

Essays on the exhibition of iodine in tubercular consumption, and other diseases of the chest, and in the treatment of scrofulous, cancerous, and cutaneous diseases : also, on indigestion, diet, and sea bathing, with observations on mineral waters and watering places : to which is added, an appendix on the water cure / by Sir Arthur Clarke.

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ESSAYS

4.

ON THE

EXHIBITION OF IODINE IN TUBERCULAR CONSUMPTION,

AND

OTHER DISEASES OF THE CHEST;

AND IN THE

TREATMENT OF SCROFULOUS, CANCEROUS, AND CUTANEOUS DISEASES.

ALSO, ON

INDIGESTION, DIET, AND SEA BATHING;

WITH

OBSERVATIONS ON MINERAL WATERS AND WATERING PLACES.

TO WHICH IS ADDED, AN

APPENDIX ON THE WATER CURE.

BY

SIR ARTHUR CLARKE, M.D.,

FELLOW OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND ; SURGEON TO THE
METROPOLITAN POLICE OF DUBLIN ; AND LATE MEDICAL AND SURGICAL
SUPERINTENDENT OF THE MAISON DE SANTE.

"Humble as the labours may seem, and confined as the abilities of an individual may be, were he only faithfully to relate observations made with care, to compare them with those of his contemporaries, and by those to correct the opinions of his predecessors, he would perform no mean service to his art."

Medical Sketches by Sir James M'Gregor.

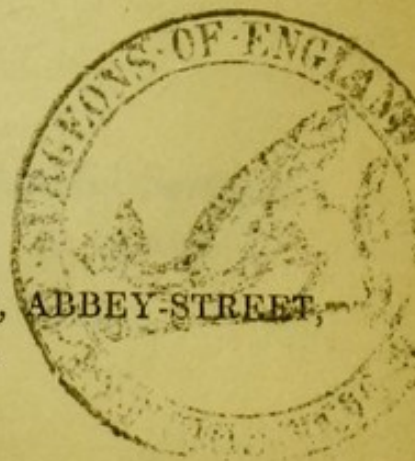
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1845.



DEDICATION.

TO

SIR PHILIP CRAMPTON, BART., M.D. F.R.S. M.R.I.A.

PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF IRELAND ;

ONE OF THE SENATE OF THE UNIVERSITY OF LONDON ;

SURGEON IN ORDINARY TO HER MAJESTY THE QUEEN ;

SURGEON-GENERAL TO THE FORCES IN IRELAND ;

SURGEON TO COUNTY OF DUBLIN INFIRMARY ;

TO STEVENS' HOSPITAL, &c. &c. &c.

MY DEAR SIR,

For permitting me to pay you the humble tribute of this Dedication, and for the very many favours I have received from you, allow me to offer my warm and grateful acknowledgments.

The fame of your professional reputation is too extensive and too brilliant to require, or admit, of any expression of mine in its praise. But I may be permitted to allude to the active benevolence, the unwearied kindness, and the generous consideration which have ever distinguished you in your intercourse with the Public and the Profession, as having secured you the high, but somewhat unusual, tribute of the esteem and regard of both, and as giving you a pre-eminent claim to any compliment in the power of either to bestow.

I have the honor to be,

My dear Sir,

Your obliged and faithful Servant,

A. CLARKE.

Great George's-street, Rutland Square,
Dublin, June, 1845.

PREFACE TO THE PRESENT EDITION.

IN the year 1825 the Author commenced his investigations on the Inhalation of Iodine in Tubercular Consumption and other diseases of the Chest, as will appear in the following pages ; and an experience of upwards of twenty years enables him to state, that he is perfectly convinced a greater number of CHEST COMPLAINTS can be cured by the inhalation of atmospheric air impregnated with Iodine, and in a shorter time, than by any other treatment ; and that, in simple weakness of the lungs, and in Incipient Consumption, he hesitates not to assert, that it is the most agreeable, the most successful, and the most speedy cure, that has yet been discovered. He further states, that the Iodine Inhalation is *not* injurious to the digestive organs, and that no *acute irritation* ever occurs from its judicious application. And further, that under skilful superintendence, it promotes the secretion from the lungs and purulent expectoration, and thereby arrests the developement of the disease, by its specific action on the tubercle.

The strength of the Iodine Gas must, of course, be varied or graduated, according to the individual case and the stage of the complaint ; and in *all* cases its efficacy is so clearly manifested, that to doubt it is impossible. In no single instance has the Author ever observed mischief to arise from its judicious use, or of its

PREFACE TO THE PRESENT EDITION.

not arresting the progress of the disease.* It is a powerful Therapeutic agent, manageable in its application, easily obtained, and certain in its results. So varied are the modes in which Iodine and its compounds can be applied, that there is no remedy with which we are acquainted, that can be made to produce so many diversified effects. In homœopathic doses,† (in solution with iodide of potash), it improves the appetite, promotes digestion, produces a regularity of bowels, increases the urinary and the uterine secretions, and is a powerful auxiliary in the treatment of cancerous, scrofulous, and cutaneous diseases.

As many of the cases stated in this work occurred in the *Maison de Santé*, it may be necessary to inform the reader of the nature of that institution. It was founded in the year 1816, under the patronage of the Lord Lieutenant of Ireland, His Grace the Duke of Leinster, the Lord Cloncurry, Sir Philip Crampton, Mr. Carmichael, and other benevolent personages; and is conducted after the plan of the *Maison de Santé* in Paris. Its object is to afford an "Asylum for the Recovery of Health" to respectable persons, who, when ill, are unable to command the services of the physician or surgeon. There they have comfortable accommodation, medical

* The mode in which the Author applies the Iodine Inhalation to the lungs, will be shown to any *poor person* labouring under Incipient or Confirmed Consumption, on a personal application, without fee or reward.

† *i. e.* From one-twelfth of a grain to one-third. When Homœopathic doses are mentioned, the Author wishes it to be understood, that he is not a disciple of Hahnemanns, and does not believe in the doctrine of infinitesimal physic. "In the Doctor's Organon," says Dr. Dickson, author of the *Fallacies of the Faculty*, "he develops the number of shakes and rubs by which the millioneth part of a grain of Quinine may become one of the most deadly poisons !!! and the ten millioneth part of a grain of Opium become a medicine that will cause an everlasting sleep !!!"

and surgical attendance, the services of skilful nurse-tenders, and every necessary for the cure of their disease for a small weekly payment. In fact, it is *an Hospital, for decayed gentility*; and in justice to the patriotic activity of our distinguished countrywoman, LADY MORGAN, it is but fair to state, that the plan of it was brought by her from France in 1816, and established by the Author under the aforesaid patronage.

The following case of a clergyman, taken verbatim from the books, will show the description of persons for whose relief this institution was founded:—

“The Rev. Mr. ——— is the son and brother of two bankers in London, and a graduate of Oxford. Some years ago he obtained a lucrative living in the Brazils, through the interest of the late Lord Bishop of London. After a long residence there, he was attacked by a *coup de soleil*, which shook his constitution so much, that he was obliged to give up his parish and return to England. His father and brother both died during his absence, leaving him a very ample provision; but the affairs of a Bank having gone wrong, he found himself, on his return to his native country, involved in total ruin. He applied to a friend in power, who offered him a situation in New Provence, one of the Bahama Islands; but having suffered so much in a tropical climate, and the yellow fever then raging in these Islands, he declined the offer. He had now no means of obtaining a livelihood, but by tuitions, for which he was eminently qualified. He went to Edinburgh, where he had the promise of one; but labouring under a loathsome cutaneous disease, (the *Morbus Pedicularis*) and a paralytic organic affection of

the bladder, (the effects of the *coup de soleil*,) he could not be employed. He stated that he applied to Dr. Saunders there, and to that able Anatomist and Surgeon Mr. Lizars, for advice; they were of opinion, that at Mr. ———'s time of life, being upwards of sixty years of age, his case was incurable. In this hopeless and unhappy state, circumstances brought him to Dublin, where he was perfectly unknown, and where, in consequence of the disease under which he laboured, he could obtain no more than one night's lodging in any, even the poorest habitation. He was actually driven from one lodging to another, till he was reduced to the utmost state of debility for the want of rest and food, and often obliged to pass his nights in entries or the watch-house. In this lamentable state he applied to the Surgeon-General, who benevolently, humanely, and kindly assisted him with his advice and his purse. He sent him into the *Maison de Santé*, where in a little more than two months he was so far restored to health and strength, as to be able to undertake a journey to the Country, where he is now comfortably settled as a Tutor in a worthy and respectable family. This gentleman who was thus reduced to the lowest possible ebb of want and misery from bodily disease, possessed the highest literary acquirements, and had been a fellow-commoner at Christ's Church College, Oxford, at the same time with the Marquis Wellesley, late Lord Lieutenant of Ireland, and dined at the same table with his Lordship for nearly three years. The following copy of the Surgeon-General's letter of recommendation will corroborate part of the foregoing statement.

“ Merrión Square, 3rd June, 1827.

“ My dear Sir,—The bearer of this note, the Rev. Mr. ———, suffers from severe indisposition, and is besides in great distress. He applied to me to place him in an hospital; but it appears to me that he would be more suitably accommodated in the *Maison de Santé*. If, therefore, you will receive him into that institution, I shall be answerable for any charge which may be made on his account. I am, &c. &c.

“ PHILIP CRAMPTON.

“ To Sir Arthur Clarke, M.D.,
North Great George’s-street.”

The interesting case of the Baron Von Hoffman, Aid-de-Camp to Field Marshal Blucher at the Battle of Waterloo, sent into the institution by the Marquis of Headford, will be found at p. 30; that of Dr. O’Connor, A.B. & M.D., of the University of Dublin, sent in and supported by the Surgeon-General, may be seen at p. 54; and a most remarkable case of dropsy, at p. 160.

On the Author’s resignation from the medical and surgical superintendence of the above-mentioned Institution, the following transactions took place at a meeting of the Governors, held the 20th of August, 1835,—His Grace the DUKE of LEINSTER in the chair. The following letter to the Governors was read:—

“ My Lords and Gentlemen,

“ After an uninterrupted attendance of twenty years to the duties of medical and surgical superintendent of the *Maison de Santé*, I at length feel myself compelled to resign that office, fearing that the interests of the

institution might suffer from the increasing pressure of my other professional avocations.

“Connected as I have been with the original foundation of the *Maison de Santé*, you will readily conceive, that I do not separate myself from its affairs without much reluctance, and that I shall through the remainder of my life preserve an intense interest for its welfare.

“I cannot, my Lords and Gentlemen, take my respectful leave of the Governors, without earnestly expressing my deep and lasting sense of the efficient support the institution has received from their co-operation as well as the uniform kindness and confidence with which they have regarded my professional exertions in its behalf. With these feelings strong in my mind,

“I have the honor to subscribe myself,

“My Lords and Gentlemen,

“Your obedient Servant,

“A. CLARKE.

“Great George’s-street, Rutland Square,

20th August, 1835.”

“Moved by Thomas Bligh St. George, Esq., and seconded by Francis Carleton, Esq.—

“Resolved, that in accepting the resignation of Sir Arthur Clarke, we cannot refrain from expressing our approbation of the unremitting attention paid by him to the patients in this institution, during the above mentioned long period; and it is but common justice in us to state, that owing to his investigations into the causes and treatment of scrofulous, cancerous, and cutaneous diseases in the *Maison de Santé*, the public and the profession are indebted to him for the discovery of a

successful mode of administering one of the most powerful agents in the cure of these complaints.

“ Moved by Edward Litton, Esq., M.P. and King’s Counsel, and seconded by the Hon. Major Sir Francis Stanhope,—

“ Resolved, That Hans Irvine, Esq., A.M., M.B., and Fellow of the Royal College of Surgeons, in Ireland, be appointed Medical and Surgical Superintendent, in the room of Sir Arthur Clarke, resigned.

“ Moved by the Rev. Charles Strong, A.M., Rector of St. Audeons, and seconded by Wm. Peter Lunell, Esq., a Director of the Bank of Ireland.

“ Resolved, That Wm. O’Brien Adams, Esq., A.B., M.D., and Fellow of the King and Queen’s College of Physicians, be appointed Accoucheur to the Institution.

“ LEINSTER, *Chairman*,

“ THOS. O’FERRALL, *Registrar*.”

Richard Carmichael, Esq., M.R.I.A., is still the consulting Surgeon to the *Maison de Santé*, and has been from its foundation, one of its principal promoters. He gives his able and valuable assistance to such of its patients as require consultations, without fee or reward. A Dispensary is attached to the Asylum, which relieves, on an average, four thousand out-patients annually.

The Author having been at the head of a Scientific Bathing Institution for many years, it may be expected that he should state his opinion on Hydropathy, now engrossing so much of the public attention. His observations on that branch of the healing art, will be found in the Appendix to this Edition.

PREFACE TO THE FORMER EDITIONS.

THE Lecture on the Inhalation of Iodine in Tubercular Consumption and other diseases of the Chest, is published with a view to afford some popular information on a prevailing and destructive malady, and to excite inquiry into the *proofs* advanced of the *cures* and mitigations recorded in the following pages, of a disease fatal in its consequences, and extensive in its ravages; a disease which is hourly removing from our homes their brightest ornaments, and their best-beloved inhabitants; a disease which spares no sex, no age, and no condition; lastly, a disease to which nearly *sixty thousand* persons in Great Britain alone, annually fall victims, and are led to an early and untimely grave.* These melancholy facts

* By the Government Returns, of the births, deaths, &c., in England, the number of deaths from Consumption alone, in 1841, are set down as 59,592, in that country.

Much valuable information is now afforded to the Profession by the accurate Statistic tables annually published by Government, on the state of the population in England, including an analysis of the *causes* of the entire number of deaths. Such information was most desirable, but not attainable respecting Ireland, until MR. WILDE, of this city, already distinguished by his literary and professional labours, being attached to the "Irish Census Commission," of 1841; by the exercise of his great abilities, joined to the most patient and assiduous labour, deduced from the chaotic mass of returns for all Ireland, Medical Statistic Tables, and a Report on the causes of deaths, that reflect the highest credit on his literary and scientific character. The following is an extract from page 28, of his Appendix to the Report of the Irish Census Commission for 1841: "Consumption is by far the most fatal affection to which the inhabitants of this country are subject, exceeding the returns of deaths from fevers by 23,518, during the last ten years; the deaths from Consumption in Ireland in that period, as extracted from the Returns, are set down as 135,590, to which, as from causes stated by the Commissioners

must lend to all disquisitions on the subject, a deep interest, and create an anxiety when a new remedy is announced, by means of which some portion of the fatality may be averted.

After the many disappointments which medical men have experienced in their endeavours to cure Tubercular Consumption, it may look like temerity to speak too decidedly of the powers of the Iodine Inhalation ; sufficient encouragement, however, has been afforded by the trials hitherto made, to warrant a confident appeal to the Profession, on behalf of a remedy, which at least appears to possess the singular advantage of favouring the *absorption* of the Tubercle.

The cases from which the following observations are deduced, would fill a volume ; but the object of the Author is not to “make a Book,” nor to detail his practice, but merely to state a few of the more prominent facts from which conclusions may be drawn favourable to the employment of this drug. They have been observed with attention, and are here reported with fidelity.

The few observations on Asthma, and on the effects of Iodine applied to the surface of the body in other diseases,

in their Report, the whole number of deaths are stated *short by one-fourth*. We must therefore add one-fourth, which is 33,897, giving for ten years 167,487, average per year 16,948 ; but supposing the number to be 20,000, it would still appear the deaths from Consumption in Ireland, are much less, in proportion to the population, than in England, a result mainly attributable to the greater mildness of our climate ; and there can be little doubt, but that early attention to the premonitory symptoms, and judicious treatment, would greatly reduce the mortality from this insidious disease ; it is also more than probable, that patients in the early stages of chest complaints, resident in any but the most southern parts of England, would be greatly benefited by a removal for the winter months, to a well chosen locality in Ireland, such as Mallow, the Cove of Cork, &c.

are made to show the further power of that agent as a curative remedy.

The Author having devoted almost the whole of his professional life to the investigation of the causes and treatment of cancerous, scrofulous, and cutaneous diseases, and having for a long period been at the head of a Scientific Bathing Institution, where not less than one thousand cases have annually presented themselves to him, it cannot be questioned but that he has had ample opportunities of observing every variety and shade of these complaints, in their most distressing and aggravated forms; and the advantages he has had from his peculiar position, enable him to speak with authority on these points.

In a country like this where Sea Bathing is so indiscriminately resorted to, and where it is generally considered as an amusement or recreation, and where the parties scarcely ever seek advice, or have recourse to any preparation but what consists in stripping, it must be surely a matter of importance, to lay before the public a view of the consequences likely to arise from such unguarded and inconsiderate practice. After pointing out these consequences, it has been the Author's endeavour to lay down a code of instructions deduced from principles and experience, which he hopes may prove useful to those who have a just regard for their own health, and for that of others committed to their care; and in order that the female reader may be induced to gain information on a subject in which the disorders peculiar to her sex, and to children, are so peculiarly noticed, he has endeavoured to make the language as free from technical

and scientific terms as the nature of the work would admit.

So much has been written on Indigestion and Diet, on Mineral Waters, and Watering Places, that the Author feels as if some apology were necessary for publishing his observations on these points ; but as they are the result of long personal experience, he trusts they will be received in good part. The opinions of the following distinguished writers and practitioners on the various subjects of these Essays, have been examined, and are introduced in support of his own observations, viz :—

Mr. Abernethy.	Sir W. Farquhar.	Sir James M'Gregor.
Dr. Baillie.	Sir R. Floyer.	Sir Henry Marsh.
Dr. Barras.	Dr. Forbes.	Dr. Mead.
Dr. Barron.	Galen.	Dr. Mills.
Dr. Baynard.	Mons. Gaseneve.	Dr. Morton.
Mons. Baudalocque.	Dr. Gilchrist.	Sir James Murray.
Dr. Beddoes.	Dr. Gregory.	Dr. Paris.
Dr. Billing.	Dr. Gully.	Dr. Pearson.
Boerrhaave.	Sir Henry Halford.	Dr. W. Philip.
Dr. Brillonet.	Hippocrates.	Dr. Portal.
Dr. Broussais.	Dr. James Johnson.	Dr. Reid.
Dr. Cadogan.	Dr. Edward Johnson.	Mr. Richards.
Sir Anthony Carlisle.	Mr. John Hunter.	Dr. Rush.
Mr. Carmichael.	Dr. William Hunter.	Dr. Salvadori.
Dr. Cheyne.	Dr. Huxham.	Dr. Saunders.
Sir James Clark.	Dr. Keill.	Sir C. Scudamore.
Sir Astley Cooper.	Dr. Knight.	Dr. Short.
Dr. Coindet.	Baron Larrey.	Dr. Stohill.
Sir Philip Crampton.	Dr. Laennec.	Dr. Stokes.
Dr. Currie.	Professor Liebeg.	Sydenham.
Dr. Curry.	Dr. Leiberkin.	Dr. Weatherread.
Professor Currier.	Locke.	Dr. Wilson.
Dr. Darwin.	Mons. Lewis.	Mr. Wilde.
Dr. Desault.	Dr. Lucas.	Dr. Willan.
Dr. Dickson.	Mons. Lugol.	Dr. Willis.
Professor Donovan.	Dr. Macartney.	Dr. Young.

PART FIRST.

ON THE EXHIBITION OF IODINE IN
TUBERCULAR CONSUMPTION,
AND OTHER DISEASES OF THE CHEST ;
AND ON THE
IODINE AND OTHER GASEOUS BATHS,
IN THE TREATMENT OF SCROFULOUS, CANCEROUS, AND
CUTANEOUS COMPLAINTS.

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ASTHMA: Its prevention and Treatment—Case of Mr. Buggie.

DISEASES OF THE SKIN: Beneficial effects of Iodine in the cure of Scrofulous Eruptions—Noli me Tangere—Cancer—Elephantiasis—Prurigo Formicans—Prurigo Senilis—Scrofula of the Glands and Joints—Case of Scaly Eruption—Case of Mr. Barnes—Table, showing the Proportion of Iodine for Fluid and Vapour Baths, for Inhalation and Lotion.

PART I.

ON THE EXHIBITION OF IODINE

IN TUBERCULAR CONSUMPTION, &c., &c., &c.

THE long list of diseases included under the name of *Consumption*, were for the most part known to the ancients. Hippocrates has detailed the history of some of the species with great accuracy, and painted their dreadful features with boldness and fidelity.—But it is one thing to describe and another to understand or remove a disease; accordingly, we have even yet obtained but little satisfactory information to guide us in the prevention and cure of this formidable and too fatal malady, and *Consumption remains still the opprobrium of our science*. It is true that *post-mortem* examinations and an improved Physiology have made us better acquainted with the parts affected, in their morbid state, and in some measure have directed the employment of remedies far more powerful and efficacious than those known to our predecessors; still, however, the disease is involved in doubt and obscurity.

The first thing that strikes us on proceeding to an inquiry into the nature of Consumption is, that the term itself (from *Consumo*, I waste away), designates but a single symptom; and as many other diseases occasion a wasting of the body, in adopting it as a generic name, we are likely to include in it many opposite and incongruous diseases. The following opinions on the nature and cure of Consumption must convince us of this fact, and may serve as a specimen of the information to be gathered from books on this subject. One writer* attributes the frequency of Consumption to the introduction of Peruvian bark; another† considers the bark an effectual cure. A third‡ ascribes the frequency of the disease to the use of mercury; a fourth§ asserts it is only curable by this mineral. A fifth|| says that Consumption is an inflammatory disease, and should be treated by bleeding, purging, cooling medicines, and starvation; whilst a sixth¶ says it is a disease of debility, and should be treated by tonics, stimulating remedies, and a generous diet. Galen recommends vinegar as the best preventive of Consumption. Desault and others assert that Consumption is often brought on by a common practice with young people of taking vinegar daily to prevent obesity. Dr. Beddoes recommended Foxglove as a specific in Consumption; Dr. Parr found Foxglove more injurious in his practice than beneficial. Dr. Darwin invented a

* Stohill. † Morton. ‡ Reid. § Brillonet. || Rush. ¶ Salvadori.

dusting-box for the application of powders to the surface of the Lungs, for the cure of this disease ; and Drs. Fordyce, Johnston, and others, attribute Consumption in hair-dressers, stone-cutters, tailors, and knife-grinders, to the *dust* received into their lungs during inspiration. Laennec examined the lungs of a great number of persons who had passed their lives in workshops, in which the atmosphere was constantly charged with dust of various kinds, but never discovered any disease whatever in the chest. Many other instances of the discordant opinions of medical authors, and of the imperfection of our science, might be adduced were it necessary.

Dr. Wilson Phillip notices one variety of Pulmonic disease arising from indigestion, to which he has given the name of *Dyspeptic Consumption*. Drs. Curry, Mills, and others, describe an *Hepatic Consumption* as symptomatic of diseased liver. A pulmonic complaint, for which sailors have often been invalided, has been called *Scorbutic Consumption*. That which attacks scrofulous constitutions is called *Tubercular Consumption* ; and this last species, which is the subject of my present Essay, has been denominated by Dr. Mills, *Lymphatic Phthisis*, on the ground of its being a disease of the lymphatic vessels and glands of the lungs. Dr. Portal, a Professor of Anatomy in Paris, is of the same opinion ; while Dr. Baillie, our late celebrated anatomist, says that tubercles are formed in the cellular structure which connects the air-cells of the Lungs. Tubercular Consumption,

when ushered in by fever, and runs its course with rapidity, is called in this country Acute Phthisis, or "Galloping Consumption."

In order to guard against the causes of this formidable disease, and to be able to discover appropriate remedies for its mitigation and cure, we should have a correct view of the respiratory process; and to understand that process, an acquaintance with the organs of respiration is an essential preliminary.

For this purpose, I shall briefly state the structure of the Lungs in health, the morbid alterations wrought in them by disease, the result of these alterations as evinced by the symptoms, the causes which predispose or lead thereto, and conclude, by endeavouring to deduce from these facts, the outline of a rational mode of treatment, and consider how far alleviation or cure may be expected from the plan of treatment proposed.

STRUCTURE OF THE LUNGS.

The Chest is divided into two parts by a membranous partition, stretched between the breast bone and the back bone, or from front to rere. On one side of this partition is placed the right Lung, divided into three lobes; on the other side, the left Lung, divided into two only, the place of the third being, as it were, occupied by the heart, which lies in this side of the chest.

To the lobes of the Lungs, the air penetrates through the *Trachea*, or Windpipe, a round tube which may be easily felt running down the front

of the neck, and which is constantly kept open by cartilaginous rings inserted in its sides for that purpose. Arrived at the bottom of the neck, the windpipe bifurcates or divides like a fork, into two principal branches, a right and a left, and these again subdivide, the right into three, the left into two, corresponding with the number of lobes which they severally supply. These branches are called *Bronchiæ*, and, passing into the lobes, they continue further to divide and ramify, till at length their branches, having obtained an extreme degree of minuteness, finally terminate each in a little round vesicle or *cul de sac*, formed merely of the fine membrane of the air tubes, and so thin, that the air without difficulty acts through it on the blood, which is continually forced from the right side of the heart, and made to flow along the sides of these vesicles.

The blood vessels of the Lungs consist of two sets—the pulmonary and the bronchial. The pulmonary artery comes from the right ventricle of the heart, and after entering the Lungs, divides into very small branches, which, forming a net of vessels on the internal surface of the air-cells, again unite, and form veins. These veins, uniting together, form, in general, four trunks, which enter the heart at the left auricle. The blood is perpetually passing through these vessels, and undergoing a change which I shall presently notice.

The bronchial artery spreads itself through the Lungs, yet it is destined for their nourishment alone. In addition to the pulmonary and bron-

chial vessels, the air vessels and cells—nerves, lymphatic vessels, and glands, enter into the composition of the Lungs, the whole adhering together like a sponge, by means of an intermediate elastic substance, called the Cellular Membrane.

The air-cells are generally congregated in little groups or clusters, each springing as it were by a pedicle from the side or end of a minute ramification, so that if all the vesicles of a lobe were injected with white wax from the common bronchial tube which supplies them, they would, on a section being made parallel with that tube, present an appearance very much resembling that of a head of cauliflower.

Attempts at calculating the number of these vesicles, or terminating cells, were made by some Physiologists of the last century, and Keill, distinguished for his mathematical attainments, computed them at 1,744,000,000 in each Lung; while Leiberkin, a German anatomist, probably with equal accuracy, represents their surface as equal to 1,500 square feet; but what is of much more practical importance to know, is the quantity of atmospheric air the Lungs are capable of inhaling at each inspiration, and the quantity necessary for the preservation of health and life.

A healthy middle-sized man, with a well formed chest and strong Lungs, will be able to inhale eight pints of atmospheric air (231 cubic inches); but though the Lungs be capable of inhaling so large a quantity at one inspiration, they seldom take in more at a time than half that quantity.

A man in the course of a minute will inspire 15 times, consequently every minute he will inhale 60 pints: every hour 3,600, and in 24 hours 86,400 pints; Thus he will require every day as much atmospheric air for respiration as would nearly fill a balloon capable of containing 172 hogsheads, or 10,800 gallons of air. This is most accurately proved by means of an instrument called a Pulmometer. The Pulmometer was invented some years ago by the late Dr. Kentish, of Bristol. I have in my possession one made under his directions, and by its application, can at any time ascertain whether the Lungs are gaining or losing ground, during the progress of our medical treatment.

From the earliest period of philosophical inquiry, the nature and properties of the air we breathe have been subjects of speculative observation and scientific research; and the changes produced in the atmosphere which surrounds us, and in the blood which circulates through the Lungs by the process of respiration, are now pretty clearly understood.

The blood, after its circulation through the body, becomes of a dark purple or blackish hue, which in its passage through the Lungs changes to a bright vermilion red. Whether this change be attributable to the absorption of *Oxygen* (the pure or vital part of the atmosphere) during respiration, or to the discharge of *Carbon*, (which occasions its dark colour,) we shall not stop here to inquire; but it is satisfactorily proved, that the difference of colour is owing to the exposure of the blood to

the atmospheric air while in the Lungs during inspiration, and that this change is continually in operation, and essentially necessary for the performance of the functions of the heart and brain. It appears, therefore, that we are momentarily depending for life on a portion of the atmosphere which surrounds us being taken into the blood from the Lungs, and carried from thence to every part of the body.* Numerous facts and experiments have shown, that if the purple venous blood by any means finds a passage into the arterial side of the circulation, it becomes a deadly poison, paralysing every organ to which it gains admission. Accordingly, anatomy demonstrates that the Lungs are not nourished by the dark blood which circulates through the pulmonary vessels, but by the bronchial arteries which I have already noticed.

