German tongue, have characterised the new ideas then introduced into science, and have brought them home to the intelligence of the educated classes. These two terms have only been inadequately rendered[1] in any other modern language: they are the words "Stoffwechsel" and "Kreislauf des Lebens." The former denotes the continual change of matter connected with maintenance of form in all living things; the latter denotes the continual interchange which exists between the separate members and the different provinces of the living creation, the circulation of living matter and living processes. Liebig looked upon nature on the large and on the small scale as an economy, as a household, and he applied himself to study the conditions of its existence, of its normal and abnormal states. Through Liebig chemistry entered into close alliance with political economy, or, as it is termed abroad, national economics.

17. "Stoffwechsel" and "Kreislauf des Lebens."

We shall see immediately how the progress of science has, in the further course of the century, tended to emphasise this twofold aspect and define it more clearly; how the individual organism, the bearer of life, has been traced to smaller and smaller dimensions and units, and how, correspondingly, life as we see it on the larger scale has more and more revealed itself as consisting in co-operation, in the collective action of societies made up of individuals. We have on the one side the doctrine of the "Autonomy of the Cell," so eloquently proclaimed by Professor Virchow; on the other side the doctrine of

18. "Autonomy of the Cell."

[1] We shall see farther on how the word "Metabolism," with its two subordinate terms "Anabolism" and "Catabolism," is even more expressive than the German term "Stoffwechsel."