stomach, more than that the bread is necessarily as sweet as possible, there having been no time during which it could sour. This involves the fact that the bread so made will keep longer, as it is less likely to be contaminated by the germs that affect the souring process.

It will be strange if the crowds of visitors to the world's fair do not greatly increase the number of contagious diseases which we will have to treat. Under these circumstances it is not folly of follies to open a single channel through which these germs may reach us? Is it not the part of wisdom to watch with the greatest care all that we eat and drink, and to see that none but the safest and best methods are employed in the preparation of our food? To me it seems as though there could be but one answer to questions like these.

I have shown the danger of using the yeast raised bread, and with this I have shown how that danger may be avoided. The ounce of prevention which in this case is neither difficult nor expensive is certainly worth many pounds of cure, and the best thing about it is that it may be relied on almost absolutely. Those who during the coming summer eat bread or biscuits or rolls

made at home with Royal Baking powder may be sure they have absolutely stopped one channel through which disease may reach them.

NOTE.—Housekeepers desiring information in regard to the preparation of the bread which Dr. Edson for sanitary reasons so strongly urges for general use, should write to the Royal Baking Powder Company, New York.

He Had Seen the Scorecard.

One Somerville young man, who has just been spending a fortnight in the country, lost all chance of making a favorable impression on the farmer's pretty daughter the very first day he came. Her father came by the front of the house where the young man was trying to make himself agreeable, and the girl introduced him, saying:

"This is my father, Mr. Smythe."

"Oh, yes," responded the young man, turning toward the old man, and slowly holding out his hand, "I saw you standing over in the cornfield a little while ago, when I came up the road."—Somerville Journal.

Mr. Chimpanzee—"That ostrich eats enough for two birds. What do you suppose makes him so greedy, Mrs. C?" Mrs. Chimpanzee—"I heard the keeper say he swallowed a pair of strong eye-glasses yesterday and they magnify his appetite."—Vogue.

"Do you go to school, Tommy?" "Yes'm." "Does your teacher like you, Tommy?" "You bet she does. Every evening most she hates to have me leave and keeps me in."—Arkansas Traveler.

"I met Jack Stagleon last evening. He tells me he is going out with a company next season which will produce 'Fireman Fred.'" "Indeed; what does he play?" "The hose."—Brooklyn Eagle.

## CLEVELAND'S SILVER MESSAGE.

Comments of the Leading Papers on the Auspicious Document.

President Cleveland's message to congress is not a long document, and may be described as a meaty one.—Chicago Tribune (Rep.).

This message is clear, impregnable, and indisputable in its content. It is a message that is to stop silver purchases at once and then settle the other questions in accordance with sound and conservative principles.—Pittsburgh Dispatch (Ind. Rep.).

In the main President Cleveland's message to congress is clear, sound, and practical. He tells the story of financial trouble in a simple, straightforward manner, and his recommendation for the unconditional repeal of the purchase clause of the Sherman act will meet the approval of the best people and a majority of all the people, north, east, south and west.—Pittsburgh Commercial Gazette (Rep.).

President Cleveland, in his message, well says: "The matter rises above the plane of party politics." He will find the majority of republican statesmen with him upon that. Another of his remarks, that "it is better to be wrong than to be right," is worth more than a passing notice. The country is in no mood to listen to long-winded speeches.—Chicago Inter Ocean (Rep.).

The message is a clear statement of the case against silver purchase, as nearly nonpartisan as it can be. It is a statement in plain and well-calculated to unite the sound money men of both parties. The president very adroitly calls the Sherman law a "truce," agreed to after a long contest, with neither party pledged to it as a finality.—Cleveland Leader (Rep.).

The gold monometallists may construe "money" in the concluding sentence of the message as meaning gold, but it is proper for a democratic congress to place on an expression in the message of a democratic president the construction furnished by the democratic platform upon which both congress and president were elected. If it does this it will, while repealing the Sherman law, take "other legislative action," placing gold and silver money on an equality. It ought to do so. We believe it will.—Cleveland Plaindealer (Dem.).

President Cleveland's message is brief, clear, and decidedly to the point. He lays bare the disturbed financial condition of the country to the Sherman law, and advises its prompt repeal. Congress should act at once. The president states the facts of the situation, and shows that the monetary situation is absolutely untenable. The Sherman law with great clearness and force. But his strongest presentation is of the possibilities and, in fact, certainties of the future unless that law shall be promptly repealed.—N. Y. Post (Dem.).