The air-cells have no direct communication with each other, but all open into the common tubes, so that any obstruction in one of their tubes would necessarily exclude the air from a great part of the Lungs at once, consequently so large a quantity of air cannot be inhaled at each inspiration, as I have just stated.

Into the cellular substance of the Lungs, air cannot enter in a natural or sound state; but if the air-cell be ruptured by straining, or by violent exertion, or by a lacerating wound, air then finds its way into this substance, and accumulating there, presses on the neighbouring parts of the Lung so

* Hippocrates observed, that the air forms a portion of the nourishment of the body, and is the pabulum of fire.

as to close up its vesicles and ramifications, and thus render it incapable of bearing its share in the respiratory process. This is sometimes produced in man by severe exercise, requiring him to hold his breath, while the muscles of the trunk are in powerful action: or by playing a wind instrument, such as the trumpet, for which a quantity of air must be retained in the chest; it also occurs in other animals, such as the horse, when urged beyond its powers; the animal is then said to be "run off his wind," and, with some propriety, termed "broken winded."

The membrane which lines the windpipe and bronchial tubes in their minutest ramifications, and ends by forming the air-cells, is called the *Mucus Membrane*, and is endowed in all its extent with the power of *secreting** from the blood certain materials which form a thick matter well known under the name of *Mucus*. It has thus the power of moistening itself, and in all natural states, just a sufficient quantity is secreted for this purpose, and also to make up for what is lost by evaporation, a certain portion of it being carried off at each exhalation, and forming part of the moisture which, as every one knows, accompanies the breath on its return from the Lungs. But suppose some irritating matter has affected this mucus membrane, such as the inhalation of an acrid vapour, or a sudden change of the temperature of the air we breathe, the mucus membrane

* That is, separating.

then becomes inflamed, a greater quantity of blood is supplied it, consequently more mucus is secreted than is necessary, or more than can be removed by the evaporatory process: it therefore collects, and as the watery parts are the most ready to pass off, condenses into pellits or shaped masses in the bronchial tubes, in which it has been formed. A partial obstruction is thus offered to the passage of the air into the air-cells supplied from this tube: notice of this inconvenience is at once given by the nerves which run to the part: and we endeavour by a *cough*, that is, by a forcible and sudden contraction of the chest, to expel the air from the cells and tubes behind the obstruction, and thus get rid of the offending matter. Now this is a plain and simple account of that very common affection called “a cough” or “a cold,” and shows the reason why we cough.

In the mean time, we have advanced a good way towards explaining what is Consumption; for the materials of mucus exist in healthy blood, and are separated during health; but in consequence of certain causes, which I shall speak of more fully hereafter, (the principal of which perhaps are bad and unnutritious diet, cold and damp, and in general whatever tends to debility,)—morbid changes take place in the blood, and it is found to contain new substances, the germ of many a disease. As the secreting surfaces remove certain natural products from healthy blood, so will they remove morbid products from vitiated blood; and the air tubes and air-cells which in health secrete mucus,

a product not only harmless, but absolutely necessary and beneficial, will in disease secrete a new matter termed *tubercular*, which by degrees collecting in the Lungs, renders them more or less impervious to air; excites irritation, inflammation, and that general constitutional disturbance termed *Hectic Fever*; forming moreover masses of greater or less size, softening and destroying the surrounding substance of the Lungs; eating through the sides of the blood vessels, the contents of which they discharge; produce spitting of blood, bursting into the bronchial tubes, and leaving large open ulcerated cavities, and finally wearing out the patient by a constant succession of attacks, constitute the fatal malady of which I am now speaking—the Tubercular Phthisis or true Consumption.

The tubercular matter is not always confined to the air passages; it occurs with equal frequency in the *Parenchima*, or substance of the Lungs, and often in the *Pleura*, or membrane which covers them. In both these cases it is clear, that though the Lung is irritated, there is no power by coughing to force up the offending matter, and this occasions the short, dry, teasing cough so common at the commencement of Consumption.

In the different periods of life, the blood is carried with a preponderating impetus to different organs; and in almost every individual, this fluid is morbidly determined to some particular part, which it thus renders more habitually prone to disease. The Lungs are the seat of this especial determination of the blood from the epoch of puberty till

that of complete maturity. Hence, this is the time of life in which all pulmonary complaints are most violent and dangerous : and when these organs are constitutionally the seats of sanguine congestion, it rarely happens that the party escapes during early life from spitting of blood, inflammatory coughs, tubercles in the Lungs, or some other pulmonary attack. Such individuals should be particularly careful to avoid the occasional causes of disease.

Diseases of the chest are principally winter and spring complaints, and occur chiefly in temperate and cold climates ; there is, however, no part of the habitable globe where they are not met with. The British Isles, from the peculiarity of their situation, are subject to greater vicissitudes of heat and cold, of moisture and dryness, than almost any other part of the world. The winds blowing from the Continent are dry, and except towards the end of summer, generally cold ; those from the sea are moist and warm. The exposure to the cold on the one hand, and to moisture on the other, frequently produces affections of the chest, which are neglected or repeated till they prove fatal. Of the occasional causes of pulmonic complaints, *cold*, conjoined with moisture, are by far the most prevalent.

I have already observed, that the mucus membrane of the Lungs is liable to inflammation in various degrees of severity, from a slight cold or catarrh, to a violent peripneumony. A common cold, catarrh, or *influenza*, as it is sometimes

called, commences generally with a dryness of the mucus membrane of the nose, which is not always perceived ; this is followed by a thin, acrid, mucus discharge, which becomes gradually more copious and thick. The same process is observable in the Trachea ; at first a dry cough occurs, which gradually becomes attended by expectoration, and puts on appearances similar to those I have just described. If care, however, be taken, and exposure to cold avoided, the complaint will generally go off in three or four days, without running this course. When it is neglected or aggravated by repeated exposure to cold, it extends to the Lungs ; and inflammation of that organ, or its covering (the Pleura) generally follows. In this way the foundation of Consumption is sometimes said to be laid.

It is a fact well known to Physicians, that the Pleura is acutely sensible when invaded by inflammation ; and that the Parenchyma or substance of the Lungs, is not so. In the former, the pain is *acute*, and excessive from its nervous structure ; in the latter, which is the actual seat of Tubercular Consumption, the pain is so slight and *obtuse*, as to induce little or no excitement or immediate inconvenience. The former runs its course with rapidity ; the latter is slow in its progress, and, from its deceptive character, more destructive in its consequences.

There are other symptoms by which the approach to Consumption may be detected, and in some cases in time sufficient to arrest its progress.

These are an appearance of delicacy in the expression of countenance and in the frame of body—a slight cough, or rather *hem*, which is seldom noticed; the pulse is generally above the natural standard, and frequently a palpitation of the heart and a hurried breathing, occasioned by light exertions. The face is generally pale or sallow, but easily flushed; a sense of weight frequently felt in the head, with momentary fits of absence and thoughtlessness; feebleness in walking; and the usual exercises are followed by lassitude and languor, while a slow but gradual emaciation succeeds to these symptoms. Such are the *warning symptoms of the first stage*. As the disease advances, the nights become restless, the sleep not unfrequently broken by a cough, and perspiration occurs, which at first is confined to the head and chest;—disinclination for food; exhaustion from the slightest exercise; a feverishness every evening, and a faint hectic flush. Sometimes the patient describes a sensation of a constant void within, or, as if there was something wanting, or an unnatural hollowness; a dull pain in the left side, and frequently an inclination to spit; the saliva being sometimes streaked with blood, may be expected at this stage of the disease; the skin sympathising with the Lungs, falls into an unhealthy condition, becoming either harsh or dry, or alternately moist, clammy, and relaxed. Its colour, too, is often changed to a sallow, and in many instances to a dirty yellowish hue; and, except on the cheeks, there is always a deficiency of red vessels.

In some hereditary cases, particularly in females of a fair and delicate complexion, the skin assumes a semi-transparent appearance resembling wax-work, and the veins may be seen distinctly through it. The *animal heat* of the extremities and on the surface of the body will generally be found below the healthy standard, though a thermometer put under the tongue will sometimes rise to a hundred and nine.

Cases sometimes occur in delicate young females where the disease steals on so imperceptibly, or is indicated by such faint signs, that the patient is almost beyond hope before the friends are aware of the danger. Mon. Louis (of the Hospital of La Charité) calls these cases "Latent Phthisis." *

It is not in general till the cough, difficulty of respiration, and spitting of blood take place, that the friends become alarmed; such symptoms are in general indications that tubercular disease has been already established, and produced *vomicæ*.†

Pulmonic complaints are sometimes brought on by intemperance and violent exercise, and often arise from external injuries, as gun-shot and sword wounds in the Lungs, fractured ribs and bruises, and mal-conformation of the chest; the latter, by impeding respiration, causes a *congestion* of the blood in the Lungs, and a predisposition to pulmonic inflammation.

Dr. Cheyne has often seen Phthisis usher itself

* See his excellent treatise on Phthisis.

† Tubercles in a state of suppuration are called *vomicæ* in the Lungs.

in without any unequivocal symptoms of pulmonary affection, but apparently as “a fever of an inflammatory kind, with quick pulse, hot skin, flushed countenance, white tongue, high coloured urine, &c.” Quere—might not this fever be the exciting *cause* of the subsequent Phthisis, particularly in scrofulous habits, or where hereditary predisposition to pulmonic disease existed? *

A person who has once laboured under inflammation of the Lungs, is liable to a recurrence of the disease whenever he exposes himself to the occasional causes. I am attending a gentleman at present who had twenty-six different attacks of this complaint. I have known many persons who suffer during the greater part of their lives from an annual inflammatory affection of the chest, and it frequently happens that the Lungs become so enfeebled from repeated attacks, that there is not force or energy sufficient in the vascular system to keep up the external circulation. The Lungs under such circumstances, become loaded with blood, and the patient liable to suffocation or pulmonary apoplexy upon the slightest exertion.

The circulation of the blood through the Lungs is often impeded from various other causes. I have found some persons incapable of inhaling more than one pint of atmospheric air at each inspiration, consequently the dilatation of the chest not being sufficient to allow the blood freely

* The rapidly fatal cases, to which the term “Galloping Consumption” is applied, are generally preceded by febrile symptoms: to such cases Sir James Clark applies the term “Febrile Phthisis.”

to circulate through the pulmonary system, the Lungs become engorged, congestion takes place, which ends in inflammation, hæmorrhage, or organic disease.

Inflammation of the Lungs sometimes ends in what is called *Hepaticization*—that is, a disorganization of the substance of the Lungs, which becomes a solid mass like the liver, impervious to atmospheric air, and of course no longer fit for the purpose of respiration.

Inflammation of the Lungs sometimes occasions Hydrocephalus. Dr. Mills mentions a case where the violence of the pulmonary symptoms was so great, that the symptoms of Water in the Brain were overlooked by the physicians in consultation, and after death there was neither abscess nor tubercle to be found, nor lesion of structure of any part of the substance of the Lungs.

Tubercles exist in various parts of the body, but are seldom or never found in any other organ, without existing in the Lungs at the same time. It is agreed on by all modern Pathologists, that tubercles in the Lungs are not produced by any process analogous to inflammation; neither is their "*ramollement*," or softening, precisely similar to suppuration; the expectorated discharge being totally different from purulent matter. Pathologists seem totally at a loss to account for their origin. Mr. Carmichael, in the second edition of his work upon Cancer, published in 1809, states, that in those patients who died of Cancer of the breast, or other parts of the body, he always found

Tubercles of the Lungs. Of this circumstance, previously unheeded, he details several instances.*

He also states in the same work, this remarkable fact :—that on comparing the structure of Tubercles in the Lungs, with the structure of which a cancerous tumor is composed, “he could not perceive the slightest difference between them.”

Tubercles certainly appear to be analogous in their structure and insulated state, (not having any connexion by vessels with the surrounding parts,) to cancer, hydatids, tuberculated masses in the liver, brain, spleen, and other parts. Mr. Carmichael argues from many facts, that these substances possess an innate vitality, independent of the parts in which they are situated,—that they increase and multiply by their own inherent powers, in a manner similar to the fungi which grow upon the decaying or diseased part of trees and vegetables; therefore, that they may be termed Parasitical Animal Fungi, and that thus is formed a numerous class of diseases which embrace the most unmanageable maladies to which the human frame is subjected.

His views are given at large in the work alluded to, and in an introductory lecture, delivered at the Richmond School of Medicine, published in 1827.

I do not venture to offer any opinion on this intricate subject, but think that the facts and

* Carmichael on Cancer, p. 247, 2nd Edition.

reasonings of Mr. Carmichael are worthy of the deepest consideration.

Dr. Macartney, in his lectures on Morbid Anatomy, said, (if I recollect right) that tubercles are scrofulous *secretions*, deposited in the air-cells of the lungs and other parts, from the secreting terminations of the arteries.

In examining the body of a person who has died of some other disorder, just as Consumption was making its appearance, we find perhaps a lobe, an entire Lung, or part of both Lungs, studded more or less with small tubercles, resembling in appearance grains of millet seed; and from the great number in which these bodies usually occur, they are called *milliary* tubercles.† At a more advanced period we observe they have enlarged, several of them run together and entirely occupy a portion of the Lung, about as large as an almond, or perhaps a chesnut, or even at times, of the size of an egg. Now, while this disorganization is advancing inside the chest, corresponding symptoms in the general health are to be discovered.

The first symptom usually complained of is a tightness of the chest, aggravated by exertion, and giving the feeling as though the patient were unable to make a full inspiration. This is usually succeeded by a short, hard cough, making its appearance in winter, and perhaps leaving the patient quite free during the summer months. Imprudent exposures to cold and damp wonder-

† These tubercular deposits are according to M. Louis's views, the essential precursors or cause of Consumption,

fully accelerate the progress of the disease. They cause increased quantities of blood to be sent to the Lungs, an increased secretion of mucus, is the consequence, and also an increased deposition of tubercles. Perhaps these latter may at this period have pressed on the sides of some of the little vessels, so as to obstruct the flow of the blood through them; the blood, in consequence, becomes extravasated, and slight streaks of it mark the expectoration.—This is at first merely mucus, the tubercles, we shall say, being either in the extreme vesicles, or in the substance of the Lungs, so that air exists *behind* them, which, in its passage out, could bring them along with it. Harrassed by finding its effects unavailing, the constitution commences to sympathise with the local affection.—The action of the heart becomes quicker—the pulse usually mounting to 90 or 100 in a minute. The irritability is very much increased; less air being taken at each inspiration, more inspirations become necessary, and the person who formerly breathed but 15 or 20 times in the minute, will now breath 25 or 30, and even this is accelerated by ascending a height, running up a flight of stairs, or receiving any sudden piece of intelligence; while at the same time the *cheek* is easily flushed, and occasionally an uncomfortable sensation of heat is perceived in the palms of the hands and the soles of the feet. The local derangement seems now to have attracted the whole attention of the constitution, and in consequence its other functions begin to be more or less neglected. The body no longer

receives its usual quantity of nutrition, though the appetite for food may remain unimpaired; emaciation supervenes, and the patient is soon perceived "to lose flesh." The skin is deprived of its usual supply of blood, and is often cold, dry, and shrunk—at times perhaps exhibiting the transient glow of hectic, followed by a slight perspiration, chill, and clammy. The roots of the *hair* which are embedded in it, share the general atrophy—their supplies are more scanty—their connexion with the system fails—the hairs consequently die and are shed, or come out freely with the comb. The pulpy cushions of the extremities of the *fingers* are absorbed, and no fresh matter deposited in their places; the *nails*, therefore, growing over them, and not finding their usual support in that direction, assume an incurvated or hooked appearance.* If the patient attempt making a full inspiration, he is checked by a feeling of pain or constriction at the moment that the air, having filled all the sound part of the lung, commences to press against the collections of tuberculous matter. From thus wanting the power of free dilatation, the chest, by degrees, becomes narrowed and contracted—the shoulders seem pointed and drawn forward, and the blade bones, from the new form thus given to the part on which they had rested, stand out behind with something of a *wing*-like appearance. With the emaciation, debility is sure to come on—the patient is no longer adequate to active exercise or exertion.

* This is technically called *Adunque*.

This state of things continues for a variable length of time influenced much by the presence or absence of external exciting causes ; and it is during its continuance that change of air, and other remedial measures, may probably still be of use in retarding, if not removing the disease. Sooner or later, however, a marked change takes place—the tubercles, clustered in different parts of the Lungs, commence *softening*, either from their centre, or from their circumference. They open for themselves a way into one of the bronchial tubes in their vicinity, and the cough now assumes a new feature, for it is accompanied by a copious yellow puriform expectoration. A cavity is left behind, into which the air has now free admission, and acts as a constant irritant on its raw and unhealed sides. From this result, fresh inflammations, new supplies of blood, and new depositions of tuberculous matter take place : the cough becomes increased in frequency and severity ; violent fits occur, chiefly on lying down and getting up, perhaps because the change in position alters the situation of the puriform matter remaining in the cavity, and thus exposes a new point of irritation. If the disease is confined to one Lung, the patient generally lies on that side, as by that means the sound Lung, which must perform the greater part of the respiration, is left unimpeded by the weight of the body, and can thus be more freely and easily dilated. But the alleviation thus obtained, is merely slight and temporary ; fresh tubercles burst, additional exacerbations are thereby exci-

ted;—night perspirations break forth, heavy and profuse, but chiefly confined to the regions of the chest and head. The hectic becomes more decided; the emaciation and debility extreme; the lining membrane of the air passages becomes thickened or ulcerated, or even studded with tubercles, and the cough is then incessant and distressing. The powers of the stomach at length fail, and its contents are not unfrequently rejected after a violent fit of coughing; the intestines share in the general state of disorder. The internal membrane presents traces of inflammation, and *Diarrhœa* alternates with, or accompanies the profuse evacuation from the skin. The *eyes* assume a pearly whiteness, and not unfrequently a certain wildness of appearance. The *brain*, supplied with imperfectly ærated blood, is also affected; mental excitement, common from the commencement, not unfrequently towards the close heightens to hallucination or slight delirium; the judgment is warped, and the patient, ignorant of the dangers of his situation, and hourly expecting a restoration to perfect health, sinks, worn and exhausted, to the grave, at the moment when he had arranged plans of amusement or occupation sufficient to engage a long and protracted life.

Tubercles are not confined to the human species; most of the monkey tribe, which die in our menageries, fall victims to true consumptive disease; their lungs, liver, spleen, and several other organs, may be seen studded with these bodies. Their existence is not at all unusual in

horses; in the hog they pretty frequently occur, and may be found in various parts of the body as well as in the Lungs.* In the ox, too, tubercles present themselves. Their existence in rabbits is a matter of daily observation. In some other animals tubercles occur: sheep are subject to them; most of the parrots in our menageries perish by tubercular disease; and I once saw the liver of a turkey studded with tubercles.

These facts I have stated previous to our inquiry into the causes that generate or predispose to tuberculous depositions, and it is evident in so doing, we at once considerably simplify the question by eliminating the far greater number of external modifying causes to which man in civilized life is subject, and which, though their power cannot for a moment be doubted, are yet not essential to the production of the disease. Now, in the cases referred to, the animals have either been transported from a hot to a cold climate, where they are deprived of their liberty and exercise, as is the case with monkeys and parrots, or confined in damp places, without sun, and almost without air, as cows, pigs, and house rabbits,† or exposed to constant alternations of cold and heat, or violent or constrained exercise, as the horse. But these animals are never known in their wild state

* Swine, the most indolent of animals, are the most subject to tubercular disease; hence, the derivation of the word *Scrofula*, from *Scrofa*, Swine.

† Rabbits frequently die of Consumption in their tame state, but an instance of the kind, I believe, was never met in the wild Rabbit.

to evince any symptoms of the disease ; therefore, we have a certain number of causes marked as capable of producing it ; consequently, the avoidance of these causes is evidently indicated as the first and most necessary step to be taken by those who are threatened with this formidable malady.

It is remarkable that the dog, though more under the influence of human control than any of the above animals, and more completely subdued to an artificial mode of existence, has never, as far as we know, been found affected with tubercular disease. This can only be accounted for by the far greater liberty with which he is allowed to exercise his limbs, and the freedom with which he enjoys the sun and air. The rest are all more or less confined, checked, and placed under the influence of depressing circumstances, the effects of which are to produce those primary changes in the constitution of the blood, from which we have shown the deposition of tubercles to result.

Man suffers not only from all these causes, sudden variations of temperature, forced and violent bodily exertions, deprivation of natural exercise, cold, damp, imperfect nutrition, bad ventilation, &c., to which beasts are liable ; but he is exposed to others, peculiar to himself, and resulting from the mode of life consequent on civilization, and the exercise of arts, trades, or manufactures, to which it gives rise. He dwells in close, low, and shut up situations ; he inhabits populous cities ; he inhales an atmosphere thickened with smoke and dust, and rendered irritative

by the presence of noxious vapors, or foreign substances in a minute state of division. He frequents crowded assemblies and over-heated rooms,—he exerts himself in “wordy warfare,” straining his voice and lungs, and imposing upon his respiratory system efforts of which it is incapable—he hurries away, excited and over-wrought—bathed in perspiration he faces the cutting blast, or the driving sleet; attending only to the storm which still rages within, he disregards that from without; or concentrated on some great intellectual effort, he neglects the precautions necessary for keeping the corporeal instrument in repair. The flush of excitement is succeeded by the hectic glow, and the triumph of the mind entails the destruction of the body.

Numerous trades tend more or less to the production of this disease, but principally those in which the workmen are obliged to breathe an atmosphere loaded with a fine dust, which, penetrating with the air into the Lungs, becomes lodged on the surface of the very sensitive lining membrane of the passage, and constantly accumulating, acts as a never ceasing cause of irritation. Bakers, hair-powder makers, millers, and workers in feather stores, present a large number of weakly, white-faced, and unhealthy individuals, with soft flabby flesh, and a tendency to a short, teasing cough.

In stone-cutters, the particles conveyed being sharp spicula, of higher mechanic powers of irritation, their effects are proportionably more violent,

and ulcerations of the mucus membrane, with perforations of the small vessels, and consequent spitting of blood, are often in them the first warning symptoms of impending danger.

The pointing of needles has long been distinguished for its great fatality to those employed; and though in this particular instance, scientific humanity has suggested a preservative in the employment of magnetic mouth-pieces, which would attract the fine metallic particles on their approach to the Lungs, yet their use, I am informed, has been actually rejected by the workmen to whom it was proposed, on the ground that, if the danger was diminished, the number who went to the trade would be greater, and the wages consequently less!

Employments that tend much to induce a stooping and contracted position of the chest, as shoe-making, are also amongst the causes that induce this disease, by preventing the free dilatation of the Lungs. For the same reason too much time should not be spent in stocking knitting. Here I may be permitted to observe, that among the fair sex there is nothing perhaps so frequently productive or promotive of Consumption, as that fashionable state of semi-nudity (by a singular solecism called *full dress*) in which they attend balls, and the utter recklessness with which they expose their delicate and fragile forms after the heat and excitement and exhaustion of the dance, to the blast of the night wind, "deadly and chill."

When tubercles form in the Lungs, they are at

first minute and in clusters, and remain in a latent or inert state for an indefinite period—sometimes for years—until forced into action by the application of an exciting cause. Some of these tubercles then inflame, and enlarge and progress to suppuration, unless the exciting cause be early subdued by judicious medical treatment. Other tubercles form and undergo similar morbid changes, and if left uncontrolled, the Lungs become entire masses of disease, as in the case of Dr. O'Connor hereafter described. The removal, then, of these tubercles in the early stage, by *resolution*, has been a *desideratum* long sought for by the Faculty, and it is unquestionably an object of the first importance, both to the physician and to the community. If, then, in the sequel, we shall be enabled to point out the means of obtaining so desirable a conquest over so old and insidious an enemy, we shall not only disarm Tubercular Consumption of its former eventual fatality, but rescue our profession from the opprobrium which has been coeval with the disease itself.

I have said that neglected or ill-treated cold or catarrh may end in a Tubercular Consumption. Dr. Broussias maintains the same opinion; but it is equally true, that we often find very large and numerous tubercles in the Lungs of persons who never exhibited previously any signs whatever of catarrh or inflammation of the Lungs. While composing this lecture, I attended a gentleman's son in Sandymount, in consultation with Dr. Gordon

Jackson ; the case appeared hopeless from our first visit, having all the symptoms of Hydrocephalus ingrafted in a scrofulous constitution. On the *post-mortem* examination, besides the water contained in the ventricles, the brain was studded all over with tubercles, and although there was no cough or pulmonary symptoms whatever, on examining the chest, the upper lobes of both right and left Lungs were tuberculated, and the inferior lobes considerably congested.

Laennec says that tubercles are accidental productions or foreign bodies, which spring up in the substance of the Lungs, and may be developed in any other texture of the body, and that they are not the product of inflammation of either the mucus membrane, or any of the constituent textures of the Lungs, but that the development of tubercles is the result of a morbid condition of the general system, of which the case I have just stated is a strong illustration. Scrofulous tubercles in the glands of the neck arise without any previous inflammation, and sometimes swell and remain for years before any marks of inflammation show themselves ; but when inflammation occurs, from whatever cause it may arise, it accelerates the *softening* of the matter of these tubercles.

Dr. Cullen, and other English writers, state hæmoptysis, or spitting of blood, to be one of the most prevalent causes of Consumption ; while Laennec and other French physicians say, that hæmoptysis is the consequence, and not the cause of tubercles. The late Baron Von Hoffman

of this city, threw up a quantity of blood from his Lungs, a few weeks previous to his demise, and on the *post-mortem* examination, his Lungs were found to be one mass of disease, studded all over with tubercles of various dimensions which must have existed long before the hæmorrhage took place.

The Baron was a Prussian officer, and fought at the battle of Waterloo, under Field-Marshal Blucher. He had been wounded in several parts of the body, and had been under my care for an attack of Inflammation of the Lungs, of which he recovered, about twelve months before his death, but the symptoms of tubercular disease continued. The hæmorrhage took place on the 8th of May, 1829, when he threw up not less (as it was stated to me by Dr. Butler and Surgeon Maziere, two most respectable practitioners) than six quarts of blood! The following day he came into the *Maison de Santé*. Profuse night sweats, hectic fever, quick respiration, (45 in a minute,) could inhale only half a pint of atmospheric air by the pulmometer; pulse 160. A succession of the very worst symptoms followed, indicating that "he was bound to that undiscovered country, from whose bourne no traveller returns," and that all that could be done for him was to smooth his path and mitigate his sufferings. He died on the 13th of June; and Surgeon O'Ferrall, who conducted the *post-mortem* examination, took a note of the pathological condition of the chest, of which the following is a copy;—

"A large abscess in the *superior* lobe of the *right Lung*; the entire of *this Lung* occupied by *tubercular deposits*, except a patch on the inferior portion, about the breadth of the open hand. Some of these deposits were in a softened state, and some were even in the condition of minute abscesses.

"In the *apex* of the left Lung, there was a small abscess, rather larger than a walnut; the remainder of this Lung was tuberculated, except a space at the posterior inferior portion, about the size of the palm of the hand.

"There was a remarkable lateral curvature of the Chest, and traces of gun-shot wounds through the Lungs."

