

produce a chick from an egg that has not in it the male and female cell. There may be some excuse for Mr. Haeckel, but, for the sake of scientific truth, it is a great pity that he should have gone out of his way to attack religion. In so doing he has not only done an injury to science, but he has not done justice to himself as a man, in that he has shown his profound ignorance of the matter he wrote on.

In Vol. I, page 169, speaking of sudden variations in animals he says: "This is equally true of individual and phyletic evolution. This is also the explanation of a process of evolution which, above all others, is usually put under mystical veil as though it were a supernatural wonder, this is the process of fertilization or sexual generation. In all the higher plants and animals this constitutes the first act in which the evolution of the new individual begins. But it must be noted here that this important process is by no means as universally distributed throughout the animal and vegetable world as is commonly supposed; on the contrary, there are very many low organisms which always multiply asexually, the *aemeba*, etc. In these cases there is no form of impregnation, the multiplication of individuals and the preservation of species depend here simply on asexual generation under the form of fission, propagation by buds or by germ-cells; on the other hand, in the case of all higher plant and animal organisms, sexual propagation is the general law and asexual generation never, or but seldom, occurs; among vertebrates in particular, 'virginal generation' (Parthenogenesis) never occurs. This we must explicitly affirm in the face of the celebrated doctrine of the immaculate conception. Immaculate conception has never been observed either in man or any other vertebrate."

I have not read for you this quotation simply for the sake of explaining to you the dogma of the immaculate conception, but to show you that even so clever a naturalist as Mr. Haeckel, when he allows his reason and judgment to be clouded by prejudice and fanaticism, will write the most absurd and ridiculous folly. Mr. Haeckel, or any other man, if he so pleases, has a perfect right to protest against this dogma or any other religious dogma, but then he should know what he is writing about, and not leave it in the power of any school-boy to show he did not. Mr. Haeckel assumed that the dogma meant that the Blessed Virgin Mary had no father, but was procreated

assexually by her mother. Never was there such an absurdity. The dogma simply means that God exempted her from the stain of original sin that she might be an immaculate mother for Christ, who was to obtain, *through* her, His human nature. As I have already said, I have only drawn your attention to this absurd statement of Haeckel's to show you what a dangerous thing is prejudice, and how it will blind otherwise wise and well-meaning men, making them state the most unfounded falsehoods with unblushing effrontery. Such men never can learn from nature her great truths which she so willingly unfolds to those who humbly seek for truth for truth's sake.

Mr. Haeckel avows himself an atheist: if he be such, which I very much doubt, I am sorry for him; it is however his own affair, not mine. I am not afraid that God will hold me responsible for the religion or non-religion of Mr. Haeckel, and, seeing that I claim the right to my own religious opinions, why, I let Mr. Haeckel hold his. But, for the sake of science, I regret that he should consider it necessary to make such a declaration, for by so doing he has put a weapon into the hands of the bigots and fanatics, who try to impress, all who will listen to them, with the false idea that the Science of Evolution leads to infidelity and Atheism.

It is very possible that Mr. Haeckel is so constituted that he cannot believe, nay, cannot assent, to anything above his reason, but I deny he is an atheist in virtue of his science; but in spite of it, according to my idea, the more a man knows of natural science the nearer is he to the Supernatural Creator.

Mr. Haeckel shows us by his beautiful attested plates taken from nature that in the early period of gestation in the different species of placental mammalia, hog, calf, rabbit, man, it is impossible to see the slightest difference between the different embryo, and, as I said in my former paper, the first stage resembles more a small worm than anything else, then a fish, then a fowl, then a quadruped, and finally each embryo assumes its own peculiar shape, so that in the last stage of evolution we can distinguish, but not very distinctly, which is which. We distinguish the embryo of the woman, however, from all others, because that in the latter stage it loses its tail, an appendage which all the others retain even after birth.

I have been told that, after having read my