

Live Germs Found Millions Years Old

Steries of "mummy wheat" shut up in Egyptian tombs thousands of years ago, and yet able to sprout and grow when planted, are now disbelieved by scientists.

They are pure fable, we are told. And yet a geologist now comes forward with a far more marvelous tale—that of living germs shut up in rocks for millions of years.

The germ, he says, are in the stage of "spores," where they are protected by hard, impervious cases. These have acted, not as coffins, but rather as cradles. Says a writer in Current Science (Columbus, Ohio):

"It is almost unthinkable that any form of life—even the most simple—could endure for centuries or even millenniums. A biologist, Dr. Charles B. Lipman, of the University of California, seems to have discovered living things that were born more than a million years ago.

"Germs are plants of the very simplest type. They seem to be little more than tiny lumps of protoplasm. Nothing could be tenderer, it would seem, than a pinpoint of jelly such as a germ. Most of them are easily killed, too, by heating, drying, exposure to the sunlight, or contact with certain chemicals. Certain germs, however, are able to don an overcoat and defy the most unfavorable surroundings. In this form they are called spores, and because of their tough covering they resist boiling, drying, light, and chemical germicides.

"A clever trick has to be played on spores when one wishes to destroy them, as in the canning of vegetables. The vegetables—string beans, for example—are boiled vigorously one day, the spores survive, believe that the worst is over, and turn to germs during the night by shedding their crusts in the water that soaks the beans and themselves.

"Next day the cruel canner puts them again to boiling, and of course the unprotected germs are killed. Experience has shown that some of the spore germs are wiser (or is it that they are slower and more stupid) than others, and they do not come from their shells until the second boiling.

"On the third day another boiling executes them all.

"Dr. Lipman has tested a number of examples of rocks by a method that prevents modern germs from getting into his apparatus. The outside portions of the rock are broken away, and sterile (germ-free) water allowed to flow upon rock surfaces never before exposed to the air. This water then runs upon a nourishing jelly (called "agar-agar" by the bacteriologists); the spores will soften under these favorable conditions, and—if alive—will develop new germs in great numbers.

"The rocks tested by Dr. Lipman have come from those laid down in the very early ages of the earth's geological history. Some are from the Algonkian rocks of Canada, which are right down next to the volcanic rocks that poured out upon the surface of the planet earth before it was cool and solid. Others have come from the same geological horizon (rock level) that outcrops near the bottom of the Grand Canyon of the Colorado. These rocks are inconceivably old!

"In certain lumps of coal, secured from widely separated places as Pennsylvania and Wales, spores have also been found. Coal was laid down in the Carboniferous period of earth's history—a sort of middle age of geology. Then in some fairly recent rocks (as time passes in geology) of the Pliocene time, laid down when mammoths probably walked the earth, more germs have been found."

North Africa Tries

Out Citrus Fruits

Paris—France is actively encouraging landholders of Morocco, Algeria and Tunisia in the production of citrus fruits, with the expectation of making another California of her north African possessions.

Algeria was first of the French possessions to plant citrus fruits, but Tunisia and Morocco to a great extent have overcome this advantage by adopting American methods, employing American horticulturists and planting American trees.

Tunisia has brought from California Prof. R. W. Hodgson of Berkeley, well known horticulturist, for a year's work, and Morocco recently sent an agricultural and engineering mission to the United States to study American irrigation and orchard methods. The delegation brought back a mass of information which now is being put into use in southern Morocco.

3660 Ways of Serving

The Ever Edible Egg

Fried, boiled, and poached are the three ways eggs are most familiar to the average individual. But these are only three of the more than three thousand ways in which a famous chef asserts eggs are served.

In a northern climate an egg eaten in the winter time has greater food values than one eaten in the summer time. The present price of eggs, the lowest in years, is having the effect of increasing the popularity of eggs.—Dominion Department of Agriculture.

History repeats itself, but it hasn't anything on small-town gossip.