Wishing to obtain some information on so interesting a case, I wrote to a friend of the deceased, who was then in Dublin, and who favored me with the following answer:—

"*Merrion Square, Dublin, 15th June, 1829.*

"MY DEAR SIR,

"In reply to your Letter of this date, I beg to state the following facts, relative to the late Baron Von Hoffman. He was a Prussian Nobleman by birth, and served in the Prussian Army. He was A. D. C. to Field Marshal Blucher, and was severely wounded at the Battle of Waterloo. Possessing the greatest courage and intrepidity, he had been in America and the West Indies, where he was recognised by Viscount Combermere the Governor, and found every attention and respect due to him as a brave and distinguished officer. He had been presented with the order of the Cannon (a Prussian Order) for his bravery on the continent, and possessed the greatest talent as an engineer. This Nobleman having left the Army, he retired without half-pay or any other remuneration, and came to this country, where he suffered the greatest privations, and was reduced to the greatest distress and embarrassments; and about twelve months back, from some sudden exertion, he ruptured a blood vessel in his Lungs, and threw up a quantity of blood. He was then sent into the *Maison de Sante*, recommended by the Marquis of Headford, and in four weeks discharged cured; but from frequent subsequent attacks of inflammation, hectic fever came on, for which he was again admitted into the *Maison de Sante*, where it appears by your letter he died on the 13th inst. This unfortunate nobleman was for the last two years supported by Sir John Stephenson, much to the credit of so feeling and worthy a man, and during the period of the poor Baron's distress, he never

contracted a shilling of debt in this country, but bore his misery with becoming fortitude. You may give publicity to this statement.

“Your’s very truly,

F. HELY HUTCHINSON JOHNSTON,

“*Half Pay, West India Rangers.*”

“To Sir A. Clarke, M. D. North Gt. Georges’-st.”

The hereditary predisposition to Scrofula and Tubercular Consumption, (which may be said to be a masked form or stage of Scrofula, is too evident in many instances to be contested; yet it is equally true that we frequently meet with the disease in persons in whom no hereditary taint whatever can be found; for example, the children of gouty, syphilitic, or dyspeptic parents, are very liable to scrofula, and thus these conditions of the body often become the remote causes of Scrofula and Tubercular disease.

Formerly, Tubercular Consumption was supposed to be contagious, and it is so considered at present in the south of Europe; in this climate, however, we have decisive evidence against this opinion. Where husbands and wives have been supposed to infect each other, it should seem that both have had a scrofulous taint, which, from its extreme frequency, is by no means improbable, and that the party last affected has fallen a victim to the fatigue, night-watching, and exposure to cold, incident to the close attention which affection had suggested. This was precisely the case in two families I lately attended, where the husbands, one a middle aged man, the other only six-and-twenty, who, previous to their wives’ decease,

were in every respect apparently healthy; in three months afterwards both fell into rapid Consumptions, which carried them to their graves in less than half a year.

It is, however, admitted by some medical men of the highest authority, that Consumption may be communicated, especially to members of the same family. If this be a source of the disease, it should be noticed; particularly as the simple remedy of avoiding the use of the same bed with the patient, more especially when suffering under night perspirations, may be considered as nearly a sufficient preservative against this very limited cause.

A cough may be suspected to arise from Tubercles when it does not occur from evident cold, or begin with symptoms of catarrh; when attended with shortness of breath, particularly on motion; when it is not violent but trifling, so as even to be denied (as it frequently is) by the patient, and when it continues many months. Our suspicions are rendered much stronger, if the Lungs have been severely injured by measles, local inflammation, or other complaints; and they are altogether confirmed, if, with the above circumstances, the parents be of a scrofulous habit, of a fine delicate complexion with swelled lips, glandular swellings in the neck, and hectic fever.

We can ascertain with great accuracy whether the Lungs or Bronchial Tubes be ulcerated or not, by the following simple process:—Place a small portion of the sputa, (the matter expectorated from the Lungs,) between two pieces of crown or

plate glass, and hold them before a lighted wax taper. If the matter contain pus, circles of coloured light, with red and green alternately, will appear, resembling a small rainbow; but should it be only a secretion from the Mucus Membrane, which lines the Lungs, no such colours will be seen.

The explanation is simply this—*Pus* contains *globules*, which cause refraction and reflection of the rays of light, while *Mucus* is fleaky and free from globules.* A simple expedient is more commonly resorted to—that of mixing the expectorated matter with water; if it float on the surface it is supposed to be Mucus; if it sink to the bottom, it is a sign of Pus; the specific gravity of the latter being greater than that of the former: but to the optical experiment I give a preference.

Chemical tests will also discriminate pus from mucus;—Dissolve the sputa in sulphuric acid, then add about an equal quantity of water and leave it in a quiescent state; in the event of the Lungs or Bronchial tubes being ulcerated, a precipitation will take place. Should the solution exhibit no sign of precipitation, we may confidently conclude there is no ulceration. Muriate of mercury will also afford us information on this subject, for it will coagulate mucus, but will not have the same effect upon pus.

* This optical experiment is described by the late Dr. Young, and recommended by Sir Charles Scudamore, who bestowed much consideration on Consumptive diseases.

PREVENTION.

On the appearance of Consumption, much certainly may be done to save the patient, and the first symptoms particularly the cough or hem,* should be especially watched, where there are any real grounds of apprehension of hereditary constitutional taint. It is a disease not easily distinguished from other pulmonic complaints, in its incipient stage; and it is of so insidious a nature, and so dangerous a character, that it requires the attention of the most skilful practitioner. Where there is a tendency in a family to this malady, the patient and all his friends must co-operate, by a minute and lively attention to every particular that can affect the health, as the constant presence of a medical adviser, even were it possible, would be insufficient.

In the first place, where no symptoms of disease have actually appeared, but where the family predisposition affords grounds of apprehension, as much mischief perhaps is done by excessive anxiety and over care, as by unwarrantable neglect. The susceptibility of the constitution to be affected by change of temperature, is easily increased by a too sedulous endeavour to avoid those changes altogether; and many individuals, whose constitutions might have preserved them under ordinary circum-

A celebrated physician being told by his patient that he had "only a cough," replied, "What Sir, would you have the plague?" "It is only a cold;" "I will let it go as it came," are common expressions. What is more dangerous than a cold? Who can say how it will terminate? Is it not the source and parent of most of the formidable diseases of our climate.

stances, fall victims to an acquired delicacy. While the subject is in health he should be permitted to pursue all those means which in general strengthen the system, including regular exercises, which implies to a certain extent, the taking his chance for accidental exposures. The ordinary apartments should not be kept too warm; nor should the mind be constantly occupied with the distressing ideas of danger and death. The clothing, however, should be sufficiently warm, more especially on the feet, for cold applied to the feet, particularly that produced by the evaporation of moisture, induces a sympathetic affection of the Lungs, (more generally when these organs are feeble,) and thus lays the foundation of Consumption or other pulmonic disease. Flannel is better than linen next the skin, inasmuch as it prevents the sudden check of perspiration after exercise; but when the skin is irritable, or subject to cutaneous eruptions, flannel has its disadvantages, and chamois leather may be substituted. Many patients, especially females, fall into Consumption from want of attention to this particular. Women, according to the present fashion, dress warmly, and cover their whole person in the morning, but strip their shoulders and adopt light dresses in the evening. Thus circumstanced, when, after the exercise of dancing, they rush into draughts of cold air, it is not surprising they should lay the foundation of diseases, which embitter and shorten their existence.

Regular exercise in the open air cannot but be a good preventive of Consumption, for while it

carries the blood to the extremities, and so diminishes the chance of pulmonary congestion, it strengthens the frame and abates the susceptibility of the skin and Lungs to the variations of temperature. But in the most perfect health, sitting in wet or damp clothes, whether the moisture proceed from rain or from perspiration, should be carefully avoided. The evaporation which the warmth of the body produces, when its surface is wet, absorbs and carries off the animal heat faster than it can be generated; the vessels of the skin, in consequence, lose vital power; and the Lungs, sympathising in the affection, become subsequently hurried into inflammatory action.

In most cases of incipient Consumption, the appetite for food is not at all diminished, and the digestion continues unabated throughout, which seems in a great degree to support the patient through the disease. When, however, Consumption is apprehended, care should be taken of the diet—all intemperance, and all food of difficult digestion should be avoided. The food should be light and nourishing, but not stimulating; a due proportion of boiled vegetables, with plain dressed meat, is the most suitable. The meals should be taken early and at regular intervals; and all these messes of nice little nourishing preparations, jellies, eggs, broth, &c. which are poured down the throats of delicate persons, in quick succession, by tender and anxious mothers, are decidedly unwholesome and injurious.

For Consumptive constitutions, sedentary and

studious habits are dangerous ; many fashionable young ladies fall victims of the *mania of education*, which impels their parents to overload them with miscalled accomplishments. Early and regular hours are essential to the safety of persons liable to Consumption. Both the fatigue of night-watching, and the peculiar qualities of the night air, probably conspire to generate pulmonic diseases. Crowded and heated apartments tend to the same consequences. Attendance upon balls, theatres, &c. is therefore to be limited according to circumstance.

A course of exercises for the *voice* has been found useful in preventing Consumption in many instances. An American physician of great eminence, who travelled extensively in Europe, to enlarge his field of observation on the nature of Consumptive and other pulmonary complaints, found in Germany, where *singing* is so generally taught and practised, but one case of Consumption, and stated that a cure was gradually effected by putting the patient upon a course of exercise for the voice, to which it had been previously unused. *Reading aloud* is also useful in strengthening the Lungs and digestive organs, and also in giving tone and power to the voice.

The celebrated Cuvier, ascribed his exemption from Consumption (to which he had an hereditary predisposition) to the exercise of his voice in *Lecturing*. At the time of his appointment to a Professorship he had the warning symptoms of Consumption, but the exercise of Lecturing gradually strengthened his Lungs, and improved his

health, so much, that he was never afterwards threatened with any serious pulmonary disease.

TREATMENT.

The foregoing considerations are important, and should be strictly attended to by these threatened with Consumption, or who have a tendency to that disease. When the symptoms, however, manifest themselves, other means must be pursued. In the first place, where the season of the year, and other circumstances permit, the patient should fly to a more genial climate. Monkeys almost uniformly persih of Tubercular Consumption in this country ; a strong indication, and almost proof of its hostility to naturally consumptive lungs. When this removal cannot be accomplished, the greatest care should be taken, especially during the winter and spring months, to avoid *taking cold*, or exciting the Lungs into inflammatory action. When the disease is violent and rapid, the apartments should be large, lofty, and attentively preserved at a moderate temperature. That which is most congenial to the human frame is from 60 to 65 of Fahrenheit's Thermometer.

When the Lungs are ulcerated, and hectic fever sets in, to go abroad in search of health, or to undertake a journey, is then worse than useless ; it is, indeed, highly injurious, as it subjects the invalid to cold, wet, and fatigue, and to bad accommodations, and to many other inconveniences. When the want of almost every comfort in Southern Europe, with the absence of friends and society,

and the certainty of possessing these advantages at home, are considered, there can be little doubt that in a well-regulated temperature, in the room of a large commodious dwelling in this country, protected from the north and east winds ; not only better health, more happiness, and longer life may be enjoyed, than in France, Italy, or Madeira, but that a perfect cure may more probably be expected.

With regard to the fitness of climate as a residence for the pulmonary invalid, I agree with Dr. Weatherhead in the following sentiment :—" My conviction is, that many a consumptive patient, who might have leisurely walked to the grave elsewhere, gallops to his grave at *Rome* ; his languor increases under the depressing influence of so moist and relaxing an atmosphere ; his nocturnal perspirations become more profuse and colliquative ; his expectoration more exhaustingly copious ; a quickened circulation fans the inflammatory combustion, and a keener hectic feeds on the vital principle until it is consumed, when death, closing the scene, bears away the last sigh, fraught with regret for having ever left home."

There is an opinion abroad that Consumption is more prevalent in England than in any other country ; this opinion does not appear to be well founded, and I believe is a vulgar prejudice. The following facts drawn from the history of this disease will prove the contrary. It appears that Tubercular Consumption is little known in Stockholm ;—that Clot Bey, in a recent work published in Egypt, shows the sanitary in-

fluence of its climate on diseases of the chest, and reports the extreme rarity of Tubercular affections in that country ;—that although one-fourth of the deaths in England proceed from Consumption, yet a similar proportion happens in Paris ;—that by reference to bills of mortality, the average number of deaths in Rome is found to be 1 in 21—in Naples 1 in 28—in Paris 1 in 32—while in London and Leeds we observe it 1 in 54, and in our agricultural districts 1 in 74. From these data it appears the atmospheric vicissitudes of this climate are beneficial to health, and tend to improve the physical strength of man. There is no sufficient reason therefore for considering Consumption an English malady. The fallacy of sending Consumptive patients to foreign countries is therefore evident. The most salubrious spots in our own Island, from their geological position, or other favorable circumstances, should be selected for the resort of those labouring under this disease.

Consumption being a disease attended with hectic fever, which rapidly wastes the strength, and even the substance of the body, two very opposite evils are to be avoided ; on the one hand, whatever is stimulating and nourishing has a tendency to kindle fever, while, on the other hand, whatever tends to cool and subdue the system is debilitating. Between the task of opposing inflammation and supporting the patient against the hectic, the most experienced physician has a difficult card to play ; hence we find different practitioners recommending tonics, astringents, or a strict antifebrile

regimen, with blood-letting and purging in this disease ; and as several diseases may be mistaken for true Tubercular Consumption, cases are vaunted as cured under very different modes of treatment. The truth, however, is, that each particular case may demand a different course of remedies, of which none but the physician can judge ; but it is essential that every one should know his actual state, in order to form an opinion of his own case, to avoid popular and fashionable systems, which are frequently mischievous and fatal, and so to regulate himself as to second the views of the practitioner to whose care he commits himself or his friend.

In the *last stage* of the disease, indicated by a loss of vision, want of energy, falling off of the hair, *adunque*, or crooked forms of the nails, an aptheos appearance on the tongue, and where no hope is left, the great object to be sought is, that the patient should pass through the remainder of his days with the least possible suffering, and calmly arrive without pain at the final close of all his mortal ills and cares. In this case, every unnecessary restraint is cruelty, and nothing should be attempted but with a view to mitigation, and to the circumstances of the moment.

Horse exercise has been recommended since the days of Sydenham, and found useful as a means of dispersing tubercles in the Lungs. I recollect to have read the following case, although the authority for it has escaped my memory. A shoemaker residing in a village in Scotland, having, from the sedentary life and stooping posture inci-

dent to his trade, contracted a disease of the Lungs, was informed by his medical adviser that the symptoms were those of incipient Tubercular Consumption, to be only avoided by a change in his habits of life, and, if possible, *exercise on horse-back* ; the latter seemed an unattainable remedy to poor Crispin, but by chance the place of postboy to the village becoming vacant, he succeeded to it, and to the possession of a hard trotting Galloway, and found, after a little training, that the duty of riding 15 or 20 miles a day, completely renovated him ; he became robust, and perhaps reflecting on the proverb, "*ne sutor ultra crepidam*," he resigned his active occupation, and returned to his original trade ; but a few months' confinement, having caused a return of his old complaint, he was compelled to seek a situation similar to that he had resigned, and having obtained it, he again recovered his health.

Dr. Gilchrist has published a treatise on the use of sea voyages, which have the advantage of uniting a constant motion to the mild uniform climate which the sea affords. In advanced stages, however, the sea air, so strongly recommended by Laennec, I have always found to be prejudicial.

Journeying, if practicable, says Dr. Cheyne, or what is still better in fine weather, going from shore to shore in steamers, short residences at Mallow, or the Cove of Cork, or some favorite spot in England, or during the summer months in Scotland, I would recommend in incipient Consumption. Diet as generous as the state of the

Lungs will permit, and in some cases a glass or two of claret. Small bleedings, sponging the chest and arms with very dilute nitro-muriatic acid, or with five parts of Mindereruss's Spirit, and one of Spirit of Rosemary; an issue over the most suspected portion of the Lungs, or a succession of blisters after each bleeding, not larger than a dollar, with a light bitter draught two or three times a day, is the treatment recommended by the above distinguished physician, who states that the small bleedings practised in incipient phthisis, enable the physician more safely to enlarge the patient's diet, and to prescribe tonics, such as Griffith's Mixture, or Heberden's Ink.

Dr. Beddoes entertained an opinion that the hectic fever was caused by the Lungs, in their ulcerated state, acquiring a power of absorbing more oxygen than in the healthy state. This opinion he founded upon the increased colour in the cheeks, and upon the suspension of hectic in pregnant women, when the foetus carries off the superabundant oxygen. With this view, he caused his patients to inhale air containing a diminished portion of oxygen. This practice, however, is found quite unavailing, and the theory is contradicted by the circumstance of phthisical persons getting somewhat better when breathing the atmosphere of the country.

It is a fact well known, that the persons subject to hæmorrhoidal evacuations are seldom or never the victims of Consumption, unless the hæmorrhoidal discharge be injudiciously suppressed. It

is also well known, that if, in the incipient stage of Consumption, piles can be induced, an alleviation of the symptoms will generally take place. This has led to a practice of decided utility in cases of incipient Consumption, many of which came under my own immediate care.

On the first attack, or as soon as the cough, pain in the side* or chest, spitting of blood, or difficulty in breathing comes on, (particularly in persons of full habits or narrow chests,) the hæmorrhoidal discharge may be successfully imitated by the application of leeches, and the discharge afterwards kept up by directing the patient to sit over the steam of warm water. After this process, a Rufus's Pill or two, with three or four grains of James's Powders, should be taken every night, or a draught of the *Baume de Vie* every morning during a fortnight or three weeks, the combined effects of which generally produce an alleviation of symptoms, by inducing a tendency to piles.

Laennec was of opinion, that even in the incipient stage of Consumption, the disease is incurable; "but while I admit," he observes, "the incurability of Consumption in the early stage, I am convinced, from a great many facts that in some cases the disease is curable in the last stage, that is, after the softening of the tubercle and the formation of an ulcerous excavation." Laennec died himself in the last stage of Consumption, and had

* Dr. Carmichael Smith says, that "the left side of the chest is more frequently attacked than the right;" and Dr. Parr asserts, that if the patient can lie on the side where the pain is felt, the disease is not Phthisis.

he entertained a different opinion, probably his valuable life might have been saved in the first stage, by appropriate treatment. It is somewhat curious that he shared the fate of some of his most illustrious predecessors, in falling a victim to a disease, the nature of which he had taken particular pains to illustrate. His case presented all the external symptoms* of Consumption, and its nature was moreover fully confirmed by *auscultation*,† the very art which he himself discovered for ascertaining the morbid state of the Lungs and Heart.

That we possess a power of dissolving and of promoting the absorption of glandular tumors in the neck, mesentery, and other parts of the body, by the judicious and skilful exhibition of *iodine*,‡ cannot be doubted. This led me to hope, that if it could be applied to the Lungs without passing through the digestive organs, (which it sometimes

* Dr Forbes.

† *Auscultation* is capable of affording an extraordinary degree of precision in recognising and distinguishing the most complicated forms of pulmonary disease, by means of an instrument invented by Laennec, called *Stethoscope*, which is now in the hands of almost every professional man, and for which discovery the *Medical World* is under strong and lasting obligations.

‡ *Iodine* is a crystallized solid substance, found principally in sea water and in marine productions, as sea-wrack, sponge, &c., and is obtained from them, and other substances by means of a chemical process. Dr. Coindet, of Geneva, first prescribed it for the cure of *Goitre*, and with success. I have used it lately in four cases of the same disease, three of which are cured and I have been for several years recommending Fluid and Vapor Baths impregnated with it, for the cure of scrofulous and cutaneous complaints. In three cases of *Elephantiasis*, two were cured by its local application in the form of vapor. So powerful are the effects of Iodine, that it has been said it caused the absorption and total disappearance of the female breast. But I have never observed emaciation nor glandular atrophy caused by the Ioduretted preparations which I am in the habit of prescribing

deranges,) the tubercles might at an early stage of the disease be prevented from pursuing their destructive career; and the assertion of Laennec strengthened me in the hope that, even in the last stage, something might be done, if not to cure, at least to mitigate the symptoms and prolong life. Accordingly, about 20 years ago, (in 1824 and 1825,) I commenced an investigation into the effects of inhaling the steam of warm water impregnated with Iodine; and the result in one thousand cases of Tubercular Consumption enables me to state, that no remedy is so likely to promote the softening and absorption of pulmonary tubercles. It powerfully promotes the expectoration, after every inhalation, as long as there is any matter to be brought up; after which the excavated tubercle heals by the continued use of the inhalation, in a manner analogous (in my mind) to the healing of an abscess in any external part of the body.

Sir James Clark, and some of the best Pathological physicans of the present day, are of opinion that the only way in which a cure of Tubercular Consumption can be effected is, “by the *expulsion* from the Lungs, by *expectoration*, of the softened tubercle, which (they add) occasionally leads to a cure of the disease;” but how to accomplish this desirable object, was a desideratum in their science, which they were unable to effect.

Dr. Barron, of Worcester, in his work “on Tuberculated Accretion,” has recommended the internal exhibition of Iodine, with a view of pro-

moting the absorption of tubercles of the Lungs ; but there are few constitutions which could bear this powerful remedy, in the quantities then administered through the stomach into the system. I trust, however, that this medicine, when brought into immediate contact with the seat of the disease, will be found an efficient means of combating it, and that many valuable lives may be annually saved by its adoption.

The following cases were among the first in which I discovered the effects of the inhalation of Iodine in Tubercular Consumption :

In January, 1825, a young lady, aged 19 years, after having gone the rounds of the profession, was placed under my care, for the cure of scrofulous tumours in her neck, some of which were enlarged to an enormous size ;—she had a short cough, and her breathing was hurried on the slightest bodily exertion ;—she had a burning heat in the palms of her hands, and her pulse ranged from 110 to 120 in a minute ; she had a slight hectic flush in her cheeks, her lips were of a vermilion colour, and her skin fair, thin, and almost transparent ; her appetite was good, but she seemed to derive little or no nourishment from her food, as she was daily becoming more weak and emaciated. She was the only child of a lady who died of Consumption at the age of twenty-six, and she seemed to inherit her mother's constitutional delicacy. Her cough was not considered of any moment, and I was requested to direct my attention to the removal of the swellings in her neck, which disfigured a lovely

and captivating countenance. After some preparatory measures to regulate her constitution, which had never been right, I directed her to sit in an iodine vapour bath, at an agreeable temperature, for half an hour, and to inhale as much of the ioduretted vapour as she possibly could without inconvenience; the second day she was able to stay in for an hour, and inhale the vapour, while her whole body was enveloped in it; in this manner she used it perseveringly for six weeks, at the end of which, the tumors were reduced to nearly one half their size, her pulse came down to 90, and she was quite free from cough. She continued the bathing and inhalation for two months longer, when there was scarcely a vestige of the tumors remaining, her pulse was at 80, her strength increased, her breathing became quite natural, and she was enabled to take exercise on horseback. In July following, she commenced sea-bathing, and she is now married, the mother of two fine children, and enjoys perfect good health.

In the same year, a lady, aged 40, put herself under my care for the cure of a particular glandular swelling in the front of the neck, called "*Goitre*;" she had also a cough, and some of her family had died of Consumption; three of her children had scrofulous tumors in their necks. She had tried the iodine internally until she lost her appetite, and produced a wasting of flesh and strength;* she

* This is generally the effect Iodine produces when given in large doses; but my experience of it enables me to state, that when administered in small quantities, (that is, about a quarter or a third of a grain daily,) and in great solution, it improves the appetite, and strengthens the constitution.

had applied an ointment, composed of the *iodide of potash*; but the swelling increased so as to threaten suffocation, and impede deglutition, and she was apprehensive of perishing for want of nourishment. In this state she commenced the iodine vapor bath, and remained enclosed in the frame bath, inhaling the vapor for an hour daily; in less than a month she was able to take solid food; she continued the bath and inhalation for two months longer, when she was completely restored to her strength and appetite, and continues to this day to enjoy good health.

After these cases, I commenced using the Inhalation of Iodine alone;† that is, without exposing or undressing the body to its action, except in cutaneous diseases. But I do not wish it to be understood that I would apply the iodine inhalation as an exclusive remedy; on the contrary, during its application every attention must be paid to diet, regimen, and exercise; and the sponging the chest with vinegar and water will be found a useful auxiliary, by lessening the sensibility of the Lungs to the impression of cold. I am of opinion, from ample experience, that torturing consumptive patients with *moxa*, *tartar emetic ointment*, and other powerful *counter-stimulants*, is worse than useless; that they are often even injurious and dangerous.

The iodine inhalation in most cases induces a tendency to repose, and gives relief when it is impossible to cure; it must, however, be employed

† Iodine Inhalers, such as I am in the habit of using, may be had at all the Medical Halls in London and Dublin.

with caution and judgment, for to use the words of Dr. Mead, "in all things which our art contains, there is nothing that does good, but may also do harm," and that "when a remedy is used *indiscriminately*, it must of necessity very frequently be used improperly." I repeat it, that like all other remedies of known efficacy, mischief may arise from its mal-application, but that, skilfully and judiciously employed, it is, perhaps, *the most powerful agent for the cure of Tubercular Consumption with which we are acquainted.*

When the Lungs are invaded by disease, the digestive organs and liver almost always sympathize with them, in consequence of which, their secretions undergo a morbid change. Medicine then taken into the stomach has first to encounter a vitiated gastric secretion, and subsequently comes in contact with the bile. These secretions may be too abundant, or too small in quantity, and may render it (the medicine) too stimulant or too inert to act with any degree of certainty, as a remedial agent, when it reaches the Lungs, (if it does reach them) through the medium of the chyle and blood. The difficulty then, (nay, I may add, if not impossibility,) of curing Tubercular Consumption by *internal* remedies, must be apparent to every one who knows anything of the process of *digestion*. I have endeavoured in the second part briefly to describe that process.

With a view to promote expectoration in this disease, ipecacuanha, tartar emetic, and squills are given, and if in such quantities as to excite vomit-

ing, they will sometimes produce a discharge from the Lungs, occasioning at the same time great debility and derangement of the digestive organs. This is the only way in which the expectorants can act upon the Lungs, for when they pass through the stomach and alimentary canal, they become assimilated with the food during digestion, and are conveyed with the general mass of blood (totally changed in their properties, and no longer appreciable in the pulmonary system) through the whole body; and should they be even capable of producing any specific effect while passing through the Lungs, it cannot be on the diseased part, which is in a state either of induration or suppuration, and consequently impervious to the circulation of the blood.* Digitalis, prussic acid, and various other medicines have been given internally, with a view of promoting the absorption of the tubercles; but I am quite sure, that instead of being beneficial, they are injurious, not only to the digestive organs, but to the whole nervous system. In the case, however, of iodine, we have it in our power to apply a remedy directly to the part affected, with as much certainty as we can apply dressing to a wound or ulcer on any external part of the body; while at the same time, instead of destroying the digestive organs, by the administration of poisonous drugs, we are enabled to strengthen them by appropriate nourishment and restorative medicines, which in every instance will be found to facilitate the cure.

* Expectoration is supposed by some to be produced by *sympathy* between the Stomach and Lungs, and not by actual contact of drugs with the diseased surfaces.

For the information of any professional gentleman, into whose hands this pamphlet may fall, I beg to state, that before I submitted my patients to the iodine inhalation, I examined the state of their chest, by means of the stethoscope and pulmometer, and I had no doubt on my mind of the existence of tubercles, ulcers, and hepatization in the major part of them. In some there was a combination of chronic inflammation of the mucus membrane, and in others there existed disease of the heart. Out of 100 cases, in 22 the respiration was audible in one side only; in 20 the respiration in part of the Lungs was cavernous, with distinct pectoriliquism; in 18, some part of the chest sounded as dull as marble, while in other parts of the same subject, the sound was like that of a drum or bell at a distance; in 15 no respiration could be heard in the upper lobes of the Lungs; in 10, no respiration could be heard in the lower; and in 5, in addition to the pulmonic disease, there was hypertrophy of the heart. In almost all the cases, the pulse ranged from 100 to 120, and the respiration from 25 to 40 in a minute; in most cases the expectoration was purulent, and in almost all, general debility and emaciation prevailed. The inhalation in many cases induced a tendency to repose, and gave relief in such instances where it was impossible to cure. Of the above 100 cases, 35 were cured; 31 greatly benefited, 30 were irregular in their attendance, and 4 died. The average number of days each patient cured used the inhalation, was ninety; their ages from 7 to

56. Thirteen of them had glandular swellings in the neck, which disappeared during the treatment, by the application of the iodine inhalation.

