FIFTY YEARS
OF THE
WATER CURE

WITH
AUTOBIOGRAPHICAL
NOTES

BY
JOSEPH CONSTANTINE

SECOND EDITION

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FIFTY YEARS OF THE WATER CURE.

BY THE SAME AUTHOR.

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Author of "Hydropathy at Home," and "Health and Activity in Middle and Later Life."

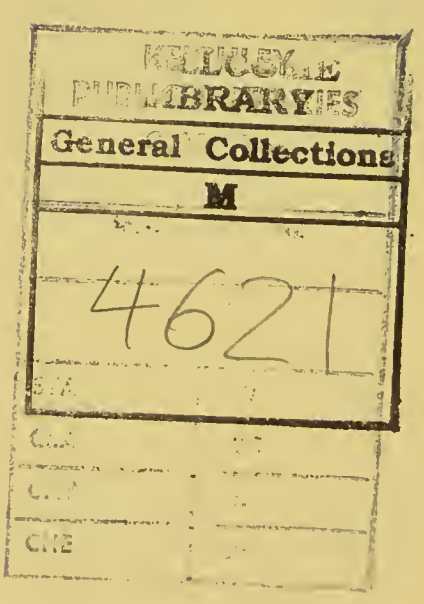
SECOND EDITION:

WITH APPENDIX, CONSISTING OF SOME RECOLLECTIONS OF PUBLIC MEN, CORRESPONDENCE ON VEGETARIAN DIET, INTERVIEW WITH MR. ISAAC HOLDEN, M.P.

JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER;
1, PATERNOSTER BUILDINGS,
LONDON.

1893.

MANCHESTER:
PRINTED BY RICHARD GILL, TIB LANE,
CROSS STREET.



TO

ALDERMAN IRA ICKRINGILL,

MAYOR OF KEIGHLEY,

WHO INVITED, MARCH 28, 1891, TWO HUNDRED AND SEVEN
EX-HAND-WOOLCOMBERS
TO A BANQUET AND ENTERTAINMENT AT THE
KEIGHLEY TECHNICAL INSTITUTE,
TO MEET HIMSELF, THE MAYORESS, THE MAYOR OF BRADFORD,
ISAAC HOLDEN, ESQ., M.P., AND MYSELF.
THIS REMARKABLE GATHERING WAS IN A MEASURE A REUNION
OF EMPLOYER AND EMPLOYED;
THE PRINCIPAL MANUFACTURERS OF THE BOROUGH, WHO
FORMERLY EMPLOYED HAND-WOOLCOMBERS,
BEING ALSO PRESENT AS THE MAYOR'S GUESTS.
IN ADMIRATION OF HIS HIGH CHARACTER, HIS THOUGHTFUL,
GRACIOUS, AND DISINTERESTED KINDNESS TO THE
REPRESENTATIVES OF THE EXTINCT TRADE OF MY YOUTH,
THIS LITTLE BOOK IS RESPECTFULLY

Dedicated.

PREFACE TO THE FIRST EDITION.

THERE are few men who can foresee the work which lies before them; as time advances duties and responsibilities usually increase. Seven years ago, when the third edition of *Hydropathy at Home* was issued, I had no idea of again appearing in print; but coming in contact from time to time with Mr. Isaac Holden, M.P., with whom I frequently discussed the subject of Diet for the various periods of life, I thereby began to realise how very much bad health there really was that might be avoided, and that life was materially shortened through nothing more than errors in diet, especially on the part of those who were on the shady side of forty. This conviction led me to the preparation of my book *Health and Activity in Middle and Later Life*. In that book I put on record my views as to the regulation of the diet at different ages, and the advantages of abstinence from alcoholic drinks, especially marking for condemnation the wickedness of the classes in past times, for placing temptation to drunkenness in the way of the masses. It will hardly surprise anyone when I say that, "since I practice what I preach," I sincerely believe that the diet which I recommend in my book for advanced age is that which has extended my own active working days. But my indebtedness to the "water cure" has been even greater, and it is to the observance of these two great natural medicines that I attribute my present healthy condition, alike in the capacity to attend to agreeable employment and to take a varied interest in life. During a working period of not less than sixty years I have not lost one day through illness.

It is because I believe it to be the duty of every man to do what little in him lies, not only to relieve the sufferings of his fellow-creatures, but to raise the standard of health, that I have recorded in the present volume further experiences of my own, which I think might be generally useful, and particularly so to those believers in hydropathy coming after me.

Elihu Burritt says: "No human being can come into this world without increasing or diminishing the sum total of human happiness, not only of the present, but of every subsequent age of humanity. No one can detach himself from this connection. There is no sequestered spot in the universe, no dark niche along the disc of non-existence, to which he can retreat from his relations to others, where he can withdraw the influence of his existence upon the moral destiny of the world; everywhere his presence or absence will be felt; everywhere he will have companions, who will be better or worse for his influence."

Thoroughly endorsing these noble sentiments as I do, I have felt that whatever measure of influence I personally may have ever had, will be made more permanent and useful in the form of a book, however feeble, which shall, if possible, discharge the debt I owe not more to hydropathy as a curative agency than to my convictions on the subject, developed and deepened as they have been by fifty years' experience.

J. C.

PREFACE TO THE SECOND EDITION.

MR. MANFIELD, in his racy letter, says:—"I am sadly afraid you will be as one crying in the wilderness; where appetite is concerned we take a deal of converting." There is truth in that, but appetite is as nothing in comparison to old-established national customs and long acquired erroneous personal habits of diet. Old habits, good or bad, cling to us tenaciously; they seem to become part of our very nature. If a bad habit has the effect of lowering, weakening the stamina of the body, there is less power of will to make a change, even when there is a strong conviction that a change is necessary for health; I have known this to be the case with many intelligent people. And again, it is very difficult for some people to acquire the habit of eating fruit with bread as part of the meal; they and their forefathers had not eaten fruit in that manner; it was un-English! "We have been accustomed," say they, "to eat fruit as dessert after a substantial meal, or between meals as an agreeable luxury."

During the last few years, since I have been paying attention to the most suitable diet for advanced age, vast numbers of old acquaintances have passed away in mid life at about sixty years of age, the real cause of death in most cases being arterial or fatty degeneration—a cold is contracted, a sharp attack of bronchitis, pleurisy, congestion or inflammation of the lungs follows, and the patient is gone in a few days.

Our national food, consisting as it does so much of cereals and root vegetables, causes this, and few people in

this country escape the consequence in impaired health and shortened life. The valuable information bearing on this subject contained in the interview with Mr. Holden has been a great service to many of my friends, and has awakened a greater interest in the subject of diet than anything that has appeared in print for some time past.

With the Anglo-Saxon race public opinion is slow in forming or of changing; the particulars of Mr. Holden's diet as set forth in the interview have been copied into all kinds of papers and periodicals, and have done much good. It ought to be followed, backed up by a work well thought out, "A complete guide to a healthy and long life." If I could devote the necessary time to compiling such a book, it would be a fitting climax to my various attempts to spread a knowledge of the laws of health.

JOSEPH CONSTANTINE.

The Baths,
23, Oxford Street,
Manchester,
March, 1893.

CONTENTS.

SOME IMPORTANT CASES—*continued.*

BATHS:

Appendix.

PLATES.

FIFTY YEARS OF THE WATER CURE.

EARLY LIFE.

Should auld acquaintance be forgot,
And never brought to mind?
Should auld acquaintance be forgot,
And days o' lang syne?

AS this is my hydropathic jubilee year—and as the celebration of jubilees have been in full fashion since the Queen's; and having had forty-four years' uninterrupted active work, in the busy city of Manchester, of general bathing, with a good sprinkling of hydropathic work; and as it is possible that I am the only survivor of the 1842 converts to the water cure, that is, of those who have devoted their time in administering it to others (many whom I have known have disappeared prematurely, because they did not practice what they preached); and as it is sometimes instructive to look back on the past and examine the work we have done, and ascertain if it has been well done, or if it admits of improvement—it seems to me that this is not an improper time to survey the past and to give some account to the old friends of my early life, and also some details of a long day's work.

Having had to do day by day with a very large number of bathers in health and out of health, few men, I think, have had a better opportunity of observing how the daily practice of the principles of hydropathy will ensure sound health while attending to the ordinary duties of life, and how, by its remedial agency, disease may be grappled with and subdued, and health restored. With such experience it is my duty to endeavour as far as possible to extend a knowledge of those principles which, if put into practice, I verily believe will confer blessings on mankind. The man who tries to keep to himself a treasure which ought to be shared by others I consider only acts the narrow part of the miser who gloats over his worthless accumulations.

In the not distant future, when hydropathy forms an important part of orthodox medical treatment, the particulars given here may be of some service; it may be to encourage and give confidence to those who are timid and afraid to apply hydropathy in cases of sudden illness. No one seems afraid to apply a hot fomentation, but most people would probably hesitate to apply a cold wet sheet pack, which, however, in many cases would be of greater service to the patient than the hot fomentation.

The autobiographic notes I propose to make may be somewhat straggling, but I think they will be found in their proper place. I was born of humble parents on the 10th of June, 1823. At that time the children of the working classes were sent to work in the worsted factories about nine years of age (that was my lot) for one shilling per week. In those

days there was no Ten Hours' Factory Act. The first two years of factory life I disliked, in fact, it was misery to me; afterwards it was less so, the good, kind old master, the late Robert Clough, who took a fatherly interest in his workpeople, had spotted me for a future overlooker; however, that was not to be, but the recognition led to promotion and more congenial employment. During the two summers before entering the factory most of my time was spent rambling alone in the woods bird-nesting, and fishing in the beck (the river Worth). The last spring two hundred nests, which I had myself discovered, were on my list; they were a great treasure to me; no other boys were informed of their whereabouts, as they might disturb them. *Our garden* joined up to one of the woods, which gave me easy access to it; the songs of the birds were my delight. The thrush was my favourite, and it has remained so notwithstanding the thrilling song of the lark. The Great Northern line from Halifax to Keighley, where it enters the Worth valley, has gone through and destroyed the dear old garden, and has besides made sad havoc with the woods.

For the labouring classes these were the times of long hours, small pay, and dear bread, and little or no schooling; not more than one in ten of the children were sent to a day school; school pence could not be spared. It was my misfortune to be one of those who were not sent to a day school, but at an early age I learned to read at a small undenominational Sunday schoolroom, which had been built by the combined efforts of the

poor people in the neighbourhood, the ground being given by good old John Shackleton, and who also gave the stone for its erection from his quarry. Some bitter feeling was afterwards caused in the neighbourhood by a majority of the trustees, who were Wesleyans, *giving* the school to the Wesleyan body.

When thirteen years of age I was taken from the factory to learn my father's trade, hand-woolcombing, a poor, ill-paid, unhealthy trade. Inventors were then at work trying to invent a machine to supersede hand labour. Isaac Holden, Esq., M.P., was one of those inventors, and he ultimately succeeded in producing a perfect machine, which completely did away with the old hand-woolcomber about the year 1853.

