The Origin of the World

By R. McMillan.

THE STRUGGLE FOR EXISTENCE

CHAPTER XV.

ID you ever hear that there are more living things born into the world today that can possibly live? When a little boy was taken by his father to see the three new babies which had recently been born into the family, he looked long and anxiously at them, and then said: "Pa, which one are you going to keep?" He thought the babies would be treated in the same way as kittens and puppies. If we allowed all the kittens to live, or all the puppies, the world would soon be overrun by them. We have to keep some forms of life down for the sake of the human race; and nature has to keep some down; and she does so too, but not intelligently. Nature is hidously cruel and wasteful, and has no thought of suffering, no heed for sorrow, no plan, no purpose, no ideal; but-there you are!

In Australia we have a plague of rabbits, and you wonder why! The reason is very simple. When the first ones got loose in the bush, they found life very much to their liking, and very easy. Grass was plentiful for food, and the soil was loose and friable, and easily burrowed in; so they reproduced their kind in obedience to that law which commands all living things to be fruitful and multiply and replentit the court.

ish the earth.

But suppose they reproduce to such an extent that there is not enough food for them? What will happen? Will the law be held responsible for having ordered them to reproduce? Oh, no! They simply die of, as the flies die on a cold day. Nature does not care. The law has no sentiment, no emotions, no care.

Take the flies, for instance. They are marvellous insects; and if you get a miscrope and examine a fly's wings, or a fly's eyes, or a fly's feet, you will be lost in admiration. A "common" house-fly will produce twenty-five million flies in a season. I have another calculation made by an American professor as to how many flies would be produced by a single pair in one season, and the number is so huge that I am utterly unable to explain it or to understand it, so I take Edward Clodd's moderate estimate of twenty-five million. And yet a fly is a miracle of organization. I have seen a section of a dragon-fly's eye, and it was too wonderful to understand. Instead of two eyes, as we have, it has twelve thousand eyes, each with its own cone, its own lens, its own rod. And yet a dragon-fly lives for only a few days as a dragon fly. Before it becomes a fly it lives for several years as a pirate in a water-hole; but that is a different story. The eye of a fly is too wonderful for words; yet one fly will bring forth twenty-five million flies with this marvel in a single

What law settles which of the million billion flies shall live, or which of them shall die? They have got to struggle to live, just as men and wolves have; and any slight improvement in any of the billions and billions of flies which enables them to get a living more easily is transmitted to their children, and an improved fly results. Then the improved one becomes the fashion, and it multiplies until is exists everywhere.

It is just the same with fish. I believe the cod is the most prolific of all the fishes in the sea. It is said that the roe of a cod-fish contains eight or nine million eggs. If all that number lived, and each one produced a like number, there would soon be no room in the sea for all the cod-fish that were born.

What happens to keep them down? Nature, "kindly Nature," provides other fishes which live on the young of the cod-fish, and so a balance is maintained, and the oceans are not overflowing with cod-fish. If we allowed the rabbit to increase to its full capacity, Nature would send an enemy to the rabbit in the shape of disease or devouring animals.

But we trap rabbits, and export them to England for food; and we poison them and keep them down, so that Nature has no need to interfere.

I have not quoted much from anybody, have I? It seems to me that I ought to quote from Charles Darwin's Origin of Species in regard to the way that Nature works in adapting her children to the struggle for existence. He says:—