One of the fatal cases was a physician, and is deserving of notice. He was in very considerable practice in a part of the King's County,* in Ireland, and was attacked with inflammation on his Lungs, in the year 1822, by sleeping in damp sheets. He recovered, but by repeated relapses, upon the slightest exposure to cold or bodily fatigue, (to which country practitioners are extremely liable,) he was obliged to give up his practice and try what a milder climate would do. In 1825, he went to Penzance, from thence to the South of France, and consulted on his way Dr. Maton, Sir Astley Cooper, and Mr. Abernethy, in London; Dr. Laennec, and others in Paris. In two years he returned to his native country, worse than he left it; and in April, 1827, he was received as an intern patient in the *Maison de Santé*, under my care. He had all the symptoms of Tubercular and Hepatic Consumption, except purulent expectoration and emaciation. He was hectic, had night sweats, an incessant cough, pain in the right side, frequent diarrhœa, pulse from 120 to 130, breathing from 30 to 35, could inhale scarcely a pint of atmospheric air by the pulmometer; but though the hand of death appeared to be upon him, he wished to try every means that could be devised, and until the night previous to his death, he never thought of danger. He repeatedly said

that "he feared the quantity of *Blue Pill* which he took, under the advice of a celebrated Surgeon in London, had undermined his constitution."* After his admission, leeches were applied to the side ; consultations were almost daily held upon him. The moxa, antimonial ointment, blisters, and inhalation of iodine, the vapor of tar, and every other remedy that could be thought of, were tried in vain, and at the end of six weeks he expressed a wish to be removed to the sea side, to try the effects of sea air, which Laennec had ordered him. A lodging was taken for him at Merrion, on the 1st of June ; his symptoms became so distressing that he begged to be taken back to the *Maison de Santé*, before the end of the week. He died on the 11th, in the 29th year of his age. It is worthy to be recorded of this gentleman, as an example to his professional brethren, that the night before his demise, he made a will, of which the following is a copy :—

The last Will and Testament of James O'Connor, M.D.

IN THE NAME OF GOD, AMEN,—I bequeath my soul to God—my body to Dr. Macartney of Trinity College, for inspection, and any other use he may put it to, requesting that he will serve notice on the Surgeon-General, Dr. Cheyne, Sir Arthur Clarke,

* Mr. Abernethy was of opinion that Consumption often originated in a diseased state of the liver ; from this erroneous view, a mode of treatment was recommended by him, which in the above case, as in many others, was calculated to aggravate rather than mitigate the disease. By too great a reliance on the effects of mercury, he unfortunately hastened the catastrophe which he sought to avert.

and Dr. Stokes, jun., to attend at the inspection.
Witness my hand and seal.—10th June, 1827.

JAMES O'CONNOR, (*Seal.*)

Signed and Sealed in the presence of

J. F. }
H. D. } *Patients in the Maison de Sante.*

The *post-mortem* examination was performed by Professor Macartney, in the presence of the above-mentioned and other professional gentlemen. The following notes were taken on the spot. The body more œdematous than emaciated; the Lungs contained many *tubercles*, and in several places had gone into a state of soft pulp, which were preparatory to the formation of abscess; their cells, however, contained merely the dissolved scrofulous deposit, but no pus, and he had not expectorated pus. The intestines were not ulcerated in any part, but the inner membrane of the great intestine in some places was tuberculated, and would, if he had lived, probably have gone into ulcer. The inner membrane of the larynx was slightly tuberculated, and had some spots of superficial ulceration, covered with a coat of lymph." It may be questioned, whether the usual ulceration of the large intestine, in Consumption, does not depend on the presence of hectic fever, rather than the existence of Tubercles in the Lungs. The diseased state of the mucus membrane of the intestine and larynx seemed to be of the same nature, but not similar to what occurs usually in Consumption; and his death did not appear to be altogether from the disease of the Lungs, but from

the liver, which had a peculiar greasy softness of texture, unequal in form, the colour in some places red, in others with a yellow tinge, as if the circulation and secretion had been irregular. The liver was also somewhat larger, and its edges rounder than natural. He had used mercury, I believe pretty freely, under the idea of his having a diseased liver, but without any benefit.

It is but justice to the able and distinguished individual, Dr. Macartney, who filled the professor's chair in the University of Dublin, to state, that after the anatomical examination, he caused the remains of the deceased to be interred, and the ashes of his heart to be placed in a handsome bronze urn, with the following inscription, which may be seen in the Anatomical Museum in Cambridge College:—

THE ASHES OF THE HEART

OF

DR. JAMES O'CONNOR, M. D.

Preserved by Dr. Macartney in respect for the memory of the man who, freed from superstitious and vulgar feelings, bequeathed his body for the honorable purpose of giving to others that knowledge which he had employed himself for the benefit of his fellow creatures.

The preservation of the heart of this excellent man, in preference to the head, as a memento of respect and affection, although it may not be orthodox among phrenologists, yet does credit to the taste and feelings of Dr. Macartney. Science may have created a connexion between the head and the springs and motives of human actions, but

the heart will ever remain associated with the sympathies and best feelings of our nature.

If indeed it be advisable to rescue any organ from decay, it is surely that which in every age and country has been linked so indissolubly with our feelings of social and domestic bliss, our affections, our joys, and our sorrows. I would recommend those who still entertain a prejudice against any other than the customary mode of disposal of the body after death, to visit the Anatomical Museum of Cambridge College,* and inspect the simple but not less touching monument to the memory of Dr. James O'Connor. Its contemplation will perhaps suggest to them, whether such a disposal of the mortal remains may not be more consonant to the feelings of the philosopher, the sentimentalist, or the christian, than inhumation in a solitary church-yard, or associated with the decay of vaults and graves, so generally regarded with apathy, or trampled on with indifference. I may here go farther and say, that this simple and unaffected compliment to the memory of Dr. James O'Connor has much good sense in it; and were such tributes paid to those who may hereafter "go and do likewise," and whose liberal and patriotic feelings would thus be embalmed in our memories, it would go far to counteract the irrational, though prevailing idea, which rejects any exhibition of the body after death. From such dissections in-

* This beautiful Museum was purchased from the late Dr. Macartney, by the University of Cambridge, where it may now be seen.

calculable benefit frequently results to the surviving members both of the family of the deceased and the public at large. The Irish are too sagacious a people not to be convinced of *the necessity and value of dissection of the dead, to prevent the mangling of the living*. The poorer classes, seeing their richer and more intelligent fellow-citizens submitting freely to have their bodies dissected in their own houses, (for we can scarcely regard *post-mortem* examinations in any other light than a dissection,) would be induced to surrender their prejudices, and we might expect to see them approaching more to the character of rational beings.

The following case of *Incipient Consumption* may be here briefly stated. Mr. R. R., aged 23, of a strumous habit, had all the incipient symptoms of true Consumption in the autumn of 1833, when he commenced the iodine inhalation, which he continued for nearly three months. During that period he took the iodine and iodide of potash in solution in very minute doses, for about six weeks. Under this simple treatment, his cough and other pulmonic symptoms disappeared, without bleeding, blistering, or any other remedy; and since the above mentioned period, now upwards of eleven years, he has been free from any pulmonic complaint whatever.

“ This statement is perfectly correct.

R. R.”

“ *Monkstown Crescent,*

1st January, 1845”.

Many similar cases could be stated and referred to, but, *ex uno disce omnes*.

A S T H M A.

ASTHMA is a nervous disease of the respiratory organs, in which the entire chest, as well as its contents, appear to be affected. The intercostal muscles and the diaphragm are spasmodically contracted, rendering respiration extremely difficult. The impeded and laborious breathing which sometimes threatens suffocation, joined with an inexpressible anxiety and straitness of the chest prevent a free circulation of blood through the Lungs. The contractions of the intercostal muscles and diaphragm prevent the Lungs from being sufficiently dilated, and the passage of the blood through them is consequently impeded. Hence, the face appears purple and bloated, and the vessels in the eyes turgid, the action of the heart is disturbed, (indicated by a quick pulse,) and the stomach and bowels are involved in the general distress, and sympathize with the Lungs. From the commencement of the fit there is a desire to cough, but this also is difficult, if not impracticable. As the paroxysm goes off, the respiration gradually becomes relieved, the cough becomes easy, and is attended by a copious expectoration, and at length a refreshing sleep puts an end to the fit.

The nature of Asthma, like Consumption, is obscure, and the causes to which it may be attributed are various. In some individuals it appears to be the effects of hereditary predisposition ; in others, it seems to depend on malconformation of the chest ; frequently it is a masked form of chronic inflammation of the Lungs, brought on by exposure to cold, by heated and close apartments, by the fumes of irritating substances, by mental affections, by prolonged and violent exertions of the voice, and by all other causes of inflammatory disease. Perhaps, however, in the great majority of cases, it depends upon an affection of the stomach, arising from a too great indulgence in the pleasures of the table, more especially in the use of vinous and spirituous liquors.

The accession of the fits occur at various periods ; very frequently they commence during the night, and many people suffer under them during the summer months ; this, however, is by no means uniformly the case ; on the contrary, the greater number of Asthmatics are much better, and often without a paroxysm, during the summer season.

PREVENTION.

It must be satisfactory to know, that if proper means be used in the commencement of this distressing malady, its severity may be moderated, the symptoms rendered less violent, its paroxysms less frequent, and perhaps ultimately a cure may

be effected. At the same time, to induce Asthmatic patients to place themselves under the care of their medical friends it may not be amiss to state, that Asthma very seldom, if ever, spontaneously ceases, but like Consumption, goes on from bad to worse, the fits becoming more severe, and more frequent, till the body gradually wastes, and the strength fails, when water in the chest, or general dropsy, deluges the patient.

To prevent the attacks of Asthma, great attention must be paid to clothing, air, exercise and diet; and to avoid the causes which have been known to be capable of producing a paroxysm. Persons afflicted with Asthma should wear flannel next their skin all the year round. It keeps the surface moderately warm and dry, thereby promoting the insensible perspiration, and preserving the skin free from the impressions of sudden cold and moisture, to which we are so particularly liable in this climate; long drawers, with feet to them, and a jacket with sleeves, should be worn in bed, to prevent catching cold when sitting up in the night, which Asthmatics are frequently obliged to do. The residing in and breathing a fresh pure air, has been observed to contribute more to the relief of Asthma than any article of medicine or regimen whatever: and its good effects appear in horses, which are very liable to this disease, and for which nothing is found better than running out at grass during the winter.

All kinds of air have been known to bring on a fit of Asthma. The mere change of weather is a

very common exciting cause, and that indifferently, whether the change be from hot to cold, or *vice versa*

Asthmatic people, who are accustomed to live in the country, cannot bear a residence in great cities ; and the Asthmatics of great towns and cities are apt to find their complaints renewed on occasional visits to the country. Such is the capriciousness of this disease, that some Asthmatics cannot bear their native air, especially if it be on the sea coast ; and this is independent of temperature, the same effects having been experienced on the coast of Dublin, and on the coast of Naples.

The use of proper exercise is of the greatest importance ; it should, however, be of the passive kind, as in an open carriage ; gentle horse exercise may be taken, but it should not be suffered to hurry the breathing.

There is no point of more importance to Asthmatic patients, or which merits a closer attention, than the regulation of their diet ; and the great secret in strengthening a weak stomach is to give it but little work to perform at a time. “In proportion as the powers of the stomach are weak,” says Mr. Abernethy, “so ought we to diminish the quantity of our food, and take care that it be as nutritive and as easy of digestion as possible ;” therefore, there should be the greatest moderation in the use of the plainest food only. Very little wine should be taken, and spirits are still more objectionable ; malt liquors are out of the question. Toasted water is the only table drink that should be used, and will do more in strengthening the

stomach than any medicine whatever, if the bowels be kept open. All fat, salted, or smoked meats, rich suet, or plumb puddings, butter sauces, and high seasoning, should be avoided. In short, Asthmatic patients, and all persons having a tendency to Asthma, should live on plain fresh meat, white fish, light soup or broths, and occasionally light bread, custard or rice pudding; a small portion of well boiled vegetables may be used. Large quantities of vegetables, raw, or not well boiled, and sallads, never fail to distend the stomach, by creating flatulency, and are therefore highly improper. Ripe fruit has been found sometimes serviceable. Asthma, whether it be a secondary disease, arising from derangement of the digestive organs, or a genuine primary disease of the chest, is much under the influence of the stomach; it is therefore in the management of this organ that the best palliative measures are to be found, and too much attention to its indications cannot be too earnestly inculcated. Of course, whatever is known from experience to bring on a paroxysm, must be carefully avoided; and since in this particular every individual has his own experience to aid him, much attentive self-observation is necessary, and few general rules will apply.

Asthmatics should go to bed on an empty stomach, and, to facilitate respiration, lie with their heads and shoulders somewhat elevated. They should take nothing after dinner, unless it be, perhaps, a cup of tea or coffee; strong coffee has in some instances been found to act as a specific in preventing the paroxysm.

MEDICAL TREATMENT.

To overcome the spasms in the Lungs during the fit, I have prescribed the inhalation of steam, impregnated with camphor, henbane, and iodine with decided advantage ; and where the inhalation could not be employed, a pill composed of ipecacuanha, henbane and James's powders, was found in many instances to shorten the paroxysm. A camphor draught, with a little hoffman and acetate of morphia, will also be found a good antispasmodic in those cases ; but such is the variable effects of medicine in this disease, as in many others, that what may relieve one patient may be useless to an other ; and in the same individual we often find that a medicine, which at first produced the best effects, and perhaps with the most surprising quickness, becomes powerless and useless after a few days. The proper qualities of natural substances, however, are fixed, and immutable : though their effects on us are subject to considerable variation, we are certain, at all events, that the same power cannot exert itself in opposite modes ; so that if contrary effects be produced by the same medicine, we are to look for the cause in the state of the object, and not in the properties of the agent. The peculiarity and diversity of our constitutions, therefore, oblige us very often to try remedies of different characters ; but if strict attention be paid to diet, with a well regulated exercise, Asthmatics will very seldom have occas-

ion to employ any medicine whatever. In some cases I have seen good effects from the smoking of *Stramonium*, while in others it has totally failed.

Nosological writers divide Asthma into different species, viz. the *Asthma Spontaneum*, where there is no manifest cause, or any other disease attending. *Asthma Exanthematicum*, when it arises from retropulsion of some acrid humors from the surface of the body—and the *Asthma Plethoricum*, when it is the consequence of some accustomed sanguinary evacuation suppressed, or a spontaneous plethora. These are Dr. Cullen's distinctions; others consider Asthma of two kinds, the *Humid* and *Dry*; but those hair-split differences or distinctions are in my mind useless, as every case of Asthma that I have seen is *dry* at the commencement of the paroxysm, until the mucus membrane throws out a secretion, which relieves the vessels of the Lungs, and generally puts an end to the fit, when it may be said to be *humid*. These are, therefore, mere grades or stages of the same complaint.

In almost all cases of Asthma, there is a congestion of blood in the vessels of the mucus membrane, which lines the bronchial or air vessels of the Lungs; and this is looked upon by some pathological writers as the immediate cause of the disease. Whether it be the cause or effect, it indicates the use of the lancet or leeches in some cases, particularly in full plethoric habits. Blisters, or other counter-stimulants, may also be necessary. After protracted cases, from neglect, mismanage-

ment, or other causes, where emaciation and debility follow, the sulphate of quinine and the subcarbonate of iron may be prescribed with advantage.

It may be satisfactory to some persons to know, that Asthmatic, like gouty people, are generally long-lived.

The following is the copy of a Letter sent to me while the last edition was in the press. The writer of it is an eminent vocalist, well known in Dublin as the principal counter-tenor singer of the Cathedrals of Christ Church and St. Patrick's.

“17, Buckingham-street, Dublin,

“20th September, 1834.

“DEAR SIR,—Having heard you are bringing out a new edition of your Essay on the Inhalation of Iodine in Asthma, &c. may I request you will insert in it the following brief statement of facts, for the information of those who may be similarly affected to myself.

“In the month of March last I found such difficulty in breathing, that I was totally unable to walk up stairs, without resting several times before I could ascend a single flight. Upon one occasion a friend of mine, seeing the distress under which I laboured, advised me to try the Iodine Inhaling, which I declined, as I had tried so many remedies without any permanent relief, under the advice of two respectable practitioners, to whom I stated the wishes of my friends relative to Inhaling the Iodine, but they both objected to the practice. However, being tired of every other remedy, my friend, Mr. St. George, brought me to your house; you examined my Chest and Lungs and under your directions I commenced the Inhalation, about five months ago. In less than three months it enabled me to attend to my duties at the Cathedrals, and by its continued use I am now practising my profession which for some years past I was unable to do.

“I remain, Dear Sir, Your obliged and grateful Servant,

SIMEON PINTO BUGGINE.

“To Sir A. Clarke, M. D., North Gt. George's-street.”

In a work of considerable merit, lately published by Sir James Murray, it appears that gentleman was investigating the effects of the Iodine Inhalation in diseases of the chest ; and although the manner in which he prescribed it, somewhat different from the mode in which it is used under my directions, the effects were nearly the same. I cannot resist the opportunity here afforded me of expressing my admiration of another work by Sir Charles Scudamore, on the same subject, the manuscript of which he showed me at Buxton, in 1830, previous to its publication ; and since that period three Essays have been published on the exhibition of Iodine in scrofulous complaints, by Mons. Lugol.* I congratulate myself on having found such scientific and able contemporaries engaged in the same pursuit. In all discoveries of practical and general application, it matters not where or by whom the first Essay is made, (and to contend for originality is not the object of my present publication ; it is to point out to the public, and to the profession, the importance of a remedy which is within the reach of all classes of the community, and may be adopted not only in private practice, but in public institutions) ;—but improvement or discovery in any art or science is generally opposed in the first instance, either from offended prejudice or mortified ignorance. One of the greatest physicians that ever lived, acknowledges the truth of this observation, as applied to the medical profes-

Physician to the Royal Hospital of St. Louis, in Paris.

sion in particular. “ *There is scarcely an improvement,*” says he, “ *in our art, however obvious, that did not experience at first the almost unanimous opposition of the faculty.* Truth, however, is buoyant, and ultimately rises above the force of prejudice, the violence of ignorance, and even the keenest shafts of *interested ridicule.*”

Before I dismiss this part of my subject, it may not be uninteresting to notice a disease of the Lungs termed, but improperly,

THE GRINDER'S ASTHMA,

Which bears little or no resemblance to real Asthma, but it is a form of Consumption prevailing amongst the workmen employed in grinding cutlery in Sheffield. The numbers thus employed, amount to about two thousand five hundred, of whom nearly one hundred and fifty are *Fork Grinders*, and these die of this disease generally from 28 to 32 years of age. The *Razor Grinders* die from 40 to 45 years of age. The *Knife Grinders* live to between 40 and 50. It may appear extraordinary, that a disease, committing such ravages amongst so large a number of workmen, should have excited so little attention either in the profession or out of it; but the sufferers, who, from a natural desire on their parts to conceal the fatal character of the disease, reject the employment of a preventive suggested by scientific humanity that is, the *magnetic mouth-*

piece,* which attracts the finer metallic particles on their approach to the Lungs; but the workmen dreaded that if the danger was diminished, the number who would go to the trade would be greater, and the wages would consequently be smaller.

For the rise and progress of this species of Consumption, I beg to refer my readers to the first number of the North of England Medical and Surgical Journal, which contains a very interesting article on the subject by Dr. Knight, physician to the Sheffield Infirmary.

* This invention was so highly valued, that the Society of Arts rewarded Mr. Abraham, the inventor, with a large Gold Medal, and his fellow townsmen presented him with a service of plate, value one hundred pounds.

CUTANEOUS DISEASES

SCROFULA AND CANCER.

The following cases and observations are taken from my case book as they were written at the moment. They may appear foreign to the subject of my present Essay; but as the chief remedy employed in their treatment was the Iodine, I may be excused for stating them, to show the powerful effect of this agent as a curative remedy in other diseases besides those of the Lungs.

It is, I believe, a well known fact, that the English are more subject to cutaneous diseases than the inhabitants of other countries. And Lady Mary Wortley Montague says, from her own knowledge, that in Eastern countries, where baths are in frequent use, diseases of the skin seldom occur. Is it not probable, then, that the want of public baths in this country, the luxurious mode of living, and the variable states of the atmosphere, render the English peculiarly susceptible of stomach complaints and diseases of the skin?

Most classes of cutaneous eruptions arise from one cause, namely, a morbid secretion from the vessels and glands of the skin, which are aggrava-

ted more or less by every disturbance which takes place in the digestive organs ; for no two parts of the body so strongly sympathize as the stomach and the skin ; no parts are more constantly exposed to accidental disturbances ; and these act and react so frequently on each other, that it is often difficult to discover which of the organs were primarily affected.

The *variety* of appearances which cutaneous eruptions assume, like the numerous forms of stomach complaints, noticed hereafter, arise chiefly from temperament or peculiarity of constitution. We know that the same cause will produce different diseases in different habits, according to age, temperament, sex, season of the year, and predisposition to disease. For example, exposure to cold and moisture will produce in one person a Rheumatism—in another a Pleurisy—in a third an Ague—in a fourth Inflammation of the Lungs—in a fifth a Typhus Fever, and so on.

When cutaneous diseases are engrafted in scrofulous constitutions, or combined with venereal poison, or irritated by the action of mercury, the appearances of the eruptions are changed ; their colour, where mercury predominates, is lighter ; and where the system is saturated with venereal poison, they are much darker. In both cases the eruption sometimes assumes such a variety of shades and forms, that it is often difficult to ascertain by which the disease is aggravated ; whether from mercury or from the venereal virus, and consequently they become a source of embarrass-

ment to both physician and patient, The *Eczema** of Willan, for example, sometimes follows exposure to cold, and recurs to the same individual at irregular intervals, without any manifest cause; and should the constitution be infected with the venereal disease, or be labouring under the irritation of mercury, the eruptions will appear in the first case of a brown copper colour, and in the second, they will be more florid. The distribution, also, and extent of the eruptions, vary in the two cases, but

* The *Eczema* (from a Greek word signifying to boil out, or to be hot) means the heat-eruption, popularly called *heat spots* which are often occasioned by exposure to a hot sun, or violent exercise, in hot weather. Sometimes it appears after long continued travelling and other sources of fatigue, and is often accompanied with a degree of exhaustion of the constitutional powers. When it appears during the exhibition of mercury, or after a course, it is called by some the *Eczema Rubrum* or *Mercurial Rash*, by others the *Hydrargyria*, on which long and elaborate treatises have been written by Alley, Mathias, and others.

The public and profession are deeply indebted to that able and talented professor of chemistry, Mr. Donovan, of this city, for his solution of "*Hydrodate of arsenic and mercury*," which is a chemical combination, possessing all the virtues of those three powerful therapeutic agents, iodine, mercury, and arsenic, and I am bound in justice to him to state that the result of my experience in the exhibition of this preparation in cutaneous diseases is, that administered in homœopathic or *minute* doses, i. e. from five to ten drops three times a day, while under a course of medicated baths, it cures in *one half* the time the most inveterate and embarrassing diseases of the skin, which any other treatment would require. For a further account of this valuable solution, see the *Dublin Journal of Medical Science* for November, 1842.

I cannot resist this opportunity of also offering my humble meed of praise to Professor Donovan, for his discovery of a new preparation of Bark, the "*Syrup of the Cinchona Bark*," which is infinitely superior to the sulphat of quina, as possessing all the virtues of the bark in a small bulk, which the quina does not. A tea-spoonful of this Syrup in a wine-glassful of water, makes an agreeable draught, and is equal in power to 71 grains of the powder, or nearly four ounces of the decoction; and contains all that is valuable in that medicine in a state of perfect preservation and full of energy.—See vol. iv., No. iv. of the *Pharmaceutical Journal*.

it is still the *Eczema*, modified only by the venereal or mercurial irritation. In like manner, papular, pustular, tubercular, and scaly eruptions change their colour when they appear in the system tainted by the venereal disease, or supersaturated with mercury.

When an eruption of a copper colour presents itself to us, we should examine the complexion of the patient, and investigate the previous history of the disease; and should we come to a satisfactory conclusion, that the eruption is ingrafted in a constitution labouring under syphilis, we should place our patient under a well regulated course of mercurial fumigations, impregnated with the vapor of Iodine, which will be found sufficient in most cases for the cure; but when the appearances are such as to leave a doubt upon the mind, it would be most judicious (should we find the patient under a course) to suspend the mercurial treatment, and to substitute the sulphureous fumigations, with a plan of treatment likely to repair the general health, by which means we give the system breathing time, and prepare it for the mercurial vapor, should it become necessary. The infusion of the *bark of sarsaparilla*, in lime water, taken with hot new-milk, three or four times a day, will be found the best restorative in such cases.

When cutaneous eruptions appear of a more florid colour than usual, where no mercurial irritation exists, we may conclude that *scrofula* more or less pervades the system. In this case the daily use of the Iodine Vapor Bath with from 3

to 6 drops of Donovan's solution of the iodide of arsenic, and mercury, in each draught of the infusion of sarsaparilla, will be found in most cases to effect the cure.

In that dreadful disorder called *Noli-me-tangere*, I have had some opportunities of trying the effects of Iodine, and out of six cases which have been lately under my care, four have been completely cured by the local application of the Iodine Vapor and Lotion alternately, with the internal exhibition of Donovan's solution in very minute doses.

In *cancer*, my experience of its effects does not enable me to say much, as I have had but few opportunities of trying it; one was a case of such a malignant nature, and so far advanced, that no hope even of mitigation could be entertained. The case was that of a lady who had been labouring under it for eight years, and so extensive was the disease, that no operation could avail. No hope whatever of relief was held out to her, yet she expressed a strong desire to try the effects of the Iodine Vapor, and accordingly it was applied daily, for a week, an hour each application, at 110 degrees; after each bath she slept for nearly three hours and awoke free from pain, and experienced such relief, that she longed for the hour of its application each day. The discharge being excessive, and her system worn out, a hæmorrhage, came on, and on the eighth day she expired. It was the opinion of Mr. Carmichael, who witnessed its effects, and the friends of the deceased, that had the remedy been applied sooner, her life might have been spared.

In an incurable case of *Cancer Uteri*, of six years standing, in a lady of fifty years of age, the *Ioduretted Mineral Water*, taken daily for three months, producud such an alleviation of symptoms and mitigation of pain, that she thought herself cured and went to the country. In three weeks after, however, the symptoms returned, and in another month she was carried to her grave.

Mrs. A——, aged 32, placed herself under my care, in August, 1838, for the cure of a cauliflower cancer. Previous to my commencing the Iodine treatment I had a consultation with Dr. Eustace, who had seen her before I was consulted, and another with Mr. Carmichael, both gentlemen pronounced her case to be *Cancer Uteri*. Her mother died of cancer of the breast, which naturally alarmed my patient, and impressed her with the idea, that the disease being hereditary, her case was hopeless. Her husband took a house for her at Booterstown, for the benefit of the sea air, where she commenced the internal and external use of Iodine, under my superintendence, which she perseveringly continued, (with a few short occasional interruptions,) for nine months, when all symptoms of her complaint disappeared: while under treatment she used almost daily, injections of Iodine and Iodide of potash, in decoction of white poppies, and took the Ioduretted Mineral Water occasionally. She has had no relapse, and enjoys good health to the date of this Edition.

In three cases of *Elephantiasis*, which I submitted to the Iodine vapor, two were cured; one was

so remarkable, that I cannot resist stating it. It was the case of a young lady of rank and fortune, who was born in India, and with whom the disease commenced at the age of eight years, but in the legs only ; which gradually increased in dimensions until she was sixteen, when the enlargement became as it were stationary. At this period, the legs were so enlarged as to have an exact resemblance to the legs of the animal from which the name of the disease is taken ; but the disease did not extend above the knees, nor below the ancles. The skin of her legs was hard and thick, resembling in feel and appearance a piece of coarse paste-board or dried leather. The blood vessels were enlarged, particularly the external veins, and the lymphatics distended. The feet were remarkably small, and nearly concealed under the bulk of the legs that encumbered them.