I first saw the light in the now famous Worth valley at Hermit Hole, midway between Keighley and Haworth, the home of the Brontës. My father was born at Haworth. My parents were married at the venerable old church in 1814 by the Rev. T. Charnock. When married my mother was in service at the parsonage.

I continued to reside in the house in which I was born until I was twenty-three years of age. While yet a youth I frequently attended temperance, political, and scientific lectures at Keighley. This involved a two miles' walk to and fro; after which I often went to the temperance hotel to hear the local *lights and leaders* discuss the lecture.

In 1842 a number of young men, most of whom had become teetotallers, formed a mutual improve-

ment school; some of the members could not write their own names, others did not know all the letters of the alphabet. The teaching was confined chiefly to the three R's. This school was carried on for several years in the bedroom of a cottage. The only other school in the neighbourhood was the Wesleyan. To teach writing and arithmetic on a Sunday was looked upon by them as too worldly and a sin; in those days to read a newspaper on Sunday was also considered a sin. At our school, humble as it was, some of the scholars found the stepping-stones to advancement in life; no one profited more by it than myself. It may be mentioned here that there were many such schools as this started about the same time by the young working men in the north of England.

Thomas Cooper, the Chartist author of *Purgatory of Suicides*, was constantly urging us to form such schools, and to lose no opportunity of self-culture; he told us how to go about it and how he had educated himself. We were proud of Cooper and of his achievements as a linguist; he had great influence with us. He was of us—he had been a shoemaker; he knew our hardships, and his sympathies were genuine; he was as true as steel.

Since the above was in type, and while the proof sheets were being looked over, the good old man has passed away. In the *Manchester Guardian*, July 16th, 1892, appears the following:—

"By the death, yesterday evening, of Mr. Thomas Cooper, an interesting figure is removed. He was a

native of Leicester, born in 1805. By extraordinary exertions he gained a knowledge of Greek, Latin, Hebrew, and French whilst working at his stall as a journeyman shoemaker at Gainsborough. At twenty-three he turned schoolmaster, and, taking a keen interest in the welfare of the working people, he joined the Chartists and became one of the leaders of that party. In 1842 he was tried on a charge of conspiracy and sedition arising out of the riots in the Potteries. He was sentenced to two years' imprisonment in Stafford Gaol, and whilst there wrote *The Purgatory of Suicides*. He afterwards published *Alderman Ralph*, and *The Family Feud*, and other stories, and contributed largely to periodical literature. He was also a frequent lecturer, chiefly in connection with the free-thought party. His views afterwards changed, and he became an earnest defender of Christianity. His lectures on the evidences of religion formed the basis of some small books intended for popular circulation. His poems were collected in 1878, and a few years earlier he published his *Autobiography*. The career of Thomas Cooper, 'the Chartist,' as he was almost invariably styled, is a remarkable instance of natural talent cultivated under the most unfavourable circumstances. He was a favourite with working men, who were naturally proud of a man of their own class who in the deepest poverty had conquered for himself a liberal education, who had won distinction both as a poet and as an orator, whose sincerity and honesty no one doubted, and who always retained his enthusiasm for the amelioration of the condition of the poor."

Thomas Cooper was sent into the world to do a great work, and he did it. He was a true patriot, he loved his country and his kind, and it may be certainly said of him that he has left the world better than he found it. He was proud of his "old boys," who had accepted him as their master; with many of them he kept up a correspondence; I have myself a large number of letters from him. We made feeble efforts to follow his advice and emulate the noble example he had shown us. When the *Purgatory of Suicides* came out, I committed a large portion of it to memory. My book, *Health and Activity in Middle and Later Life*, I dedicated to him as follows: "To my dear old friend, Thomas Cooper, author of the *Purgatory of Suicides*, who throughout a long life has made great efforts to elevate the people intellectually, morally, religiously, and socially; and to whom, in my youth, I looked for advice and guidance, this small volume is respectfully and affectionately dedicated."

It ought to be stated that, for many years in later life, he was a teetotaller. In 1885 I had been pressing him to include in his admirable course of lectures one on teetotalism. He wrote a letter to me on March 30th, 1885, from which the following is an extract:—

"There is another and distinct reason why I cannot lecture on teetotalism. I did not become a teetotaller from the motives which guided yourself. It was *compulsion*. The last time a small portion of brandy was given me—against my will—they who

had insisted on my taking it were frightened. I sat gasping for breath, with a red face and the heart travelling like a racehorse, for an hour. Since then I have never tasted.

"I tell you again, my dear friend, solemnly, I wish I had never tasted in my life; but I think, when you come to turn things over in your mind, you will see that I cannot be a teetotal lecturer.

"Let this console you, that I preach strongly against, and often depicture the bourne of the drunkard, and tell young men never to touch it.

"So, now the old man has told you the truth, set him down in your censure as lightly as you can.

"Your loving friend,

"THOMAS COOPER."

In his youth, when full of vigour, and had great influence with the working classes, a Tory Government imprisoned him as a dangerous political character, and in doing so gave him rheumatism for life, from which he suffered great pain in his last days. It is interesting to note that a few weeks before he died a Tory Government made him a grant of two hundred pounds; he, however, was not in need of the money, having been well provided for by his friends. Thus it ever has been that the earnest and active reformers of the day, looked upon as dangerous characters only to be imprisoned, are in the next generation regarded as *statesmen* and *philosophers* worthy to be honoured. Within my own recollection it has been said of the British Constitu-

tion two or three times, that it would certainly be destroyed; but still it gains strength, and that in spite of its danger, according to the prophets, of being once more destroyed by doing justice to Ireland, to poor old Ireland that has been so often kicked nearly to death. If only her people will be wise, there are surely better times in store for her.

The death of my old friend has given me this opportunity to pay a tribute of respect to his memory; he who, though dead, still liveth and speaketh.

THE REV. PATRICK BRONTË.

When a boy I frequently saw the Rev. Patrick Brontë on his way home from Keighley, and many times have watched him until he was lost to view. Knowing who he was, my boyish curiosity was excited to see him making a great effort to walk without staggering. He was no teetotaller at that time. His fondness for liquor may account for his allowing his son Branwell to idle away his time at public-houses and contract habits which carried him to a premature grave and gave his sisters endless trouble.

Afterwards Mr. Brontë turned over a new leaf—it was said that he had got converted; he lived a more religious life. During the Peninsular War, the army absorbed most of the able-bodied young men of Haworth and district, and amongst the number was my father and his two brothers, Isaac and Thomas. At that day, and up to the time of the Brontës, Haworth was a poor outlandish small

village; the inhabitants were rough, hardy, and strong; it was quite an event for a new house to be erected there. Mrs. Gaskell, in her *Life of Charlotte Brontë*, gives a very good description of the district and of the people. Since that day the great revolutioniser and civiliser, the railroad, has entered the Worth valley, and has effected a great change. It has brought it into communication with the whole of England. Haworth is now a busy and prosperous growing place; there is vigour and enterprise there, and the old village seems to rejoice in its new life.

The pinching poverty of the "good old times" has disappeared from the neighbourhood, and all those terrible characters pourtrayed in *Wuthering Heights* have been removed by death. At one time I frequently saw one of these demons in human shape. If a young Emily Brontë should spring up at Haworth, she may find a pleasant subject and a pleasing title for her next new book "Music in the Cottage." On a Sunday afternoon, or an evening after working hours, good vocal music, accompanied by the piano or harmonium, may be heard in many of the cottages.

For several generations the people of Haworth have been noted for their love of music, and some of the broad-chested natives have had very fine voices. My father had a reputation of this kind, and for eleven years was the leading singer at Keighley Parish Church. These singers were usually invited to the school anniversary in the district, and on one occasion one of those big-chested fellows, who seemed to have four bass voices rolled into one, arrived for

the evening service. After the "knife and fork" tea was over, part of a leg of mutton and a big plate of butter and bread were set before him, and the two were rapidly disappearing, when a waiter inquired if he would like a little bread without butter to his mutton. "Oh, no, thank you," he said, "this is quite good enough for me!"

ROUTE FOR A PEDESTRIAN TO HAWORTH AND ILKLEY FROM MANCHESTER.

The roads for miles round are kept in good repair. The pilgrims from this neighbourhood to the shrine of the Brontë sisters find the walk from Hebden Bridge over the moor (Cockhill) to Haworth, about eight miles, not only pleasant but invigorating. They pass through all the beautiful scenery of the Todmorden valley, and as they ascend the hill from Hebden Bridge the scenery is very fine on the left, and across the narrow valley Heptonstall Church is perched on an eminence behind it and around it. Two miles from Hebden Bridge the scene opens out; far away in the distance are to be seen sturdy old hills rearing their heads amongst the clouds.

Down in the valley on the left, on the bank of the stream, are several factories, which give evidence of the energy and industry of the hardy Yorkshire population.

About three miles from Hebden Bridge you are on the open moor, and are greeted with the familiar call (to a native) of the grouse, and see them scudding here and there in search of their scanty food. Four miles and a half from Hebden Bridge you tip the

summit of the hill. On a clear day, looking almost in a straight line over Keighley and Airedale, you see Rumbold's Moor, ten miles distant, which parts Airedale and Wharfedale; and the road also from Keighley to Ilkley, and two reservoirs which belong to the Bradford Waterworks immediately beneath you, at the head of the Worth valley, add beauty to the view; the tower of Haworth Church is soon in sight.

The descent of the two and a half miles, from the top of the hill, and arrival at Oxenhope railway station, the terminus of the Worth valley line, seems seems to be very short, though the distance is seven miles from Hebden Bridge, and four and a half from Keighley. Howarth is the first station down the valley, then Oakworth.

Keighley has been incorporated for thirteen or fourteen years. The Corporation have made great improvements in the town, which has now three neat little parks, well spread out on various sides of the town, as well as tram lines on the Halifax and Skipton roads. During the last forty years Keighley has been a busy, prosperous place, though its industries have undergone considerable changes. Some of the large tool-making firms in the town have been founded by *bonâ fide* working-men mechanics. The key to the prosperity of the town is its Technical School, presided over and fostered by Mr. Isaac Holden, M.P. It is one of the most excellent and best managed schools in England.

Along the Bradford road, one mile from Keighley, the river Aire and the canal, which is hard by, are crossed; then there is an ascent of a little over two

miles to the summit of Rumbold's Moor. When the canal is crossed and one mile has been traversed there is a splendid and extensive view of Airedale, Keighley and Bingley being also in sight.

The head of Rumbold's Moor is not broad, but rather round from the highest point, and before the hills across Airedale are lost sight of, those on the opposite side of Wharfedale are in view.

In descending the moor towards Ilkley, and before the full view of the beautiful landscape opens out, the arrangements of the modern sportsman attract attention. Not far from the road are semi-circular butts of sods, with a rude four-legged stool inside, the legs being driven into the earth and the top nailed on; the sportsman squats and crouches on this stool, like a big monkey, with his gun resting on the sod wall, and scouts are sent out to find and drive the birds within reach of that terrible shot. This is what they call going on the moors for health and exercise. The scouts have to give these sportsmen a wide berth, for they can hit a large object much better than a small one, and now and again they bring down a friend or comrade.

