

ALL-POWERFUL PIMPLE

HOW IT HAS SAVED THE WORLD FROM STARVATION.

The Efforts of Scientific Men Have Been Crowned With Complete Success.

It seems incredible, yet it is a hard fact, easily proved, that the civilized world, and England especially, has escaped starvation only by the skin of its teeth. In fact, had it not been for the investigation of the pimple on a plant, the worst might have happened.

All have heard of the experiments now going on in England and elsewhere with the "nitrifying bacteria." Examining the roots of beans, peas, and clover, a scientific man found that the little pimples at the base of the stem consisted of millions of microbes, and he also found that these microbes have the power to take nitrogen from the air and give it to the plant. After many failures, this process of manuring is now a success, and farmers in many countries buy these microbes, packed in cotton-wool, and spread them on the ground as manure.

SAVED FROM STARVATION.

To appreciate the full value of this discovery, it must be remembered that twenty-five years ago it was known to scientific men that there was every chance of the world's food supply being so reduced before they grew old that half the people of Europe and America would die of starvation.

It was all a question of manure for the land. As everyone knows, the land can grow practically nothing without its allowance of manure—neither wheat for bread, nor clover to produce beef and mutton, nor potatoes, turnips, fruit, nor flowers. Long ago, when people were comparatively few, the manure of the farmyard sufficed. But for many years past the supply of this valuable commodity has been only a drop in the bucket of what the land demands.

Fortunately, a great store of guano was discovered in Peru. But the population increased, and the guano began to give out. There was no way of renewing it, and the farmer was faced with bankruptcy, when another discovery saved him. That is the fact that one of the by-products of gas manufacture, sulphate of ammonia, is an excellent substitute for farmyard manure.

THEY WANTED MORE.

But the population continued to grow. More and more food was required. The sulphate of ammonia began to fall short of the land's needs. The supply could not be increased. And so famine again loomed ahead.

Then came the providential discovery in Chili of the nitrate of sodium, or Chili saltpetre. But, great as the store of nitrate is, it became evident that it could not last many years. No other natural source of manure is known to exist, and it seemed that by the year 1925 the produce of wheat, oats, barley, maize, potatoes, and even beef and mutton, milk, butter, and cheese would be reduced to something like one-third of the present produce. Of course, long before that time there would be scarcity, high prices, hunger, and perhaps a world-wide war for the possession of the nitrate mines.

That was the catastrophe that threatened the world. How has it been averted? This is one of the most marvellous stories in the whole of science.

In the air around us is an apparently lazy, inert gas called nitrogen. Four-fifths of the air consists of this gas, and it is so abundant that no less than 3,000 tons of it float over every acre of ground. It is a most unsociable body. Only the greatest force at the command of the chemist will make it combine with other elements. And as soon as it is wedded it does everything in its power to get free. That is why gunpowder and dynamite explode. The nitrogen which is part of them awaits only the opportunity to

SEPARATE AND LIVE ALONE.

We must eat nitrogen to live. We eat it in the flesh of other animals or in plants. These animals eat it in plants, and the plants get it from the soil. Whence does the soil get its nitrogen?

Now, although there are 34,000 tons of nitrogen over every acre, neither plant nor animal can get one grain weight of it from the atmosphere, because it exists there alone. It is then what the chemists call "free" nitrogen. In order that plants may make use of it, the nitrogen must become "fixed"—that is to say, it must become unit-

ed with some other body, soda or lime. This it is now to do. But during many years past a quantity of it has so united. Every time a lightning flash passes through the air it pellets a very small quantity of nitrogen to unite with oxygen. brought down to the earth in rain, and there it enters in with soda or potash, or some element.

Now, so long, of course, as there were few, there was sufficient the food of grasses and trees when the population of the world grew large, and people grew wheat and other grains. A store of nitrogen became used up.

TO CONQUER NITROGEN.

Farmyard manure is valuable because of the nitrogen it contains. That, too, is the reason the gas product—made from which is a vegetable body—Chili nitrate nourish plants. Therefore, the natural store of signs of running out, men set about the task of manure—that is, of forcing nitrogen of the air to unite with other body; and, after many labor, their efforts, as we have seen, have been crowned with complete success.

In this way the world has been saved from famine. But close shaves, for if science had not been discovered twenty or thirty years later, starvation was inevitable.—LONDONERS.

RHEUMATISM IN THE BACK

Liniments and Rubbing Won't Cure It—The Disease Must Be Treated Through the Blood.

The trouble with men and women who have rheumatism is that they waste valuable time in rubbing the complaint away. Rubbing hard enough the friction warms the affected part temporarily, but in a short time the aches and pains are as bad as ever. Rubbing, and all the liniments and outward applications in the world won't cure rheumatism, because it is rooted in the blood. I won't remove the poisonous blood that causes the trouble. But Dr. Williams' Pink Pills will, because they are a blood purifier acting on the blood. That is why the aches and pains and swollen points of rheumatism disappear when these pills are used. Why sensible people waste their time in rubbing, but take Dr. Williams' Pink Pills when the first signs of rheumatism come on, and speedily drive the trouble out of their system. Mr. John E. Kempt, Kemp Road, Halifax, N. S. W., writes: "About three years ago I had an attack of rheumatism which was in my right leg and ankle and became very much swollen and exceedingly painful. I wasted a good deal of time trying to get rid of the trouble by rubbing with liniments, but it did not do me any good. My daughter was using Dr. Williams' Pink Pills at the time, and finally persuaded me to try them. Inside of a week the pain began to help me, and after a few weeks longer the trouble completely disappeared. It has not bothered me since. My daughter was also taking the pills at the time for weakness and anemia, and was also cured by them. I am now a firm friend of this medicine."

Most of the troubles that afflict mankind are due to poor, impure blood. Dr. Williams' Pink Pills will naturally make new red blood. This is why they cure anaemia with its headaches and backaches, and dizziness and fainting spells; pangs of rheumatism, and the stabbing pains of neuralgia; indigestion, St. Vitus' dance, paralysis and the ailments of young girls and women of mature years. Good blood is the secret of health and the secret of good blood is Dr. Williams' Pink Pills. Sold by medicine dealers or by mail at 50 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

King Edward and Queen Alexandra have been married longer than any other pair of crowned heads in Europe.

"I presume," said the lodge keeper, "at the conclusion of the little dispute with his landlady, 'I presume that you will allow me to take my belongings away with me?' 'I am sorry,' was the icy reply, 'but your other collar has not yet come home from the laundry.'"