The organization of the integuments seemed at first sight to bid defiance to any thing like a plan of cure. The swellings were hard and firm, and resisted pressure, but were quite free from pain. The rest of her frame was free from any cutaneous affection whatever, and her appetite and general health were good, with the exception of occasional stomach derangements, and irregularity in her female constitution. Her father had seen many professional men in London and Paris previous to his consulting me, and her case was considered altogether incurable. It is now six years since I recommended the plan of treatment which was adopted, and I am able to state, that the lady is

at present in London, and perfectly well in every respect, her legs being reduced to the natural size, and the skin in a healthy condition.

The treatment was simply this: I placed her legs in an Iodine vapor bath, at 110, for an hour every day for three months; after which they were shampooed and rubbed for nearly another hour, and then rolled in calico bandages. I gave her eight drops of the tincture of Iodine every morning and a pill every night, composed of

The watery extract of Aloes and
Rhubarb, of each two grains;
Blue Pill and James's Powders,
Of each half a grain mixed.

After the first month the hardness and roughness completely disappeared, and the skin yielded to pressure. At the end of three months the legs were reduced to one-half their former dimensions, and the fair patient expressed herself perfectly satisfied if they should remain so for the rest of her life.

Four cases of the *Prurigo Formicans*, and three of the *Prurigo Senilis*, which resisted every plan of cure recommended by medical authors, and baffled most of the remedies in common use, were submitted to the Camphorated Iodine Vapor Bath, and after three weeks' daily use of it, were all cured; with the exception of one of the latter, which was that of a gentleman of 74 years of age, who could not be induced to give up the "pleasures of the table," or to abstain from those things which are known to aggravate the complaint; notwithstanding, the itching and irritation were greatly

mitigated by the bath, and the use of the following linament, which almost always rendered him temporary relief, and enabled him to sleep at night. The linament was composed of two ounces of camphorated oil, one drachm of hydrosulphuret of ammonia, and one drachm of laudanum, mixed.

These affections of the skin (called Prurigo, from *Prurire*, to itch,) are supposed by some to be caused by animalculæ, or cutaneous insects, and are the most distressing complaints with which mankind is afflicted in the middle and advanced periods of life. The *Prurigo Senilis*, as its name imports, is peculiar to old age, and may justly be called one of the “miserics,” of the last stage of life, to those who arrive at that period; however, it must be satisfactory to know, that although the itching and smarting are sometimes almost beyond human endurance, the disease is not so unmanageable as it was formerly considered, and that by temperance, a well regulated diet, and the above-mentioned external applications, the disease may be ultimately subdued.

In certain chronic inflammations of the skin, characterised by *scaly* eruptions, I know of no remedy so efficacious as Iodine. The following case is copied verbatim from my case book:—

Mr——, aged 35, consulted me on the 10th of January, 1831, for a scaly disease, the (*Lepra vulgaris*) under which he laboured for 9 years. It extended over almost the whole surface of his body, the hands and face excepted—the scaly patches on his body and limbs varied in size from that of a crown piece to a six-pence. He was otherwise

in good health, weighed 14 stone, and was 5 feet 10 inches high, with florid complexion and blue eyes, had a good appetite, and indulged in the pleasures of the table. His bowels, however, were naturally constipated; he was about entering into a matrimonial speculation, and was of course very anxious to get cured. He had tried mercury, antimony, arsenic, and prussic acid in various forms, both internally and externally—sulphureous fumigations, sarsaparilla, dandelion, and dulcamera: very little good resulted from all these remedies, and he looked upon his complaint as incurable, and indeed one of his physicians, Dr.——, told him that he would not insure his life for six months, if he was ever cured of the disease. He placed himself under my care on the 10th January, and in three months the entire of his body was as smooth and as free from the eruptions as the palms of his hands, only stains of a marbled appearance remained on the skin, which disappeared in a very short time after. The treatment was simple, viz. a pint of blood was taken from the arm in the first instance, and from the colour of the serum and of the bowel evacuations, it was evident there was some disturbance in the liver; a five grain blue pill was given him every night, and a pint of Ioduretted Mineral Water* in divided doses every day for a month,

* The Ioduretted mineral water, is a chemical combination of iodine, iron, carbonic acid gas, and aperient salts in distilled water, and is (according to my experience) the best preparation of Iodine for internal use. A pint of it contains 120 grains of saline ingredients, one grain of the ioduret of iron, 2 of the

and an Ioduretted Sulphur fluid bath at 98, for an hour every day. This was the entire of the medical treatment for the first month, after which the pills were omitted, and five drops of the arsenical solution taken three times a day in the mineral water, for another month, bathing every second day. The third month he used the bath only twice a week, and a draught of the mineral water once a week. He is now upwards of three years married, and has had no return of the disease.

The effects of the topical application of Iodine, in the following two cases, were so remarkable, that I cannot resist stating them; one of them was a case of *scrofulous ulceration and thickening of peristoeum* of the right arm, which, in spite of those remedies deemed most efficacious, had been gradually advancing for upwards of two years, and there was little or no hopes entertained of saving the limb. A consultation almost decided upon amputation, but knowing the power of the Iodine Vapor in removing scrofulous affections, in dissipating tumours, and rendering the skin more sensible, and the pain less acute, I suggested its local application, which was consented to, and in a few days the sores assumed a new aspect, and the healing process went on with such wonderful rapidity, that at the expiration of six weeks, the sores, three in number, were nearly healed, with a

hydriodate of potash and 4 cubic inches of carbonic acid gas. It is prepared at the Medicated Bathing Establishment in Temple-street. Half a pint may be taken daily in one draught, or in divided doses. It produces generally one bowel evacuation in the 24 hours, and is useful in cancerous, scrofulous, and almost all chronic diseases of the skin.

sensible reduction of the thickening of the periosteum, and in three months the arm was perfectly well, with merely a little stiffness at the elbow joint.

The other case was that of a gentleman who laboured under ankylosis of the wrists and elbow joints of both arms, and of the knees and ancles of the extremities, which admitted of neither flexion, extension, nor any other motion for three years and a half. Gout, ingrafted in scrofulous constitution, seemed to be the cause of his complicated maladies. He was about 45 years of age, and admitted into the *Maison de Santé* on the 20th of February, 1832, without the slightest expectation or even hope of a cure. Previous to his discharge, which took place on the December following, he wrote to the Committee a letter, which was published in the Annual Report of the Institution at his particular desire. The following is extracted from the Report:—"I was received into the *Maison de Santé*, as an *intern patient* ten months ago, labouring under gout, palsy, and a complication of disorders, which not only deprived me of the use of my hands, feet, and lower extremities, but of *the sight of both my eyes* ; * I had been in this helpless and deplorable condition for upwards of three years—I was six months in—— Hospital, from which I was discharged without benefit, I then tried country air for twelve months, and grew worse. I was afterwards three months in—— Hospital, where my case was pronounced *incurable*,

* The nerves of vision being paralysed.

and recommended as such to the Hospital for Incurables, but there being no vacancy, I could not be admitted.”—After describing the medical treatment he received in the *Maison de Santé*, which consisted chiefly of the Ioduretted Vapor Bath almost daily, and the Baume de Vie mixture occasionally,* he concludes his letter in the following words—“I can now walk a mile and upwards without fatigue. I could not see to read or write some months ago : I can now do both, which to me is a source of great happiness. I impute this (to me glorious) recovery to the treatment I received in this institution. Gratitude for the many obligations I am under, demands that I should state these facts to the Committee, and to His Grace the Duke of Leinster, (on whose recommendatory ticket I was admitted,) and that I should not be silent on leaving an institution, in which it has been the will of God I should be completely restored to health. These feelings I hope will plead my best excuse.

“THOMAS BARNES.”

“*Maison de Santé*, 22nd Dec., 1832.”

Mr. Barnes, was well known in Dublin, and held for many years a confidential and lucrative employment in the Bank of Ireland, which he was obliged to resign from ill health. He was superintendent of the Feinaglian Institution, and

* This is the house medicine of the Institution, and is composed of the compound decoction of aloes, (formerly called baume de vie.) with half a drachm of epsom salts, and three drops of Iodine to each dose.

could walk from six to eight miles a day, (which he frequently was in the habit of doing with the young gentlemen of that Institution,) without injury or fatigue.

I shall conclude my present subject, by stating a few facts and observations on

GLANDULAR SWELLINGS IN THE NECK, and various parts of the body, which sometimes suppurate, and are tedious and difficult of cure.

Infants and children are sometimes affected with tumours of the above description. Upon inquiry it will be generally found that inattention, want of exercise, bad diet, thin clothing, and impure air, are the remote causes ; in fact there are few children that may not, from neglect or mismanagement, in these important points, be affected more or less with those tumours. Defective ventilation appears to be one of the principal causes of scrofula in the manufacturing districts in England, and as accessories, bad food, badly cooked, defective clothing, inattention to personal cleanliness, and sleeping in confined and small dormitories, and in addition to other causes sleeping with the head under the bed clothes. Facts prove that scrofula is sometimes *hereditary*. That parties may be born scrofulous ; but then the mothers must be scrofulous at the moment of conception, and during the greater part of gestation live in the midst of circumstances which have excited and which

support the disease.* When parents have ceased to be scrofulous, they can only transmit to their children a *predisposition* to the disease, of which they are cured. *Hereditary predisposition* to scrofula in some is said to exist; and it has been observed that children, who have very smooth skins, florid complexion, thick upper lips, the tonsils of the throat enlarged, &c., have a tendency to this complaint. The result of my observations and experience, however, is, that scrofula is not exclusively confined to children who are thus distinguished, nor are those children peculiarly liable to the complaint who are thus marked. Some of these appearances indeed, particularly the thick upper lip and florid complexion, have been known to arise from worms, and other causes.

This disease is almost peculiar to the growing state: there is, however, a period when it disappears and which is usually the case when the powers of digestion are strengthened, and the constitution established. Whatever remedy is taken at this time often obtains the credit of the cure, when in point of fact, it was the mere result of the harmony which then prevailed throughout the animal economy and the vigorous action of its several functions. Thus it was supposed to have been cured by the Royal touch of EDWARD THE CONFESSOR, and of other Kings of England and France, and hence the disease obtained the name of the King's Evil. In like manner a variety of other applications and

* Etudes de la Maladie Scrofuleuse, par Mons. Baudelocque.

remedies have been supposed to be efficacious; such as the blood of lizards, distilled toads, burnt corks, calcined cloth, which should be of a scarlet colour, &c. These, without doubt, are harmless applications; and although absurd as they must appear in the eye of reason or common sense, are still held in estimation by the credulous and superstitious disciples of charms and incantations. In a similar way, namely, by their exhibition at those particular periods, when nature was working her own cure, several of the most active vegetable and mineral poisons have also obtained credit, and continue to be recommended even by respectable practitioners—such as hemlock, henbane, foxglove, and other herbs; iron, copper, arsenic, and other minerals—opposed, however, as I am to other authorities, I have never ventured, in a very extended acquaintance with the disease, to recommend any of those powerful remedies.

The numerous cases of scrofula of the glands and joints, which have been submitted to the action of Iodine, with the most astonishing success, enable me to say, in conclusion, that there is no malady to which I am called upon to administer, that I prescribe for with so much confidence in the resources of our art, as for this disease; and further, that the Iodine baths are as powerful auxiliaries in the treatment of scrofulous complaints, as the sulphureous vapor is in the cutaneous kind. And lastly, that scrofula *is not* (as was formerly considered) an *incurable disease*.

The following solution and table shows the proportion of Iodine for each bath, as used in the *Maison de Santé* and the Medicated Bathing Institution in Dublin, and also for inhalation :

SOLUTION OF IODINE.		
Take of Iodine one Ounce ; Hydriodate of Potash two Ounces ; Rose Water two Pints, mix.		
IODURETTED FLUID BATH.		
<i>Solution of Iodine.</i>	<i>Water.</i>	<i>Temperature.</i>
1 Pint.	60 Gallons.	98.
IODURETTED VAPOR BATH.		
2 Ounces.	1 Pint.	212.
IODURETTED SOLUTION FOR INHALING. *		
20 Drops.	2 Ounces.	85 to 90.
IODINE LOTION.		
1 Ounce.	8 Ounces.	70.

The above proportions are for the use of adults ; half the strength will be sufficient for children.

• Iodine Inhalers may be had at all the Medical Halls in London and Dublin.

The following solution and table show the proportion of Iodine for each bath, as used in the Medical Hall and the Medical Bathing Institution in Dublin, and also for inhalation:—

SOLUTION OF IODINE.		
Take of Iodine one Ounce; Hydrostatic Potash two Ounces; Rose Water sufficient to fill the bottle.		
IODURATED VAPOR BATH.		
Solution of Iodine.	60 Grains.	1 Pint.
IODURATED SOLUTION FOR INHALING.		
20 Drops.	2 Ounces.	1 Pint.
IODINE LOTION.		
1 Ounce.	8 Ounces.	7½

The above proportions are for the use of adults; half the strength will be sufficient for children.

Iodine Inhalation may be had at all the Medical Halls in London and Dublin.

It is a powerful agent in the treatment of the throat, and is used in the form of a solution, or as a vapor. It is also used in the form of a lotion, and is a powerful agent in the treatment of the skin. It is a powerful agent in the treatment of the lungs, and is used in the form of a solution, or as a vapor. It is also used in the form of a lotion, and is a powerful agent in the treatment of the skin. It is a powerful agent in the treatment of the lungs, and is used in the form of a solution, or as a vapor. It is also used in the form of a lotion, and is a powerful agent in the treatment of the skin.

PART II.

ON

INDIGESTION, DIET, AND SEA BATHING;

WITH OBSERVATIONS ON

MINERAL WATER, WATERING PLACES,

AND ON

THE CLIMACTERIC DISEASE;

ALSO AN APPENDIX ON

HYDROPATHY OR THE WATER CURE.

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PART II.

ON

INDIGESTION AND DIET,

MINERAL WATERS,

AND WATERING PLACES,

&c., &c., &c.

IT has long been an established maxim, that “those things which more immediately and frequently come under our observation, are the least carefully observed, and the most subject to popular error.” The opinions of some of the most distinguished writers and practitioners of the age, which I shall bring forward in support of my own observations on the circumstances connected with diet, indigestion and sea bathing, will afford striking illustrations of this truth.

The various complaints termed “affections of the stomach,” “of the liver,” “of the spleen,” “nervous” and “bilious attacks,” “dyspeptic,” “hypochondriac,”* and “melancholic complaints,” “diseases of the desk,” “English malady,” and

* The regions under the short ribs on both sides are called by Anatomists the *hypochondria*. In these regions some of the most important organs of digestion are lodged, from an impairment of which the hypochondriac malady gained its appellation. It is also called the spleen, from its imaginary connexion with a disease of that organ.

“blue devils,” all arise from the same source, namely, Indigestion, and may be considered as so many different stages or masked forms of a disease, which, though frequently presented to the medical practitioner, is but little understood.

Indigestion occurs in the above modifications at all seasons of the year, under every circumstances of life, and in every rank of society—no age, sex, or condition being exempt from its attacks. There is no disease which has afforded more encouragement to the pretensions of quackery, and the countless nostrums denominated *patent medicines*, as “stomachics,” “dinner pills,” “antibilious,” “anti-nervous,” as “*infallible*” remedies, have no other effect in general, than to fix and perpetuate the complaint; and if the unfortunate invalid be not a dupe to imposition and quackery, he falls a victim to the *routine* of practice in this class of maladies. The drastic *purgatives*, the fiery *tonics*, and the long continued *mercurials*, are the bane of digestion; and even where medicine is proper, the inattention which is generally paid to diet, renders fruitless the whole range of the pharmacopœia. By some, calomel is administered with the same freedom and frequency as the most simple purgative in the materia medica; and, doubtless, serious and irreparable mischief is often inflicted on the constitution by the abuse of this powerful agent. “Mercury and antimony,” says a celebrated physician,* “elaborated into poisons by chemistry, i. e. *calomel*, *tartar emetic*, *James’s powders* &c. have torn

* Dr. Cadogan.

many a stomach to rags, so that it could never bear common food afterwards."

It may be necessary to give a general description of the process of digestion, and the digestive organs, to enable us to guard against the causes of indigestion.

The Digestive organs consist of the stomach, the small and large intestines, sometimes called the alimentary canal, in which the digestion is carried on, assisted by the bile pancreatic, and other juices; the liver, spleen and pancreas, therefore, are subservient to them. The stomach is a large muscular bag, having two distinct orifices, one for the admission of the food, the other for its passage into the small intestines. The inner coat or lining of the alimentary canal, is of that order of tissues which has obtained the name of *mucus membrane*. This membrane secretes a fluid in the stomach, called the *gastric juice*, which exerts a solvent power on the alimentary substances taken into it, and which is capable, even out of the body, of dissolving food and converting it into a substance similar to that into which it is changed in the stomach—and such is the solvent power of this fluid that it sometimes digests the stomach itself, when deprived of the vital principle by which it is enabled to resist its action.* The food, when duly prepared or assimilated by this fluid, is formed into *chyme*, which, by means of the muscular power of the stomach, is propelled into the small intestines, where another change takes place, by the

* Mr. Hunter.

agency of the bile and pancreatic juices, and *chyle* is formed. It is afterwards propelled by the muscular action of the small intestines, (called the peristaltic motion) into the large intestines where the last process is performed. While the food is passing through this course, the portion of it which has been converted into chyle, is conveyed to the blood by means of small vessels called *lacteals*. Nothing can pass from the stomach into the blood, but through those vessels, which are the smallest in the body. If this were not the case, particles of matter might be admitted into the system, which could never again be discharged from it, and consequently be productive of the most inveterate obstructions. After the nutritious part of the chyle is taken up by the lacteals, the fœculent or useless part passes through the large intestines, and is generally evacuated on the following day.

In a healthy state, the food goes through the above changes in fourteen or sixteen hours, without any appearance of that species of natural fermentation which animal and vegetable matter undergo in moist and warm places, and consequently no gaseous fluids are extricated. But if the food be of difficult digestion, or taken in too large a quantity—or if the digestive organs be weak, or otherwise deranged, a decomposition of the food takes place before the digestive process has operated upon it; the vegetable matter runs into the acetous fermentation, and the animal matter into the putrifactive, causing the stomach and bowels to be distended with wind, and producing sour and rancid eructations.

The gastric fluid being the immediate agent in digestion, the first process must be defective in proportion as its secretion is deficient or vitiated. The chyme then being imperfectly formed, leaves the stomach, and passes into the intestines, which it irritates, in consequence of the chemical changes or decomposition which took place in the stomach, and thus disturbs all the other processes. A daily repetition of this imperfect digestion at length deranges the whole of the alimentary canal, producing a "morbid sensibility of the stomach and bowels" and a train of other embarrassing symptoms, the effects of which are so distressing sometimes, that the spirits of the invalid are subdued, and he gradually becomes unfit for the active duties of life; and in this state of despondency and mental imbecility, I fear many a man has applied a pistol to his head, when a gentle cathartic would have restored him to cheerfulness and health. How many persons labour under "lowness of spirits," from not being aware that a very slight medical aid, with an alteration in their diet, a course of shower bathing, or other remedy, would liberate them from the influence of their "blue devils."

The following symptoms denote a derangement or disordered state of the digestive organs. The appetite fails,* the tongue becomes dry, whitish or

* Loss of appetite is the most common of all the morbid conditions of the stomach; but this symptom may have its cause in other parts besides the stomach. For instance, emotions of the mind will take away the appetite more frequently, though less permanently, than the stomach disease.

furred; the biliary secretion is either suspended, diminished, or vitiated; and the countenance, by its bilious tinge of paleness, betrays a deficiency or a redundancy of bile; the bowels are either purged or costive, and the evacuation foetid. There is also frequently a troublesome cough, called "a stomach cough,"* and sometimes a tenderness felt at the pit of the stomach; the urine is turbid, and deposits a pinkish sediment resembling brickdust.

A paleness and sallowness of complexion, and a dark hue about the eyes, also denote derangement in the digestive organs—sometimes the lips are pale or livid, and affected with a degree of tremor, particularly on occasions of hurry or surprise, or on speaking.

A tremor in holding out the hand, in writing, or carrying a cup to the lip; in walking, and in articulation, are usually symptoms of indigestion; it is generally accompanied with an appearance of nervousness, a susceptibility to hurry and agitation.

The tongue generally indicates derangement of the stomach, when, perhaps, no uneasy sensation is felt. The superior surface of this organ becomes covered with a layer of whitish, soft mucous sub-

* All coughs derive some modification from the cause in which they originate. The stomach cough differs from a tickling cough of a common cold, and from the deep hollow cough of Consumption, and both the latter are distinct from the hoarse cough which generally attends or proceeds the measles. The cough of whooping-cough is distinct from all; and a particularly distressing cough of a distinct marked character frequently accompanies *hysteria*; it is a dry, hard cough, which shakes the whole frame, and is commonly loud and frequently repeated. It is induced and prolonged by all kinds of mental irritation, and quite refractory under the common pectorial and anodyne treatment.

stance, admitting of being partially removed by the tongue-scraper ; the mouth at the same time more or less clammy ; the taste depraved, and the breath offensive. In advanced stages, when the derangement amounts to indigestion and obstruction, the tongue becomes swollen and loaded, the gums red and tumid, and easily made to bleed. Sometimes the tongue is covered with a fur resembling coarse velvet, and at other times a morbid redness and smoothness of surface appear, like glazed silk. This morbid redness of the tongue almost always indicates gastric irritation.

The nose, hands, and feet, are generally cold ; the nails assume a purplish or lilac hue, and the lips become white and opaque. These appearances are by no means unfrequent, and are always characteristic of derangement in the digestive organs. When the ends of the fingers are swollen and affected with a sense of tingling, especially in young persons, an organic disease of the liver is indicated—sometimes pulmonic consumption.

Drowsiness, frightful dreams, nightmare, and cramps, hurried wakings, with palpitations, a fluttering in the chest, and sometimes feelings of impending dissolution, indicate the morbid affections of the stomach. A strong pulsation of the Aorta in the epigastric region is sometimes felt to an alarming degree by dyspeptic persons. Children frequently start, get up in bed, or even out of bed, and perhaps scream violently, and are affected with fright or temporary delirium, while labouring under indigestion.

There is a singular stomach disease, denoted by vertigo, sickness and fainting, which has been mistaken in some instances for Epilepsy.

A gentleman aged 28, residing in — shire in England, after indulging in the pleasures of the table on the 25th day of February, 1834, was the following day seized with Epileptic fits of a most alarming and frightful description, and, notwithstanding the most active treatment which two experienced and eminent country practitioners could adopt, the fits recurred at irregular but short intervals for three months, and sometimes twice in the 24 hours.—His appetite was voracious, and occasionally the fits recurred after meals, but never in the night-time. His emaciation and bodily weakness increased to such a degree that he could not walk from his bed to a sofa without help; and his bones, to use a homely expression, were starting through his skin. His mental debility threatened to end in fatuity, and little or no hope was entertained of his recovery. On the 27th of May, I was consulted by letter, and from the statement given by one of his medical attendants, (of which the above is an extract,) there could be no doubt but that the primary cause of the disease lay in the stomach, and I was apprehensive, from the great frequency of the attacks, that some tubercular deposit had taken place in the brain, or that a softening of the cerebral substance, or some disorganization had commenced in the head. Under these impressions, and knowing the effects of Iodine in dyspepsia, and in tubercular disease,

I proposed the internal exhibition of it in graduated doses, combined with aperient salts and camphor, ordering the patient to eat but *little and seldom*, and to be brought out in the open air, as much as possible. The result of this treatment was, that in six weeks he was able to walk *daily* from five to six miles, and, what will appear almost incredible, *after the first dose of Iodine he never had a return of the fits*. He continues to enjoy good health, and under the use of the Iodine, recovered his flesh, contrary to the received opinion that emaciation and glandular atrophy are caused by that drug.

Mr. Carmichael with whom I had a consultation on the above mentioned case, fully coincided in the views I had taken of it, and in the treatment which I recommended.

The milder forms of Tic Doloureux generally depend upon some derangement of the digestive organs, and usually give way to the treatment directed to these sources; and although the severe form does not yield to any particular treatment with which we are acquainted, it may be mitigated by attention to diet and regimen.

A case of Tic Doloureux is related in the *Annals Universale*, of a lady who was cured by a *spontaneous salivation*, after resisting every remedy that could be thought of.

In protracted cases of Indigestion, the surface of the body becomes dry, branny, and sallow or brownish; and the nails become brittle, and break off in layers.

The urine denotes, by its turbidness, derangement in the digestive organs ; by its deep yellow colour, biliary obstruction ; and by being pale and copious, nervous irritation. Disorders of the digestive organs, by causing the frequent secretion of unnatural urine, sometimes produce irritation and subsequent diseases of the kidneys and bladder.*

The colour and consistence of the bowel evacuations also indicate the state of the digestive organs. If the bile be healthy and duly secreted, the evacuations are of a deep yellow brown or wet rhubarb colour. If they are of a light yellow or clay colour, it denotes a deficiency in the secretion, or an obstruction in the biliary ducts. If of a deep olive, or clay brown, or blackish brown, the bile is vitiated. Gelatinous, mucous, and other matters, being mixed with the evacuations, denote a disordered state of the digestive organs. The liver is supposed by some to be the seat of the evil in all disorders of the digestive organs ; but this opinion I believe is not well founded, though it has led to a popular hypothesis, now very prevalent, which attributes nearly all the diseases of the digestive organs to a disturbed state of the liver, and for which mercurial drugs are lavished almost indiscriminately.† The folly of expecting to repel this or any other opinion, which is favourable to the natural indolence of mankind, is obvious, especially when it is at the same time upheld by the empirical interests of unprincipled individuals.

* Sir A. Carlisle. † Mr. Abernethy.

Piles, itching, and irritation about the anus are frequently occasioned by derangement in the digestive organs, which disappear on the cause being removed.

Imperfect digestion influences the qualities of the blood, and consequently the "nerves," the "liver," the "spleen," and other organs of the body become more or less affected from this source.

Among the numerous symptoms arising from Indigestion, eruptions on the face are the most distressing, particularly to two descriptions of individuals in whom the community are much interested, namely, the studious and the fair sex, who, from their sedentary habits, are more subject to this class of disease. This symptom, therefore, demands our most assiduous attention, for if it be neglected, or improperly treated, the blotches and eruptions in which they terminate, and the fiery redness which sometimes attends them, will inevitably destroy the finest features, and disfigure the most captivating countenance, rendering life, if not miserable, at least unenjoyable.

The term SCORBUTIC, is generally, but most improperly, applied to this eruption; and this serious error has induced the ignorant and the unwary to resort to the use of "Anti-scorbutics," "sweetners," "ointments," "washes," and various cosmetics, which by their sympathetic effect upon the stomach, increase its derangements, and at once fix and perpetuate the eruption.

Where the skin appears greasy, with numerous black points scattered over the forehead, nose and

neck ; or, where small, hard, and red pimples make their appearance, a derangement in the liver and digestive organs may be suspected ; and if appropriate means be not used in this stage to remove the cause, these pimples gradually become enlarged, acquire an inflamed base, and slowly change into little boils, which break and discharge their contents, leaving marks which do not hastily disappear. The forehead, sides of the nose, the chin, the throat, a little below the angles of the jaw, and the back of the neck, are most commonly the part in which these inflamed Tubercles show themselves. The stomach, in such cases, is generally disordered, and the appetite precarious and irregular. Almost every meal is followed by acid eructations or flatulent distension of the stomach ; the bowels are very irregular, the spirits are depressed, and the sufferer is frequently irritable, whimsical, or in the nervous state called “ Hypochondriasis.” This, in general terms, gives the outline of those cutaneous sympathetic eruptions on the face, which by change of diet, an occasional dose of some appropriate medicine, and a few Medicated Vapor or Fluid Baths, may be effectually cured, and the recurrence of the eruption prevented by sea or shower bathing. But from neglect, inattention, or mismanagement, these eruptions become an *organic Disease of the Skin*, termed Achne, or Stone Pock.

The natural taste of the *Saliva*, when the stomach is in a healthy condition, is always *Alkaline*. When the *saliva* is *acid*, it indicates irritation or

inflammation of the mucus membrane. I have seldom met with an instance of the latter, when the functions of the stomach were healthily performed, therefore, in all cases of gastric disturbance, when the saliva is distinctly acid, I have reason to suspect that inflammatory irritation of the stomach is present, and recommend an antiphlogistic treatment.