Mr. Cleveland hopes to have congress next month raising up the tariff. The fear and apprehension of the country caused him to call his congress together to repeal a law which has about as much to do with the present distrust and uneasiness as the name of the private car he was headed off Washington in last Saturday. He has simply proposed tariff raising. If the silver business is disposed of at this special session he will set congress to work in December on the tariff.—N. Y. Advertiser (Rep.).

The message itself is a gold standard document without a word as to any substitute for existing legislation, currency, and simple. The session is called to make war to the death on silver and let the tariff go. The country, even in the opinion of Mr. Cleveland, cannot stand two such blows.—Kansas City Journal (Rep.).

Mr. Cleveland's method of dealing with the situation is on the same line as his celebrated tariff message, which is now generally admitted to have been a state paper of extraordinary ability. He proceeds on the theory that "it is a condition and not a theory that confronts us." He cuts away from all abstract and possible problems of the future in order to deal with the great problem of to-day. It is to be hoped that congress will follow his example.—Indianapolis Sentinel (Dem.).

President Cleveland's message has hardly a single word in it that is not to the point. It is a message of silver, while the public look for a broader treatment of the monetary issue. It is evident the president believes the chief remedy for our financial and commercial ills is the repeal of the purchase provision of the existing law. He has pointed out the evil it is and fearfully, but the country may not be entirely satisfied regarding the adequacy of the counteractive and the cure he recommends. However, congress will not shrink or evade its obligations in this respect, but may be relied on to provide the legislation the country may demand.—St. Louis Globe-Democrat (Rep.).

While the president's message contains no recommendation or general proposition for which the public mind was not fully prepared, it will be read by most people with great satisfaction. The president earnestly recommends the prompt repeal of to much of the Sherman act as provides for the purchase of silver bullion, and such further action as will "put beyond all doubt or mistake the intention and ability of the government to fulfill its pecuniary obligations in money to the people and to all civilized countries." For the present he recommends nothing more.—Chicago Herald (Dem.).

It is a characteristic document—plain spoken, honest, terse and patriotic. The president places the chief responsibility for the financial troubles just now before the business men of all parties have fixed it, upon the Sherman law. His statements of facts are undeniable, his conclusions are irresistible to all open and candid minds. The president does well to emphasize one phase of the trouble which has received less attention than it merits. This is the bad effect of a depreciated or a suspected currency upon the wage-earner. The president's meaning in the last sentence doubtless is that power should be explicitly given to the administration to reinforce the supply of gold when necessary. Such authority is needed and should be given.—N. Y. World (Dem.).

There is not a trace of partisanship or of that much more subtle temptation for men in high place—the pride of opinion. There is nothing in that can offend any section, any class, or even any faction. The legislation which is so far the cause of our troubles that its removal is essential to recovery is not denounced in any angry spirit, and no reflection is made upon the motives of those who brought it about. There is no hint of a conspiracy of conflicting theories or theories, while there is the most moving appeal to the sense, the patriotism, and the fairness of all. It is a message that every American must respect, and in which all may feel not only satisfaction, but pride.—N. Y. Times (Dem.).

President Cleveland's message is important on account of its source, but it throws no new light on the problems that have brought congress together. There is nothing in the message to offend the friends of silver. The president points out the undeniable fact that the price of that metal has been steadily falling ever since the passage of the Sherman act. Certainly, under such circumstances, a recommendation to repeal the law cannot be considered in itself an indication of hostility to silver. Mr. Cleveland is careful to avoid anything against the principle of bimetalism. On the contrary, he points out the fact that the repeal of the Sherman act is a necessary preliminary to the establishment of a bimetallic system. If any number of congress expected the president to do their work for them they were oversteering. All he suggests with regard to the silver question is the repeal of the Sherman law. No possible substitute is described. The task of devising a satisfactory measure of that nature will have to be undertaken by congressmen themselves.—San Francisco Examiner (Dem.).

President Cleveland sends just such a message to congress as the Press feared he would. He dilates on the existence of an alarming and extraordinary business situation, but makes the fatal and most criminal blunder of attributing it largely to congressional legislation touching the purchase and coinage of silver. Instead of broad statesmanship we find this document a commonplace summary of foolish ideas tangled with the usual amount of Cleveland egotism. Instead of the force of a great leader, we find the echo of the meek partisan free trader. Instead of a mastery view of the entire situation, the country is treated to the brief argument for unconditional repeal of the silver act and a hint that if congress heeds this object lesson on the installment plan it may be followed in September by another on tariff reform.—N. Y. Press (Rep.).

"Gentle Rain."  
Pit a pat,  
Pit a pat,  
On the window pane;  
Baby dear  
Must never fear,  
For it's only gentle rain.

Pit a pat,  
Pit a pat,  
Don't you know the sun  
In the sky,  
So very high,  
Now is weeping, little one?

