

convergent selection has often led to great errors being made in systematic classification.

All the phenomena of convergence or resemblance are, therefore, very simply explained from the activity of natural selection, in the same way as in the case of the phenomena of division of labour or separation. The same also applies to another very important series of phenomena, those of progress (*progressus*) or perfecting (*teleosis*.) This great law, like the law of differentiation, had long been empirically established by palæontological experience, before Darwin's Theory of Selection gave us the key to the explanation of its cause. The most distinguished palæontologists have pointed out the law of progress as the most general result of their investigations of fossil organisms. This has been specially done by Brönn, whose investigations on the laws of construction and the laws of the development<sup>19</sup> of organisms, although little heeded, are excellent, and deserve most careful consideration. The general results of the law of differentiation and the law of progress, at which Brönn arrived by a purely mechanical hypothesis, and by exceedingly accurate, laborious, and careful investigations, are brilliant confirmations of the truth of these two great laws which we deduce as necessary inferences from the theory of selection.

The law of progress or of perfecting establishes the exceedingly important fact, on the ground of palæontological experience, that in successive periods of this earth's history, a continual increase in the perfection of organic formations has taken place. Since that inconceivably remote period in which life on our planet began with the spontaneous generation of Monera, organisms of all groups, both collec-