About a mile from Ilkley the scenery in Wharfedale is splendid; Bolton Woods are in full view. Turning to the extensive view down the valley, there is Ben Rhydding, standing in its own well-wooded grounds, looking noble, majestic, and venerable, but sulky withal, because of neglect, like a worthy patriarch who deserved well of his country and his kind, but had been left out in the cold shade. Ilkley is a rich field for the antiquary.

During my forty-four years' residence in Manchester I have spent the week end at Ilkley scores of times. At midday on Saturday the train takes you to Hebden Bridge in an hour; over the moor to Oxenhope is about seven miles. Take the Worth valley line to Keighley, and, after attending to the inner man, there is a delightful walk, the scenery being fine and varied, over Rumbold's Moor to Ilkley. To reap the full benefit of the walk, a warm and cold shower or rain bath ought to be taken and the under-linen changed on arriving at Ilkley; this can be done at Stoney Lea "Hydro." The sight of Mr. Emmott, the proprietor, reminds one of the palmy days of Ben Rhydding, when he was the premier bath attendant there. He had the strength of a giant; to tuck a patient up in the wet sheet pack with him was the work of two or three minutes, and, while rolled up in the sheet, he could pick up an ordinary-sized man and carry him as if he was a baby from his bedroom to the bath-room.

The return journey from Ilkley may be made on Monday or Tuesday. A friend who has accompanied me twice says that it is the cheapest and most invigorating week-end out he has ever made. For anyone in walking condition it must certainly be most enjoyable. Now, in my seventieth year, that walk is as great a treat to me as in my younger days. By taking an earlier train Haworth Church may also be visited on the way.

RESIDENCE OF ISAAC HOLDEN, ESQ., M.P.

Within the last twenty years, in addition to Haworth, another great attraction has sprung up in the Worth valley. The beautiful Winter Gardens and grounds at Oakworth, the residence of Isaac Holden, Esq., M.P., are visited in summer by tens of thousands of the working population of the surrounding busy district and, to their credit be it said, these people never disturb a flower nor a plant.

Last August, on a beautiful Saturday afternoon, when I was on a visit to Mr. Holden, there was a party of some hundreds from the neighbourhood of Bradford spread all over the grounds, looking extremely happy and contented. Before leaving for home they grouped in front of the house, and sang well and heartily some grand old Congregational hymns. When Mr. Holden appeared to speak a few kindly words to them, every eye was fixed upon him and all the men instantly uncovered.

It was a pleasing sight, not soon to be forgotten, to see those honest industrious sons and daughters of labour, *wealth producers*, enjoying themselves rationally in those beautiful grounds, and bearing themselves with such respectability and decorum. There are not many wealthy people who allow all their respectable neighbours, making no distinction of class, free admission to their pleasure grounds as does Mr. Holden. All the working-class families who desire it are supplied with a latch-key to enable them to pass in and out of the grounds at their own convenience.

Several times on a Sunday afternoon I have seen them strolling along the shady walks round the lakes, some sat quietly reading in the cosy summer-house overlooking the lake, happy and self-possessed as if they were part proprietors.

The Worth valley is in easy distance of

ILKLEY.

The old baths, known as "Ilkley Wells," are of very ancient date. For hundreds of years they have been resorted to in summer by invalids, and Harrogate is not far distant, so that the natives of the West Riding of Yorkshire, long before hydropathy was known in England, had a certain undefined faith in the curative power of baths, and to some extent they were prepared to investigate and adopt the water cure. To them is due the honour of erecting the first large substantial hydropathic establishment in this country, Ben Rhydding, and, moreover, this building was not erected as a commercial speculation, but to give the people the benefit of the *new cure*.

When Captain Claridge's Book was issued in 1842, in which he gave an account of his own restoration to health while under Priessnitz's treatment at Graefenberg, and of the wonderful cures he had witnessed while there, a brother of mine was ill. He had benefited by a fortnight at Ilkley, taking the cold baths. At that time they had no means of warming the water, and have not at the present time. I bought Captain Claridge's book on his behalf.

The very name *water cure* excited great interest in

that part of Yorkshire. How came Ben Rhydding to be built may be asked?

In 1843 HAMER STANSFELD, who had formerly been Mayor of Leeds, returned from Graefenberg, like Captain Claridge, restored to health and full of enthusiasm for the *new cure*. With the aid of his brother, who was County Court judge at Halifax and father to the present M.P. for Halifax, he organised the company which built *Ben Rhydding*, which was opened in May, 1844. The event was recorded by the erection of a marble drinking fountain in the Ben Rhydding grounds, bearing the following inscription, which is now showing signs of age:—

IN MEMORY OF

VINCENT PRIESSNITZ,

THE SILESIAN PEASANT, TO WHOM THE WORLD
IS INDEBTED FOR THE BLESSING OF THE
SYSTEM OF CURE BY COLD WATER,
THIS FOUNTAIN
IS GRATEFULLY ERECTED AND INSCRIBED BY
HAMER STANSFELD.
BEN RHYDDING, MAY 29, 1844.

Dr. Macleod was not at Ben Rhydding at its opening. *Dr. Rischanek* was the physician; Hamer Stansfeld brought him from Graefenberg. He had been trained under Priessnitz, the founder of the water cure. He was a clever hydropathist, but of indolent habits and lacking in energy. *Dr. Macleod* took his place in 1847, three years after Ben Rhyd-

ding was opened, having had a few weeks' training at Malvern, under Doctors Gully and Wilson.

Ben Rhydding was a success from the very beginning. Dr. Macleod went to it as a servant, but he bought up all the shares and became the sole owner and made a large fortune. That seems to have been the main object he had in view. He found it a temple of health. He left it with a licence attached to it for the sale of drinks, which intoxicate, injure health, and produce disease—a big step in the downward grade. This prostitution of the hygienic principles of hydropathy bore its fruit; good and evil will not assimilate; grapes cannot be gathered from thorns—and the once fair fame of Ben Rhydding was blighted, and it became a non-paying concern.

Ilkley has a history of ancient date, the Romans having had a station there. The town is well situated, has natural advantages, and is in every way well adapted for carrying out successfully the hydropathic treatment. There is no purer cold spring water, which is abundant; the air is pure and bracing; Rumbold's Moor slopes down close to the village; the hydropathics are planted at the base of what was formerly the moor, and are sheltered from the east winds. From that position the zigzag course of the river Wharfe is seen at the bottom of the valley, and a splendid view is to be had of some of the finest landscape scenery in Wharfedale. At Ilkley, patients may take walking exercise after their baths in the valley or climb the rugged paths to the very top of Rumbold's Moor, as their strength permits.

Hydropathy gave Ilkley new life. When the brothers Stansfeld bought the ground for a site for the hydropathic, Ben Rhydding, it was a very small village, with the cottages mostly thatched. Indeed it was a very old village belonging to very old times. Now it is a large village, and there are some large merchant residences with beautiful grounds attached to them. For nearly thirty years Ilkley stood in the front rank as a hydropathic resort; to maintain it in that position is surely the bounden duty of the present owners of these establishments, some of whom owe everything they possess to the practice of hydropathy; if not out of gratitude, they are in honour bound to uphold the principle of hydropathy in its integrity, and not allow their establishments to degenerate into mere boarding-houses, with dancing saloon attached. Many of the so-called hydropathics are only so in name; they trade on the name. There is absolutely no hydropathy attempted to be practised, nor anyone connected with these places who knows anything at all about hydropathy.

In the autumn of 1847, soon after he came to Ben Rhydding, Dr. Macleod gave a lecture on the water cure in Keighley, which I attended. About the same time David Ross, of Manchester, who for several years had been a temperance lecturer, gave two lectures on the same subject.

DR. MACLEOD AND DAVID ROSS AS SPEAKERS.

The contrast between those two speakers could scarcely be greater. The doctor was very poor, hesitated, a wretchedly bad reader, and altogether was difficult to understand. On the other hand, Ross was fluent, flowery, and eloquent, an elocutionist of the first rank, and a man of great ability, but unfortunately wanting in stability. He had great power over and could well control an audience, but he could not control himself; he was weak enough to allow the demon alcohol to seize and overpower him and strangle all the fine parts of his intellect, as it has done those of many other clever men, hurrying him downward to destruction, to the workhouse, and to a pauper's grave. Ross's life, at one time so full of promise—it might have been even illustrious—was a wreck, an ignominious failure, blighted unto death by the drink curse.

After those two lectures by David Ross on a system which was new and at that time exciting much interest in that neighbourhood (Keighley is distant only six miles from Ilkley), Ross being a fascinating speaker, it was little wonder that many in his audiences were desirous to consult him about their various ailments. After the lectures the temperance hotel (where he was staying) was crowded with patients, and the commercial room was converted into a bath-room. Two other amateurs and myself acted as bathmen. We gave many vapour baths, the patient sitting on a cane-seated chair, enveloped in blankets,

the steam generated by a small boiler on the fire in the same room, and the wet compress was freely recommended. It was thus that Ross commenced business as a hydropathist, that experience giving him the idea of opening baths in Manchester. He asked me not to emigrate to America, which I was at that time preparing to do, but to become his bathman in Manchester, when he opened his new baths.

Giving those baths at the Keighley temperance hotel, and afterwards attending to many of the patients at their homes, was an event in my life—a real start—an opening in a new career that turned out to be my life-work. It was the little knowledge of hydropathic applications which I had acquired while studying the subject that led to my services being required at the temperance hotel, and to my future engagement as bath attendant in Manchester. It was because hand-woolcombing was doomed that I intended emigrating to America; but this was an opening at home, and in work to my liking. A few years later, Mr. Holden's invention completely superseded hand-woolcombing, and a few thousand men had to find other but certainly better employment. It was an unhealthy occupation, and there was very little to be earned at it.

When an invention in any industry supplants hand labour and throws out of employment several thousand men and boys, the question arises, What becomes of them? what work do they turn to? It is not often that any one makes an effort to trace those thus thrown out of work. Last year, thirty years

after hand-woolcombing had ceased to exist, the present Mayor of Keighley (Ira Ickringill, Esq.) advertised for names and addresses of old hand-woolcombers who had worked in the borough. After receiving names and addresses, he sent two hundred and seven invitation cards out. The gathering of his guests (March 28th, 1891) was thus described in the *Keighley News* the following week:—

"Re-union of Hand-Combers at Keighley.—It is said there is nothing new under the sun, but the gatherings which took place on Saturday afternoon and evening in the Keighley Institute were probably unique in every respect. The Mayor of Keighley (Alderman Ickringill) had invited to meet him in a social re-union all the surviving hand-woolcombers who formerly carried on their avocation in the borough, and a very interesting gathering of old humanity resulted. There were the lame, the blind, and the halt; one poor fellow, ninety-five years old, who had lost the entire use of his legs, having to be carried about. Two hundred and seven invitations had been sent out, and at the lunch in the afternoon, which was held in the Rink, about one hundred and eighty-nine ex-combers and some fifty guests were present. Among the company were eight old men from Keighley Workhouse. It is astonishing that so few of this defunct trade had found their way to the workhouse, to which establishment eleven invitations had been sent; but the remainder were too infirm to attend. The native who could look unmoved upon this "Old Guard" of

a once powerful army of labourers in and about the Worth valley needed no certificate of callousness. The sight of a couple of hundred septuagenarians, for their average age was announced as near seventy, was one that is not often seen; and when the beholder considered what they once were, and speculated upon their experiences since invention left them stranded in adult life, the pathos of the spectacle was intensified. But nearer inspection by no means strengthened the impression of hardship. I am speaking generally, while here and there the pinch of poverty had left its traces upon the thin visage. The effect in the mass was that of fairly comfortable old age, taking into the calculation the class to which the majority belonged."