Pit a pat,  
Pit a pat;  
But you know 'twill make  
Flowers grow,  
So high and low,  
Only just for baby's sake.

Pit a pat,  
Pit a pat;  
It is time for bed,  
"Now I lay  
Me," gently say:  
"Thanks for rain about my head."  
—May Kidder, in Good Housekeeping.

The Little Lad's Answer.  
Our little lad came in one day  
With dusty shoes and tired feet.  
His playtime had been hard and long.  
Out in the summer's noontide heat.  
"I'm glad I'm home," he cried, and hung  
His torn straw hat up in the hall,  
While in a corner by the door  
He put away his bat and ball.

"I wonder why," his auntie said,  
"This little lad always comes here  
When there are many other homes  
As nice as this, and quite as near."  
He stood a moment, deep in thought,  
Then, with a love-light in his eye,  
He pointed where his mother sat,  
And said: "She'll be here, that is why!"

With beaming face the mother heard;  
Her mother-heart was very glad.  
A true, sweet answer he had given—  
That thoughtful, loving little lad.  
And well I know that hosts of lads  
Are just as loving, true and dear;  
That they would answer as he did:  
"This home, for mother's living here."

"When We Confront the Vastness of the Night."  
When we confront the Vastness of the Night,  
And meet the gaze of her eternal eyes,  
How trivial seem the garnered grains we prize—  
The laurel wreath we flaunt to envious sight;  
The flower of love we pluck for our delight;  
The mad sweet music of the heart that cries:  
An instant on the listening air, then dies—  
How short the day of all things dear and bright!

The everlasting mocks our transient strife,  
The pageant of the universe whirrs by.  
This little sphere with petty turmoil rife—  
Swift as a dream and fleeting as a sigh—  
This brief delusion that we call our life,  
Where all we can accomplish is to die—  
Louise Chandler Moulton, in Youth's Companion.

The Wise Man.  
There is a man in our town  
Who is so wondrous wise,  
He knows he cannot sing at all,  
And so he never tries.

He also knows he has no wit,  
Like many funny folks,  
And so he never bothers me  
By getting off his jokes.

And when he has no word to say,  
He's wise enough, though young,  
To sit about while others talk,  
And hold his little tongue.  
—John K. Bangs, in St. Nicholas.

Miss PENACQUE—"Name the principal parts of the verb to marry." Young Miss Wabash—"To marry, married, divorced."—Chicago Record.

"Do you look to the future with courage?" he asked the maiden. "Yes," she replied, "as says nerve is everything in the wheat business."—Detroit Tribune.

SKINNING a man at cards is different from robbing him on the highway. In the latter process the victim puts up his hands. In the former the robber does it.—Troy Press.

THE FINE wheat will insure the farmer and the English sparrow full crops.—Cleveland Plaindealer.

EXAMPLE is as contagious as the smallpox.—Bam's Horn.

## THE MARKETS.

NEW YORK, AUG. 10.

LIVE STOCK—Cattle	13 25 @ 5 40
Hogs	3 00 @ 5 00
Sheep	5 70 @ 5 80
FLOUR—Fair to Fancy	2 45 @ 3 45
Minnesota Patents	3 90 @ 4 30
WHEAT—No. 2 Red	60 @ 69 1/2
Ungraded Red	57 @ 71
CORN—No. 2	47 1/2 @ 47 3/4
OATS—Mixed Western	22 @ 37
RYE—Western	55 @ 55 1/2
LARD—Western Steam	14 50 @ 15 00
BUTTER—Western Creamery	15 @ 22

CHICAGO.

BEEVES—Shipping Steers	13 00 @ 5 10
Cows	12 25 @ 3 10
Stockers	2 25 @ 3 00
Feeders	2 70 @ 3 40
Butcher Steers	3 00 @ 3 75
Bulls	2 00 @ 3 25
HOGS	4 65 @ 5 90
SHEEP	2 00 @ 4 25
BUTTER—Creamery	16 @ 24
Dairy	15 @ 20
EGGS—Fresh	12 1/2 @ 12 1/2

BROOM CORN	4 @ 5
Hurl	2 @ 2 1/2
Self-working	4 @ 5
POWERS—New (per bu.)	18 @ 70
PORK—Mess	12 02 1/2 @ 12 95
LARD—Steam	8 10 @ 8 17 1/2
FLOUR—Spring Patents	3 50 @ 4 00
Spring Patents	2 50 @ 3 00
Winter Patents	2 70 @ 3 00
GRAIN—Wheat August	61 1/2 @ 62 1/2
Corn, No. 2	29 @ 30 1/2
Oats, No. 2	24 1/2 @ 25
Rye, No. 2	47 @ 48
Barley, Common to Fair	30 @ 35

