

must occur as in the ingesta. The nullity of the argument derived from the slightness of the increase of the urea excreted during the performance of work is thus made apparent."

*On Non-nitrogenized Food in a Physiological point of View.* By MESSRS. SELLA and STEPHENS. 1867. Pp. 26.

THIS is a defence of some remarks made in a previously published work, entitled, 'Physiology at the Farm,' against a critical review of their book contained in the 'Field,' accusing them of valuing foods for cattle in proportion to the amount of nitrogenous food they contain. We have not had an opportunity of referring to the original work; but to their reply there is certainly nothing to object, and we fully concur in their opinion, that the speedy death of an animal by starvation, if fed exclusively on non-nitrogenized food, is to some extent incompatible with the recent views of Frankland and others, that the combustion of non-nitrogenized aliment within the body is sufficient to produce that energy on which muscular contraction is dependent; and the same view is most forcibly maintained by Professor Donders in the pamphlet we have just noticed.

*On the Function of the Blood in Muscular Work.* By C. W. HEATON, F.C.S., Lecturer on Chemistry to Charing Cross Hospital Medical School. Pamphlet reprinted from the 'Philosophical Magazine' for May, 1867. Pp. 6.

THE above essay is written in support of the view originally propounded by Mayer, that all the oxidation takes place in the blood, and in opposition to that of Liebig and other later writers, to the effect that it takes place in the tissue of the muscles; and evidence is adduced that the quantity of oxygen which can possibly exude through the walls of the vessels, supposing it to be in solution in the liquor sanguinis, and to be applied to the oxidation of fat or muscle, will not account for one sixth of the work done by the muscles. Mr. Heaton is, therefore, of opinion that all, or nearly all, the force of the body is generated in the blood; and that Mayer was perfectly right in saying "that the muscle produces mechanical effect at the expense of the chemical action expended in its capillaries."

*On the Formation of so-called Cells in Animal Bodies.* By EDMUND MONTGOMERY, M.D., late Demonstrator of Anatomy at St. Thomas's Hospital. London, 1867. Pp. 56.

IN this pamphlet Dr. Montgomery has summarised his ob-