Garden Talks

Getting Off Early

It will soon be time to start thinking of getting seed sown indoors. Not only can one get the garden off to a much earlier start in this way but one can also grow those tender plants for which our season normally is too short. Supplies for the window box or hanging basket are also produced from seed planted indoors. Such flowers as Cosmos, Marigolds, Zinnias, Petunias, Foliage Plants and in fact practically every thing except Poppies, which do not re-plant very readily, may be started under glass in March or April and will actually benefit from being moved around a few times before they are placed in their location. Tomatoes, Cabbage, Head Lettuce, Cucumbers, Melons and even a few of the earlier Beets, Carrots and Corn can be started indoors from two to six weeks ahead of the time they would be planted outside. Select a box a couple of inches deep with holes bored in the bottom for drainage, and fill with sand and loam. If such material is not on hand obtain the nearest greenhouse man will supply some. Moisten the earth and then mark off the rows for the seed about an inch apart. Sow and then cover the box with a piece of sack or burlap which hastens germination and will also prevent the seeds from being washed out when watered. Get the plants started in a warm, dark cellar and after they have pushed up through the soil remove covering and place in full sunlight about a foot away from the window if it is single or closer if a double sash has been provided. Make sure that your plants are protected on nights when the temperature threatens to drop to zero. If a large quantity of plants are desired it will be necessary to provide a hot bed. This is simply a glass protected bed placed on a pile of fresh horse manure at least eighteen inches deep. The manure should be allowed to heat up and cool down again before planting. Have the bed face the south with the glass sloping a few inches in the same direction so that rain will run off and the sun's rays may be caught more fully. Water very sparingly in cold weather and then only on bright days. Ventilate a little by raising the sash and keep this open longer as the weather gets warm. Transplant at least once to a cold frame, that is a glass protected bed without horse manure, before the plants are set in their permanent location outside.

Planning the Flower Garden
When we come to planning the flower garden, we must adopt a different attitude entirely with regard to the rows than was the case with the vegetables. In very few cases is anything but clump planting advisable. A much better show can be produced where groups of ten plants of one variety are placed to-

gether with the smaller sorts, such as Alyssum, Calendulas and similar things at the front, with Hollyhocks, Dahlias, Cosmos, Marigolds and the large Zinnias at the rear. One must guard against clashing colors and also against blind spots. That is, there should be something blooming at all times. In the catalogues will be found listed the different colors, the heights of the plants, and the season of blooming, so that there will be no trouble in laying out our garden well in advance of planting and if we take a little time with our pencil and paper we should have continuous and pleasing bloom from late Spring until frost.

Seed
Although the cost of flower or vegetable seed is of minor importance and is the smallest item taken into consideration by the gardener, one's whole season's work depends absolutely on the quality of the seed used. Generally speaking, there is but one opportunity to plant during the season and if poor seed is used results are certain to be disappointing. The cost of the land, labor, equipment and fertilizer will be lost, as well as the pleasure of growing beautiful flowers and the satisfaction of producing high quality fresh vegetables if good seed which is the foundation of all this, is lacking. It is essential to use good seed and it is essential to use good seed and it is essential to use good seed.

Naturally, the seedsmen in the province select their supplies to suit our climate and conditions, and the fact that most of our seed houses have been in business for a generation or more is ample testimony of the suitability of their selections.

Assistant—Have you no account with this store, maam?
Customer—No, but maybe I can arrange matters with your manager.
Assistant (to manager)—A lady of no account to see you, sir.

A girl's complexion doesn't always taste as good as it looks.
Father (after son had taken enormous bite)—Another bite like that and you'll leave the table.
Son—Another bite like that and I'll be through.

Life would be pleasanter for all of us if we didn't have to take sides in so many other people's rows.
... and Henpeck's inner thoughts at that moment probably were: "It's a great wife if she don't waken."

Mrs. Perkinson—Who's that impressive-looking woman over yonder?
Mr. Pennington—That's Mrs. Illington. She's a very remarkable woman, and they say she commands a very large salary.
Mrs. Perkinson—How does she earn it?
Mr. Pennington—She doesn't earn it. Her husband earns it, and she commands it.

Then there is the Scotchman who took out fire insurance on his cigars. Just remember this: The poor-houses are chock full of fellows who thought success was in a distant city and who never looked for it around home. . . Nobody can fight like a coward cornered. . . You might get a better bargain by leading instead of driving it. . . From the late hours some young men keep you'd think they were training to be night watchmen. . . Sometimes a man gets a reputation for being big-hearted when he is just soft-hearted and allows himself imposed on. . . And you may have noticed that the footprints a man leaves behind him on the sands of time are not made with his feet.

PEOPLE WE PREFER TO DODGE:
Book agents.
Distant relatives, with luggage.
Busybodies.
Patronizing plutocrats.
The gossip women.
Gypsies.
Insurance salesmen.
Automobile salesmen.
Tax collectors.

A modern home today, is one where the two necessities of life are the bread and the Patter.
Suspicious Wife—Where have you been all evening?
Husband—I've been talking business with Tom Baker.
Wife—Yes! And I suppose that is baking powder sprinkled all over your shoulder?

