parts of the frame, and evaporation is constantly tending to exhaust the fluids. The repeated actions of the muscles induce certain changes in these organs, both in their mechanical properties and chemical composition, which impair their powers of contraction, and which, if suffered to continue, would, in no long time, render them incapable of exercising their proper functions; and the same observation applies also to the nerves, and to all the other systems of organs. Provision must accordingly be made for remedying these constant causes of decay by the supply of those peculiar materials which the organs require for recruiting their declining energies.

It is obvious that the development of the organs, and general growth of the body, must imply the continual addition of new particles from foreign sources. Organic increase consists not in the mere expansion of a texture previously condensed, and the filling up of its interstices by inorganic matter; but the new materials that are added must, for this purpose, be incorporated with those which previously existed, and become identified with the living substance. Thus, we often find structures forming in the bodies of animals of a nature totally different from that of the part from which they arise.

In addition to these demands, a store of materials is also wanted for the reparation of occasional injuries, to which, in the course of its long career, the body is unavoidably exposed. Like a ship fitted out for a long voyage, and fortified against the various dangers of tempests, of icebergs, and of shoals, the animal system, when launched into existence, should be provided with a store of such materials as may be wanted for the repair of accidental losses, and should also contain within itself the latent source of those energies, which may be called into action when demanded by the exigencies of the occasion.

Any one of the circumstances above enumerated would of itself be sufficient to establish the necessity of supplies of nourishment for the maintenance of life. But there are