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*by*EDWIN WOOTON



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# EDWIN WOOTON

Author of "The Metabolism of Senile Decay."

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## INTRODUCTION

THE subject of life-prolongation has been in all ages one of widely felt interest. The literatures and oral folk-lore of most civilised peoples are rich in mythical legends dealing with miraculous wells, fountains of life, and cleansing fires. is questionable whether bodily immortality, with persistence of environment, would add to human happiness. The question would be negatived by common instinct if the deathlessness connoted what we understand by senility. Desire for unending physical life has been allied to the assumption that it means unending youth.

Evidence of belief in such a possibility is not confined to period, race or region; but it was in mediæval Europe that such teaching held widest sway. Scientific research was almost exclusively devoted to three problems; conversion of base metals into gold, perpetual motion, and the discovery or creation of a vital elixir—a fluid that should confer immortality of body. It is more easy than just to set down such seekers as fools, on the ground that they were pursuing the impossible. And we do know that although they did not attain their ends, they discovered many lesser truths. Modern chemis-

try is the child of alchemy.

#### INTRODUCTION

# Is AN ELIXIR OF LIFE POSSIBLE?

The present-day leading biologists preserve an open mind on this question. Within the past few years they have seen many dreams materialise into commonplace fact. The airplane is one example; the submarine is another; while a third is the voice of the singer, and that of the orator being "tapped" for domestic use. From these, and a score of other facts men have learnt that the "impossibility" of to-day may become the commonplace of to-morrow.

From the scientist's point of view it is quite possible for any person—even the most illiterate, to light on some hitherto unknown fact. He, or she may solve some problem in biology, or aught else that has baffled the best trained, technically learned brains. But while a successful fluke is always within the region of the maybe, it does not come within the narrower horizon of things

likely to happen.

Applying such truths to the present case, it may be said that whoever would find ways of prolonging life should first master the known facts of human physiology, and the known laws operative in death from old age; and that is

iust what the modern scientist does.

Within the past fifty years or so, there have been several quite independent discoveries that bear on this literally—"vital" question. The earliest of these dealt with the influence of the nervous system on organic life. It was proved that the body of man is in itself, so far as organic unity is concerned, a nervous-system, and that all other

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tissues derive their vitality from, and maintain it by means of this system. From this discovery sprang successful researches into the chemistry of the brain and nerves. From it sprang the teaching that in treating disease, whatever its character, one should nourish the nervous Of course, the teaching was "overdone." All new discoveries are exaggerated. Unreasonable expectations are based on them. Although what I may term the "nerve nutrition theory" has these usual faults it has saved thousands of lives, and has made life yet more worth being lived. It is now a recognised truth in medical science that to nourish the nervous system is to go a long way towards both preventing and curing disease.

The second discovery was that old age kills by narrowing, and in some cases blocking the smallest blood-vessels. It was found out that from birth to early adult life all the earthy salts taken in food are used up beneficially, chiefly in bone-making; but that from early adult life onwards, that is from the time of the completion of the bony skeleton, a great part of the saline material is not needed at all, and that a percentage becomes deposited in the walls of the

blood-vessels.

The third discovery is due to Brown-Séquard alone. Putting the matter into a sentence, he found that the body is a chemical laboratory, having glands whose secretions govern the thousand and one activities of physical life, fight against the advent of disease, and are even curative of disease. It is true that the theory

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had been taught some centuries before the Christian era, but it had passed to the limbo of the negligible.

The fourth discovery was concerned with the importance of liver-size relatively to that of the body. For this, the author of the present booklet

may, perhaps, be allowed some credit.

Quite obviously, the converse of the question: How can life be prolonged? is—Why does old age kill? And it is equally obvious to every thinker that these two questions cover the entire domain of human physiology, for they deal with the production of a healthy babe, his growth, maintenance and training; his health and vigour as an adolescent and an adult; and the forces that make for his bodily weakening and death.

The scope of this little work is very limited, but it is hoped that it will be of some assistance to all interested in the subject with which it deals.

#### **BIBLIOGRAPHY**

HORNIBROOK, F. A. "The Culture of the Abdomen." 6s. net.

There is one book that I can confidently commend to the notice of all those who wish to reduce stoutness, or to

remedy habitual constipation.

The work has been amply illustrated, and the illustrations are good in themselves, and helpful to the reader. The letterpress is as plain as English can make it. From beginning to end the advice given is easy to follow, and never once does it clash with facts physiological.

The author has produced such an excellent little work that it should be in every library, and in the hands of all those who are interested in the subject of physical culture.

HORNIBROOK, E. A. "Wholemeal with Practical Recipes." 1s. 6d. net.

Those whose interest is centred in the whole-meal versus white-meal controversy should obtain a little work that deals with this matter exclusively. The authoress, Mrs. E. A. Hornibrook, is absolutely fair in her statements. She shows that the production of faulty whole-meal is the chief reason for some brands of this kind of bread failing to give satisfaction. Many recipes are furnished, and will be found practically useful. One section of the book, dealing with the utility of spices may obviate, in some cases, the taking of less pleasant medicines.

COBB, IVO GEIKIE, M.D. "The Glands of Destiny." 7s. 6d. net. 3

I am not an advocate of the sex-gland treatment, but there is no shutting one's eyes to the fact that endocrinology is the most important development of physiology that the last half-century has produced. Those who wish to study the influence in the system of the various endocrine

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secretions will find a fund of information in this work. A great part of the book deals with facts that have been proved; and some part is speculative; but the author is always frank and honest when advancing opinions, and probabilities. It is an interesting work; the sort of work that asks to be read more than once, and that rewards the reader for his trouble.

SCHMIDT, PETER, M.D. "The Theory and Practice of the Steinach Operation." 7s. 6d. net.

In the foregoing pages I have mentioned the Steinach operation. Those who wish to go more fully into the subject cannot do better than obtain this work. It has an introduction written by Dr. J. Johnson Abraham, and this of itself is worth studying, for it gives succinctly a history of Steinach's procedure.

LANE, Sir WILLIAM ARBUTHNOT, Bart., C.B. "Secrets of Good Health." 3s. 6d. net.

The general reader, unfamiliar with the leading facts of hygiene and dietetics, cannot do better than purchase this book.

The author's science is thoroughly sound; it is free from all fads. He chooses simple language, when that is possible. He takes the reader over all the chief exigencies of daily life, and the advice given is always practical, calculated to attain the end desired, and so expressed that it cannot possibly give offence. Of its kind, it is an ideal work. It reads with the simplicity, and the verity of a Gospel.

All the foregoing books are published by Messrs. William Heinemann (Medical Books), Ltd.

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