The miniature golf may just fit in with the miniature salary.
THE WAY IT USUALLY HAPPENS
He fell for her, a charming miss, So lovely and petite:
And, since he fell, we've noticed this—
He can't get on his feet.

How unfortunate that the only people who know how to run the world become authors instead of statesmen.—Richmond News-Leader.

World Wheat King Off On Trip



Herman Trelle, of Wembley, Alberta, world wheat king who won five prizes at Chicago and Toronto last Fall, is here shown with Mrs. Trelle aboard the Canadian Pacific liner Empress of France just before sailing from New York, February 3, on a 73-day Mediterranean cruise. At the International Livestock Show at Chicago he took two grand championships and one first prize and third prize for hard winter wheat, demonstrating thereby that he has moved the winter wheat line 700 miles to the north. At the Royal Canadian Winter Show at Toronto he

also took a first, making five in all. The trip was presented to Mr. and Mrs. Trelle by E. W. Beatty, chairman and president of the Canadian Pacific Railway, in appreciation of his great work for Canadian agriculture, and for his demonstration that the Peace River country is one of the finest grain-growing regions on the continent. When he reaches Egypt, Mr. Trelle will try out the possibilities of causing wheat grains of the time of King Tut-Ankh-Amen to sprout and will return the compliment by planting some of his choice seeds in Egypt for experimental purposes.

Owl Laufs

A boy earned his first dollar. He put the dollar in the bank, in turn charged a quart of ice cream, some soda, and candy to his dad at the drug store.

Assistant—Have you no account with this store, maam?
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Man Has Bigger Brain Than Woman

Face is Gradually Receding While Mind is Expanding

Toronto—The brain of man is increasing in size and power, his cranium is becoming larger, and his face is gradually becoming less prominent, showing a marked tendency to recede backwards beneath the brain case, stated Prof. J. C. B. Grant of the department of anatomy of the University of Toronto during a recent address at an open meeting of the Royal Canadian Institute here.

Over a period of hundreds of centuries, as the brain of man increased in power and capacity, it became larger, stated Prof. Grant. This tendency may be proven by a comparison of the size of the cranial cases of skulls of different stages of man's development.

Professor Grant pointed out that the brain of a man is larger than that of a woman. He did not consider, however, that this could altogether be taken as proof that the mental capacity of the male was just that much greater than that of the female. Brain sizes, he considered, were to a certain extent proportional to the size of the person to which they belonged. He pointed out that the brain of the elephant and of the whale were larger than that of a man, but that this could scarcely be taken as proof that they had greater mental capacity.

The unmistakable tendency of the jaw and of the facial portion of the skull to recede under the brain pan was, in Professor Grant's estimation, a result of the fact that the human face has been relieved of many of its duties by the hands. Lower animals, he explained, must use their jaws to accomplish clumsily many things which a human now does easily with his fingers. Discussing the ridges, depressions and other phenomena of a skull, Prof. Grant pointed out that the only connection between the face and the backbone is through the medium of the brain case and that the muscles which work the jaws are attached not to the face bones but to the walls of the brain. In consequence, he said, by examining the extent of the areas to which the muscles are attached—and these are usually marked by fairly sharp lines—one can discern accurately the muscular capacity of the skull's late owner. It is by the use of such methods as this, he stated, that deductions as to the nature of primitive man were formed by scientists.

DAY-TO-DAY REPORT OF POTATO MARKET

In order to keep potato growers and shippers more closely in touch with market conditions the Fruit Branch of the Dominion Department of Agriculture has instituted a day-to-day radio market report service. Staff inspectors of the Department at Montreal, Ottawa, and Toronto wire the salient features of their local market to the Branch at Ottawa at 10.30 each morning. At Ottawa these reports are consolidated and telegraphed to Moncton, N.B., where they are sent out through the courtesy of radio station CNRA during the noon hour broadcast.

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Get two ounces of peroxide powder from your druggist. Sprinkle on a hot wet cloth and rub the face briskly. Every blackhead will be dissolved. The one safe, sure, and simple way to remove blackheads. Satisfaction guaranteed or money refunded. T. W. SCARF & CO., 422 Wellington St. W., Toronto

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Humility
It is as one who stands by the margin of a lake, and gazes on his own image close beneath him; conceive this contemplator of himself, borne gradually aloft towards the heavens, and the image which he still beholds as he soars will deepen in proportion as he rises.—Archer Butler.

Leisure is quite intolerable except in fairly small doses.—Aldous Huxley.

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