"The trades represented were too numerous to specify, but I noted the following: Farmer, stonemason, coachman, fruiterer, milkman, draper, muffin baker, road sweeper, lamplighter, ex-policeman, tea dealer, night watchman, engine tenter, and a fettler in a foundry. I understand that there was a lady in the case who once combed and made up her fadge at home."

The banquet was held in the skating rink; the spread was a liberal one, and was fully appreciated and thoroughly enjoyed by the Mayor's guests. After the feast addresses were delivered, which revived the recollection of the *good old hard times of extreme poverty*. The Mayor invited me to open this part of his programme, and it was a pleasing duty to congratulate the old men in having lived to see better days, and to be the honoured guests of the Mayor of

their native town. Some interesting speeches were made, and all the proceedings were well managed.

A great meeting was held in the large hall in the evening, to which were invited the wives and daughters and friends of the ex-hand-woolcombers. The hall was well filled; the Mayoress had prepared a full and interesting programme, and the audience were delighted with the evening's entertainment, which consisted of some speeches, songs, glees, melodies by some well-trained school children, and recitations. I was invited to preside at the evening meeting, assisted by the Mayoress in the carrying out of the programme.

Mr. Holden said that he had reason to believe that, as a result of the machine-combing, and the consequent reduction of the cost, the improved condition of the material when it was combed, and the higher production of the top, there was now something like ten times the number of people employed that there was when wool was combed by hand. At one of the villages in France, where he had established works, there was adjacent to it another of perhaps some five or six thousand people. To-day there was no less a population than two hundred and forty thousand, the great mass of them being employed in the industry. In the case of his other French establishment the town had trebled in size, and where there was only one small mill employed in spinning merino yarns thirty-five years ago, the mills were now crowded as much as they were in Keighley. . . . . In their works at Bradford they combed fifty-five million pounds of tops per year, which, at the same rate, would have employed something like

one hundred and thirty thousand people, whereas its manipulation only furnished work for three thousand five hundred; but, on the other hand, considering the people employed in all the successive operations of spinning and weaving, owing to the reduction in the cost of the woven materials, there was probably nearly ten times more working people employed.

What is described here as the result of Mr. Holden's invention, the combing machine, is no doubt very similar to what has been the result of other great inventions which have superseded hand labour.

A short extract from my speech in opening the meeting will give a glimpse of the change which had taken place by the invention of the combing machine: "This is a gathering together of the old hand-woolcombers of a past generation with the greatest woolcomber of the present generation—a meeting of the old and the new; something like a meeting or an exhibition of an old stage coach with one of the grand locomotives which travel daily up this beautiful valley of the Aire; or it is something like an exhibition of the old flat-bottomed sailing boat with one of the splendid Atlantic steamers; or we might carry the comparison a little further and say it is something like an exhibition of the old flint and steel and tinder box with the lucifer match. When Mr. Holden struck the first lucifer match it was all up with the tinder box, which was sent to the dust hole, and we are not able to find one to bring here to-night. We ought to be thankful that Mr. Holden did not take out a patent for the lucifer match, for if he had he would have made an enor-

mous fortune, and the probability is that he would never have turned his attention to inventing a machine to comb wool, and we should not have been here to rejoice that Mr. Holden invented such a machine, and that we had found something better and healthier to do. Mr. Holden did not spend years and years on that invention, as he did over the woolcombing machine, and that was the reason why he did not patent it. It is marvellous how these changes for the benefit of all are brought about. Well, we can now afford to laugh at the pinching poverty of the the old hand-combing days, especially as we are all enjoying the hospitality of the Mayor. Those were very hard times, '36, '37, '38, on to '42. 1842 was the great plug-drawing year, and in 1843 Tom Hood published the 'Song of the Shirt' in the December number of *Punch*. We woolcombers thought the 'Song of the Shirt' was our song. Those memorable words might have been applied to us—

With fingers weary and worn,
With eyelids heavy and red,
A woman sat, in unwomanly rags,
Plying her needle and thread—
Stitch, stitch, stitch!
In poverty, hunger, and dirt,
And still with a voice of dolorous pitch
She sang the "Song of the Shirt!"

Work, work, work!
My labour never flags;
And what are its wages? A bed of straw,
A crust of bread—and rags.
That shattered roof—and this naked floor—
A table—a broken chair—
And a wall so blank, my shadow I thank
For sometimes falling there.

Well, we are better off to-day, but even in those dark days we kept our spirits up; we kept a little sunshine in our hearts. Though ground down we did not give in. We used to sing 'There's a good time coming, boys,' and that good time has come, and we are extremely thankful for it."

The Mayor, in order to preserve the record of this remarkable gathering, has published the proceedings in a pamphlet, to read the preface of which is like looking into a mirror and seeing the state of things forty-five years back, in the *good old times* of protection and dear bread, the departure of which Mr. Chaplin, M.P., frequently laments. In this preface the reason for the Mayor's action in this matter is given :—

PREFACE TO THE REPORT OF THE BANQUET AND ENTERTAINMENT OF THE OLD HAND-WOOLCOMBERS.

I feel that I ought to make a little explanatory statement, or it may seem presumptuous on my part to preserve in pamphlet form the proceedings of the gathering of the old hand-woolcombers of Keighley. But I would impress upon all who may chance to read the account that the industry has many vivid associations for myself. It was during my childhood that my father and mother had to "tug" and toil in our humble cot at the "Pad Post" during the closing years of this declining industry; and I can well remember the intense suffering and privations we, as a family, endured during the many strikes, and the severe depressions of trade, and the battle between

the hand-combing on the one hand, and the machine-combing on the other. I can well recall the time when a strike lasted, I believe, twenty-six weeks, causing very great scantiness and want, and it was by this particular strike that the hand-woolcombing industry received its death blow. Machine-combing got firmer root-hold, which led very naturally to constant reduction in the wages of the hand-woolcombers, until it practically reached a point of *starvation*, and had of necessity to be abandoned. Flesh and blood could not compete with steam-power and machinery.

The memory of those hard times, and the sufferings of my family in consequence, inspired the desire to keep these recollections alive in our more prosperous days; this is the reason why I called the old hand-combers and friends together; and my earnest desire is that the industry may be kept in recollection as long as possible. Some families will no doubt treasure this little pamphlet for the sake of one or both of their parents who took part in the gathering. And with kind regards to one and all of the old hand-combers and friends who shared in the proceedings,—Believe me to remain, faithfully yours,

IRA ICKRINGILL,
Mayor of Keighley.

Literary men are fond of telling the stories of fortunes made in business, and the public are fond of reading those stories; they are more attractive to the general reader than would be the story of how

hundreds of working men, who had been thrown out of employment by a great invention, had made a new start in life, and by patient persistent industry, self-denial, and rigid economy, had arrived at the age of three-score years and ten in comfort, and out of the fear of want. Such quiet unexciting heroism is one of the noblest phases of the human character in civilised life.

To make a happy household clime
For weans and wife,
Is the true pathos and sublime
Of human life.

"The man who fails in this is himself a failure; while the man who, by his industry and energy, supports a family in comfort and respectability according to their station, and who, at the same time, by control of temper, kindness, unselfishness, and sweet reasonableness, makes his *household* a *happy* one, may feel, even though fortune may not have placed him in a position of higher responsibility, that he has not lived in vain, that he has performed the first duties and tasted the truest pleasure of mortal existence."

Not long ago Mr. Gladstone, addressing the workmen at a soap works, said: "There is nothing more to be lamented than the case of the idle man. It is the misfortune of this country that we have too many idle men in it, not men of your way of life, of your station in life—the idle man is alike useless to others, and, for the most part, terribly injurious to himself."

The old hand-woolcombers had been well trained in their younger days to *work*; that training was of great service to them, and was the secret of so many of them being in fairly comfortable circumstances when at the Mayor's banquet.

To return to Ross. He commenced business at his private residence in Manchester, in the summer of 1848. On the 23rd of July I walked over the moor, from the Worth valley to Hebden Bridge, on my way to Manchester, to commence duties as his bath attendant.

He had not then erected any baths, and his treatment was confined to a sweating bath and the compress. In three weeks from that date he took premises in Worcester Street, now City Road. Vapour baths were erected, and a steam boiler was fixed, and a galvanic battery was purchased; and with this simple apparatus, a vapour bath, a dose of galvanism for a few minutes after the bath, and a wet compress, he engaged to cure all the ills that flesh is heir to. He was profuse in promising impossible cures, and the people rushed to him in crowds. But this did not last long, it was like a flash in the pan; indeed, the circumstance but illustrated the truth of the old adage that honesty to principle is the best policy.

Ross had some real talent, but it was swamped by the defects in his character; he gave himself up to dissipation, his ruin was inevitable, and I prepared for the change. He possessed a little poetical talent; I give one verse of a poem he wrote during the time he was a teetotaller—

I feel not the woes which the drunkard must bear,
But I feel for his anguish, his sorrow, and care,
I weep for his madness, I blush for his shame,
I would win him to virtue and brighten his name;
I would teach him to drink as flowers drink of dew,
It will strengthen, enliven, create him anew;
It will wipe from his forehead the furrows of care,
It will drive from his bosom the gloom of despair,
It will break the strong fetters which bound him to sin,
His hell will expire, his heaven begin,
His home will appear like a haven of rest,
His days will be happy, his slumbers be blest,
And the sunlight of hope to his heart shall be given,
As an earnest of joy that awaits him in heaven.

These lines show what a dangerous poison alcohol is even to those who are fully conscious of its danger. Ross would have avoided his disgrace and ruin, and would have conferred benefits on mankind, if he had adopted the course Sydney Smith advises, "Let every man be *occupied*, and occupied in the *highest* employment of which his *nature* is capable, and die with the consciousness *that he has done his best.*"

In the autumn of 1849, Dr. Macleod attended once a fortnight at the Queen's Hotel, Manchester, for consultation. As a result of those visits a good number of Manchester people went to the Ben Rhydding establishment for treatment. I had an interview with the doctor at the Queen's, having still a strong desire to go back amongst the Yorkshire hills—a love for the "freedom of the hills" having once taken root never seems to die. I had an idea of opening an independent bathing establishment at Ilkley, where people staying at the lodging-houses could get any kind of hydropathic baths. Dr.