LUMBER—Sliding	16 50 @ 24 50
Flooring	37 00 @ 38 00
Common Boards	14 25 @ 14 50
Fencing	12 00 @ 12 50
Lath, Dry	2 25 @ 2 75
Shingles	2 45 @ 3 00

CATTLE—Shipping Steers	12 10 @ 5 00
Butcher Steers	3 15 @ 4 20
HOGS	4 50 @ 5 48
SHEEP	2 45 @ 2 85

CATTLE—OMAHA	13 25 @ 4 75
Feeders	2 25 @ 3 25
HOGS	4 50 @ 4 90
SHEEP	2 50 @ 3 75
Lambs	3 00 @ 4 75

CHIEF

"J. I. T. PLUG."

THE POT INSULTED THE KETTLE BECAUSE THE COOK HAD NOT USED

SAPOLIO

GOOD COOKING DEMANDS CLEANLINESS. SAPOLIO SHOULD BE USED IN EVERY KITCHEN.

## Cheap Excursions to the West.

An exceptionally favorable opportunity for visiting the richest and most productive sections of the west and northwest will be afforded by the series of low rate harvest excursions which have been arranged by the North-Western Line. Tickets for these excursions will be sold on August 22d, September 12th and October 12th, 1898, to points in Northwestern Iowa, Western Minnesota, North Dakota, South Dakota, Manitoba, Nebraska, Colorado, Wyoming and Utah, and will be good for return passage within twenty days from date of sale. Stop-over privileges will be allowed on going trip in territory to which the tickets are sold. For further information call on or address Ticket Agents of connecting lines. Circulars giving rates and detailed information will be mailed free, upon application to W. A. Thrall, General Passenger and Ticket Agent, Chicago & North-Western Railway, Chicago.

"JOHN, what a lovely place! If we could only manage to raise the rent." Mr. Hunter Hovey—"Oh, I've no doubt the landlord would see to that in a couple of months."—Brooklyn Life.

Aroused and Regulated.  
By that purest and best of botanic alternatives, Hostetter's Stomach Bitters, a dormant liver renews its secretive action and impels the bile into the proper channels. This welcome change is accomplished by a disappearance of the yellow tinge of the skin and eyeballs, uneasiness in the right side, constipation, morning nausea, dizziness, furred appearance of the tongue, and sourness of the breath, which accompany liver trouble. Rheumatism, dyspepsia, malaria and kidney complaint are removed by the Bitters.

Doctor—"You need a change in climate." Patient—"What is the matter with this climate?" Doctor—"It's too changeable."—Chicago Record.

Low-Rate Harvest Excursions  
Via the Missouri Pacific Railway and Iron Mountain Route, August 22d, September 12th and October 10th. Tickets on sale to principal points in the West and Southwest at one fare for the round trip (plus \$3), limited to twenty days from date of sale for return. For further information, descriptive pamphlets and map folders of the different states, address H. C. Townsend, G. P. & T. A., St. Louis, Mo.

THIEVES may break through and steal, but they can never rob the telephone girl of her rings.—People's Home Journal.

LAST week's business at the Auditorium, Chicago, was quite up to the average weekly receipts of the season to date. In other words, "America" was presented to packed houses, which means a gross revenue of \$85,000.

WHEN the suspicious man sees a balloon sailing away toward the clouds he is justified in thinking there is something up.—Troy Press.

S. K. CONYER, Mgr., Clarie Scott, writes: "I find Hall's Catarrh Cure a valuable remedy." Druggists sell it, 75c.

A CURIOUS thing about politicians is that just as soon as they have a finger in the pie they begin to talk of getting there with both feet.—Philadelphia Times.

A FAIR lady becomes still fairer by using Glenn's Sulphur Soap. Hill's Hair and Whisker Dye, 50 cents.

"That just fills the bill," said the robin as he seized a fat worm.—Lowell Courier.

WHAT the farmer's boy sighs for is the last rows of summer.—Plain Dealer.

A WELL-DIRECTED snowball puts most anyone in the mood for dancing.

# "August Flower"

I had been troubled five months with Dyspepsia. I had a fullness after eating, and a heavy load in the pit of my stomach. Sometimes a deadly sickness would overtake me. I was working for Thomas McHenry, Druggist, Allegheny City, Pa., in whose employ I had been for seven years. I used August Flower for two weeks. I was relieved of all trouble. I can now eat things I dared not touch before. I have gained twenty pounds since my recovery. J. D. Cox, Allegheny, Pa.

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