MORE HUMAN TAILS

A FEW days ago I received a letter from Dr. E. G. Hastings, of the Department of Agricultural Bacteriology of the University of Wisconsin, in which he called my attention to a paper in the collected works of Robert Koch, the second volume, second part, page 822.

On consulting this paper (a most unexpected place for such a revelation), I found two photographs of human beings with well-developed tails about as long as a human foot, which had been photographed by Koch in India in 1871. One was a lad seventeen years old, and the other a child.

I thought that your readers might be interested in these photographs, as Dr. Hastings referred to my note on this subject, which was published in SCIENCE in the issue of June 11, 1926.

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SCIENTIFIC BOOKS

The Differential Calorimeter, with Special Reference to the Determination of the Human Basal Metabolism. By A. K. NOYONS. Louvain, 1927. 189 pp., 34 illustrations.

DU BOIS'S splendid book on basal metabolism,[1] backed by his unique experimental experience, has brought metabolism and, specifically, clinical calorimetry to the attention of physicists and physiologists, as well as medical men. From Louvain, Belgium, there has just appeared a book which not only supplements the technical portion of Du Bois's book but is all the more remarkable when one thinks of its birthplace, and how under most harassing economical conditions the human calorimeter has been developed to a point heretofore never attained. Recognizing that with man all measurements of the heat production, including the heat of vaporization of water, are best made by the differential principle, Professor A. K. Noyons, of the department of physiology of the University of Louvain, has printed in readable English the first description of an extremely clever device which physiologists have long known was being developed at Louvain. This differential calorimeter is unique in that the author, at once a physician, physiologist and physicist, has combined in it the most scientific and accurate methods applicable to the measurement of the heat given off by a human. The compensation chamber furnishes, for the first time, an exact duplicate of the heat of vaporization of water in that precisely the same amount of water vaporized from the skin and lungs of the human subject is there vaporized, and an electrical current, passed through a suitable resistance, generates precisely that amount of heat given off by radiation, convection and conduction from the subject.

Without governmental or, indeed, institutional subvention these calorimeters have been privately constructed and tested, and already one is being prepared for introduction into a large clinic. The technical details may not be discussed here. Noyons has seemingly forestalled every criticism so far as the physics of heat measurement on a human being is concerned—save for the perplexing question as to the changes in the average body temperature. The complete isolation of the patient in a rather somber chamber may be impracticable for temperamental cases. One can but wish that, in addition to the many text references, the extensive literature survey (which is international to a refreshing degree) necessarily made by the author could have been recorded as a list of titles on direct and indirect calorimetry.

The use of English was, we believe, wise. When one knows, as does the reviewer, that the book was thought out in Dutch, written in French, and then translated into English, one is surprised that so few distinctly foreign (though rarely, if ever, obscure) phrases occur.

As a promise of what this new metabolism center is to give us in the future, the book is most stimulating to all who have anything to do with heat production and basal metabolism, and with the present wave of interest in this subject, in perhaps less than a decade we shall all have basal metabolism measurements included as a part of our annual assessment of physical fitness.

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[1] Du Bois, E. F. "Basal Metabolism in Health and Disease." Philadelphia, 2d ed., 1927.

SPECIAL ARTICLES

PRESSURE PHENOMENA OF THE ELECTRIC WIND[1]

1. *Apparatus.* The spectacular group of experiments which we used to perform once a year seem but rarely to have come to any useful maturity. I can recall only the electronic measurements of Professor Chattock. Having appropriate apparatus at hand, it seemed promising to look at them in detail and in the attached figures I will summarize the main results.

The simple apparatus as originally used (Fig. 4, insert) consisted of the two brass posts P, P', usually 8 cm apart and fixed in the hard (or soft) rubber base B. T supported by P is a small thimble of brass perforated by the slender tube U, which leads to the

[1] Advance note from a Report to the Carnegie Institution, of Washington, D. C.