Rischanek, the ablest hydropathist that has ever been at Ilkley, was then in the village, and many patients consulted him and required treatment. Dr. Macleod told me that I might do pretty well in summer, but that there was nothing to do in winter, Ilkley being then deserted. That settled the question; I determined forthwith to open baths in Manchester, where bathing would go on all the year round.

COMMENCEMENT OF BUSINESS.

IN January, 1850, I opened baths at 3, Oxford Street, Manchester. They consisted of six vapour baths, two shower baths, one sitz bath, with convenience for packing in the wet sheet, and a tin shallow bath. In those days Malvern and Ben Rhydding were well supplied with patients from Manchester, and when they returned they required after-treatment, which could be continued at my baths.

The late Dr. Samuel Crompton was curious to test upon himself the various hydropathic applications, and he sent many patients to the baths. In that way he assisted me considerably, and I have ever felt deeply grateful to him.

General bathing for purposes of cleanliness, and sweating baths for colds and rheumatism, with a fair share of hydropathic applications, has formed the staple of our business; but, from first opening the baths, we have given a great many medicated baths, recommended by medical men.

THE INTRODUCTION OF THE TURKISH BATH.

In 1857 we had a new departure in the conduct of our baths. The history of the re-introduction or revival of the Turkish bath into this country is a curious one; its appearance certainly gave a great

impetus to the use of sweating baths. It is well known that the late David Urquahart was the man who introduced it, and that he was affected by a rather serious political malady, Russophobia. He was so extremely anti-Russia in everything that to have constructed or even suggested a Russian along with a Turkish bath, which is really of great advantage, and is done with most new baths, would have seriously excited his wrath.

John Morley, in his *Life of Richard Cobden*, says: "David Urquahart, a remarkable man, of prodigious activity, and with a singular genius for impressing his opinions upon all sorts of men, from aristocratic dandies down to the grinders of Sheffield and the cobblers of Stafford, had recently published an appeal to England in favour of Turkey. He had furnished the ministers with arguments for a policy to which they leaned by the instincts of old prejudice, and he had secured all the editors of the newspapers. Mr. Urquahart's book was the immediate provocation for Cobden's pamphlets. In the second of them the author dealt with Russia. With Russia we were then, as twenty years later and forty years later—perhaps some reader of the next generation may write on the margin of this page "as sixty years later"—urged with passionate imprecations to go to war in defence of European law, the balance of power, and the security of British interests."

David Urquahart founded the Free Trade and Foreign Affairs Association, and afterwards he tacked on to it the Turkish Baths, and the members loyally accepted it, and advocated it with vigour; he was

their leader, and they were absolutely his followers. In many parts of Lancashire and Yorkshire there were branch associations, and a pretty large number of members, made up chiefly out of *old Chartists* and *Robert Owenites.* It was a strange mixture of a creed of faith—*Free Trade*, *Foreign Affairs*, and *Turkish Baths—Politico-Medico-Sanitary.* If Urquahart had added another tenet of faith of an opposite nature it would have been accepted. His followers had faith in him; he was their *law-giver.* He claimed that he had discovered the curative effects of the Turkish bath, though he may as well have claimed that he had discovered the use of the pores of the skin. He certainly propounded some strange fallacies, that are now dying out, with regard to the Turkish bath, which possibly shortened the life of his son, and also many of his followers, for I have known many of them get into trouble with the improper use of it; indeed, many disappeared at a time of life when they ought to have been in their prime, and would have been with a better and more extended knowledge, and a stricter observance of the laws of health. One of his enthusiastic followers, who became owner of a Turkish bath, advertised that he could cure heart disease with the Turkish bath, but his experiments with those cases soon made him a sadder if not a wiser man. This man, too, shuffled off the mortal coil when he ought to have been in the prime of life.

The Turkish bath needs no quack puffing, it may be left to stand on its own merits; it is useful and valuable, and a great addition to the water treatment. In the warm atmosphere of the shampooing

room, while the patient is perspiring, the skin relaxed, and the body expanded, rheumatic cases can be manipulated with great advantage, and hot fomentations applied to congested parts, with good effect. And in the winter months a variety of other baths may be given in the shampooing room with advantage to the patient—the hot, tepid, or graduated sitz bath, or tonic baths, the dripping sheet, rain, or douche baths. Nothing can be more disagreeable for a patient than to undress in a cold damp room to take a cold or any bath. The Turkish bath has now taken its proper place in the healing art, and no hydropathic establishment is half complete without it; all honour, then, to David Urquahart for introducing and popularising it.

The heating and ventilation of the hot rooms of the Turkish bath became an absorbing topic to me, and continued so for seven years. The first attempts made at heating it were on the Oriental plan—primitive, unscientific, and wasteful of fuel. There are a few baths so heated at the present time, consuming an enormous amount of fuel. Ventilation, which was of vital importance, was not considered at all; smoke flues traversed under the floor, or in the walls of the hot rooms; there was no constant supply or change of air to carry away the effluvia thrown off by the patients when perspiring. This was a sanitary defect—serious, if not of a dangerous nature—which called for immediate remedy. I first heated the Turkish baths by a tier of pipes, both in fire-clay and metal, fixed in a chamber. This system, which I abandoned in 1858, has been passed off twice of late

years as a new invention. From these pipes a large volume of warm air was produced, but they soon burned out, and had to be frequently renewed. I then tried various stoves—as air-warmers, fixed in a brick chamber—and found that they all cracked, there being no provision for expansion and contraction; and after many experiments and failures, in conjunction with the late Thomas Whitaker, THE CONVOLUTED STOVE was invented, in which not only expansion and contraction was provided for, but an immense addition of heating and radiating surface was gained, which accounts for the great saving of fuel where it is in use.

With this invention the *problem* of *heating* economically and the thorough *ventilation* of the Turkish bath was *solved*, and it became at once a reliable and definite science. A change of air in the hot rooms is secured equal to thirty cubic feet per minute for each bather.

The necessary size and power of heating apparatus for the cubical area to be heated, the size of flues for fresh air, and size of inlet flues for warm air and outlet for vitiated air, is now a mere matter of calculation with our firm of J. Constantine and Son.

WARMING AND VENTILATING PUBLIC BUILDINGS, churches, and schools, in comparison with the Turkish bath, are mere child's play; and in the future, when heating and ventilation are developed into a definite science, the fact will be acknowledged that solving the problem of heating and ventilating the Turkish bath solved the problem at the same time of warming and ventilating any building where

the human family gather together in large numbers, and that to steadily maintain the high temperature with half the fuel, with an uninterrupted ventilation equal to thirty cubic feet per minute for each bather, is a feat far in advance of any previous record, and that the solving of that problem was a material contribution to sanitary science.

The warming and ventilation of large public buildings, churches, chapels, and schools have hitherto been in a state of chaos; and as defective warming and cold draughts, especially in places of worship, affects the health of a large number of the population, it may be that my name will be remembered longer in connection with the convoluted stove than with hydropathy, as that subject will widen out and become an exact science in the near future.

The warming and ventilating business brought me into contact with a man of world-wide fame, one of the princes of industry, who has given new life to manufacturing enterprise in the West Riding of Yorkshire. Twenty-nine years after leaving hand-woolcombing, I received from the greatest machine-comber in the world the following letter:—

Oakworth House, Keighley, July 12, 1877.

Dear Sir,—When you can come conveniently I shall be glad to see you to consult about heating several buildings here for my own house, perhaps a Turkish bath.

I am, dear sir,

Yours truly,

Mr. Constantine. ISAAC HOLDEN.

The large new Wesleyan schools at Oakworth were near finished. The attempt to warm them with hot-water pipes was as complete a failure as any of the many I had ever met with; the ample ventilation provided—which, no doubt, Mr. Holden had insisted upon—contributed to the failure in warming, as it must do in all cases where hot-water pipes are used.

After inspecting the school, and examining the warming and ventilating arrangements of the house, he invited me to dine with him. While at dinner, he said, when he was at Cullingworth (he was there from 1830 to 1846), he was acquainted with Mr. Isaac Constantine, and inquired if he was any relation of mine? I answered "Yes; he was brother to my father." "Then do you hail from this district?" "Yes, I was born across the valley." "What did you work at?" was the next question. "Hand-wool-combing. No doubt I am somewhat indebted to you for any success I may have had in business." "How so?" "Well, you perfected the combing-machine; hand-combing was not worth following, and we had to find other employment."

Mrs. Holden cast a sly look at me, and said, "I suppose, Mr. Constantine, you were not at all obliged to him for it?" "Oh, yes," I answered, "I was greatly obliged to him; I was a young man, and was aware that hand-combing was doomed, and would ultimately be superseded by the machine. I left it in 1848, the year that Mr. Holden commenced business in partnership with Mr. Lister in France." This unexpected meeting with an ex-hand-woolcomber seemed to be rather pleasing to Mr. Holden, and the

acquaintance thus formed ripened into friendship. Apart from the warming and ventilating connection, we had each paid attention to and were pretty well agreed on other subjects.

For over thirty years I had studied hygiene; but I soon found that there was something to be learned from Mr. Holden even on that subject, especially with regard to the most suitable diet and habits for the after part of and for prolonging life. Any one coming in close contact with Mr. Holden soon discovers the secret of his great success. From his first school days up to the time of his greatest achievement, the invention of the combing machine, whatever he had applied himself to, he has thrown his heart and soul into his work, and has always aimed at real excellence, and his labours have been incessant until he had accomplished his object; with his calm self-possession, indomitable will, perseverance, and logical mind, the probability is that he would have succeeded in any other great undertaking he might have taken in hand. The perfecting of Mr. Holden's machine required as much, if not more, thought and ingenuity as Watt himself required in the invention of the steam engine, and more than George Stephenson applied in the production of the locomotive. The sustained mental effort involved in completing the combing machine left Mr. Holden prostrate, but he completely recuperated, and now his eighty-five years sit lightly upon him, as may be instanced by the fact that he can still laugh as heartily as a youth at a good anecdote.

"THE MIRACLE OF LIFE."

THE following extracted article, by an unknown author of forty years ago, may seem a long text, but it is a natural introduction to the section on hydropathy, and ought to awaken some additional interest in the value and cultivation of the highest and healthiest form of human life. In man, with his wonderful spiritual and intellectual endowments, life attains its highest form. Every man ought to regard his life—the "vital spark of heavenly flame"—as a precious gift to be cultivated and used not simply for his individual benefit, but for the benefit of others and his country. There is a deep meaning, not fully appreciated, in the command "Man know thyself." The waste of human life is very great. Much of the waste is through downright ignorance, but most is through common errors of diet and injurious habits, which are so widespread as to seem to have become national. Here is the article which shows the value of life:—

"Of all miracles the most wonderful is that of life—the common daily life which we carry about with us, and which everywhere surrounds us. The sun and stars and the blue firmament, day and night, the tides and seasons, are as nothing compared with it. Life, the soul of the world, but for which creation were not.

