VIEWS FROM THE WATCH TOWER.

EMPLOYERS OF LABOR AGITATING.

THESE ARE THE CONDITIONS WE HAVE BEEN ANNOUNCING SINCE 1875, AS EVIDENCES THAT WE ARE IN THE GREAT "DAY OF THE LORD" AND THAT ITS BATTLE OR STRUGGLE IS IMPENDING.

IN December last two important meetings of manufacturers and labor employers were held; one in Dayton, O., the other in Chicago, Ills. The proceedings at Dayton and the object of the meeting are thus described in the daily press –

A resolution was adopted asking Congress not to indorse the eight-hour bill, when that document comes up for action. Another resolution requests all employers' associations throughout the country to affiliate with the national body.

AGAINST UNION LABEL.

The determined stand to be taken by the association is indicated in the passage of a resolution instructing all members of employers' associations affiliated with the national body not to place the union label on any of their output.

It is proposed also to establish a labor information bureau, where will be kept a tabulated record of all law-breaking and undesirable workmen.

The present methods employed by unions in conducting a boycott were bitterly denounced.

A bureau of organization, publication, and education will likely be located at Dayton, although the headquarters will be at Indianapolis.

PLATFORM ADOPTED.

The following platform was adopted as an open letter to the public and affiliated associations:

Resolved, By the executive committee of the Citizens' Industrial Association of America, that the present industrial conditions have become so deplorable by reason of the indefensible methods and claims of organized labor that the time has come when the employing interests and good citizenship of the country must take immediate and effective measures to reaffirm and enforce these fundamental principles of American government guaranteeing free competitive conditions.

"In its demand for the closed shop organized labor is seeking to overthrow individual liberty and property rights, the principal props of our government. Its methods for securing this revolutionary and socialistic change in our institutions are also those of physical warfare. Because of this warfare the industrial interests of the nation during the last years have been injured to an irreparable degree. Many firms have been driven into bankruptcy, and the cases are innumerable in which workingmen have been disabled and even murdered, while numerous families have been rendered destitute by reason of the tyranny and seditious attacks upon society by the strike organizations.

"CONDITION OF ANARCHY."

"A condition of anarchy has existed continuously in some States for months past, and, in fact, the acts of lawlessness committed under the sacred name of labor are of such frequent recurrence that the public sense of their enormity has become blunted. The period of great prosperity brought about by the unrestricted operation of the law of supply and demand is also being destroyed by the acts of violence of organized labor, and as a result we are now confronted with the possibility of a period of depression.

"While we most emphatically object to being classed as enemies of organizations of labor that are conducted upon lawful and beneficent lines, yet we are unalterably opposed to the present programme of violence, boycotting, and tyranny now being carried out by the majority of labor unions.

"We therefore urge the rapid organization of those who believe in the maintenance of law and order and the perpetuation of our free institutions, to the end that they may wield their full and proper influence upon the destinies of the nation. Since organizations exist for the apparent purpose of defying law and common sense, and are able to intimidate and influence public men and municipal authorities, there is no alternative left to those who desire to preserve bearable conditions in our body politic than that of forming counter organizations.

ORGANIZATION THE ONLY MEANS.

"It is only through the machinery of organization that we can hope to exercise a potent and salutary influence over public thought and the conduct of public officials, to the end that the rights of American citizenship can be assured to free and independent labor, the rights **[R3303 : page 20]** of property protected and legislation of a socialistic nature prevented from being enacted into law.

STRONG WORDS AT THE CHICAGO SESSION.
BLOODSHED PREDICTED.

"If the fight for the closed shop is allowed to continue there will be scenes of bloodshed in this country that will surpass the days of the French revolution. The closed shop is un-American, unrighteous, a restriction of the liberties of our people, and a death blow to the individualism that makes for success."

The foregoing sentiment, expressed by W. B. Brinton, president of the Peru Plow Company, was cheered by 600 members of the Illinois Manufacturers' Association at their annual banquet.

