

# The Origin of the World

By R. McMillan.

## CHAPTER XI.

### THE BEGINNING OF LIFE.

It is all very well to talk about the origin of the world, but I feel that it will take you a long, long time to realize how small the world is. "Man is the measure of all things," said an ancient Greek; and we are apt to measure the size of the world by ourselves. That is why it seem so large.

But man is not the measure of all things. Man is no more the measure of things than is an ion or an electron. You know what an atom is, do you not? An atom used to be thought the very smallest possible speck of "matter," so small that it could not be divided, so small that it could not be seen even under the strongest microscope. An atom was looked upon as the very smallest speck in the world. But now, so great has been the advance of science, we know that an atom of hydrogen (and that is the lightest gas we know of) contains 700 electrons; and an atom of radium contains 160,000 electrons. Why may not an electron be accepted as the measure of all things? If you take an electron as the standard, a man is huge, a mountain is colossal; a world is incomprehensibly enormous. Words would be useless to try and explain how big the world is compared with an electron.

But if you use space as the measure of all things, or the star Canopus, then you come to quite a different standpoint. Our world is one million and a half times smaller than our sun, and our sun is, possibly, as much smaller than the star Canopus; and yet the star Canopus is only a tiny bright speck in the "sky" in space. If you take a great big map of the world, and find a speck of fly-dirt on it, and image that to be Canopus, then how will you find our world, which is a million, million times smaller? You see, it all depends on your point of view! But you may take this from me, that our world is a tiny, tiny, tiny speck of "solid matter," whirling round a central blazing sun at the rate of a thousand miles a minute.

A little while ago I gave a lecture on "The Origin of the World." Some people objected to my point of view, but some of the scholars agreed with it; and one of the criticisms by a clever University man was that my propositions were the "commonplaces of science." He was quite right! The scientific world has known most of my facts for twenty, or thirty or fifty years; but they are all new to you, and to your grandfather, and to most people. That is our trouble. Scientific knowledge is confined to a small class, but the great mass of the people still hold to the ideas and beliefs of two thousand or more years ago.

I am only trying to explain to you the "commonplaces" of the scientific world. I am not inventing anything, or telling you what I have discovered myself; but I am just trying to tell you what men of science have discovered during recent years. Science is very young and very feeble as yet; but it is growing stronger and clearer, and more confident every day. Science is a very promising baby indeed, and when it grows up we will know what sort of a world we live in. And when we are wiser we will also be better, for knowledge means virtue. One of old said: "Ye shall know the truth, and the truth shall make you free." Science means truth.

Having said so much (and hoping that you understand in some small way what a little world this is), I now go back to where we left off, when the tiny world was cooling and hardening, and the "great" oceans of warm water were fairly still. You notice that I put the word great in quotation marks. I did that because I want you to understand that the world is not really great. If you take an orange in your hand and look at the skin, you will see that it is not quite smooth. There are tiny holes all over it. Those holes in the skin of the

orange are deeper than our oceans, compared with the size of the earth. So you see we are discussing a very small world.

When the warm seas were fairly at rest all the gases and atoms and electrons entered into various combinations, and the oxygen and hydrogen, and nitrogen, and carbon, and phosphorus made weird and wonderful jellies, and slimy masses, which quivered and shone in the warm seas. How long did the warm seas exist while these combinations were being made? Nobody knows! Time was not. Time is not a real thing. Years are only a human invention. It took ages and ages, and finally there arose from these gaseous unions a tiny spot of jelly, which grew from within instead of from without.

Crystals grow from without. The pyramids of Egypt grew by piling one cut stone on another. Men build things, but the jelly in the warm seas grew. You never thought about the miracle of growth, did you? When I put a bean into the earth, and leave it there for the sun to warm it, and the rain to moisten it, and the soil to nurse it, all through the dark nights and the sunny days, do you know what happens? It grows! The bean decays and turns black, and dies; but out from the heart of the dead bean comes a little white shoot. This forces its way through the soil, turns green at the sight of the sun, grows up and up towards the sky, and in time produces more beans for men and for horses to eat.

But what made it grow? How did sun and rain and soil unite to make that little bean grow into a whole lot of beans? I do not know, child. Nobody knows. It is all the "law of growth." Life and death, growth and reproduction, are all manifestations of the laws of nature, which are beyond human comprehension; but we are now learning the laws of growth, and we are getting better crops and more wonderful results all the time; and men like Luther Burbank are finding out more marvellous things every day, and—so the world grows wiser, as it comes to understand the laws of nature.