"It is our daily familiarity with life which obscures its wonders from us; we live, yet remember it not. Other wonders attract our attention and excite our surprise; but this, the great wonder of the world, which includes all others, is little regarded. We have grown up alongside of life with life within us and about us; and there is never any point in our existence at which its phenomena arrests our curiosity and attention. The miracle is hid from us by familiarity, and we see it not. Fancy the earth without life—its skeleton ribs of rock, and mountains unclothed with verdure, without soil, without flesh! What a naked desolate spectacle, and how unlike the beautiful aspect of external nature in all lands! Nature, ever varied and ever changing, coming with the spring, and going to sleep with the winter, in constant rotation. The flower springs up, blooms, withers, and falls, returning to the earth from whence it springs, leaving behind it the germ of future being. For nothing dies—not even life, which only gives up one form to assume another. Organisation is travelling in an unending circle.

"The trees in summer put on their verdure; they blossom; their fruit ripens—falls; what the roots gathered up out of the earth returns to earth again; the leaves drop one by one, and decay, resolving themselves into new forms, to enter into other organisations; the sap flows back to the trunk, and the forest, wood, field, and brake, compose themselves to their annual winter's sleep. In spring and summer the birds sang in the boughs, and tended their young brood; the whole animal kingdom rejoiced in their

full bounding life; the sun shone warm, and Nature rejoiced in greenness. Winter lays its cold chill upon this scene; but the same scene comes round again, and another spring recommences the same 'never-ending,' still beginning, succession of vital changes. We learn to expect all this, and become so familiar with it that it seldom occurs to us to reflect how much harmony and adaptation there is in the arrangement—how much of beauty and glory there is everywhere above, around, and beneath us.

"It is life which is the grand glory of the world; it was the consummation of creative power, at which the morning stars sang together for joy. Is not the sun glorious because there are living eyes to be gladdened by his beams? Is not the fresh air delicious because there are living creatures to inhale and enjoy it? Are not odours fragrant, and sounds sweet, and colours gorgeous, because there is the living sensation to appreciate them? Without life, what were they all? What were a Creator himself without life—intelligence—understanding—to know and adore Him, and to trace His finger in the works that He hath made?"

HYDROPATHY.

It is distressing to think how the *principles* of hydropathy have been disregarded, and the name itself used for trading purposes. There are shams of all kinds; sham tradesmen of every description, sham ministers, sham philanthropists, sham gentlemen in abundance, sham millionaires; but there is no greater sham than

a hydropathic establishment with no hydropathy whatever, or any approach to any. This is worse, if that be possible, even than passing off electro-plated goods for precious metal. Would that another Thomas Carlyle or a John Ruskin might come forth to expose these shams, and to wake up a race of hydropathists in whom fidelity to principle would not only be a point of honour, but a pleasant duty, and to hasten the time which Carlyle had prophesied would come. Thomas Carlyle, who was a month at a water-curing establishment under Dr. Gully, writing to his friend R. W. Emerson, August 25th, 1851, makes the following prophesy: "I foresee this water cure under better forms will become the *ramadham* [holiday] of the overworked unbelieving English in time coming; an institution they were dreadfully in want of this long while."

Space will not permit of a lengthy explanation of the principles of hydropathy; but as this little book may fall into the hands of many who have not previously paid any attention to this system of treatment, it is desirable to give a short concise description of its action. Dr. Balbirnie was a physician of high attainments, and he understood the water cure thoroughly, and could describe its action without wasting words, as will be seen in the following extract from his *Hydropathic Aphorisms*:—

"The foundation of the water cure is the admitted fact that it is the innate self-preserving power of the living organism—the *vis medicatrix naturæ*—exerted with the least impediments from injurious agents

without or within the body that arrests the progress and repairs the ravages of disease.

"The water cure, beyond all other medical systems ever before promulgated, co-operates with the efforts of nature towards the restoration of health, freeing the economy of incumbrances, counteracting its irregularities, and expediting its functions by means that do not lower, but, contrariwise, exalt the organic powers. No exhausting depletions are permitted. No internal irritation by drugs diverts the sanatory efforts of the system. The organic action, when too strong, is reduced by a *sedative*, alike potent, safe, and easily dosed; and the organic action, when too feeble, is exalted by a *stimulant* at once powerful and innocuous.

"The *processes of the water cure* fulfil in the living system every indication of practical medicine. Herein lies its general applicability to the treatment of all curable diseases. Herein consist its extraordinary powers, as a remedial agent, in every disordered condition of the system amenable to drugs. The water measures are the fittest to quell inordinate action of the heart, or to stimulate its flagging energies at will —to reduce fever—abate heat—resolve spasm—allay irritation—provoke sweating—excite the kidneys—and to impart tone to the stomach and bowels. Thus this simple element is made to accomplish all the effects of *stimulants*, *sedatives*, *antispasmodics*, *anodynes*, *diaphoretics*, *diuretics*, *tonics*—the effects of mercury, opium, antimony, arsenic, digitalis, iron, lead, copper, silver, salts, rhubarb, colocynth, oil, *et hoc genus omne*, without disturbing the functions of the

animal economy, as these must inevitably do, and without the risks of accumulation and consequent poisoning. We also realise from water the good effects of fomentation, liniments, rubefacients, blisters, and other counter-irritants or derivatives.

"The water treatment of acute diseases is the most purely antiphlogistic imaginable—the medication at once most consonant to the feelings of the patient, and best befitting the pathological condition of his organs. The very instincts of a person labouring under fever, or inflammation, are towards cold drinks and cold ablutions. But if only dipping the hands in cold water be so refreshing to a patient parched with feverish heat, how much more so must it be to have the entire body cooled by a sudden affusion of cold water, or a plunge into a cold bath? Innumerable have been the cures of violent fevers by patients plunging into cold water in their delirium. The critical sweat, so much extolled by the older physicians, is thus surely determined. Though perspiration is the most common mode of the spontaneous cure of acute diseases, yet nature is left free to select any other outlet, without the constraint, violence, and tumult which drugs impose.

"The principal focus of morbid action—the starting point of the malady—is appeased by fomentations. Nature is thus aided, abetted, and led forward in the course of her sanative operations, without the drawback of those present sufferings, and future liabilities, which are the results of violent medication, or meddlesome practice."

DR. WILSON.

Dr. Gully's able and exhaustive explanation of the action of the water cure will be found in the third edition of *Hydropathy at Home* by those who desire to study the subject; also the medical properties of the various hydropathic applications by Dr. Goodman.

Dr. Wilson opened the first hydropathic establishment in England at Malvern, in 1842. There is no stronger or higher testimony to the curative power of the system than his own case, of which, writing to a medical friend, he says:—

"For myself it may be said that I am somewhat partial to the water cure, having passed so much time in its study, and having experienced its curative results in my own person.

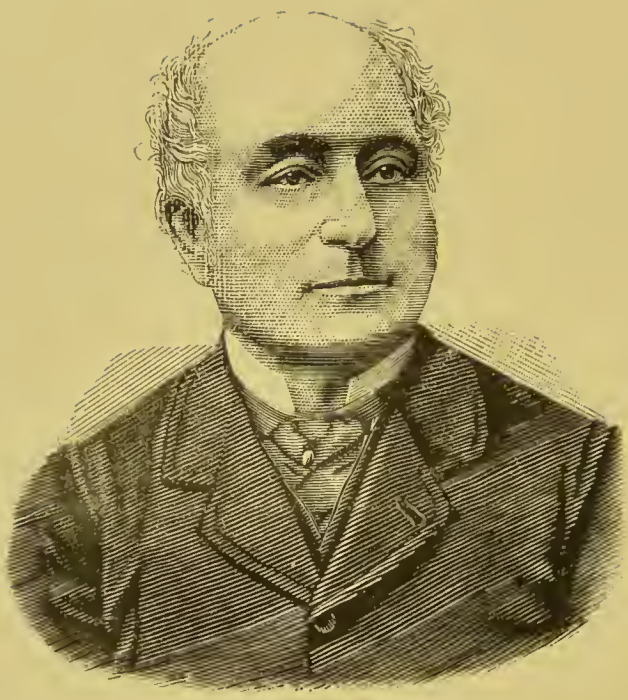
"Perhaps the interest you have taken in me would make you curious to know what was really the matter with me when I went to the water cure. Need I say that it is a pleasure to gratify you?

"After living from six to seven years in hospitals and anatomical rooms, and not attending very particularly to eating and drinking, I established the first stage of a stomach complaint. This was confirmed by about the same period spent in an extensive private practice, with the same want of attention to diet, &c. When I left London my stomach would hardly digest anything. I had the tic-doloureux, and a skin disease on both legs, which, by way of consolation, in the last consultation I had in London, a physician told me I might expect to see spread all over my body, for there was a slight appearance of it already in the skin under the

whiskers. I spent about four years on the Continent, passing the winters in Italy and the summers in Germany, every year becoming worse. During the winter I wore two pair of flannel drawers, ditto waistcoats, and a great coat, and was always on the lookout for draughts and colds. For eighteen months before I went to Graefenberg I had on an average rejected my dinner four times a week, but without sickness, and merely from its weight, and the *malaise* it caused. I tried dieting, leeching, small plasters and ointments, and lotions of every description. I visited all the capitals of Europe, and consulted the leading men in them.

"I was altogether fifteen months under treatment by the water cure before the skin disease was completely removed—nine of these months very actively at Graefenberg. When I left Priessnitz I was robust instead of a skeleton; my tic and skin disease were gone, and I had the appetite and digestion of a ploughman. Whilst in a crisis there, the town of Friwaldow was on fire. I was out all night, wet, &c. This brought on a violent fever. I treated myself with wet sheets, &c., and I *felt* the water cure. I had afterwards intense jaundice from the passage of gall stones, and I again felt the benign influence of the water cure. I have felt it since in being able to undergo labour that I was never before capable of, and I shall feel it to my last day as one of the greatest blessings that modern times has giving to ailing man."

Dr. Gully became the leading hydropathist, and



DR. GULLY.

the greatest expounder of its principles. The following most interesting extract from a letter appeared in *Healthy Life*, January 1st, 1892:—

LETTER FROM THE LATE DR. GULLY.

Albergo Anglo American,
Stradd del Passagio,
Leghorn, Italy, 9th November, 1880.

Dear Mr. Metcalfe,

Your note of last month followed me hither: I purpose to spend the winter in Italy.

In framing an historical account of the rise and progress of hydropathic treatment in England, you must not forget to speak of the late Dr. Wilson as the first medical man who announced and practised it there. Returning home, after spending two or three months at Graefenberg, he called on me and laid before me (we had been friends previous to his going abroad) all that he had observed during his sojourn there. This was in the early part of 1842. In the year 1840 I had published a volume entitled *The Simple Treatment of Disease*, in which I had made known opinions which I had long entertained adverse to the reckless violence of the medical treatment in vogue at that time, and in many years previously—I allude to the huge doses of the most harsh medicines of all kinds, the venesections, the alcoholic stimulation, &c., all tending to concentrate blood and nervous irritation in the central organs of life, instead of soothing those organs and withdrawing their irritation to parts that are more external and therefore less perilous to life. My book was rather a

protest against the violent medication alluded to, and a suggestion to leave more to the body's natural efforts, than a proposal of any active measures in the place of those I condemned.