Among the sympathetic symptoms of indigestion, pain in the head, or "sick head ache," as it is called, is often the most distressing symptom, and this secondary complaint, if the cause be not removed, may degenerate into an organic affection of the brain; and what might in the first instance be removed by a proper attention to diet, regimen, and shower bathing, requires perhaps the application of leeches, cupping, setons, &c. In like manner, the liver and the lungs may be brought into diseased action.

In the early stages of Indigestion we find little difficulty in restoring the tone of the digestive organs; but neglect or mismanagement on the part of the patient, too often protracts the disease, until the second stage supervenes. The liver then sympathizes with the stomach, and the bile undergoes a morbid change, ushering in a new train of symptoms, called "*bilious.*" Lastly, the lungs participate by sympathy in the organic derangement, and thus create what may be truly denominated "*Dyspeptic Consumption;*" and until we restore the digestive organs to their healthy functions, we cannot overcome the hepatic or

pulmonic derangement. As such combinations of disease require very different medical treatment from that which is applicable to hepatic disease or pulmonary consumption in their primary or individual forms, it must be of vital importance to obtain correct information on our first investigation of the complaint.

Indigestion presents itself in every constitution, and in every stage of life, from the cradle to the tomb. In early infancy, undigested food in the stomach and bowels produces worms, convulsions, and symptoms resembling those of water on the brain. In advanced life it occasions apoplexy and palsy; while in the middle periods, the same cause produces various and complicated Diseases of the Skin, symptoms of Pulmonary Consumption, &c.

Scarcely any two bodies are formed exactly alike, or any two minds alike constituted; every human frame is distinguished by some peculiarity, and the ancient physicians maintained that our TEMPERAMENTS changed as often as the seasons; that in summer they were sanguine, in autumn melancholic, in winter phlegmatic, and in spring partly sanguine and phlegmatic, making atmospheric temperature and corporeal temperament to correspond. That many circumstances may occur during life to change the temperament from what it originally was, must be admitted; the ardency of youth may be frozen by adversity, and the despondency of a decrepid age may be anticipated by misconduct. With all these states of the system it is natural to expect various degrees of health.

The various symptoms of Indigestion which are pointed out, will of course be modified according to the peculiar habit, constitution, or temperament of the individual. Indigestion in *bilious temperament* will produce different phenomena to that of the *sanguine, nervous, or phlegmatic*. The colour and texture of the skin, for instance, are materially influenced by these individual peculiarities. In the bilious temperament, the skin is harsh, and often arid, and the complexion less clear, less brilliant, and more sallow than the same complexion would be, whether dark or fair, under the sanguine temperament; in the latter, a remarkable smoothness and elasticity, as well as brilliancy of the skin is observable. The bodily confirmation of the bilious habit is usually spare and rigid, while that of the sanguine is full, plump, and largely developed. This variety of habits accounts for the various forms in which Indigestion appears to us, and for the different modes of treatment which we should adopt for their cure.

A morbid distension of the stomach is the most frequent and powerful cause of Indigestion. This is generally occasioned by the quantity we put into it. By eating fast, or, as it were, devouring our food, we put more into the stomach than the gastric juice can digest; whereas, by eating slowly and masticating well, the appetite abates before the stomach is overloaded. If a meal be interrupted by business, conversation, or music, we often find the appetite abate before the usual quantity of food is taken—for excitement of one sense

generally produces a commensurate collapse or depression of another. Hence the exclamation of a passionate Frenchman, while dining in a talkative company, was not, perhaps, so improper as might at first sight be considered:—"Hold your tongue," said he, "for I cannot taste my dinner." Great feeders, therefore, should not allow themselves to eat in silence or alone. An uneasiness or sensation of *dragging* at the pit of the stomach, which is often mistaken for hunger, is indicative of chronic inflammation. In this case no sooner is the smallest quantity of nourishment taken into the stomach, than a total loss of appetite succeeds to the importunate craving previously felt.

With respect to the *quantity* of nourishment in dyspeptic cases, there should never be more put into the stomach than it is capable of digesting with ease. A person after eating should never feel that he has a stomach. The food should be nutritious, easy of solution, and taken at intervals of six hours, or three times a day. Very little drink is necessary during or immediately after dinner. Much liquids taken shortly after dinner, dilute the juices of the stomach, and render it less efficacious in the process of digestion.

Distension of the stomach may be occasioned by the *quality* of the food, as well as the quantity. All kinds of food swell more or less after being taken into the stomach; that which is difficult of digestion generally swelling the most, and remaining in the stomach the longest.

The quantity and quality of our food are the

two grand *physical causes* of Indigestion, and are within our own control; but the *moral causes* are numerous, and not easily ascertained or counteracted. Wounded feelings, domestic afflictions, pecuniary losses, violent passions, long-continued application to business, severe study, fear, grief and anxiety, destroy the appetite, by producing a morbid secretion of the bile and gastric fluid.

The disturbance of one organ immediately affects some other. For example, a blow in the stomach disorders the head, while a concussion of the brain will occasion pain in the stomach and vomiting, and a diarrhœa is not an unfrequent concomitant of grief. It is an historical fact, that Cardinal Wolsey died of an Indigestion, brought on by a few words from Henry VIII.; and the immortal Shakespeare knew well the effects of an irritable, anxious, and desponding state of mind on the digestive organs, when he put into the Monarch's mouth the following sentence:— "Read o'er this, and after this; and then to *breakfast*, with what appetite you have." What can appear to be more in contrast with each other than an Indigestion and a morbid excitement of the brain? A disordered stomach lays weight upon the mind, renders man irresolute, infirm of purpose, and unfitted for enterprise of any kind; whereas excitement of the brain gives a sharpness to his faculties, inspires courage and quickens ambition. But an irritable, anxious, and desponding state of mind, or inactivity of body, are not always the causes of Indigestion; they are frequently the effects. It often happens after food

has been taken, and the digestive process commenced, that a sudden shock, such as the announcement of bad news, deranges at once the sensibility of the stomach. When this occurs, the food (no longer in relation to the living powers of the alimentary canal) becomes the source of morbid irritation; and violent spasmodic efforts are made to expel it from the system, which are attended with pain and sickness. These attacks are by no means uncommon with persons of sedentary habits or of weak digestion.

Mechanical pressure on the chest, or at the pit of the stomach, in the same way produces a train of dyspeptic symptoms called "Diseases of the Desk."

Indigestion is sometimes a symptomatic or secondary complaint, arising from injuries affecting the head; from derangement in the urinary system; in the liver; from diseases of the skin; gout, and many others. So extensive are the sympathies of the stomach, that whatever deranges the functions of any vital or important organ, may be ranked among the causes of Indigestion.

Indigestion is a prevailing complaint with almost every one when *cholera morbus* is common, and the greater the degree of the diseased state of the stomach that exists, the more likely is the person to be affected by the epidemic, and the less likely to recover.*

A morbid sensibility of the stomach and bowels

* Bell on Epidemic Cholera.

constitutes a principal feature in some dyspeptic cases, particularly in those called "nervous," and is frequently the product of luxury and excess.

When the stomach is empty, the action of the gastric juice on its nervous coat reminds us, by the sensation called *hunger*, that a supply of food is necessary. When this is not denoted, we may suspect that a delicacy or weakness of that organ exists, and we should give it but little work to perform. This is the *grand secret* in strengthening a weak stomach.

It frequently happens that a pressing desire for food takes place soon after eating. This morbid sense of hunger ought to be borne with, unless it be extremely urgent. It is better to eat at stated periods, of regular intervals, than to frequently indulge this morbid sensibility. At the same time, it is necessary in some cases not to use too sparing a diet, even where there is pain or uneasiness after eating; otherwise the stomach will, as it were, prey upon itself, and the irritability will be increased.* Indeed, it requires all the vigilance of the physician to manage these cases so as not to err on either side.

In regulating the Diet for Invalids, that which produces distension or irritation of the stomach should be avoided; and the *first rule* to be observed is to *eat slowly*, and to *masticate well*. Mastication may be said to be the first process of digestion, and if it be well performed, will save the stomach and

* Dr. Barras.

bowels a great deal of trouble in subsequent changes which the food has to undergo. Food of easy digestion, carelessly masticated, is nearly as bad as food of difficult digestion.

Moderation in eating and drinking should be the *second rule* observed by dyspeptic invalids, who ought never to eat a hearty meal, or drink to any excess.

Late and formal dinners, which in the upper ranks of life are a prolific source of Indigestion, should be avoided; and I hope I may not be deemed as departing from my subject, in quoting a passage from an eloquent and impressive speech of a distinguished barrister,* delivered at a public meeting of the "Temperance Society," which was held in Dublin, in 1830. It expresses my thoughts upon the subject, so much better and so much more to the purpose than I could have possibly done, that I cannot resist the temptation to repeat it *verbatim*:—"But we are no enemies," said he, "to social intercourse, not even to what is called the pleasures of the table, when moderately and temperately used. I ought, perhaps, to speak here as an individual only; but I should say, that if Temperance Societies effected no more than the relinquishment of large dinners and late sittings, they would bring relief to many. For, of all the heavy burdens imposed upon the upper ranks, perhaps the heaviest is the giving and receiving of laborious dinners; they are sacrifices made to fashion and custom—they are suffered rather than

* The Hon. P. C. Crampton, one of Her Majesty's Justices of the Court of Queen's Bench in Ireland, and President of the Temperance Society.

enjoyed—they are paid as debts, and they are accepted as painful duties. The female part of this assembly will, I am sure, sympathize with me in my detestation of these joyless, heartless, unprofitable sittings, and join me in the hope that, as the good sense and improved taste of this age have banished drunkenness from polite society, so the same causes will operate soon to abate the nuisance of formal dinners.”

The diet may be selected from the following bill of fare, strict attention being paid to the rules already laid down.

It may be first stated, that animal food in general is more easily changed into nourishment by the digestive process, than vegetables. It may also be affirmed, that the flesh of animals is more easily converted into chyle, as being more digestible than vegetable substances. To these principles, however, there are many exceptions; some vegetable productions being more digestible and nutritive than the hard and tough parts of animals.

The flesh of young animals contains more tendon, fat and mucilage (which are all more or less indigestible) than that of old ones—this renders veal and lamb more difficult of digestion than beef or mutton.* Fat meat is the most oppressive to a delicate stomach. This is contrary to the vulgar opinion, which ascribes the greatest portion of nourishment to the fat of meat, from the erroneous association that plumpness of body is always

* When the stomach is at all weakened, the order of digestion of the following meats appears to be—1. mutton—2. beef—3 veal—4. pork.—*Sir Astley Cooper's Lectures.*

an indication of health. It is often the commencement of *corpulency*, a disease by no means easy of cure. Fat pork is difficult of digestion; geese and ducks are also bad for weak stomachs. Young turkeys are easier of digestion than fowls, which next to mutton, may be considered as the lightest animal food in common use. Most kinds of game are easy of digestion. Venison is considered as the most digestible of all animal food; hare and partridge are next to it. It is almost unnecessary to remark, that all kinds of meat become more digestible by being kept till they are tender.

There is great difference in the nutritive, as well as in the digestive properties of the different parts of animal food. Milk, which may be considered as the link between animal and vegetable food, is highly nutritive; but unless it be diluted with water, or the cream skimmed off, it is somewhat indigestible. Rich cream is very indigestible, and like fat, if used in large quantities, will induce corpulency. Butter has similar properties. Cheese is still more indigestible than cream, particularly when toasted; it produces little or no nourishment, and infallibly taints the breath. Eggs, when soft boiled, are highly nourishing and easily digested, qualities which in a great measure are destroyed by hard boiling. It is generally said that they disagree with "bilious people"—this opinion, I believe, is not well founded.

Although the juices contributing to our nourishment are all liquids obtained from solids, yet it is necessary that they should be taken internally

in a more solid form. A labouring man who would live upon broths alone, would soon become emaciated and lose his strength, as they do not remain so long in the stomach as solid food. He would be supported much better on milk, as from the circumstance of its coagulating or curdling, it acquires that degree of solidity which is essential towards supporting the functions of the stomach. Dr. For-
dyce made an experiment on two dogs. He fed one upon solid animal food, and another upon broth made from an equal weight of the same food. The first grew healthy and strong; the latter became emaciated and feeble, and would soon have died, had the experiment been continued. Broths and soups, therefore, are not nutritious, except where the irritability and weakness of the stomach is such as not to bear solid food; they are then sufficiently nourishing, and may be taken with bread, barley, rice, or vermicelli, which will prepare the stomach for more solid food.

White fish such as haddock, plaice, soles and whiting, may occasionally be used by invalids, when not more than a day or two, at most, out of the water. They are easier of digestion than salmon or shell fish, but more difficult and less nutritive than animal food. Fish of all kinds run into the putrefactive stage much sooner than animal or vegetable substances, and in this state poisonous properties are generated, which are not well understood. But this I know, from my own observation in the fish market of this Metropolis, that the lower classes of people, both male and

female, who work in or about the markets, are frequently and suddenly attacked with cutaneous affections, particularly *nettlerash*, occasioned by eating fish in a putrid state. Muscles, lobsters, and crabs seem to be most frequently possessed of this property; and I have seen some fatal instances of their deleterious effects. Mushrooms, oatmeal, honey, bitter almonds, nuts, the kernels of stone fruit and acid vegetables, have similar effects in some constitutions,* though perfectly harmless in others.

With respect to bread, which is so essential to our existence that it is called the Staff of Life, there are few who cannot tell what species of it agrees best with their stomachs. That which contains most *bran*, the *household*, is the most aperient; the bran by its mechanical action on the bowels, stimulates them, and increases their peristaltic motion. The finer and *white* bread, from which all the bran is separated, has a tendency to a contrary effect, from the quantity of starch it contains, which acts as an astringent. In the medium, or *wheaten* bread, only the coarser bran is separated, the portion of bran which is left being sufficient to counteract the astringency of the starch. *Brown* bread, which is made of a mixture of wheat and rye flower, containing a large portion of bran, is of a more opening quality than the household, and should be preferred in very costive habits. Care should be taken to obtain bread that is well

* Dr. Willan.

baked, and that it be never brought to table new, as in such cases it swells like a sponge, and injuriously distends the stomach.

The French have many varieties of bread, in which eggs, milk and butter enter as ingredients. They are in the habit of adding *ammonia* to the dough,* which, during the process of baking, emits a quantity of gas, and swells the mass, giving it the sponginess and lightness which characterises well baked bread. Light and spongy bread swells less in the stomach, and is therefore preferred to that which is close and heavy. Where acidity occurs in the stomach, the bread should be toasted, which renders it less liable to run into fermentation.

Various adulterations of this important article of diet may be mentioned. Calcined or burned bones and bean flower, I believe, are the principal, and are chiefly used to whiten bread which has an over portion of bran. Alum, too, has been employed for the same purpose ; potato-flower is added ; but it would be useless to occupy more time here by entering into this question.

Vegetables, particularly raw, or not well boiled, are on the whole injurious to a weak stomach, on account of their tendency to run into fermentation. Some, however, are less so than others. Peas, beans and cabbage are the worst. Potatoes, (the waxy potato excepted,) young turnips, brocoli, seakale, and asparagus are among the best.

* Dr. Paris.

The cold fruits, as cucumbers and melons, are difficult of digestion; next to these, pears, gooseberries and currants, grapes, apples and strawberries are the lightest. Preserved fruits are in general bad for dyspeptic individuals.

A variety of dishes is always an inducement to overload the stomach; they are not otherwise injurious, if simple and well chosen. In point of fact, gluttonous excess in the use of one dish produces all the inconvenience of too great a repletion from a variety of meats. The French, who are extremely *recherche* in their cookery, and eat of every thing the table presents, but are at the same time habitually temperate and abstemious, enjoy long lives, and generally exhibit unabated vigour of constitution to the last period of their existence.

When the tongue is white and the appetite bad, we should never force ourselves to eat; for whatever we take against our will does harm. Food which is disagreeable to the palate seldom digests well, or contributes nourishment to the body—that which is most grateful in general sits most easy on the stomach. In proof of this, Mr. Abernethy says, numerous instances have occurred of substances, apparently unfit for nourishment, agreeing with the stomach, and even quieting an irritable state of that organ, merely because they were suitable to its feelings. Instances might also be mentioned of changes in diet producing a tranquil and healthy state of the stomach, in cases where medicines had been tried in vain; and to confirm these observations, Dr. William Hunter says, “The

stomach, gives information when the supplies have been expended, and represents with great exactness the *quantity* and *quality* of whatever is wanted in the present state of the machine ; and in proportion as it meets with neglect or disappointment, rises in its demand.

Where health abounds, wine or spirituous liquors are altogether unnecessary ; but as habit has rendered their use general, it is to be lamented that in this country the high price of the more wholesome kinds of the former, force the great majority of the middling ranks of society to indulge in the too frequent use of the latter.

When wine is good, and of a proper age, it is cordial and tonic, and less intoxicating than that which is new or bad. When used in moderation, it promotes digestion ; when taken in excess, it produces all the forms of indigestion, hepatic and pulmonary inflammations, gout, palsy, and a long train of maladies. Nevertheless, we now and then hear of very extraordinary quantities of wine and spirits being drank with impunity by some individuals.

Two gentlemen, one of whom, for upwards of 20 years, drank from five to six bottles of port daily,* and never, of course, went to bed sober ; the other drank from twelve to fourteen tumblers of whiskey punch every day,† during the same period. They both lived to upwards of 70

* Upwards of two pipes of port, or 2,000 bottles annually.

† More than a hogshead and a half of whiskey per annum.

years of age; but who can say to what age these parties might have lived, had they not been guilty of such excess? In the reign of Henry VIII. wine and beer were used at breakfast, and the quantity served for one person was a pint of each. Drunkenness is the vice of barbarians; and as nations merge from that state, it evidently becomes less prevalent. In this country, it is now, happily, almost exclusively confined to a very few of the lower classes of the people. *

In a dietical point of view, wine is useful or prejudicial, in proportion as the fermentation is more or less perfect. New wines, and those not duly fermented, run into a fermentive state in the stomach, emitting carbonic acid and other gases; which, by distending that organ, oppress the individual—and if he be labouring under indigestion, produce depression of spirits, and all the horrors of hypochondriasis. When wine, however, is good, it moderately stimulates the nerves of the stomach, and assists digestion, by promoting a more healthy secretion of the gastric fluid.

The properties of wine are various, and different kinds suit different constitutions. The astringent properties of *port* seem to give it a peculiar tonic power, and it is well suited to some invalids. It should not be drank until it is at least three years in bottle (the tartar of new wine being injurious to the stomach). With most dyspeptics it will agree

* For this happy change, we are indebted to the Apostle of Temperance, Father MATHEW.

best diluted. Next to port in tonic properties, *claret*, *sherry*, *madeira*, and *hock*, may be drank in moderation, with occasionally a little *hollands*, and water. A glass of spirits will, in some constitutions, assist digestion, when wine, even port, would turn sour in the stomach. Each individual must therefore judge for himself, and use that wine which his own experience tells him agrees best with his stomach. No general rule can be laid down on the subject.

Invalids who have been long accustomed to the use of vinous and spirituous liquors, ought not to be wholly or suddenly deprived of them; for, under proper restrictions and regulations, they will be found useful in promoting digestion.

In the 17th Number of the *Medico Chirurgical Review*, a case of mania, from a too sudden change to sobriety, is related. The subject was a man much given to drunkenness, who was thrown into prison, where he was reduced to low diet, with no drink but water. After the first week of his imprisonment, he began to evince some symptoms of disturbed intellect, which terminated in a short time in great bodily debility and strong mental derangement. His physician,* after examining into the complaint, and his previous habits, ordered him a moderate quantity of brandy twice a day, the good effects of which were soon manifest, and in a short time the patient was restored to his strength and reason.

* Dr. Hamsbrandt.

When Indigestion is occasioned by what is called "good living," or indulging too much in the "pleasures of the table," it is almost unnecessary to say, that a plan of living, almost diametrically opposite, should be adopted. This change, however, must be done with judgment and caution.

Indolence powerfully promotes indigestion, and induces a tendency to abdominal corpulency.

Daily exercise, therefore, is necessary to produce and preserve good digestion. Riding on horseback gives motion to the organs of digestion, and walking exercises the organs of respiration. Horse exercise is preferable, but the alternation of both will be useful; the first strengthens the abdominal viscera, which no other exercise is capable of doing; while the latter exercises the limbs and the viscera of the thorax.

Invalids may sometimes be in such a state of debility as to be unable to take exercise out of doors. Under these circumstances, the Vapor Bath, with *Friction* to the Abdomen, will be found the best substitute. *Shampooing* has also a considerable effect in promoting the circulation, and may be considered as a species of exercise not inferior to friction. Springing-boards and chairs may be used as a substitute for carriage exercise.

It has been a subject of frequent discussion, whether sleep, after dinner, be wholesome or not. There can be no doubt that it is, when we feel heavy and disposed to sleep. Boerrhaave was once of opinion, that sleep after dinner was pernicious. Hippocrates, Galen, and other eminent

physicians, recommended bodily exercise before dinner, and a nap after it. Felix Plater* once attended a meeting of his colleagues, at which this question was debated. Every one condemned the practice, when Plater rose and observed—"I am now 70 years of age," said he, "I have always taken my nap after dinner, and have never been ill in my life."

The brute creation invariably lie down and enjoy a state of rest, the moment their stomachs are filled.—People who are feeble digest their dinner best if they lie down and sleep, as most animals do, when their stomachs are full.† Repose of body and mind for two hours after dinner, is certainly useful to the studious, the delicate, and the invalid;‡ Mr. Abernethy recommends three hours.

Of *Sleep*, I may be permitted to say, in the words of Locke, that "great care should be taken not to let our studies encroach upon it; of this I am sure," he says, "sleep is the great balm of life and restorative of nature; studious and sedentary men have more need of it than the active and laborious, because those men's business and their bodily labours, though they waste their spirits, help transpiration, and carry away their excrements, which are the foundation of diseases; whereas the studious, sedentary man, employing his spirits within, equally or more wastes them than the other, but without the benefit of transpiration, allowing the matter of disease insensibly to accumulate. We should lay by our books and meditations when we find either

* Died in 1614, aged 78.

† Dr. Darwin.

‡ Dr. Adair.

our heads or stomachs indisposed upon any occasion; study at such times doing great harm to the body, and very little good to the mind."

Indigestion has received the various appellations already stated, according to the caprice and fashion of the day, and in like manner, the treatment has been as various and contradictory as in all other cases of bodily infirmity. At one time *magnesia* was the grand specific. This alkaline earth was at length found to be pernicious, and that the prevailing obstructions in people's bowels, were entirely owing to the practice of plugging them up with what was neither more or less than a sort of *magnesian mortar*. Magnesia was then discarded to make room for acids. The reign of the acids was short, for people soon got tired of imbibing, under more learned names, diluted aqua fortis, spirit of sea salt, and oil of vitriol. At length a physician of great reputation declared that a glass of *cold water* at bed time was an excellent thing; but this was soon laid aside by a more modern practitioner, who proved that *hot water* was the proper remedy. *

Physicians then began to search deeper into the matter, and the cause of Indigestion was shown to be *repletion*. This was plain sailing, and Dr. Sangredo's simple system seemed to be at hand. But people got cross at being *starved*; and those practitioners soon got vogue, who assured their patients that the evil was owing to debility; *sherry wine* and *mutton chops* found many willing disciples,

* *Cold water* is again recurred to. See Appendix on *Hydropathy*.

and things went on swimmingly for some time, and Indigestions became more plentiful than ever. *Alteratives* then became the fashion, and *blue pills* began to fly about more numerously than the French shells at the siege of Antwerp—the gentlemen carried them in their waistcoat pockets, and the ladies in their reticules, ready for any emergency ; even infants were not spared, for no sooner did a child enter this world of sorrow, than a dose of calomel or castor oil was thrust down its throat, as a foretaste of the “ miseries of life.”*

Indigestion has at length become one of the staple commodities of practice among the profession, and every month a new book is written to show how impossible it is for those suffering under this terrible complaint, to get better of it without the advice of some experienced practitioner ; and the laborious explanations which are given in these publications, may help digestion, but they spoil the appetite ; and the multiplicity of evolutions, which beef and mutton have to perform in our insides before they are congested into blood, fill the mind with such wonder and amazement, that the nervous reader fears to put a bit of food into his mouth. Now, the plain matter of fact is, that if people will eat and will not work, or take exercise, they *must suffer from their gluttony and laziness*. In nine cases out of ten, that is the source of the evil.

If a strict attention be paid to diet, with well regulated exercise of body and mind, the medical

* Where hired nurses are employed, a little medicine becomes necessary.

treatment of Indigestion will be very simple. An occasional aperient, half a dozen draughts of Donovan's preparation of yellow bark, and a tepid bath or two, will be found sufficient to effect a cure in many cases; while the neglect of them, in all cases, will counteract whatever other means may be employed.

A perfect cure in some cases cannot be accomplished without difficulty, for when the disease originates from habitual intemperance, the difficulties in the way of correcting the habit of body are almost insurmountable.

The treatment of Indigestion in scrofulous habits consists in improving the constitution by a warm and dry atmosphere—by a well regulated temperature in sleeping apartments—by tepid salt water bathing—by gentle and regular exercise, which should never hurry the breathing—by animal food of the most digestible kind—by milk and a farinaceous diet; in short, by a diet which will nourish the system, without exciting feverish heat, or calling upon the powers of the digestive organs. The best medicine in such cases is the Ioduretted Mineral Water,* half a pint of which may be taken once a day for a fortnight, three weeks, or a month.

A course of this Mineral Water in most cases improves the appetite, promotes digestion, produces a regularity of bowels, increases the urinary and *uterine* secretions, and strengthens the constitution. In the trials which it has had in Dublin,

* The analysis of this Water may be seen at page 80.

it was found so efficacious, that it prevented many persons who were ordered abroad from undertaking long and expensive journeys ; and if invalids would give it a trial, perhaps the crowds who annually emigrate to foreign watering places, might be induced to seek health and amusement in their own country ; and the money which they lavish abroad, by being circulated at home, would contribute in no small degree to the industry, comfort, and support of the lower classes of people in this country.

The plain directions for the cure in *all* cases, are *to search for the causes and endeavour to remove them*; but as this unfortunately is not always in our power, as in the cases arising from fear, grief, and anxiety, or other moral causes, what are we to do? We should simplify and reduce the diet, so as to give the stomach as little labour as is consistent with the preservation of life, and render the operation of digestion as easy as possible. We should prescribe light tonics, such as Donovan's preparation of bark, and gradually increase the diet ; short land journeys or coasting in steamers, wind and weather and other circumstances permitting, and, if possible, a residence for some time in the country. From 10 to 15 drops of the nitro-muriatic acid, in some light bitter draught, once, twice, or three times a day, to increase the appetite and strengthen the system, may be taken, where the Ioduretted Mineral Water cannot be had. Whatever tends to create anxiety or trouble of mind, should be cautiously avoided ; and I believe the principal benefit derived from resorting to those places of bustle and

amusement, called Watering Places, is the relief of this mental malady, (anxiety,) and the avoiding its causes. I am convinced that Hope also, that universal balm of the afflicted, has no small share in the benefits derived at such places.

“The various Mineral Waters,” says a celebrated writer,* “whatever may be their temperature or their composition, seldom *radically* cure Indigestion. These temporary patchings up of the constitution generally leave the patient quite *incurable* in the sequel.”

The waters of Bath, Bristol, Cheltenham, Leamington, Harrowgate, Buxton, and other places, are prescribed, and have been used with advantage in many instances; but I repeat it, those favourable results do not so much arise from any medicinal properties which the waters possess, as from the absence of all trouble and anxiety, with the aid of regimen, regular exercise, cheerful company, pleasant amusements, joined to the comforts, pleasures, and indulgences, which invalids, *real* or *imaginary*, so constantly enjoy in such places.

