CANADA

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The conditions under which the physicist and the physiologist work are so different, the nature of the mechanisms they investigate so radically unlike, that a very dissimilar mental attitude and habit of thought result.

Unless a man has become pretty thoroughly saturated with the conception of the great variability and instability in all parts of living organisms he is not prepared to apply with safety the principles of physics to such organisms. The cases that arise in physiology are so much more complex, so much less susceptible of exact estimation, that solutions mathematically exact must not be expected; and, indeed, from our not knowing or being able in the nature of things to ascertain one or more values required for the solution of certain problems, the final result in some cases must of necessity be only approximative. But even were this not the case, the whole of the physics necessary for such solutions is not yet forthcoming; and the physiologist has often to work out both the physics and the physiology together.

A very long and valuable paper has been recently published by De Jager of Utrecht, in which are embodied the results of his own numerous researches and those of others up to date. He has not relied upon *à priori* reasoning, but has submitted his problems to experimental tests. This renders his results invaluable; for we have come to this ourselves, that we would not be inclined to accept any conclusions of physics in complicated cases in the realm of physiology except when verified by actual experiment, no matter how plain the cases appeared from the physical standpoint. De Jager has investigated the flow of fluids