

THE SENESCENCE OF ORGANS AND ITS INFLUENCE ON PATHOLOGICAL PHENOMENA.

A PAPER by Prof. R. Wiedersheim on the senescence of organs in the phylogenetic history of man and its influence on morbid phenomena has been published in the *Politisch-anthropologischen Revue*, II. Jahrgang, Heft 6 (Thüringische Verlags-Anstalt Eisenach und Leipzig).

In emphasising the fact that in many cases organs, or tissues, which are spoken of as vestigial, and are considered to be functionless, may in reality play an important part in the physiological balance of the organism, the author points out that the same is true not only of those parts which are degenerating, but also of those which, though at present of comparatively little importance in the ordinary sense, are in a state of progressive development, or have undergone a change of function.

Pathologists have long recognised the fact that tissues which have been arrested in development during ontogeny are likely at certain times to give rise to pathological conditions, and Prof. Wiedersheim maintains that one is justified in speaking of the old age and senile degeneration of organs, or tissues, in a phylogenetic sense, just as one uses these terms in the case of individuals. He believes that in many cases there is evidence that certain phylogenetic stages in the development of organs, or tissues, are less resistant than others to pathological changes, just as in the individual the tissues are less able, at certain ages, to resist baneful influences arising within or outside the body. A large number of examples are given to show that organs phylogenetically very old are often prone to various diseases, such as carcinoma, &c.

The question is discussed as to why organs which have reached this form of old age are retained, and the conclusion is arrived at that they have no selection-value, and therefore do not affect the preservation of the species.

Organs, or parts of organs, which are in this sense phylogenetically aged are compared by the author to the aged members of a community, who may roughly be divided into two classes—one containing those who conform to the arrangements made for them by the community and take little or no interest in what is going on, the other containing those aggressive individuals who oppose improvements and progress. Society experiences trouble from the members of this latter class, and similarly those phylogenetically aged structures which we have inherited from our ancestors may, if they retain sufficient vitality, seriously affect the vital equilibrium of our bodies.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

PROF. PAGEL has resigned his chair of naval architecture in the Berlin Technical School, on his appointment to the post of technical director of the German Lloyd.

DR. H. GRASSMAN has been appointed professor of mathematics at Halle, Mr. F. C. M. Störmer professor of pure mathematics in the University of Christiania, and Dr. H. Veillon professor of physics and chemistry at Basle.

A COURSE of ten lectures on enzymes and their actions will be delivered by Dr. W. M. Bayliss, F.R.S., at University College, London, on Wednesdays at 5 p.m., beginning Wednesday, January 13. The lectures are open to all internal students of the university without fee, as well as to qualified medical men, on presentation of their cards.

A MEETING of medical graduates of Oxford engaged in teaching in London was held on Tuesday to consider the vacancy in the regius professorship at Oxford caused by the resignation of Sir John Burdon Sanderson. The chair was taken by Sir William Church, president of the Royal College of Physicians. It has been suggested that the present reader in pathology should be appointed regius professor of medicine, so that the emoluments of the chair of medicine might be made to supplement the income of the reader in pathology. A statement setting forth reasons against this proposal has been sent to all medical graduates of Oxford for signature, and the following resolutions were passed at Tuesday's meeting:—"That in the opinion of

this meeting the regius professor of medicine should be a physician who is representative of medicine in its widest sense." "That it would be detrimental to the best interests of medicine in Oxford if the regius professorship were converted into a professorship of any one branch of medical study."

SCIENCE does not occupy a prominent place in the new educational monthly entitled *School*, the first number of which has just been received from Mr. John Murray, but the contents include much matter which should stimulate interest in education as a whole. In summing up his impressions of American education, obtained during the recent visit of the Mosely Commission, the Rev. T. L. Papillon remarks, "what has struck me most in the little that I have been able to see of American education is first of all the attitude of the whole people towards public education, and their recognition of it as a prime necessity of national life, for which hardly any expenditure can be too great; next its eminent practical and popular character." Lord Avebury contributes some early recollections, including his Eton days, when the whole course of instruction consisted of Latin and Greek, with one lesson a week in geography. "Neither arithmetic, modern languages, science nor drawing were regarded as essential portions of education, and they did not enter into the school course." There are also articles, among others, on the late Mr. Herbert Spencer and on the education of the engineer.

A SUBJECT which deserves careful and sympathetic investigation by the Board of Education was brought before public notice in the *Morning Post* of December 29, 1903, and dealt with in a leading article. As will be within the knowledge of most readers of NATURE, there are at the Royal Colleges of Science of London and Dublin two classes of students, those, namely, who pay fees, and those who hold scholarships, studentships, or exhibitions, and have been selected by the Board of Education by competition or otherwise. Many of these "Government" students hold what are called national science scholarships. Until 1901 these national scholars received during the forty weeks in the academic year an allowance of thirty shillings a week, out of which the great majority of them had to find board, lodging, clothes, books and apparatus—for the national scholars, of whom there are sixty, come almost exclusively from the lower middle classes, and are without any private means. Since 1901, this weekly allowance has been reduced to twenty-five shillings a week. This reduction in value of the national scholarships has, very naturally, given rise to much dissatisfaction, and early last year a petition, drawn up by the Students' Union, was signed by all the national scholars in the Royal College of Science, London, and on the advice of the council of the college was forwarded to the Board of Education. A reply to this petition, signed by Mr. F. G. Ogilvie, was received in due course, and it contains the statement that "in fixing the present rates the Board were of opinion that an allowance of 1l. 5s. per week would be a sufficient supplement to the resources of the students to whom scholarships were awarded to enable them to devote their whole time and energy to the prosecution of their studies during the period over which the courses at the Royal College of Science would extend." The suggestion that national scholars have private resources upon which they can draw is certainly based upon a misapprehension; for only very rarely do such scholars receive any allowance from home or friends, and we believe that all the national scholars at present at the Royal College of Science are without private means. There can be no doubt that for a student to live within a reasonable distance of the college at South Kensington, and with comforts sufficient to enable him to perform his work properly, he must spend more than twenty-five shillings a week. The attempt to work earnestly and for long hours every day, and at the same time to pay his way on the amount of his present allowance, must lead to needless irritation, and in many cases to real hardship and permanent injury to health. The only satisfactory solution of the difficulty which has arisen would seem to be the establishment of suitable halls of residence for all scholarship holders, in which that corporate life which is so important a part of university life may be enjoyed by these young men who are studying science for their own and their country's benefit.