A gentleman much engaged in the business or pleasures of a great city, becomes disordered in health, dyspeptic, and hypochondriacal. He receives much good advice from his medical friend, which he professes to follow with implicit confidence, and proceeds to do so amidst the anxieties of business, bad air, late hours, luxurious dinners, and nearly the total want of bodily exercise. Deriving no benefit from all that is done for him, he

* Dr. Broussias.

hears of some celebrated Watering Place which has acquired great reputation in the cure of stomach complaints, and at length makes up his mind to resort thither, though with little or no hope of deriving benefit from any thing. He lays aside all business, proceeds to the place of bustle and amusement, lives by rule, keeps early hours, meets cheerful company, and is all day long in the open air. He soon recovers excellent health, and cordially concurs in spreading the fame of the *Waters*, by which so wonderful a cure has been accomplished.

Dr. George Fordyce, whose lectures I attended in the year 1798, then related the following anecdote. Having a dyspeptic patient whose complaint baffled all his remedies, he advised him to go down and consult a celebrated physician at Inverness, whose name he gave him. On arriving there the gentleman soon discovered that there was no such person to be found. He then returned to London, somewhat nettled at the trick which had been practised upon him, though he was obliged to acknowledge that he was cured of his disorder. On this subject we are especially to keep in mind the extensive class of diseases which are acted upon in a most powerful manner by causes entirely mental. Many of them have their origin in mental emotions which elude observation; and a very large proportion are entirely referable to indolence and inactivity; to that vacuity of mind attending the unfortunate condition in which there is no object in life but to find amusement for the passing hour. When, on patients of this description, the dexterous

empiric produces results which the scientific physician has failed to accomplish, we are apt to accuse him in sweeping terms of acting upon their credulity.* He, in fact, employs a class of remedies of the most powerful kind, to which the other, perhaps, attaches but little importance, namely, *mental excitement* and *mental occupation*, the stimulus of having something to hope for, and something to do.

I shall conclude this part of my subject, with the hope, that if my observations and suggestions do not enable dyspeptic invalids to get well, they will supply them with satisfactory reasons why they should be ill; and to studious persons, who are fond of tracing cause to effect, that is something.

I shall now briefly notice a disease which has not been described as such by any nosological writer that I am acquainted with, though it is a disease of frequent occurrence, and one which we constantly meet with at Watering Places. I mean the

CLIMACTERIC DISEASE.

Sir Henry Hallford, in one of his eloquent orations at the Royal College of Physicians, described it, and I believe he is the first physician that has noticed it.

It may be necessary to premise, that in some individuals spontaneous changes take place in their constitutions, at particular periods of their lives; during which periods, whatever diseases they may be labouring under, become either aggravated or ameliorated, a circumstance often, but erroneously,

* This practice is called Homœopathy.

ascribed to the agency of medicine, or to the revolution of the seasons.

These periods usually occur, particularly in strumous constitutions, every seventh year; that is, at the age of 7, 14, 21, 28, 35, 42, 49, 56, 63, and so on, and are called *Climacteric years*.* The ninth Climacteric, or sixty-third year, is called the "*Grand Climacteric*."

The Climacteric years bring with them, as I have observed, in some constitutions, very remarkable changes with respect to health; according to which the treatment of diseases must undergo modification. The change which I am now about to speak of as a *disease*, commences with a falling away of the flesh, a declension of strength, a decay of the natural powers, and an extraordinary alteration in the expression of the countenance, without any obvious cause. Sometimes the disorder comes on so gradually and insensibly, that the patient is hardly aware of its commencement. He perceives that he is sooner tired than usual, and that he is thinner than he was, but has yet nothing material to complain of. In process of time his appetite becomes seriously impaired; his nights are sleepless, or if he gets sleep, he is not refreshed by it. His face becomes visibly extenuated, or perhaps acquires a bloated look. His tongue is white, and he suspects that all is not right. Finally, the stomach seems to lose its power of digestion, and the bowels are sluggish. The frame becomes more

* From a Greek word, signifying to *proceed gradually* as upon a ladder.

and more emaciated, and the lower extremities swell. There is an insurmountable restlessness by day, and a total want of sleep by night. The mind grows torpid and indifferent to what formerly interested it. The patient sinks at last, seeming rather to cease to live than to die of a mortal distemper. Such is the ordinary course of this disease when it proves fatal. However, when the powers of the constitution are superior to the influence of the malady, and a judicious plan of treatment adopted, these symptoms gradually disappear, the patient recovers his rest and his appetite, to a certain degree, and his flesh and muscular strength are restored.

The body is seldom predisposed to this complaint till the age of 50 ; and from that till 77 or 84,* it may occur. Of the various *immediate* causes which *may* produce it, there is none more frequent than "Cold." Sometimes an act of intemperance, where intemperance is not habitual, will induce it. A fall, which did not appear of any consequence at the moment, and which would not have been so at any other time, has jarred the frame into this disordered action. A marriage contracted late in life, has also afforded the first occasion to this change ; but above all, (that prolific source of bodily evils,) anxiety of mind and sorrow have laid the surest foundation for this malady.

This disease is sometimes equally remarkable in women as in men, but certainly not so frequent,

* I am now attending a gentleman in this disease, in his 84th year, who never had an attack of it before.

nor so well characterised. The bearing of children, and the change which the female constitution undergoes at a certain time of life, may render subsequent alterations less perceptible.

When the Climacteric disease combines itself with any other disease—the Gout for instance—the patient complains that his Gout is not so perfect as it ought to be; that the disease lingers—that he does not find the relief from medicine which he formerly experienced. He grows weary, till at length the protraction of the complaint, and an unusual decay of flesh and strength, obtrude the painful truth that there is some deficiency of vital power in his system, which prevents him throwing off a more violent fit of the disease, and bringing it to a speedy crisis.

For the weakness of the stomach and torpor of the bowels, Sir Henry Hallford recommends the Baume de Vie, or *Decoctum Aloes Compositum*,*

* *Baume de Vie*.—This medicine I have been for upwards of 40 years in the habit of prescribing with advantage, in obviating habitual costiveness, and promoting a regularity of bowels. It acts as a warm stomachic aperient in gouty, rheumatic, and bilious habits. The bitter taste of the aloes is covered, and its irritating effects prevented by the combination of the other ingredients, so that it does not produce that tendency to piles, which aloes is apt to do in the form of pill. In many instances I have known it to be preferred to other purgatives, on account of its flavour: even children are soon reconciled to it. It was a favourite medicine with His late Majesty George IV., and is the domestic medicine of the Royal Family. The following extract which I took from a London paper, a few days previous to the demise of that Sovereign, will corroborate this fact:—

“As I stated to you last week, very few medicines are now administered to His Majesty. He has even ceased to take the *Baume de Vie*, which with him, and almost every branch of the family, has been the *domestic medicine*, and which was prepared from a recipe given by the late Queen Charlotte to the Princess Sophia.”

(of the London and Dublin Pharmacopiee), and frequent Tepid Bathing. Watering Places may be recommended with probable advantage, but the regulation of the diet is of the first importance. The patient must dine at an earlier hour than usual at present amongst the higher ranks of society; his exercise must be gentle and regular, and the mind kept from every thing that can cause anxiety or care, and every indulgence that tends to enervate or weaken the constitution, must be avoided.

With respect to the *Blue Pill* and *Purging System*, which I believe has laid the foundation of many evils, I shall quote the observations of two of the most distinguished writers and practitioners of the age, in support of my opinion. "It would be a merciful dispensation of Providence," says one,* "if every young practitioner were to have one year of dyspepsia, say the first year, when he would have plenty of time to attend to himself. It would save some thousands of his dyspeptic patients from the murderous practice of blue pill at night, and black draught in the morning; a practice which, we verily believe, inflicts a greater amount of moral and physical sufferings on humanity, than all the other 'errors of medicine' put together. We sincerely advise the rising generation of the profession to look to this in time—the non-professional public are every day acquiring experience on this point, and we have the means of knowing that an important revolution in men's minds is now taking place,

* Dr. James Johnson, Physician Extraordinary to William IV.

in respect to the propriety of *deluging* the dyspeptic stomach with drastic medicines." "And to my certain knowledge," says the other,* "many a valuable life has been abridged by over *drugging* and over *drenching*; whereas, if the patient had borne his ailments with a little patience, and his physician given a little more fair play to the powers of nature, all might have gone on well for several years."

* Sir Walter Farquhar, Bart., Physician to George IV., when Prince of Wales. He lived and enjoyed good health till his 83rd year. I had the honor of his acquaintance, and he impressed upon my mind, many years ago, a distaste to tampering with violent remedies in the cure of chronic complaints, particularly those which attend the decline of life.

SEA BATHING.

We now come to the examination of a practice which has prevailed in all ages and in all nations ; and one that may be classed among the many subjects which, to the casual observer, seem to demand neither medical skill, study, nor consideration of any kind. I mean the practice of Sea Bathing ; for, not only do most people imagine they understand this matter sufficiently for their own guidance, but affect to become the advisers of others as to its value and efficacy. It does not, however, follow, that what is thus supposed to be understood by all, is really understood by any ; and it is now an unquestionable fact, that many of the most popular and universally received maxims, connected with Sea Bathing, are diametrically opposed to the soundest medical opinions of the present day, and to the most unquestionable facts and experience. Yet to hint that bathing in the sea is not universally beneficial to the human frame, as breathing the fresh air, would, until very lately, have been met with the sneers of incredulity, or considered as the proof of folly or of ignorance.

On subjects which concern even health, convenience, and comfort, mankind generally adopt the traditional opinions of their neighbourhood or country, without the trouble of thinking or judging

for themselves ; the universality of a custom being regarded as a safer test than the most enlightened inquiry, or the most convincing facts and experience.

I know no subject to which these observations are more applicable than the one before us.

To the inhabitants of a country possessing an extensive line of sea coast, Bathing becomes almost habitual ; and being in general associated with many agreeable circumstances, it assumes the character of a positive enjoyment.

It is necessarily accompanied with a change of scene, air, and situation ; it requires exercise, and involves a relaxation from business. So many cases are also recorded, and in every one's mouth, of restored appetite, strength, and health, resulting from the practice, that it is regarded as a sort of *panacea* ; and to question its efficacy, is only to risk the imputation of being too timid or too wise.

In the teeth, however, of these alarming denunciations, I hazard the assertion, that there is not a more prolific source of colds, consumptions, and chronic diseases, than Sea Bathing, as practised in this country and in Great Britain.

Not only do those who live near the sea coast, think it necessary to enjoy this health-insuring custom, but those residing even at a distance of 50 miles in the interior of our island, migrate in thousands, with their whole families, to the nearest coast, to have the benefit of a month or six weeks' Sea Bathing, and thus lay in a store of health to carry them over the rigours of the winter. Those

who have witnessed the crowds that yearly visit the shores of Dublin, Rostrevor, Belfast, and the whole coast of Antrim and Derry, can form a just conception of the indiscriminate nature of the practice. A single case of improved health becomes a motive for a whole neighbourhood to visit the sea in the ensuing year; the medical nomenclature is brought into requisition, and each requires his annual corrective, or restorative, or alterative; while the mischief created by the practice, the victims it has destroyed, and the many constitutions it has undermined, and in which it has deposited the germ of future disease, debility, and consumption, are either overlooked or placed to the account of other causes.

In this way is custom established—in this way is health sported with—the male constitution is injured, and the female deranged. Where medical research and experience, however, have detected the errors of any hitherto received opinion or custom, it is the part of the physician to lay before the public such communications as will compel the heedless to pause, and the reflecting to think.

From the contiguity of Dublin to the sea, the rich and poor, the young and the old, the strong and the feeble, resort daily to the sea shore during the bathing season, to seek health or refreshment from immersion in the briny element.* This very general practice, recurring every summer, furnishes the strongest presumption that it must be attended

* It is calculated that 20,000 persons daily bathe in the sea during the bathing season, in the neighbourhood of Dublin.

by some advantages ; but however great these may be, they are more than counteracted by injudicious management. Where Sea Bathing is so indiscriminately resorted to, and where the temperature of the atmosphere, as well as that of the water, is continually varying, it becomes highly important to understand the influence of such causes ; to appreciate the circumstances on which the real benefits of Bathing depend ; to warn the unwary of the danger of its unguarded and indiscriminate use, and to indicate the best regulations for obtaining the full advantages derivable from the practice.

The first point for consideration is the time most proper for Bathing ; and before any rule can be given on a point so important, many circumstances must be considered. In some places, as Clontarf, Irishtown, and Sandymount, this must unavoidably be regulated by the tide ; whilst at Salt Hill, Kingstown, Bray-head, and Howth, there is water at all hours of the day.

In different states of the tide, the temperature of the sea varies. When it is high water, between two and three o'clock in the afternoon, the temperature is eight or ten degrees higher than at low water, about eight or nine o'clock in the morning of the same day. This variation in temperature occurs, however, only in calm weather ; in a storm, the agitation of the waters greatly diminishes the temperature of the surface of the sea ; for the deeper water, which was previously undisturbed, and at a distance from the influence of the sun, and consequently of a lower temperature, is mixed

with that which is nearest the surface, and thus an uniformity of temperature is produced. But during the warm season of the year, and on a sandy beach, as at Clontarf, the difference of temperature is quite perceptible; for it is found that sand not only absorbs, but emits heat, with more facility than a gravelly or rocky bottom.

To the strong and healthy, precautions respecting the time of Bathing, with a view of enjoying a few degrees of higher temperature in the water, are of less importance; but it is otherwise with the delicate and feeble. To the latter, it is essential to attend to these minutiae, and to choose the moment for Bathing when a flowing tide, about mid-day, or an hour or two after, renders the water eight or ten degrees higher than at an earlier hour in the forenoon.

As the atmosphere, as well as the water, is lower in temperature in the morning than at noon, and as the body, from want of exercise and food, has not acquired that degree of animal heat which is necessary to produce a healthy reaction in the system, early Bathing should be cautiously practised, even by the strong and healthy, and avoided by the weak and sickly. When Sea Bathing is recommended to an invalid, *mid-day* (when the air and water have reached their highest temperature) should be chosen as the *best time* for using it. In the evening, Bathing is always prejudicial.

The *state of the body* also demands particular attention. In many cases Sea Bathing is followed by much benefit; whereas in others, apparently

under the same circumstances, it fails of producing any salutary effects, or is attended with consequences highly injurious. This may in a great measure be attributed to overlooking the previous condition of the patient, with regard to temperature and exertion. Where the body has been exposed to long or violent exercise, followed by lassitude, debility, and reduced temperature, Bathing will most assuredly produce very different effects from those which may be expected when the body is in the full vigour of health, and its natural heat undiminished. The condition of the constitution most proper for immersion in the sea, is when its temperature is somewhat increased; for which purpose *moderate exercise* should always be recommended previously to immersion.

After a short course of exercise, when the action of the system is *moderately* excited, before perspiration has dissipated the acquired heat, or fatigue relaxed the animal powers, the safety and salubrity of Sea Bathing are unquestionable. This is so universally true, that the late Dr. Currie always directed infirm persons to use such a degree of exercise before Bathing as would produce some increased action of the vascular system, with some increase of heat, and thus secure a reaction under the shock, which otherwise might not take place. The popular opinion, that it is safest to go perfectly cool in to the water, is founded on the most erroneous notions, and is often productive of the most injurious consequences. It is also a mistaken, though a popular opinion, that a sudden transition

from a warm to a cold medium, when the body is heated, is followed by dangerous consequences. How rarely does it happen that any bad effects are produced by going into the open air when the thermometer is at the freezing point, or even some degrees below it, after a long sitting in an apartment heated to 60° or even 70° ? "Taking cold," as it is called, is often ascribed to this cause, and is supposed to be the consequence of exposing the body to the sudden alternations of intense or excessive heat and cold. But if we trace the effect to the cause, we shall find that the cough, hoarseness, and feverish symptoms which are ascribed to a sudden exposure to cold, after being some time in a warmer medium, are most frequently the result of profuse perspiration, which has lowered the natural temperature of the body, and rendered it more tender and susceptible.

Dr. James Johnson states, in one of his Essays,* that he was in Geneva in the month of August, 1823, when the thermometer stood one day, at 92° for three hours; that in journeying among the Alps, the same day, with upwards of fifty travellers, many of them females, and invalids, the thermometer fell from 92° to 26° , which is six degrees below the freezing point. The party were all nearly frozen, and took refuge in the cheerless apartment of an old monastery, where there were upwards of forty other travellers, some of whom were in very delicate health; and yet not a single cold was

* "On the Morbid Sensibility of the Stomach and Bowels," &c.

caught, nor was there the slightest diminution of a good appetite for breakfast the next morning.

The peasants in Finland are familiar with the use of the Vapour Bath. Their practice is truly surprising, and almost incredible, except to such persons as have witnessed the fact. The Vapour Bath employed in that country is heated to 130° , sometimes as high as 160° . In this, persons often remain for an hour; after which, even in the depth of winter, in that high northern latitude, they rush into the open air, and roll and toss themselves in the heaps of snow with extreme delight and satisfaction. From this they experience no inconvenience whatever; and it is a remarkable proof how perfectly harmless the instantaneous transition from wide extremes of heat to cold may be, under the circumstances above-mentioned. My own experience in the Bathing Establishment of this city, enables me to state, that patients frequently go into the open air, after being an hour in the *hot air* or *steam bath*, at 120° , without any additional clothing, when the thermometer is below the freezing point, and never experience any bad effects from it. *On the contrary*, they endure the cold much better and longer from such practice; thus confirming the truth of Dr. Fordyce's observation—"That those who come out of a room when the air is heated to 120° , do not feel the impression of the coldest atmospheric air." Indeed, it seems a general truth, that, from whatever cause, the heat of the body is increased, in proportion to that increase (provided the subject be not affected with any

local disease), will be the safety with which the cold may be applied ; and in order to have the full benefit of Sea Bathing, *the proper condition of the body*, previously to immersion, *is that in which its temperature is somewhat increased*, either by exercise or otherwise. Here let me observe, on the other hand, that a sudden change from great cold to heat, must be cautiously guarded against, as it is always attended with the most alarming and dangerous consequences. In the Philosophical Transactions, a case is related of a young man, who, after bathing in a cold, went immediately into a hot bath, when instant death was the consequence.

Having, as observed above, by previous moderate exercise, or any other means, raised the temperature of the body, so as to feel warm and comfortable—and having reached the sea shore or bathing place, we should strip as quickly as possible, and plunge in without delay, never exceeding a minute or two in the water ; the body, after the immersion, should be rapidly dried and dressed. This will be followed by an agreeable sensation of warmth, or rather a glow of genial heat over the whole body, together with an increase of spirits and muscular vigour, which may be regarded as a sure test of the utility of Sea Bathing, under the regulations here prescribed.

When a person in an ordinary state of good health plunges into the sea, he experiences a universal thrill of cold all over the body, producing a paleness of the skin, and contraction of the extreme capillary vessels, which gives that papillous ap-

pearance, denominated *gooseskin*—the respiration is at the same time quickened and irregular, producing sobbing, and the pulse is diminished in force and velocity, but is firmer and more irregular. This is immediately succeeded by a general sensation of warmth, which causes the surrounding water to feel of an agreeable temperature; and if the immersion be under favourable circumstances, a reaction takes place on coming out of the water, and a glow, or agreeable sensation of heat, is felt all over the body—the tone and the vigour of the muscles are increased—a buoyancy of spirits and aptitude for action succeed, and a sense of general refreshment is experienced. If the body be rapidly dried and covered from the air, this agreeable sensation continues, the whole frame feels refreshed and invigorated, and an insensible perspiration is generated and increased; all tending to the best results. The appetite improves, the secretions increase, the muscles dilate, and the constitution acquires an unusual degree of strength and vigour.

Should the water, however, be much under the temperature of 60°, which is too cold;* or should the immersion be continued too long—or if the body should have been enervated by fatigue or exhaustion, all heat will appear to have evaporated from the system—the usual glow is no longer felt—the paleness and coldness of the skin will continue—the head becomes giddy—the pulse small and feeble—the stomach sick—irritability

* Water even at a temperature of 70, gives a sensation of cold to the skin.

and restlessness increase to an alarming degree, and the whole frame will be affected with a distressing prostration of all power and energy. If the immersion be still continued, and the water be too cold, the pulse gradually will vanish—the action of the heart cease—langour, faintness and coldness of the stomach accumulate—the whole animal heat diminishes; at length all vital energy will be exhausted, and death terminate the melancholy climax! Such are the state and sufferings of drowning persons.

It is often the custom with weak and timid people, instead of plunging into the sea, to walk into the water slowly. Under these circumstances, the sensation of cold is stronger, and, as the bather advances, so that the water rises gradually towards the abdomen and chest, a shuddering and convulsive sobbing ensue, sometimes attended with sickness and head-ache.

The warm glow, however, which under other circumstances follows the chill experienced on a sudden immersion in the sea, is to be ascribed to the reaction of the system, which enables it to resist the external impression by which it might be injured. This reaction is in proportion to the intensity of the cause by which it is excited, and to the vigour of the vital powers, of which it constitutes a peculiar effort. It is this reaction of the system which enables the body to derive advantage from Sea Bathing; and where it does not take place, or is felt only in a slight degree, we may infer that Sea Bathing has been injudiciously em-

ployed. Hence, where the system has been debilitated by long-continued exertion or disease, Sea Bathing is injurious; in cases where a person feels heavy, inactive, or chilly after immersion; or finds himself affected with head-ache or tightness across the chest; in such cases it is evident that bathing in cold water does not agree with him, that he has remained in too long at one time, or that it was at too low a temperature for his constitution.

In Sea Bathing, the first immersion is attended with the following effects, and to which attention and observation should at all times be directed:—
A quick and powerful shock to the system, with a sudden abstraction of heat from the surface of the body, and an immediate flow of blood in the interior. The reaction of the system quickly resists the shock, and restores the diminished temperature. In its general and primary effects, therefore, Sea Bathing, judiciously used, acts as a powerful stimulant to the whole frame and circulation, by giving a spring to the fallen energies, and rousing them to salutary exertion; and to this effect its advantages as a remedy are chiefly to be ascribed. From these observations, it will not be difficult to enumerate the cases in which Sea Bathing is injurious and ought to be discontinued.

When the powers of life are greatly exhausted, and the heat and vigour of the body reduced, there will be no chance of that salutary reaction taking place, on which the virtue of Sea Bathing depends. On the contrary, a still further decrease of strength and temperature must be the result.

In all diseases affecting the Head, as pain, giddiness, and a sense of fullness—in Consumption, and all diseases of the Chest, attended with cough or tightness—in all internal Inflammations,—in every species of Dropsy—in *early infancy*, and in *advanced life*, Sea Bathing is injurious.

In almost all diseases of the Skin it acts as a repellant, forcing that matter on some internal part which the vigour of the constitution has thrown upon the surface ; but after the disappearance of cutaneous eruptions, Sea Bathing may be used with advantage.

In Gouty, Rheumatic, and Bilious habits, Sea Bathing may sometimes be used advantageously ; but I would restrain the prescription within very narrow limits in such constitutions.

It appears to me, that the plethoric state, or even tendency to plethora, which is so common to the gouty, should always be a point of careful consideration, in determining the propriety of Sea Bathing. The cutaneous circulation suddenly repelled, may be unfavourably directed ; and in proportion as plethora, local congestion, or immediate tendency to Gout, may be existing in the system, the interference of so strong an agent as cold immersion, must be attended with hazard. Also, if the energy of the limbs be very deficient, the application of cold will not be followed by sufficient reaction on the surface, and rheumatic pains may be produced.

In Female Complaints, Sea Bathing is often resorted to with advantage ; it conduces much to

restore health and strength, after long and difficult labours, and is particularly useful to women unfortunately subject to miscarriage; indeed there are few remedies equal to it for checking *the habit of abortion*, into which many women fall, and in consequence of which habit they very rarely bear living children.

During Pregnancy, Sea Bathing should never be employed, except by the advice of a physician. Here I may be permitted to state, that in every period of pregnancy the tepid bath may be used with advantage, (unless where a miscarriage is apprehended.) I was led to this practice by the facility of *labour* in hot climates, and by a custom still prevalent amongst the peasantry in many parts of Ireland, who make use of an expedient apparently pointed out by nature to lessen the pains; when the woman has symptoms of approaching labour, the mid-wife immediately rakes hot cinders and ashes into the middle of an earthen floor, and places the patient over them, covered with a blanket,* till the moment of delivery.

It has often been a matter of astonishment to me to hear it asserted, that tepid bathing during Pregnancy will produce either abortion, miscarriage, or premature labour. I cannot in words sufficiently strong express my surprise to hear such opinions advanced—opinions which have no foundation either in theory or practice. During the last thirty years I have known cases without number, of women who bathed in tepid water two or three

* This forms a complete Vapor Bath.

times a week for the last month of their pregnancy; and it consists with my knowledge to assert, and without fear of contradiction, that Tepid Bathing during Pregnancy *not only affords great relief, but lessens the pains, and shortens the period of actual Parturition*; and by these means secures the objects of all our love and tenderness from danger, in the most interesting moment of their lives. This is a fact that cannot be too generally known.

During Puberty, a period of great delicacy with some females, Sea Bathing should be used with caution, and never without medical advice. Until the balance of the circulation is fairly established, which is seldom completed in a shorter period than two years, there is considerable irritability in the system, and all nervous complaints are increased; under such circumstances, however, the tepid sea water bath may be used with great advantage. This latter facilitates the establishment of the constitution, while the former checks the growth of the body, and protracts the period of Puberty. At the *change of life*, women should never venture into the sea, except under the direction of their physician.

With respect to Sea Bathing in Scrofula and Glandular Swellings in the neck, its utility is extremely doubtful. In some instances I have known it to be useful, but in many I have known it to be attended with the most dangerous and destructive consequences; and Mr. Carmichael concurs with me in opinion, in his very ingenious "Treatise on Scrofula." He observes, and with great truth,

“that the indiscriminate use of *Cold Bathing* in this disease, destroys in a single year the lives of many more than it could relieve in a century !” The same writer states a fact of considerable importance, “that there is no part of the empire in which Scrofula is more general than Dublin; and yet the inhabitants, but particularly the children,* even of those of the lowest class, enjoy the advantages, every summer, of Sea Bathing.”

From my own knowledge and experience, then, of the injurious effects of Cold Bathing in infancy and childhood, I discard its use altogether in this disease. How far *Sea Air* may be beneficial to Scrofulous children, I shall not stop here to discuss; but of this I am convinced, that Cold Bathing has frequently received the credit of a cure, which was entirely owing to the sea air.

It may be naturally inquired, what are the advantages which sea water possesses over fresh, or river water? They arise from the circumstances of a larger portion of salt being held in solution in the former, and which, by *stimulating* the cutaneous vessels, causes an increased determination of fluids to the surface of the body, and by exciting the absorbents into more immediate action, produces in an increased degree, that fine and exhilarating glow of warmth and comfort which those enjoy who bathe with good effect.

It may be necessary to remark, that the custom

* The ancients recommended sea water and sea air in Scrofula and Phthisis, but they little knew that iodine and chlorine were their medicinal agents.

of *wetting the head* previously to going into the water, should be omitted as useless, if not positively injurious. It has led to a practice which cannot be too strongly forbidden—I mean that of plunging children on their backs head foremost into the water. This barbarous usage has its foundation in the vulgar prejudice, that it was essential to wet the head preparatory to immersion. But it cannot be too often nor too emphatically repeated, that the idea is absurd, and the practice pernicious. With regard to children, it has a direct tendency to counteract the beneficial effects of Sea Bathing; for the violent agitation into which the child is thrown, the involuntary dread excited, and the desperate resistance made by the little sufferer, causes a determination of blood to the head, and has in many instances produced Water on the Brain, and other fatal diseases.

If children show a strong and decided aversion to Sea Bathing, amounting to terror, the use of it should not be urged; as, under such circumstances, the worst results may, and often do ensue.

I trust I have said enough to show that *forced* Bathing, and previous wetting of the head, are in general injurious, peculiarly so to children; such foolish and mischievous practices, therefore, cannot be too soon discouraged and abandoned. That many children, by the daily practice of Bathing in cold water, grow, and continue healthy, proves as little in favour of cold Bathing, as that many infants become vigorous and robust in the most unwholesome climate, and under the most unfavourable management.

The predilections which some mothers have for Bathing their children in the sea, in order to brace and strengthen them, and fortify the body against the vicissitudes of the weather (as they conceive it does), accounts for the Dropsy of the Brain and Pulmonary Consumption, which are met with so frequently in general practice in this city; for such is the *mania* for Sea Bathing, that little or no attention is paid to peculiarity of constitution; and as to its beneficial effects in giving hardihood to the constitution, we find that children, who, from infancy, have been bathed in cold water, are as liable to colds and coughs, as those who have not been accustomed to that practice.

