

**THE DROITWICH SALT
SPRINGS: THEIR
MEDICINAL ACTION AND
CURATIVE PROPERTIES**

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The Droitwich salt springs: their medicinal action and curative properties by Mr. Bainbrigge

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MR. BAINBRIGGE

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AND



CURATIVE PROPERTIES.

BY

MR. BAINBRIGGE,

FELLOW OF THE ROYAL COLLEGE OF SURGEONS, ENG., 1841; LATE HON. SENIOR
SURGEON TO THE LIVERPOOL NORTHERN HOSPITAL, AND
LATE HON. SURGEON-ACCOCHEUR TO THE LADIES' LYING-IN CHARITY;
LATE LECTURER ON CLINICAL SURGERY, AND ON PHYSIOLOGY, TO THE LIVERPOOL
COLLEGIATE INSTITUTION;
AUTHOR OF "EARLY EDUCATION," "REMARKS ON CHLOROPFORM," "PAPERS
PROPOSING A NEW MODE OF OPERATION IN OVARIOTOMY,"
"REMARKS ON THE DROITWICH SALINE SPRINGS AND BATHS," ETC.

DEIGHTON & SON, WORCESTER.
SIMPKIN, MARSHALL, & CO., LONDON
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THIS SMALL WORK

IS

Dedicated by Permission

TO

THE RIGHT HON. THE EARL OF DUDLEY,

IN

TESTIMONY OF HIS READY RECOGNITION OF THE HIGH MEDICINAL

PROPERTIES OF THE DROITWICH WATERS, AND OF

HIS LORDSHIP'S ANXIETY TO SEE THEM DEVELOPED, AS FAR

AS POSSIBLE, FOR THE RELIEF OF

HUMAN SUFFERING.

Hearing so little of the Mineral Waters of their own country, they naturally abandon the thought of that which both time and distance seem to render unattainable elsewhere.

To bring, however, the Springs of their own land within notice and reach, has been one of the great functions of our vast Railway system, and the invalid can now resort to Droitwich, for example, without risk of either time or money, or, it is hoped, disappointment at the issue.

These Baths were for many years under the control of a non-professional gentleman, who held them partly from a desire to keep them open for the benefit of invalids, and also as a mere commercial speculation. The Baths were never during this long period in a condition, or was there sufficient accommodation, to induce the higher classes to visit them, beyond a few exceptional sufferers. Notwithstanding this, however, some thousands of the middle classes have annually derived the most extraordinary benefits from their use.

These deficiencies are now happily removed, and the Baths are under the control of one who for many years has enjoyed a large and responsible practice, which afforded him numerous opportunities of appreciating the great value of uniting the curative agency of Nature with judicious medical treatment. He was therefore bent on ascertaining from his own personal supervision how far these very powerful *Salt Springs* might be applied as an assistant in medical practice. The result of the action and effects of the waters in a variety of very serious cases which came under his care was immediate and effective, and produced a firm conviction on his mind of the unequalled power of the Droitwich Salt Springs as a curative agent of the highest order.

The historical portion of this work has been necessarily abridged for want of time and space. The general subject, however, which the Author has had in view, is one of grave importance to the public at large. It has occupied much of his time as well as his most earnest thoughts. He looks therefore confidently forward to the cheering prospect of establishing the value of these *Droitwich Salt Springs* among the most powerful means of securing health, as well as for the prevention and cure of disease.

DROITWICH SALT BATHS,

January, 1873.

CHAPTER I.

ADDITIONAL ANALYSES.

IN explanation of the preceding Table of Analyses, we would earnestly request at the outset the reader's attention to the following brief statement, which may serve to exhibit the *unexampled strength of the "Droitwich Waters" in Saline constituents*, without disparaging, or attempting so to do, the peculiar virtues of other Mineral Springs, especially such as are famous for their gaseous products.

