

HEALTH AND HOW TO PRESERVE IT.

(Written for THE CONSERVATIVE by Lawrence Irwell.)

A scientific view of life regards it as being composed of a series of actions, which are now fairly defined in their nature. These actions, known to physiologists as functions, are discharged by special organs; and health may therefore be defined as "the perfect discharge of all functions through which life is maintained"—the harmonious working of the organs constituting the body. Life, being a highly complex series of actions, naturally involves complicated conditions for their due performance. Ill-health means, of course, that the equilibrium existing between the various actions of the body is upset, and this equilibrium is subject, as is all complicated machinery, to many and varied causes of disturbance. Man, in common with the lower animals, is dependent upon his surroundings for the necessities of life, and these surroundings, while ministering to his wants, may, in certain circumstances, become sources of disease. The water we drink is as much a necessity of life as the air we breathe, but it is liable to cause serious disorders when the supply is obtained from improper sources. Again, numerous diseases to which man is subject are traceable to over-indulgence in special articles of diet, or to an insufficient quantity of certain necessary foods. It is not an exaggeration to say that most persons in good circumstances eat too much meat, and do not drink sufficient water.

Heredity.

In addition to the outward sources of health disturbance, there are other and more subtle causes which complicate the problem of health. Each individual inherits from his ancestors a certain physical constitution. This constitution, although liable to modification, nevertheless determines to a great extent the physical life of the person possessing it. Each individual, therefore, must be viewed as drawing his chances of good health, or of its absence, from a double source—from the constitution which he has inherited and from the surroundings which make up the life he lives and pursues.

Aim of Sanitary Science.

It is the aim and object of modern sanitary science to deal as clearly and definitely as possible with the sources both of health and of disease. Hygiene, the science of health, devotes attention to the surroundings amid which our lives are passed; it seeks to provide us with the necessary conditions of life in the most desirable form. Its object is to urge us to breathe pure air, to consume suitable food, to work, but not to worry, to take reasonable recreation, and to husband our resources, so as to prolong

the period of life, and secure a painless death. The important branch of knowledge known as hygiene teaches us that, with an inherited constitution of a healthy kind, we ought to take every means of securing its welfare; and when, upon the other hand, a defective frame has fallen to our lot, health-science tells us how we make the best of it. Even to the individual who has been handicapped in the struggle for existence by physical infirmity and inherited disease, hygiene is found to convey the cheering assurance that it is possible to prolong life and obtain a part at least of the happiness which the possession of health alone can bestow. In illustration of this assertion, I may cite the case of a person born with a tendency to phthisis, popularly known as consumption. Statistics prove beyond doubt that if his life be passed under the guidance of health laws—if he be properly clothed, provided with a suitable diet, compelled to live in a pure atmosphere, and to avoid excess of nervous strain—he may reach the age of thirty-five without the disease to which he is specially liable attacking him, and once past that age, he may reasonably hope to become in due course an old man. Another example, is the case of one who inherits a special susceptibility in the direction of some mental disorder. Mysterious as such tendency is, it can be shown that by proper attention to the education of the child, by curbing the passions, and controlling the emotions, aided by care in the choice of food, as well as in the selection of desirable physical surroundings, prolongation of life may be insured, and so may freedom from one of the most terrible afflictions which attacks the human race.

Hygiene Successful.

The knowledge which we now possess concerning hygiene constitutes a triumph of modern science; it demonstrates that in the war against disease, man finds untold benefit in observing the laws which experience and investigation have deduced for the regulation of his life. It is ignorance or neglect of these laws which sends thousands of men and women to an early grave, destroying, of course, hopes and opportunities which may at one time have contained the promise of high excellence in many departments of human activity. The one great truth, which health reformers are never tired of proclaiming, because they know it is true, is that the majority of the diseases which afflict humanity are, in reality, of a preventable character. Until this truth has been thoroughly accepted, not only by individuals, but also by nations, no real progress in sanitary science can be attained, or even expected. To realize fully the immense power, which the practical application of the indisputable doctrine that most diseases are preventable, places in our hands, we must

know something of the causes of certain disorders, which, though powerful and ubiquitous, are nevertheless within human control. Among these diseases, the most prominent are those popularly known as contagions, or infections—scientifically called zymotic. Modern science has demonstrated the possibility of escape from these terrors by proper attention to the conditions under which they are spread. We hold in our own hands the power both of increasing and decreasing the chances of early death, and nowhere is the power of man over the forces of nature better exemplified than in the lessened mortality which follows even moderate attention to the laws of health. There is an ideal to which the American people ought to aspire; and the first step towards it, is improvement of the health of the present generation. If this object were kept as steadily in view as it is in the cultivation of the domestic animals, the beneficial results would be apparent in our children and in our grandchildren. A slight development for the better in each generation would imply progress, yielding most important results in an indefinite time—results which, if suddenly manifested, would appear miraculous.

Preventable Deaths.

The number of deaths in the United States last year is not yet obtainable, but the total number of recorded deaths in 1890, according to the census of that year, was 875,521. Of this number, at least 100,000 were "unnecessary and preventable," if our existing knowledge of disease and its causes had been properly applied. Moreover, not only could the lives of these persons have been saved, but, in addition, a vast amount of non-fatal sickness could have been avoided by reasonable attention to hygienic laws. These figures of mortality and facts concerning preventable illness are sufficient to arouse the most lethargic of us into activity in the observance of hygienic laws. But, if the nation at large is to participate in the work of health-reform, it is necessary that education in sanitary science should have a place in the training of the young as well as in the practice of adults. While anxious to avoid being tedious, I would urge that if there is one consideration which more than another should be kept in view, it is that every good citizen ought to consider it a duty which he owes to himself and to the community to acquire all possible information concerning the art of living healthy, and, having obtained the knowledge, he ought to put it in practice. It is only through individual effort that anything like national interest in health-science can be fostered. There cannot be any royal road which will place length of days within the easy reach of a nation any more than there can be a smooth pathway towards full and perfect knowledge in any other branch of