I recollect an observation of the late Surgeon Richards, of this city, to this effect, that "there are few families in this country who have not a dash of Scrofula in their blood;"—and Dr. Gregory, of Edinburgh, used to remark, in his lectures, "that there is not a family in Scotland in which traces of it may not be found." The forms in which this malady appears in different families are numerous; but the most formidable is that of *Tubercular Consumption*; of which disease alone, it is computed that no less than from 120,000 to 140,000, in the prime of vigour and youth, fall victims annually in the British empire.* This terrible mortality, if it has not its cause in the rash and injudicious passion for cold Bathing in infancy, is, I have no

* This calculation was made by Dr. George Pearson, and communicated by him to the Royal Society.

See Observations on this subject in the Preface.

doubt, increased by it. Here I hope I may be excused for again stating, that I have succeeded in saving many consumptive patients from the fatal termination of that disease, by the Inhalation of Iodine, in the incipient or early stages.

I have myself seen hundreds of unfortunate scrofulous-looking children, who were forced daily into the sea at Ringsend, Irishtown, and Sandymount, returning home pale and shivering, with their countenances contracted, their lips blue, and their bodies debilitated; and should any bad effects be immediately observed to arise from this indiscriminate practice, they are in general attributed to having gone into the water too warm, or to the neglect of due preparation by the use of medicine. A *dose of salts* is considered by the ignorant and vulgar, an *infallible security* against all danger.

With respect to *preparation* for Sea Bathing, two or three tepid baths will be sufficient, commencing at 96° , and reducing them by degrees to the temperature of the sea, which in the summer season, at noon, is from 60° to 65° . It cannot be too often repeated, or too strongly impressed upon the mind of the bather, that he should always go into a cold bath, whether of sea or fresh water, when *warm*, and seldom exceed one plunge, and dry himself as rapidly as possible. This will produce a quick return of warmth, a glowing healthful appearance on the countenance, and an additional flow of spirits. When these effects do not follow, the cold bath should not be repeated.

Many, perhaps most of the advantages of cold

Bathing may be enjoyed within doors, where an opportunity offers, such as in Bathing Establishments. In these the temperature of the air and water may be uniformly kept up nearly at the same degree all the year round, which gives them a decided preference in many instances. Some of the advantages of Cold Bathing may also be had by means of the Shower Bath, which requires but little space, and a small quantity of water. The sudden application of the water to the body is one of the peculiar advantages of the Shower Bath, and the only objection to its use with some persons is the severity of the shock, particularly where the water falls directly upon the head. I have lately contrived an apparatus which regulates the force of the shock, by letting the water fall in a continued stream, and not in a sudden dash.* By this contrivance the objection I have mentioned is fully obviated. But even in this form, the shock on the head may be avoided by bending the body forward, to allow the stream to fall on the shoulders, or by inclining the body on one side, having the head covered with a bathing cap. Considerable benefit is derived by having the feet immersed in warm water during the fall of the Shower Bath; a practice which I have recommended for years, and which is now universally adopted.

* This Shower Bath has been introduced into very extensive practice, and may be had at all the tin and ironmongers' shops.

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HYDROPATHY, OR THE WATER CURE.

IN stating that curing diseases by Cold Water is not a new practice, I beg it to be clearly understood, that I do not, in the slightest degree, detract from the merits of Vincent Priessnitz, of Gräfenberg; on the contrary, I assert that he has so improved upon the method or manner of employing it, as to add considerably to its efficacy, in the treatment of disease.

We find in the early records of antiquity, mention made of *Bathing*, both as a religious ceremony, and as the means of fortifying the body against the hardships and fatigues of war; and in these views, *Cold Water alone* was, in the first instance, employed. On various occasions Cold Water is mentioned in the Sacred Writings, as a remedy for certain diseases; and we find a striking Scriptural illustration of its application, as a means of *Cure*, in the account given in the Gospel of St. John, chap. v., of the healing virtues of the famous *Pool of Bethesda*, which Chateaubriand and other travellers state, is still to be seen at Jerusalem. "Now there is at Jerusalem," says he, "by the Sheep Market, a Pool which is called in the Hebrew tongue *Bethesda*, having five porches; in these lay a great multitude of impotent folk, blind, halt, and

withered,* waiting for the movement of the Water," &c. And in the Second Book of Kings, it appears that the practice of Cold Bathing as a remedy for the cure of cutaneous diseases, was well understood in those days, and that certain rivers were celebrated for their medicinal properties. Thus Naaman the Syrian, when desired by Elisha to bathe in the *Jordan* for the cure of his Leprosy, exclaimed, "Are not *Abana* and *Pharphar*, rivers of Damascus, better than all the waters of *Israel*? may I not wash in them and be clean?"†

In *Bengal* the Cold Effusion has been practised from time immemorial, amongst the natives, as the following quotation from the "Oriental Field Sports," vol. ii., p. 318, by Captain Williamson, will prove. "We must, however," says the author, "do the natives the justice to allow, that the *refrigerating* principle, lately adopted by some of our leading physicians, owes its origin solely to the practice of the Brahmins or Hindoo priests, of whom the generality affect to be deeply skilled in Pharmacy. I believe, if taken in time, few fevers would be found to degenerate into Typhus, and that very seldom, any determination towards the liver, in acute diseases, would occur. Often have

* *Bethesda* means house of grace or goodness.—"Doubtless," says a commentator. "because many miserable objects there received mercy and healing." The patients said to be "withered," are supposed to have been afflicted with catalepsy—(Jahn's *Archæologia Biblica*, xii, 119): but I am inclined to think that the "withered" were consumptive cases, as *Marasmus*, from a Greek word signifying to wither or decay, was formerly a generic term for Consumption, and is now applied to Infantile Phthisis, or Tubercular Disease of Infancy.

† 2nd Kings, v. 12.

I known my servants when attacked with fever to *drink Cold Water in abundance*, and apply *wetted Cloths* to their heads with great success."

In *Persia* the Cold Water Cure was practised two hundred years ago, upon Sir John Chardin, a French Protestant refugee, who made a number of journeys into Asia, at that time; and that a similar practice prevailed in the corresponding climate of *Africa*, appears from the information of Bruce in his Travels, where he says, "If the patient survives till the fifth day, he very often recovers by *drinking Cold Water only*, and throwing a great quantity upon him even in bed, where he is permitted to lie without attempting to make dry, or change his bed, till another deluge is added to the first."

Various histories are to be found in the records of medicine, of persons who, under the *delirium* of fever, have thrown themselves into Cold Water, and when taken up, were perfectly in their senses, and speedily recovered from their disorder. Of these a great number have occurred at sea, where sailors, in the time of delirium, or of having *Calentures*,* when lying in their hammocks, and seeing the sea through the gun ports, very plain and smooth, imagined it to be green meadows, got up to walk, and fell into the water; if taken up alive, and placed in their hammocks, these men sweated very plentifully, and quickly recovered.

About the same time, *i. e.* two hundred years

* Calentures is a disease in hot climates, wherein the patients have a longing for home, and imagine the sea to be green fields.

ago, the Baron Pare, then surgeon to the *Hotel Dieu*, used Cold Water in the treatment of a variety of surgical cases in Paris, and a hundred and fifty years after, Dr. Currie, of Liverpool, accurately stated in his publication the advantages arising from the external application of Cold Water in Typhus Fever, Intermittent, and Scarlatina; and during the campaign in *Egypt*, the celebrated Baron Larrey, Surgeon General to Napoleon's army, directed the Cold Water treatment in gunshot and other wounds.

About five and twenty years ago, Dr. Macartney, Professor of Anatomy and Surgery in the University of Dublin, recommended his "German Poul-tice," and "Water Dressings," in wounds, contusions, &c., which is also in accordance with the practice of our two distinguished countrymen, Sir Philip Crampton, and Mr. Carmichael, the President and Vice-President of the Royal College of Surgeons, in Ireland, and some of the first Surgeons of the Royal College of England.

The limits I have marked out in this Appendix for observations on the Water Cure, prevents me from going further into the details of its rise and progress; I shall therefore, without further preface, state in as few words as possible, the results of my own observations and experience in that branch of medicine.

Having been at the head of a *Scientific Bathing Institution*, or *Water Establishment*, for the last thirty years, where, as I have already stated, not less than one thousand cases have annually pre-

sented themselves to me ; and having during that period, devoted much of my attention to the investigation of the effects of Water administered internally, and applied externally in different complaints, I must of necessity have had ample opportunities of observing the *dangers* as well as the *benefits* derived from it, in the treatment of disease. This branch of medical science, aided by plain and simple living, and exercise in the open air, is now called HYDROPATHY or the WATER CURE, and is engrossing much of the public attention.

Hydropathy must be considered as an important branch of the healing art, and a powerful auxiliary to other medical resources in the treatment of disease ; but as Dr. Mead justly observes, “ *In all things which the healing art contains, there is nothing that does good but may also do harm, and that when a remedy is used indiscriminately, it must of necessity be very frequently used improperly.*” This aphorism cannot be kept too prominently before the mind’s eye of every one who has had recourse to the aid of medicine.

In the practice of Hydropathy, as in many other departments of medicine, there are enthusiastic and ignorant practitioners, who, on finding that the remedy works wonders in some cases, adopt it as an infallible specific for all ; they would use it to set a broken leg, or to recover a drowned man. I am not a disciple of this school, nor am I infatuated with the Water Cure, as some are, in believing that medicine is wholly useless. On the contrary, I maintain that medicine is necessary, and in many

cases vitally so, in conjunction with the varied and scientific employment of Water of different temperatures. Hydropathy therefore, should be conducted by those only who are properly educated in the science of anatomy, physiology, chemistry, and the practice of medicine ; for being a powerful instrument, it ought not to be in the hands of uneducated or unprofessional adventurers. It is a weapon that ought to be wielded only by those who are intimately acquainted with the nature of disease, and the laws which regulate the animal economy. I would by no means have it understood, that I consider Hydropathy a cure for all diseases, or even for all the stages of *the* disease for which it may be an appropriate remedy ; and I cannot but condemn Captain Claridge's want of discretion, taste, and judgment, in his unqualified reprobation of *all* medical treatment, and in his assertion that the Water Cure is sufficiently remedial for all diseases that medicine can cure, and for many that it cannot cure.

I do not consider Hydropathy a cure for *any* organic disease, but in the prevention of permanent disease of the organs, which are as yet only *functionally* deranged, Hydropathy affords a remedy, which, competently administered under skilful superintendence, may be relied upon.

CASE OF GENERAL DROPSY.

The following was the first case of Dropsy in which I carried Hydropathy to any extent, in

conjunction with the administration of medicine, and the effect of it, in that instance, was such, as to induce me to persevere in that plan of treatment, with the happiest effects :—

About fifteen years ago, (in 1830,) the engineer of one of the Dublin and Liverpool steam packets, was admitted into the Maison de Santé at the recommendation of the Company, who were subscribers to that Institution. He was a Scotchman, thirty years of age, six feet high, and had been a remarkably well-looking and able-bodied man. When he presented himself to me, his whole frame, *a capite ad calcem*, was deluged with water, his extremities, &c., being swollen to an enormous size. He had Anasarca, Ascites, and Hydrothorax; his breathing was short and difficult; and he could only take into his chest two pints and a half of air, by the pulmometer; from his size, if in a healthy state, he ought to inhale eight pints; he had a short troublesome cough, with watery expectoration, and an asthmatic countenance; he was unable to lie down, from a sense of suffocation, which he felt when horizontally inclined; his skin was harsh, and dry to the feel; he had many other symptoms which are unnecessary here to relate. He acknowledged he was fond of whiskey, and drank it to excess; it will be scarcely believed, that any human stomach could bear from twenty to thirty glasses of pure whiskey *daily*, for eight years, which he confessed to me he had drank. He had, previous to his being sent to Dublin, been under the care of a professional gentleman in

Liverpool, who deemed it prudent to reduce by degrees only, the daily quantity of ardent spirits he had been accustomed to, fearing that reducing him to no drink but water, would be attended with fatal consequences. He was bled, took mercurial purgatives, squills and digitalis. Under this treatment the dropsical symptoms increased to such an alarming degree, that every cavity in his body, cellular texture, and all, became involved in the disease, till he exhibited the appearance I have just described. His case was pronounced incurable, and in this state he was sent over to Dublin, and placed under my care, in the Maison de Santé. My first object was to ascertain if there was any organic disease in any of the abdominal viscera, for which purpose, I immediately performed the operation of *Paracenteisis*, and drew off nearly three gallons of water, after which I discovered a considerable enlargement of the right lobe of the liver, with obtuse pain on pressure, for which I put him under a mild course of mercurial alteratives, with a nourishing diet, and copious draughts of cold water, from six to eight tumblers a day, but on no account to taste either malt, spirituous or vinous liquors, on pain of being immediately discharged. I also directed him to be put into a vapor bath for half an hour, and his body to be sponged over immediately after with cold water, with a view to determine to the surface, and produce a moisture on the skin. From the manifest relief obtained, I was induced to steadily persevere in this treatment daily, for a month, and three times a week afterwards, the

result of which was, that in two months he could inhale six pints of atmospheric air into his lungs, by the pulmometer, and returned to his duty, to the astonishment of all his shipmates. On his leaving the *Maison de Santé*, he pledged himself to refrain, in future, from the use of ardent spirits. He continued well for upwards of six months, when he broke his pledge, and returned to his former habits of drinking, which brought on a return of Dropsy, for which he was sent into the Liverpool Infirmary, and in three months after I was informed, he was carried to his grave.

It will be seen by the above case, that when disease is occasioned by the immoderate use of spirituous liquors, a plan of living diametrically opposite may be adopted without danger. The change however, in some constitutions, must be done with judgment and caution. It also shows the advantage of combining Hydropathy with other medical treatment, in restoring health and strength to persons debilitated by the use, or rather abuse of Mercury. In the above case, the Vapor Bath and Cold Spunging was used daily, by which means the system was strengthened against the debilitating effects of the Mercury, and fortified against the influence of cold. Thus may the constitution be preserved, and the cure of many obstinate disorders rendered less difficult, by the assistance of this powerful and safe auxiliary; and thus may be prevented the puny and degenerate offspring of those, who from shattered, broken down, and enfeebled constitutions, caused by dis-

orders contracted at home and in warm climates, are obliged to undergo repeated courses of Mercury; a necessity which seldom fails, even in the strongest constitutions, of producing a tendency or predisposition to *Scrofula* and other diseases in their offspring.

In derangements of the Stomach, Liver, Spleen, and other organs of digestion, which entail numerous complaints, such as Gout, Rheumatism, Neuralgia, and, perhaps, two-thirds of the ailments which afflict mankind, we have now a simple remedy at hand, which restores to healthy action those important organs whose derangement, if long continued, is sure to induce *organic* disease, and this is done without injuring the coats of the stomach or the tone of the constitution. All diseases arising from impurity of the blood will also be benefited by it, for instance, eruptions on the skin, with or without fever, and those diseases which arise from morbid poison, as Scarlatina, Measles, Small-pox; and I would even say that it bids fair to remedy those hitherto incurable maladies, Hydrophobia and the Glanders in the human subject: for, from the copious perspiration induced by it, the supplies being continued by the plentiful imbibing of pure water, there is a rapid change in the circulating mass of blood, so that the noxious particles are first diluted and then eliminated from the system. But I do not consider any individual who is worn down by long continued disease, inanition, or length of years, to be adapted for it; or those who do not possess suffi-

cient powers of *reaction* to restore the heat of the body after the application of the Cold Water treatment.

It has long been a practice with surgeons, to apply pledgets wetted with cold water and covered with oiled silk (to prevent evaporation) in the treatment of Gout, Rheumatism, and other Inflammations; but the enveloping the whole body in the *wet sheet* peculiarly belongs to the Gräfenberg practice; and as a remedy, it consists with my experience of it to state, that it may be considered as one of the most valuable discoveries that has recently been made in the treatment of disease. It acts as an abstractor of heat in all febrile and inflammatory complaints; for it is a well known fact, that when a cold body is placed in contiguity with a hot one, it attracts the heat until both become of the same temperature, and on this principle, the wet sheet lessens the pain by diminishing the morbid heat and circulation of the body.

In this way also the Cold Water treatment, instead of repelling the disease to an internal organ, draws it to the surface of the body, and, by a copious perspiration, carries off with great celerity both heat and inflammation, and brings on a favourable crisis. But the *continued* application of a cold liquid to any part of the body is one of the most powerful sedatives, and of course the most dangerous, that can be used in the practice of medicine, by lowering the temperature, and diminishing the circulation; and if continued *too long* death or the

most serious consequences may be the result. The *wet sheet* should, therefore, *never* be applied but under medical superintendence.

No medical man can deny that a remedy (*the sweating blanket*), which can produce the most profuse perspiration without injuring the tone of the stomach, and the *wet sheet*, which lowers the temperature of the body, and the velocity of the heart's action, to any given degree; I say no medical man can deny that such remedies must possess immense powers over most diseases. And that the partial application of cold water (*the wet bandage*), to the system produces in a very short time nearly, if not all, the beneficial effects of bleeding and blistering, the following case of pulmonic inflammation will prove—from a great many similar ones, *ex uno disce omnes* :—

On the 20th of August, ultimo, I was sent for to visit a young man labouring under symptoms of pulmonic inflammation. He was ordered to be bled, leeches, and blistered, which he objected to, having a dislike to the lancet, an abhorrence of leeches, and no fancy for the pain of a blister. Finding he was under the care of another professional gentleman, I, of course, declined any interference without meeting his physician in consultation. His physician was sent for, and we met, and on my proposing the Hydropathic treatment, I could see a smile of incredulity on his countenance, and on my pressing the matter further, he without hesitation said, that Hydropathy, like Homœopathy and Mesmerism, was “downright quackery,” and

that "it would be losing precious time to delay the application of the remedies he had prescribed," which were then lying on the table. The young man having heard of some extraordinary cures effected by the Water treatment, implored his physician to let him try it; and having yielded to his solicitations, it was immediately commenced, in the presence of his doctor, by applying the *wet bandage*, all over his chest, and ordering it to be wrung out of *cold water* every two hours, giving him a tumbler of pure spring water at each application. On our visiting him the next day, (four and twenty hours after,) we found him sitting up in his bed, perfectly free from any inflammatory symptom, and preparing to dress and go out about his business. On my taking leave of the doctor, he had the candour to acknowledge, that if he had not witnessed the effects of the Cold Water treatment in this case, he could not have believed it.

ADVANTAGES OF HYDROPATHY IN HOSPITALS AND SHIPS OF WAR.

Some doctors may ridicule this branch of medical science, having never studied it, and of which they are of course totally ignorant; but I aver, that the power of curing an inflammatory or febrile complaint in a short time, without lowering the vital energy or strength of the system, by bleeding, blistering, and drugging, is no trifling blessing. Hydropathy does this, is easily practiced, and leaves little or no debility behind it, and scarcely any convalescence, as in the above mentioned case,

while bleeding in most cases, is followed by depression of vital energy with diminution of corporeal force. The Water cure however, can never become a favourite with the profession at large, (for the plain reason, that a large class of medical men live by medicine, and cannot patronise water,) until the General Practitioners take it up, as a branch of the healing art, charging for their manipulations and attendance, and thereby limiting the sale of drugs to cases in which they must be resorted to. Here I beg leave to state, most respectfully, but most earnestly to His Grace the Commander in Chief of Her Majesty's Forces, and to the Lords Commissioners of the Admiralty, should these Essays ever fall into their hands, that if Hydropathy were practised, (as a branch of medicine,) in Military and Naval Hospitals, and on board Ships of War, a considerable saving of the public money in the article of *drugs* would be accomplished; and what is still of infinitely greater importance, the sick and wounded would be a much shorter time on the sick list, than under any other treatment whatever. These are *facts* which cannot be viewed with indifference, and which ought to be generally known.

A gentleman of high rank and fortune applied to me on the 31st of July, 1842. He was labouring under Hypochondriasis, derangement of the digestive organs, and great bodily debility. He stated that he "had consulted some of the first medical men in London and Dublin; that he was tired of drugs, and that he would take no more; that he

wished to have my opinion as to the water treatment in his case." I examined his person, and found he had no organic disease; I told him he was quite a subject for Hydropathy, and he put himself under my care. I commenced by immersing his whole body in a warm bath, and on his coming out had cold water poured upon his head, and the *wet bandage* put round his waist, with directions to wet it with cold water every three or four hours, to cover it with a dry napkin to prevent evaporation, and to take from six to eight or ten tumblers of pure cold water daily; taking as much exercise as his strength would permit after each draught, in the open air, and to discontinue wine and all stimulants. This treatment he continued for four days, after which I put him through the *sweating process*, (by means of the vapour bath, as he had a strong objection to the *wet sheet* or *sweating blanket* ;)* and while he was in a state of perspiration, he was immersed in cold water for two minutes, and well hand-rubbed, after which the *wet bandage* was placed around his body as before. This sweating process he went through three consecutive days, with manifest improvement in the appearance of his general health. The

* In many cases, I find the Vapor Bath preferable to the *Sweating Blanket* to open the pores, and produce perspiration, which it does in as many minutes as the Blanket takes hours; but a Vapor Bath can only be had in a Hydropathic or Bathing Establishment, and a wet sheet can be had in every dwelling, be it ever so humble, and may be considered as a substitute for the Vapor Bath, both of which are most powerful auxiliaries in the Hydropathic treatment of disease, and should be always applied under medical superintendence.

following day he went to the country, and never having heard from him, I presume he had no return of his complaint.

Captain Claridge (the enterprising promoter of Hydropathy, so well known by his publication and lectures,) saw my patient, had some conversation with him, and told him the treatment he was pursuing under my directions, was precisely the same as that adopted at Gräfenberg, (with the exception of the Vapor Bath.)

The following *changes*, while under the Water Cure at Gräfenberg, were observed to be produced on the body, after pursuing the Hydropathic treatment for a sufficient time, by Sir Charles Scudamore, who visited Gräfenberg in the Spring of 1843, and underwent the Water treatment himself, under the celebrated Priessnitz ; afterwards he visited Drs. Wilson and Gully's Establishment, at Malvern, where he had abundant opportunities of observing the effects of the Water Cure treatment, and no author stands higher for accuracy and fidelity:—

“The skin,” says he, “from being pale and sallow, acquires a ruddy hue ; the muscles become fuller and firmer ; fat decreases—and many are glad to lose a corpulent abdomen. In young, growing persons it is soon made visible that the capacity of the chest increases, whence the lungs have fuller play, and a brighter bloom appears in the cheeks. Exercise, which at first was a difficulty, now becomes a pleasure. The mind partakes folly in these benefits of the body ; the senses become more acute, the faculties more energetic, and

buoyant spirits take place of langour, depression, and ennui."

And I can add, from my own experience and observations, that the appetite improves, a regularity of bowels is established, and in most cases, Hydropathy induces a tendency to repose, and gives relief where it is impossible to cure.

From these observations, it will not be difficult to enumerate the complaints which may be cured or relieved by Hydropathy. It is useful in all cases of cutaneous diseases, from the slightest eruption on the face or body, to the most inveterate case of psoriasis, or other skin disease; in gout, rheumatism, paralysis, and tic douloureux; in inflammation of the lungs, influenza, asthma, and *incipient* consumption; in scrofula, and diseases of the spine; in scarlatina,* and other eruptive fevers; in all indispositions arising from violent exercise, producing chills, with all the attendant bad consequences. Inflammations in every part of the body, even when attended with fever, or internal or external tumors, are successfully combated by the Water Cure. In dyspepsia, and in all chronic diseases arising from

* In September, 1843, I received a letter from a clergyman's lady in Cambridgeshire, of which the following is an extract:—"I forgot to tell you of a cure we have just performed. A woman came to us a few days ago, saying that her child was dying in *Scarlet Fever*; that she could not swallow; that her tongue was black; and that she could not afford to send to Wisbeach (a distance of seven miles) for a Doctor. We told her to put the child in a wet sheet, and a dry one over it, and to roll her up in a blanket, and to give her plenty of cold water to drink. The child is now quite well and running about, to the astonishment of all her neighbours, who told the mother she was killing her child *outright*. The woman is a poor Irishwoman, and a great friend of mine. She put faith in our advice, and saved her child."

excess in eating or drinking, and the gratifying other pleasures which debilitate and enervate both body and mind, considerable aid is found in the Cold Water treatment, which, as I have already observed, never fails to benefit the patient, even in cases where a perfect cure cannot be hoped for.

A case of spinal disease which commenced the Water Cure treatment at Gräfenberg, with surprising success, came to my establishment in Temple-street, about twelve months ago, and continued the same treatment for three months daily, when a perfect cure was effected.

A case of hip-joint disease is at present under Hydropathic treatment, and the painful and distressing symptoms mitigated to such a degree as to induce me to hope that a perfect cure will be established.

CASE OF HYSTERIA AND ST. VITUS'S DANCE.

While this edition was in the press, the following complicated case of *Hysteria* and *St. Vitus's Dance*, was submitted to the Hydropathic treatment:—

A young lady from the country, about 20 years of age, of a strong constitution, with florid complexion and blue eyes, was for upwards of a fortnight labouring under the symptoms which immediately constitute what is called *Hysteria*; in addition to which, she had violent irregular motions of the right arm and leg, and sometimes of the whole body. The spasms had been almost constant, obliging her to be held down in bed, continuing during sleep, which was frequently interrupted;

her speech very inarticulate; her appetite bad; her body costive; her skin dry; her pulse slow, and not affected by the spasms; her female health irregular. I was requested to visit this young lady on the 28th of March, 1845, her medical adviser having discontinued his attendance. I found her in bed, labouring under *delirium*, with contracted pupils, and a blister on her head. I was informed she had taken a quantity of drugs of various kinds, and was placed on a strengthening diet with wine; she had her spine rubbed with a stimulating embrocation, and a bottle of musk mixture (containing half a drachm of that useless and expensive drug) was lying on the table untouched. Her bowels being in a confined state for three days, I directed an aperient draught to be immediately given, and a solutive injection to be administered, ordering her at the same time to take a tumbler of pure cold water every second hour, and cloths wet with cold water to be kept constantly applied to her head, the combined effects of which, produced copious bowel evacuations, and a good night's rest. On visiting her the next day, she was so much relieved that I ordered her to get out of bed, and move about her chamber, and to continue the cold water both internally and externally. The third day she was able to walk about the drawing-room without help for some hours. The Cold Water treatment was continued. On the fourth day she found herself so well, that she expressed a wish to go to the country. She had no convulsive motion or nervous symptom after the second day of the Cold Water treatment; her speech became articulate; her

appetite improved ; her bowels became regular, and her sleep natural. On the fifth day she returned with her mother to her residence in the County of Kildare, with instructions to continue the Water treatment with a nourishing diet, but nothing heating or stimulating, and to take daily exercise in the open air, until her health and strength returned.

St. Vitus's Dance* is almost peculiar to the growing state, and to females, and is seldom attended with danger ; however, from neglect or mismanagement, it may be transferred to the brain, and terminate in Epilepsy. A variety of drugs have been supposed to cure this disease, from the accidental circumstance of their having been administered at the time when the natural strength of the constitution overcame its influence. In this way mosaic gold, powdered tin, rust of iron, salt of steel, assafoetida, musk, &c., have in their turn obtained the credit of a cure, when, in fact, these various remedies only retarded recovery, and aggravated the disease. I leave it to others to conjecture, had the drugging and stimulating treatment above-mentioned been persevered in, would recovery be so speedily effected as by the WATER CURE.

* According to the superstition of the fourteenth century, two saints, St. Vitus and St. John, were considered to have particular connexion with the extraordinary disease (St. Vitus's Dance), of which violent convulsive motions formed a principal symptom. The anniversary of St. John's day has, from the darkest ages, been celebrated by the kindling of *Bonfires*, and even to the present day, the belief subsists that people and animals that have leaped through these flames or their smoke, are protected (as if by a baptism by fire,) for a whole year from fevers and other complaints. This Heathen custom in honor of St. John is still kept up amongst the lower orders in Ireland on the eve of the anniversary day.

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