Ten years subsequently, the late Sir John Forbes, in his office of editor of the *Quarterly Medical Review*, advocated almost exactly the same plan of expectancy which I put forward in the volume I published eighteen months before Dr. Wilson came to me with his experience of Priessnitz's treatment at Graefenberg. I at once saw that the adoption of hydropathic measures would convert my expectant treatment into an active treatment, whilst it would aid the natural efforts of the organism towards the relief of the vital interior organs by drawing their distinctive irritations from those organs to the skin, an organ whose tumults did not involve life itself; for skin diseases *never* kill, and poison eruptions, such as scarlatina or small-pox, are only fatal when they do *not* freely come out, or are interrupted in the endeavour to do so by the interference of medicinal or dietetic restraints within. Having no sectarian adhesion to old methods, but standing in want of a method to help, without interfering with nature, Wilson's statements were at once accepted by me, and we together agreed to make trial of Priessnitz's treatment in chronic disease at least; using also Priessnitz's advantages of fine air, fine water, and dietetic rule, all of which we proposed to find on the Malvern hills. And here I try to impress upon you the fact that I did this not only on the ground of my own convictions, but because Wilson agreed with me, and

I was well assured that his medical tact had not failed, as indeed it never did; and through many years' observation of him, I could not but remark the intuition which was a quality of his, both as regarded the nature of the malady and the remedial means against it. For some time, in subsequent years, silly and malicious people separated our medical alliance; fortunately this did not last, and before he died we were good friends as of old. But even had it been otherwise, truth would oblige me to state—and I trust it will impel you to state also—that hydropathy was first of all introduced into England by Dr. Wilson, and that none have excelled him in the acute application of it. He and I thoroughly *believed* in it, and I do not think I am straying from the fact when I further state that we were the only practitioners of it who never mixed it with the old iniquity of drugging. My then engagements in London did not permit of my leaving for Malvern so immediately as he did. He settled in that beautiful spot in June, 1842, and I followed in December of the same year. Perfectly agreeing in the main practice of hydropathy, we went different ways in some details.

. . . . . .

The above will give you an idea of my first beginnings in hydropathy, and of the state of mind which pervaded me during my long practice of it. Twenty-eight years of it only confirmed my conviction of the vastly important part it *ought* to play in the treatment of all kinds of diseases; but medical narrowness and the dread of trouble—and of *cold*—on the part of patients, aid each other in obstructing

its progress. I am out of running now, but when I recall the *wonders* I did with hydropathy when in active practice, I stand amazed that there is no curiosity about it in the medical ranks.

Pray dwell upon Wilson's part in the history; he was a very able practitioner, and was most certainly the first to introduce the treatment. You had better intermix what I have written in your narrative, though I have put it in the shape of a letter, as more easily done.

Yours faithfully,

WM. GULLY.

To R. Metcalfe, Esq.

In 1842 Dr. Edward Johnson, author of *Life, Health, and Disease*, was induced by Captain Claridge to go to Graefenburg to see for himself what Priessnitz was doing. While there he wrote *The Principles and Practice of Hydropathy*. When Dr. Johnson returned to England, he opened a hydropathic establishment at Blackheath, London; he afterwards removed to Standsteadbury; he then settled down at Umberslade Hall, Warwickshire, where he practised the water cure the remainder of his life, and, along with Drs. Wilson and Gully, he was one of the fathers of scientific hydropathy in this country. In describing the action of hydropathy Dr. Johnson says:—

"It begins by correcting all the known causes of disease, and by surrounding the patient with all the known causes of health. These it intensifies and

concentrates into one focus; in the centre, as it were, of this focus it places the patient. All the causes of health—all the known healthy influences—are accumulated and brought to bear upon him at once.

"Having thus corrected the causes of disease, it next proceeds to correct the nutritive actions. It raises or depresses the circulation or respiration at will; it exercises complete control over absorption; it restores all the secretions, especially those of the bowels and skin; it has power to excite the action of the skin to an extent which is almost unlimited, and by increasing this one secretion preternaturally it has the power of diminishing the others in proportion, if that be necessary, since it is well known that in proportion as one secretion is in excess the others will be decreased. I have shown that the pores of the skin, if joined end to end, would form a tube twenty-eight miles in length. Surely there can be no difficulty in believing that if this tube be obstructed, and the matters which it is intended to *carry out* of the blood be left in it, while the matters which it is intended to convey *into* the blood be kept out of it—surely, I say, there can be no difficulty in believing that a very unhealthy and wrong state of the blood must be the necessary result. And it must surely be apparent that any treatment which has the power of restoring and augmenting the functions of this stupendous secreting tube must be capable of exercising a beneficial influence on the health, and, through its means, of curing many diseases. How plain and common sense-like all this appears! How rational! How intelligible! How different from the

practice of those who seek to cure diseases by the administration of little portions of certain drugs, concerning the manner of whose operation they have not, and do not even pretend to have, the slightest notion, and which reflection and common sense can only look upon in the light of charms.

"Place me under the most unfavourable circumstances—viz., in the heart of a large town—let me have my fair average of all sorts of cases, new and old, acute and chronic, slight and severe, and give me the shallow bath, the sitz, and the wet sheet, and no other bath whatever, and let me have an opportunity of frequently seeing my patients; I would undertake to cure or relieve more cases than are now cured or relieved by the ordinary drug treatment in the proportion of two to one."—*The Domestic Practice of Hydropathy* (E. Johnson, M.D.).

The medical and scientific education of the four eminent medical men quoted was of the very best description—they had been at the university, and afterwards walked the hospitals. Notwithstanding their medical training, they did not object to receive their hydropathic education from an uneducated peasant, Vincent Priessnitz. They were in the same position as Dr. Bigley, of Strasburg, member of the Legion of Honour, and of several of the medical societies of Europe:—

"It must be remembered that I am a doctor, and that pride must suffer by receiving lessons from so humble a source as that of a peasant. I could, by investigations into past centuries, save the honour of science,

DR. EDWARD JOHNSON.

and show that hydropathy is not new to medicine. Yes! there is 'no era in medical science which has not seen hydropathy honoured, heard cold water exalted as a means of diet, and of curing diseases.' But, in giving it a professional origin, how shall I justify the neglect which medicine has shown towards it? I shall not look for the motives, lest I should not find them of the most honourable nature; I will content myself with observing that its too great simplicity was, and still is, its only fault.

"In fact, how can we descend from the height to which science is elevated, to drown so much learning in the element with which the Author of Nature has covered two-thirds of the globe? How shut up the immense arsenal of medicines drawn from the three kingdoms of nature, and from the four quarters of the world, and reject the fruit of so many wakeful hours, the inheritance of so many centuries, of those materials with which medicine has built its edifice, and decorated the temple of Esculapius? And all this to subject suffering humanity to the influence of one only remedy, and condemn it under pain of illness, to drink nothing but pure cold water! This is a great sacrifice I admit. It requires a great love of truth, and an unlimited devotedness to human happiness, wherefore hydropathy must be subjected to great opposition. It has awakened the most violent passions against it, the ambition of glory and of fortune.

"Priessnitz knows of no other remedies than water, air, exercise, and diet, therefore he has raised no battle-cry against those by whom humanity is daily

sacrificed. His theory is not written. The knowledge of the pulse, the inspection of the tongue (groundworks of diagnostic and prognostic sources), are not necessary to him. He examines Nature's kingdoms but to discern medicinal aliments and exclude them from his treatment. Food and drink seem exclusively to occupy his attention; he regards them as the materials of the human body ceaselessly composing and decomposing. When salubrious, and taken relatively to our wants, they are the natural supports of health, but when unwholesome and immoderately taken, they engender disease. Air is the food of the lungs, being the same to them as food to the stomach. In this element salubrity and unwholesomeness are equally to be found sources of harmony or discord. Respiration not being a voluntary function, man feels each moment its vital influence, he eats and breathes, but he does not join exercise to these, for which purpose nature has given him the power of moving; his digestion languishes, the circulation of the blood slackens, his mind and body become torpid, and life becomes mere vegetation. The citizen and the countryman may be justly compared—the first to a hothouse plant, the second to one growing in the open air, under the influence of a vivifying sun. A naturalist has declared that the agitation of the air is indispensable to the health of plants. Thus the wind is the exercise of vegetables. Like plants, the human body requires air at the roots as well as on the surface; more fortunate than they, he is not obliged to wait for rain kindly to quench his thirst, and moisten and wash his skin;

the liquid element is at his command. Nature has been prodigal of it around and beneath him. The little use he makes of it inwardly and outwardly is quite astonishing; but he uses it to forward all his ambitious and money-making views. Behold him reduce it to steam, and perform with it the miracles which we witness daily. He is not more sparing of it in his kitchen-garden and flower beds; he knows that water nourishes vegetables, and conserves the freshness, lustre, and beauty of his flowers. In fact, he uses this powerful element in every way, considering it from all antiquity as the most powerful dissolvent. What evil genius then has shut his eyes to its medical and hygeian virtues? Let us own frankly with Priessnitz that it is the horror of all that is simple, the taste for all that is complicated; these two passions have emanated partly from pride and partly from sensuality."

Dr. Bigley, while paying a high compliment to Priessnitz, does not give him credit for having originated anything new.

Priessnitz was the author of the wet sheet pack. This contribution to the healing art entitles him to a place on the "bead roll of fame." It is a real godsend for all kinds of fever. Sir Edward Bulwer Lytton said of it: "It seems a positive cruelty to be taken out of this magic girdle, in which pain is lulled, and fever cooled, and watchfulness lapped in slumber." In several cases both of typhus, scarlet, and rheumatic fever, when there seemed no hopes of saving the patient's life, the writer has been called in by the medical attendant to apply the wet sheet, and in

every case it has succeeded. For remedial purposes the wet sheet pack is the most valuable bath now in use. And, notwithstanding his want of medical knowledge, and very primitive and even rude appliances, he formed a reliable curative system, which, even at the present time, forms the basis of all hydropathic treatment. The hydropathic student will understand the efficacy of the treatment if they remember the

WASTE, CHANGE, RENEWAL, AND PURIFICATION OF THE BODY.

The change which is and must always be going on from birth to death is very great. The whole of the tissues of the body in healthy life are renewed in the course of seven years. If this process of waste and rebuilding is interfered with in any way, by deficient nutrition, or by chills or colds, which cause congestion, and interfere with free action of the skin, or derangement of the other vital organs—the lungs, bowels, or kidneys—the health suffers and disease ensues.

Every ordinary-sized man takes into his lungs, in one hour, two hogsheads twenty gallons and ten pints of air. One hogshead of blood is submitted to this air, in the hour, for purification. To carry on this important work of purification, the lungs are provided with six hundred million air cells. The skin has seven million pores, nearly twenty-eight miles of perspiratory tubing, through which is thrown off in twenty-four hours, by ordinary perspiration, eighteen ounces of water; while from two to four pounds of visible perspiration per hour are passed

off by a person working very hard in a hot place. Moreover, out of every ninety-six ounces of food consumed, more than thirty-four ounces pass off through the pores of the skin.

