
Principles of Sewage Treatment

Dunbar William Phillips

Title: Principles of Sewage Treatment

Author: Dunbar William Phillips

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PRINCIPLES OF SEWAGE TREATMENT.

BY

PROFESSOR DR. DUNBAR, *vi unum Professor*
DIRECTOR OF THE HAMBURG STATE HYGIENIC INSTITUTE.

TRANSLATED, WITH THE AUTHOR'S SANCTION, BY
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With 147 Illustrations.



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AUTHOR'S PREFACE.

DURING the last few years I have been repeatedly asked to write a comprehensive book on the sewage problem. About a year ago, when preparing a lecture on the then position of the subjects of river pollution and sewage treatment, I decided to abandon the scruples which I had previously held against writing such a book. I then thought the task was an easy one, for during the previous ten years or more I had carefully followed all matters connected with the sewage problem. However, I have had to make many inquiries and investigations, and my material has gradually become almost unlimited, so that it would now be easier for me to compile a work of reference than to write a short book on the principles of the subject. I do not consider the time ripe for the publication of a work of reference, because the whole problem of sewage disposal is developing just now at such a rapid rate that opinions which have been held for a very long time are daily giving way in the face of newly-established facts. Under these circumstances, those who have not been able to follow the separate phases of this development become hopelessly lost in attempting to follow the literature on the subject; they do not recognise all the new forms of apparatus which are mentioned and the new names which are used, and thus feel the need of a book dealing with the principles of the subject, a book written during the development itself, and grouping and critically describing the various phases of this development. Such a book cannot pretend to deal fully with all the numerous legal enactments and proposals which have been made with regard to sewage treatment.

Bearing all this in mind, I have repeatedly been forced to omit some facts which are of themselves valuable as supporting various opinions, and others which appeared to require further investigation before being finally accepted. Whilst the book has been passing through the press a considerable number of contributions to the subject have been published. I have tried to include these as far as possible in my material, but a full discussion will appear as a kind of appendix to this book in the pages of the *Gesundheits-Ingenieur*.

My wishes with regard to the form of the book and corrections and alterations during the printing have been most cordially met by the publishers, to whom I must here express my warmest thanks.

The number of authorities and colleagues to whom I am indebted for reports and publications is too large for specific mention here, and I have been obliged to omit full reference to some of the authors whose publications are discussed in the text. I have consulted over a thousand such publications, and hence it will be seen that the bibliography which I have included is incomplete.

The writing of the book has caused me many anxious moments, and I have often felt discouraged. I hope, however, that it is now sufficiently mature to face the world, and to fulfil its mission.

DR. DUNBAR.

HAMBURG,
July 26, 1907.

NOTE OF THE TRANSLATOR.

IN attempting to introduce Prof. Dunbar's book to a wider circle of readers than that for which the German edition is available, I have adhered as closely as possible to the wording, and have in all cases expressed the sense of the original.

The excellent and thorough manner in which Prof. Dunbar has dealt with the subject, and the absence of an exactly similar work in English, have formed additional inducements for undertaking the translation. The book may be read with profit by all interested in the sewage problem.

I am indebted to Dr. H. Maclean Wilson, the Chief Inspector of the West Riding of Yorkshire Rivers Board, for his valuable criticism in reading through the manuscript, and to Prof. Dunbar for kindly reading the proof sheets and making some alterations and additions specially for this translation.

H. T. CALVERT.

WAKEFIELD,
September 1908.