In the shallow pools of earth, in the deep oceans of the world, in the quiet warm waters of the dark, steamy, hot earth, these laws of growth were at work, always and for ever the same. They gave us jelly forms which grew; and that was the beginning of life on the globe. That was the origin of life. Just the same as the origin of the globe! All so simple, simple as winding a watch, but quite as mysterious. We know what force and energy and electricity are only by what they do. We know life and matter and motion only by their manifestations. Yes, you say; but the origin of life is very mysterious. So it is, my child; but not more mysterious than the growth of a seed in your garden. Not more mysterious than the ray of sunshine that flickers across your room and shows the motes in the air as it gleams before your eyes. You are living in a world of mystery, where nothing is really comprehensible. We are living in a marvellous, incomprehensible miracle-world; but people will insist upon it being "common" and "unclean." Do you not ever think such things, for this is a beautiful, mysterious, fascinating world we live in; and the men to whom a vision of its secrets is given are counted as being wild, or wicked, and the crowd will not hearken unto them. We had a poet once who had this vision of things, and he sang of them, and was flouted by the rabble. This was one verse of his song, and it is true:—

We who are god-like now were once a mass  
Of quivering purple, flecked with bars of gold;  
Unsentient or of joy or misery,  
And tossed in terrible tangles of some wild and  
wind-swept sea.

Next Lesson: PRIMITIVE FORMS.

### THE UNIMPORTANT TARIFF.

IT has never been a secret to Marxists that the politics of any period coincides with the economic conditions of that period and that it has been the custom of the politicians to ascribe the numerous crises or panics to the incompetency of the administration in power, but it seems to be the peculiar function of the Rochester "Herald" to pull the capitalistic cats out of the bag and hold them up to public view.

In the edition of June 23, 1922 is the following under the heading "Some Hoary Propaganda."

It is frequently stated that the effects of a tariff law are never as beneficent as its friends assert nor as injurious as its enemies avow. Every one is familiar with the old-time claim that a panic has followed every downward revision of the tariff and that a business boom has come after every upward revision. To discuss this today is like threshing old straw, but since the recent upward trend in business is occasionally being ascribed to the effect of a prospective high tariff law, some passing remarks on this topic may not be inappropriate.

The alleged connection between tariffs and panics has never had any standing among economists, whether they were high-tariff men or free traders. Those who try to set up such a connection make out a bad case for protection. The last two disastrous panics in this country occurred under a high tariff regime. The panic of 1907 occurred under the Dingley Act, and after that law had been in full effect for ten years. Moreover, there was not at the time any immediate downward revision of the rates. The earlier panic of 1893 came after the McKinley Act with its high rates had been on the statute books for three years. In 1920-21, under the present low tariff act, the country went through the most trying period of financial readjustment in its history without any panic. Now, these facts only establish a negative conclusion, and that is that panics have come and gone, but the tariff has no connection with them whatever. No reputable economist or business statistician today attributes any of the recent improvement to the prospects held out by the new tariff bill.

There you have it. The Democratic party in trying to rake the coals from under the boiler of the Republican party spills the fat into the fire and thereby confirms the contention of the Marxists, that is that the question of high tariff or low tariff is no concern of the worker. That it makes no difference what the capitalist has to pay for the means by which they exploit the workers neither does it matter to the worker what it costs to market the commodities of which they exploit them. The only concern of the worker is to put a stop to the exploitation itself.

That the capitalist press even acknowledges this fact is very significant. It denotes that the doping effect of more bromide has reached its physiological limit.

KATHERINE SMITH.

Tikhon, patriarch of the Russian church, has resigned under pressure by his own clergy. His vigorous political activity and his active opposition to requisition of church treasure for famine relief brought such a storm upon his head that he abdicated. A conclave to be held in August will determine whether he shall be tried by an ecclesiastical court for his acts, and will also rule upon the changes in ritual, including substitution of modern Russian for ancient Slavonic in the church services, which are demanded by many of Tikhon's opponents within the church. In view of the recorded facts in the case, and of the outspoken criticism of leading Russian church officials, it is almost amusing to find Bishop Manning and other American and English churchmen aroused and bitterly protesting because the Soviet Government has called Tikhon before the Supreme Revolutionary Tribunal to answer for his deeds. He is charged with having drafted an appeal to the priests which resulted in more than a thousand bloody riots and the loss of several lives. Eight priests who led in these riots were sentenced to death in early May; their cases have been appealed. The Tikhon appeal naturally was particularly resented in the famine-stricken regions, profoundly religious though they are. Bishop Antonius, who has provisionally succeeded Tikhon, takes the position, that the Soviet Government exists "thanks to the help of God, without whose help nothing may take place in the world" and declares opposition to Tikhon's policy because it "brings bloodshed, contrary to the desires of religion."—"Nation" (N. Y.)