Droitwich, in fact, possesses a Saline Spring stronger than any of the same character existing in Europe, and this circumstance can be no longer controverted. Taking the solid constituents contained in 10,000 parts of Sea Water, we find them to be:—

Mediterranean	410 grains.
English Channel	380 "
German Ocean	325 "
Baltic	168 "

The "Dead Sea," the Saline as well as buoyant properties of which approach the nearest to the "*Droitwich Brine*," is calculated to contain only 24·6 per cent. of solid constituents, composed of the Chlorides of Sodium and Magnesium and the Sulphate of Lime. The "*Droitwich Brine*" ranges as high as from 40 to 42 *per cent.*, the latter approaching closely upon *saturation* point; whilst the majority of other British Springs used for the manufacture of Salt average only from 15 to 25 per cent. The following analyses of the waters of the English Channel and the Mediterranean exhibit fewer

constituents or traces than are met with in these "*Brine Waters*":—

	ENGLISH CHANNEL. (Schweitzer.)	MEDITERRANEAN. (Laurens.)
Water	964.74372	959.26
Chloride of Sodium	27.05948	27.22
" of Potassium	0.76552	0.01
" of Magnesium ...	3.66658	6.14
Bromide of Magnesium ...	2.29578	7.02
Sulphate of Magnesium ...	2.29578	0.15
Sulphate of Lime	1.40682	0.20
Carbonate of Lime and } Magnesia	0.03301	..

In 1000.0000 parts... 1000.00 parts.

The latter portions of the above are obviously little more than *traces*, and might be equally omitted with Northcote's *traces*, which, for the sake of conciseness, have been omitted from the present tables. His *traces*, however, are Bromide of Sodium, Sulphate of Potassa, Phosphate of Lime, Phosphate of Sesquioxide of Iron, and Silica. On viewing, therefore, the several analyses of "*Droitwich Brine*," it will be observed that the most abundant in constituents is that of Mr. Northcote, which was given in the *Philosophical Magazine* for January, 1855, and has since been deemed worthy of insertion in a more extended form in the *Pharmaceutical Journal* for February of the same year, from which they are extracted. His and Mr. Taylor's analyses were made with greater care than those of Herespath, Horner, and Daubeny, high as those names stand in the chemical world, insomuch as care was taken by both to trace out any combinations that existed, however small they might be, while in the other examples the *solid constituents* were more especially regarded. This is the reason why the whole of the *traces* of these several combinations which were actually apparent in Northcote's analysis, and also that of Mr. Taylor, are matters of deep interest, when we consider the action of these "*Droitwich Baths*" upon the human frame, their remedial powers, and the utter impossibility of imitating them by artificial means.

CHAPTER II.

Qualities of the Brine Springs, and their Medicinal Action.

THE discovery of one of the extraordinary virtues of the *Droitwich Brine* was accidental. It occurred during the year 1831, when the borough was visited with Cholera. During that afflicting visitation numbers of the inhabitants were carried off, till at length it was tried, as a mere experiment, whether any relief could be afforded the sufferers by placing them in the pans containing the Brine, which was slowly evaporating in the manufacture of salt. I have the authority of the Rector of St. Andrew's Church, Droitwich—who was rector in 1831—for stating that immersion in the salt pans proved so eminently successful, even with persons in the stage of collapse, that all who could be brought were placed in the pans, and it is also affirmed that all so treated recovered. This subsequently led to the formation of a small Bath Company, established for the purpose of further testing the medicinal power of the Brine; and an annually increasing influx of invalids, coming from great distances, afforded the fullest evidence of the value and usefulness of these waters. If the reader will permit himself to bestow attention incidentally upon remarks here briefly introduced upon the causes and symptoms of Asiatic Cholera, he will ascertain at once the reason for the remarkable effects of the Brine in the cases above referred to.

Asiatic Cholera is an epidemic caused by some peculiar *atmospheric poison*, and its symptoms are frequently aggravated by the use of unwholesome water. It is characterized