"Our rights," declared Mr. Brinton, "are dependent on the settlement of the question once for all as to whether an employer can hire whom he pleases without being subject to the dictation of any organized body. The Chicago City Railway has won a great victory in establishing its right to engage its own employees. Without this right, which is becoming recognized by the great mass of people, the commercial supremacy of the United States will be at an end."

FERTILIZING SOIL WITH BACTERIA.

Because we are in the dawning of the Millennium, the Lord is graciously lifting the curtain and letting in the light upon one subject after another, – to prepare for the great blessings of that glorious time and its re-awakened billions of humanity. From this standpoint the following article from the ***Literary Digest*** will be read with interest. It shows one of the ways the Lord's promises may be expected to be fulfilled and cause the wilderness to blossom as the rose. And every evidence of the kind adds to our general faith in our Father's willingness and ability to do all that he has spoken by the mouth of all his holy prophets since the world began.

The article follows: –

Soil that will not bear crops is suffering from starvation. This may be remedied by properly "feeding" it with fertilizers; but in certain cases the trouble may also be cured, like some diseases, by inoculation. In other words, soil deficient in nitrogenous matter may be treated with cultures of certain bacteria that enable plants to absorb and utilize atmospheric nitrogen, as has been shown in Germany by Professor Nobbe. Fertilizing material sufficient for an acre may now be purchased in a small glass bottle. Ray Stannard Baker tells in ***Harper's Magazine*** just how this discovery was made and how it has been utilized. According to Mr. Baker, it had its beginning in the earlier discovery that plants are fed largely from substances in the air and from consequent study of the problem of how the plant is able to appropriate this aerial food. Says the writer:

"The chief chemical elements in all vegetable substances are oxygen, carbon, hydrogen, and nitrogen. ...Nitrogen is the all-important element. Potassium and phosphorus are usually present in abundance, or they can be easily supplied in the form of wood-ashes and other fertilizers; but nitrogen is more expensive and more difficult to restore. Nitrogen is what makes the muscles and brain of a man; it is the essential element of all elements in the growth of animals and plants....If the world ever starves, it will be from lack of nitrogen; and yet if such starvation takes place, it will be in a world full of nitrogen. For there is not one of the elements more common than nitrogen, not one present around us in larger quantities. Four-fifths of every breath of air we breathe is pure nitrogen – four-fifths of all the earth's atmosphere is nitrogen. If mankind dies of nitrogen starvation, it will die with food everywhere about it and within it.

"But unfortunately plants and animals are unable to take up nitrogen in its pure form as it appears in the air. It must be combined with hydrogen in the form of ammonia or in some nitrate. These facts have been well known to science for many years. At the same time it has been known, as a matter of experience among farmers, that when land is worn out by overcropping, with wheat or oats, for instance, both of which draw heavily on the earth's nitrogen supply, certain other crops would still grow luxuriantly upon it, and that if these crops are left and plowed in, the fertility of the soil will be restored, and it will again produce large fields of wheat and other nitrogen-demanding plants. These restorative crops are clover, lupin, and other leguminous plants – a classification including beans and peas. Everyone who is at all familiar with farming operations has heard of seeding down an old field to clover, thereby restoring its fertility in a degree."

That this property of clover, beans, etc., is due to small nodules growing on their roots, and that these are produced by so-called "nitrifying" bacteria, is now known to all students of scientific agriculture. Acting on this knowledge, Professor Nobbe has developed his plan for soil-inoculation. Says Mr. Baker:

"If these nodules were produced by bacteria, then the bacteria must be present in the soil; and if they were not present, would it not be possible to supply them by artificial means? In other words, if soil, even worn-out farm soil – or, indeed, pure sand, like that of the seashore – could thus be inoculated, as a physician inoculates a guinea pig with anthrax germs, would not beans and peas **[R3304 : page 20]** planted there form nodules and draw their nourishment from the air? It was a somewhat startling idea; but all radically new ideas are startling, and after thinking it over, Professor Nobbe began, in 1888, a series of most remarkable experiments, having as their purpose the discovery of a practical method of soil-inoculation. He gathered the nodule-covered roots of beans and peas, dried and crushed them, and made an extract of them in water. Then he prepared a gelatin solution with a little sugar, asparagin, and other materials, and added the nodule extract. In this medium colonies of bacteria at once began to grow – bacteria of many kinds. Professor Nobbe separated the radiocola – which are oblong in shape – and made what is known as a clean 'culture' – that is, a culture in gelatin consisting of billions of these particular germs and no others. When he had succeeded in producing these clean cultures, he was ready for his actual experiments in growing plants. He took a quantity of pure sand, and in order to be sure that it contained no nitrogen, nor bacteria in any form, he heated it to a high temperature three different times for six hours, thereby completely sterilizing it. This sand he placed in three jars. To each of these he added a small quantity of mineral food – the required phosphorus, potassium, iron, sulphur, and so on. To the first he supplied no nitrogen at all in any form; the second he fertilized with saltpeter, which is largely composed of nitrogen in a form in which plants may readily absorb it through their roots; the third of the jars he inoculated with some of his bacteria culture. Then he planted beans and awaited the results – as may be imagined, somewhat anxiously.

"The beans in the first jar, we are told, starved for want of nitrogenous food, exactly as a man would starve under the same conditions. Those in the second jar grew about as they would in the garden. But the third or 'inoculated' jar showed really a miracle of growth. **[R3304 : page 21]** The

soil in this jar was originally as free of nitrogen as the soil in the first jar, and yet the beans flourished greatly, and when some of the plants were analyzed, they were found to be rich in nitrogen. Nodules had formed on the roots of the beans in the third jar only, thereby proving that soil-inoculation was a possibility – at least in the laboratory. Mr. Baker goes on to say:

"Having thus proved the remarkable efficacy of soil-inoculation in his laboratory and greenhouses, where I saw great numbers of experiments still going forward, Professor Nobbe set himself to make his discoveries of practical value. He gave to his bacteria cultures the name 'Nitragen' – spelled with an a – and he produced separate cultures for each of the important crops – peas, beans, vetch, lupin, and clover. In 1894, the first of these were placed on the market, and they had a considerable sale, altho such a radical innovation as this, so far out of the ordinary run of agricultural operation, and so almost unbelievably wonderful, can not be expected to spread very rapidly. The cultures are now manufactured at one of the great commercial chemical laboratories of the river Main. I saw some of them in Professor Nobbe's laboratory. They were put up in small glass bottles, each marked with the name of the crop for which it is especially adapted. The bottle was partly filled with the yellow gelatinous substance in which the bacteria grow. On the surface of this there was a mossy-like gray growth, resembling mold. This consisted of innumerable millions of the little oblong bacteria. A bottle cost about fifty cents, and contained enough bacteria for inoculating half an acre of land. It must be used within a certain number of weeks after it is obtained, while it is still fresh. The method of application is very simple. The contents of the bottle are diluted with warm water. Then the seeds of the beans, clover, or peas, which have previously been mixed with a little soil, are treated with this solution and thoroughly mixed with the soil. After that the mass is partially dried so that the seeds may be readily sown. The bacteria at once begin to propagate in the soil, which is their natural home, and by the time the beans or peas have put out roots they are present in vast numbers, and ready to begin the active work of forming nodules....

"Prompted by these experiments, a valuable series of tests has recently been made by the United States Department of Agriculture, and an improved method for distributing the bacteria has been devised. Instead of a moist culture in glass tubes the bacteria are put up in a small dry mass that resembles a yeast-cake. These may be sent anywhere without deterioration; a little soaking is all that is needed to prepare them for use in the soil. The Department is now formulating a plan for introducing these cultures extensively in localities in this country which are deficient in nodule-forming germs."

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