"A man can produce, and certainly has produced, a great result by his methodical and unconscious means of selection. What may not natural selection effect? Man can act only on external and visible characters. Nature, if I may be allowed to personify the natural preservation or survival of the fittest, cares nothing for appearances, except in so far as they are useful to any being. She can act on every internal organ, on every shade of constitutional difference, on the whole machinery of life. Man selects only for his own good; Nature only for that of the being which she tends. Every selected character is fully exercised by her, as is implied by the fact of their selection. Man keeps the natives of many climates in the same country; he seldom exercises each selected character in some peculiar and fitting manner. He feeds a long and a short-beaked pigeon on the same food; he does not exercise a long-backed or long-legged quadruped in any peculiar manner; he exposes sheep with long and short wool to the same climate. He does not allow the most vigorous males to struggle for the females. He does not rigidly destroy all inferior animals, but protects during each varying season, as far as lies in his power, all his productions. He often begins his selection by some half-monstrous form, or at least by some modification prominent enough to catch the eye or to be plainly useful to him. Under Nature the slightest differences of structure or constitution may well turn the nicely-balanced scale in the struggle for life, and so be preserved. How fleeting are the wishes and efforts of man! How short his time! And, consequently, how poor will be his results, compared with those accumulated by Nature during whole geological periods! Can we wonder, then, that Nature's productions should be far 'truer' in character than man's productions; that they should be infinitely better adapted to the most complex conditions of life, and should plainly bear the stamp of far higher workmanship?"

I must leave you that quotation to think about, and you are certain to see how important it is, and how true it is—if not now, at least later on. There are millions, billions, and trillions of things born every year that cannot possibly find room in the world. If you cannot find room in the world to live, you die; but very few people see that truth. Nature has given nobody, no living thing, any "right" to live. If a beast has longer legs or stronger teeth than its neighbours, it has a better "chance" to live, but it has no better "right." And this is the merciless law of life in all lands and times. The law never alters, never falters, and it applies unfailingly to all.

You will find people who think that man is exempt from Nature's laws; but he is not. We are all part of the world; we were all in the gaseous cloud from which the world was developed; and when our globe has spun round the sun for its "little day" (which is millions and millions of years!) and the heat of the central sun has decreased, then our old earth will tumble back into the sun and revert to its original gaseous form. We are one people, all of us, with one destiny.

Now I want to tell you one fact which will surprise you, I am sure. We know how big this world is, and we know how much it weighs. We know how many motions it has, and we fairly understand their direction and their velocity. We know also that the population of the earth is about one thousand four hundred and eighty millions (1,480,000,000). I think we are safe in assuming that it has been as thickly populated as that for many thous-

ands of years, for the density of population has varied in different areas in all times. We know that the average of human life is about thirty years, so that three generations die in less than a hundred years. That is to say, more than three thousand million people die every century. Can you conceive of such a vast multitude of human being dying every century? When you look around you, with your friends and relations, and the townspeople not very far away, you think of them all as being very important. But when you look further, and ask about the origin of the world, you have to think in vast times and great numbers; and thus you come to think of the death of 3,000,000,000 people every century, and you realize that our village, our town, even our country—yea, our great world itself—signify but little. Then you recall the words of Shakespeare, and his vision of the world, which,-

Like the baseless fabric of this vision,
The cloud-capp'd towers, the gorgeous palaces,
The solemn temples, the great globe itself—
Yea, all which it inherit—shall dissolve,
And, like this insubstantial pageant faded,
Leave not a wrack behind. We are such stuff
As dreams are made on, and our little life is
rounded with a sleep.

Next Lesson: THE CARBONIFEROUS.

HERE AND NOW

Talking about circulation and how to get it, Comrade Sanderson says we might encourage the guessing habit, to help maintain interest in life if nothing else. He says: "I suggest that you start a competition in the 'Family Journal.' Say that you put up a \$10,000-prize, to be won by the man who guesses nearest to the date upon which the revolution takes place; all guesses to be in prior to the revolution; no payment to be made until after the revolution. You could make the conditions that a man be entitled to one guess with each sub. sent in, and don't forget to forewarn them NOT to mark their ballots "Home and Away."

We're on! Make it a million (or two). Might as well be in the swim. What with forecasting the weather, reading horoscopes, following the pennant and the cup, there's no doubt the working-class is taking an interest in something. First thing we know we'll be guessing on what certain editorial opinion will be next week or the week after.

Anyway, here's seventy-odd dollars that there's no guessing about excepting as to how to make it meet a bigger sized bill. The hardest man we've met at the guessing business is the hungry printer. Here follows our financial story from last issue.

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