

**SEWAGE DISPOSAL;
FOR THE GUIDANCE OF
SANITARY AUTHORITIES**

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Sewage Disposal; For the Guidance of Sanitary Authorities by Henry Robinson

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BY

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SECOND EDITION.



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PREFACE TO SECOND EDITION.

THE fact of this work having rapidly passed through its first edition indicates that there existed a want for a condensed description of the chief points which govern the question of sewage disposal, such as this book affords. Further data having been collected, I have incorporated it whilst revising the book for a second edition.

Much of the information has been obtained when advising sanitary authorities as to the best means of sewerage their towns and of disposing of the sewage. In the course of the investigations that I have had to make into the several methods of dealing with town refuse, I have had opportunities of collecting data, the condensation of which into a compass convenient for reference, affords a ready means of obtaining guidance on points which are continually arising in sewerage practice.

Some of the contents of this book have appeared, in one form or another, in Papers which I have read before various Societies, or in Articles which I have contributed to the press.

The Official Bluebooks and other published information contain much valuable matter, but some of this has either become obsolete, or to enable it to be utilized it requires to

be detached from that which is less useful, so far as relates to this subject.

There is now exhibited a better agreement than previously existed on the main points that have to be adhered to in dealing with sewage. The extravagant expectations, on the part of the advocates of precipitation processes, that fortunes were to be made out of sewage, if treated by a particular system, have died out, and the equally sanguine hopes of irrigationists, that the application of sewage to land would result in great pecuniary gain, have also been sobered by experience.

The recent data which I am able to give in this book as to the application of sewage to land will enable a safer opinion to be formed than heretofore as to the areas of land that should be employed for sewage disposal, by which probably less difficulty will be experienced by local authorities in being advised as to what land they require, and in obtaining it.

I have to acknowledge my indebtedness to many who have cordially co-operated with me in obtaining reliable data for this book. The assistance thus afforded me I have recognized where possible. The compilation of the Table in the Appendix would have been impossible had I not been aided by the Engineers, Town Clerks, and other officers of the several places referred to.

HENRY ROBINSON.

7, WESTMINSTER CHAMBERS, LONDON, S.W.,
October 1881.

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SEWAGE DISPOSAL.

CHAPTER I.

INTRODUCTION.

In this book the consideration of the disposal of sewage will be confined to that portion of the refuse of the community which is conveyed away by the water-carried system of drainage, and it will not include the methods known as the dry earth, pail, and other systems.

The disposal of sewage involves to so large an extent the health of the community that it deserves the most thoughtful consideration on the part both of individual householders and of town authorities. A better compliance with the well-recognized rules which govern the subject cannot be too strongly insisted on. A glance at the official tables of death-rate shows a serious proportion of deaths from preventable diseases produced by either defective house sanitation or town drainage. Besides the loss of population thus caused, an enormous number are annually enfeebled in mind and body by these diseases, and they become more or less a burthen to the community. It may be truly asserted that real economy is practised by a town which expends its funds liberally in the direction of sanitary improvements.

Although bad drainage and defective house sanitation may not be the only causes of the death-rates in large towns being