And, again, we must not lose sight of the fact that four-fifths of the human body are composed of water; blood, brains, nerves, are nearly all water. Muscle is three-fourths water, which also even enters largely into the composition of the bones. Water cleanses the surface of the body, and restores the healthy action of the skin. By water the effete, used-up waste matter, is carried out of the body through the skin, the lungs, and other secreting or excreting organs; indeed, it is the greatest solvent in nature. We can live much longer without food than without water. No life is possible on earth without it. It is the necessary element of all vegetable and animal life. Is it strange, then, that pure water should be the most powerful agent in producing that purification and invigoration of the body which is the cure of disease? The skilful hydropathist, while purifying the fluids and improving the healthy action of the various functions of the body, is careful not to *lower* but to *increase* the vital power. The vital is the real curative power, and it ought to be distinctly remembered that there is no other. Some of the hydropathists of the present day seem to have lost sight of this fact, or they would not give so many warm and tepid baths, which run their patients down, weaken them. Such treatment does more harm than good; to tell the patients that they will feel the benefit of the treatment after they return home is nonsense.

In all curable cases a patient under hydropathic treatment ought to gain strength day by day. If the vital force of the body is weakened the nerve force is reduced in the same proportion. What is a man worth when his nerves are unstrung?—he is almost as worthless as a violin with loose strings. He is a poor hydropathist who weakens the nervous system, for the nerves ought certainly to strengthen during the treatment.

DIET.

THIS is a great and important question in itself. The fathers, the founders of hydropathy in this country, made a special study of diet for the benefit of their patients under treatment. The subject of diet is of national importance, and it applies to all classes, of all ages, and all grades of society. It has an important bearing not only on the health of the whole people but also on the duration of life. Notwithstanding that a few able men have written on the subject, a very large majority of the population are ignorant of what is the most suitable diet for the various periods of life. In studying this subject, human life must be divided into four distinct periods—*babyhood*, *boyhood*, *manhood*, and *advanced age;* this division should be kept clearly in view. The best food for the baby, as all good parents know, is the healthy mother's milk. For the growing boy, plain food, which contains a fair amount of bone-forming material, such as brown bread, oatmeal porridge, &c. For the full-grown man, a mixed diet of plain, wholesome, well-cooked food; but it is a mistake to take animal food more than once a day. For advanced age, if health is to be maintained and premature old age and decrepitude avoided, the diet must be adjusted as strictly as in

babyhood. If the diet of the growing youth, containing much earthy and limy matter, is continued, it will produce first rheumatism, then ossification, and finally shorten life. Our greatest living authority on this subject says:—

"Man's first and ordained diet was fruits; he then began to eat animal food, which was subsequently permitted him; after this he gained a knowledge of agriculture, he grew vegetables and cereals, and, not content with this, during the last few years he has learned to add lime artificially to them, to shrink and lessen an already shortened existence. The alterations of age are not due to *time* but *lime*. This is instanced in Thomas Parr (he was killed at one hundred and fifty-two by King Charles I. giving him luxurious diet and wine), whose 'cartilages were not even ossified, as is the case with all old people.' Again, the food of a horse contains three times the per centage of lime compared with man's omnivorous diet. A horse is physically as old at twenty-five as a man at seventy-five."—C. de Lacy Evans, M.R.C.S., Ph.D., author of *How to Prolong Life*.

Naturalists say that all animals ought to live five times the period required for their full development. Man, therefore, ought to live over a hundred years, whereas he does not reach half that age. There is something seriously wrong in the habits or diet of proud man, who claims to be made in the image of his Maker, for even a donkey will live its full term of life if well treated by man.

The life of man is very short, only averaging forty

years of age all the world over, and less than forty-two in this *enlightened* United Kingdom of ours. This is a long way short of three score years and ten, but a proper selection of suitable diet for the later part of life would add greatly to man's chances of reaching the allotted span.

Those who have passed on to the "shady side of forty" require fruit, which, containing as it does a fair proportion of potash, alkalies, and the mild salts and acids, helps to dissolve limy and earthy deposits in the body, and prevents arterial degeneration and ossification. It is these deposits which cause premature old age.

There is no man in England who has studied and mastered the subject of diet, and lived more strictly up to the light that is in him than Isaac Holden, Esq., M.P. In a letter to myself, dated January 3rd, 1890, he says:—

"I value fruit diet because it contains much of alkaline salts, and extremely little lime, which latter abounds in cereals and root vegetables. Lime in food and water, if in excess beyond the actual requirements of the bony structure, ossifies and clogs the fine capillary blood vessels—arterial degeneration—which is the real cause of natural death. But long before this last catastrophe the senses become blunted and the intellect impaired in advancing years, as De Lacy Evans shows in his admirable book on 'How to Prolong Life.'

"I am, sir, yours truly,

"Isaac Holden."

Dr. de Lacy Evans classifies food in relation to longevity thus:—

"The different kinds of food in regard to longevity have the following order: (1) fruits, (2) fish, (3) animal food, (4) vegetables, (5) cereals. In the same order do we trace the age of man by his diet. It is written that a man in the first ages lived for a period which to us seems incredible; but in the present generation the average time of life is so short that a man at eighty or ninety is truly a modern 'patriarch.'"

The diet of the very poor in these times consists largely of starchy white bread, which, instead of nourishing, simply starves the body, deranges the bowels, and causes constipation. This poor, unhealthy diet causes a craving for pernicious and irritating stimulants, alcoholic drinks, tobacco-smoking, &c., which in their turn aggravate the mischief. Since the repeal of the Corn Laws, and with higher wages, the diet of the working classes of the north of England has deteriorated; they select the whitest bread cleared of bran, and use very little oatmeal, which is so much worse for growing youths. The kettle has unfortunately taken the place of the formerly frequently-used porridge pan. If the sale of white bread could be forbidden, and only the more nutritious and more wholesome wheat-meal bread or biscuit allowed to be used, the health of the people would at once improve, and an unnecessarily high death-rate would be materially lowered by the change. We hear a great deal about the unhealthy dwellings of the poor, and not enough about their poor unhealthy food.

In addition to defective diet, there is another great evil amongst the lower grades of the working classes in the manufacturing districts, which has a serious bearing both on health and duration of life, that is, the use of alcoholic drinks and smoking tobacco. It is estimated that out of every twenty shillings paid in weekly wages four shillings go for alcoholic drinks; this is a heavy tax, and the result must be very serious. And how much for tobacco? Nearly all the men and boys and some babies smoke. The recent increased revenue from the tax on tobacco almost staggered our Chancellor of the Exchequer. He knows, as well as anybody else, that the increased use of tobacco, especially amongst youths, means physical degeneration.

After their breakfast or dinner, any day, groups of working men may be seen reared against some wall near their workshop, most of them smoking, polluting the already polluted atmosphere, and spitting on the pathway saliva that ought to compose their future life-blood, thus accounting, in a measure, for their pale, unhealthy faces.

The middle and upper classes have a diet more varied and more costly, but not much better for healthy and long life. There is much to be learned by all classes as to the ill and good effects of diet. The epicures, who are fond of big dinners of many courses, injure their health and shorten life by eating too much, and to be over-fed is as injurious to sound health as being under or too poorly fed.

"The human stomach is surely a marvellous contrivance, or it could never assimilate the incon-

gruous mess that is put into it at a luxurious modern dinner. Soup, fish, flesh, oil, vinegar, wines, pastry, ices, confectionery, fruits, nuts, and numberless minor ingredients of conflicting chemical qualities are among the materials 'thrown in.' Truly, man is 'fearfully and wonderfully made.' No other creature could exist on such diet. It would kill a gorilla in a month. It does kill, though more slowly, thousands of that high and mighty variety of the human race commonly called gentleman. Universal temperance in eating and drinking would quadruple the general health and add years to the average life of the race."

Sir Henry Thompson, who has paid special attention to and is an authority on the subject of diet, says: "I have for some years past been compelled by facts which are constantly coming before me to accept the conclusion that more mischief in the form of actual disease, of impaired vigour, and of shortened life, accrues to civilised man, so far as I have observed in our own country and throughout Western and Central Europe, from erroneous habits in eating than from the habitual use of alcoholic drink, considerable as I know the evil of that to be. I am not sure that a similar comparison might not be made between the respective influence of those agencies in regard of moral evil also."

VEGETARIANISM.

The vegetarians claim to be dietetic reformers, and they may have done some good in checking the too free use of animal food; but their diet, as practised

in this country, is not an improvement on a well-selected and judiciously mixed diet. Why they should style themselves "vegetarians" I cannot tell, for they do not eat more vegetables than those who live on the mixed diet. Dr. de Lacy Evans alluding to them, says: "Cereals and farinaceous foods form the basis of the diet of so-called vegetarians, who are not guided by any direct principle, except that they believe it is wrong to eat animal food. For this reason vegetarians enjoy no better health and live no longer than those around them."

There is no reliable data for ascertaining the relative health and length of life of the vegetarians in this country, but from a close acquaintance with them, extending over forty years, I fully endorse what Dr. de Lacy Evans says, that they enjoy no better health and live no longer than those around them. I may say further that it is my firm conviction they would enjoy better health and live longer on a mixed diet. I have seen many of them, who had been well reared in their youth, of strong bodies, droop and pass away when, in fact, they ought to have been in their prime.

For the last fifty years Manchester and Salford has been the headquarters in England of the Vegetarian Society, and it has never been stronger than it was in 1848, when I came to Manchester, and from that date up to 1859, when the late James Simpson died.

The late Joseph Brotherton, M.P. for Salford from 1832 up to 1857, when he died, and the late Alderman Harvey, pretty well backed up by

other well-to-do people, were the mainstay of the society. A few facts with regard to Mr. Brotherton may be interesting. The Reform Bill in 1832 gave to Salford one member. There were two candidates for the seat in Salford, Mr. Brotherton and another. The other candidate voted for himself, which brought the votes to a tie. Mr. Brotherton's friends had to use all their influence to induce him to vote for and elect himself. He was never again opposed, and continued the member for Salford up to the day of his death. In gratitude for his services his old constituents erected a fine statue to him, and have arranged it in company with two other noble Englishmen, Sir Robert Peel and Richard Cobden, who deserved well of their country.

In 1805 Mr. Brotherton began to attend the church in King Street, Salford, the Rev. William Cowherd, Bible Christian. Afterwards, about 1809, they began to advocate abstinence from animal food and intoxicating liquors. Mr. Brotherton was at that time the market man for his firm, and it had been the custom each market day to treat, with a few glasses of liquor, the chief buyer of his goods. Mr. Brotherton was quite aware that ceasing to use alcoholic drinks, and refusing to pay for any for others, would place him under some difficulties with his chief and best customer. After he became a teetotaller, and he had sold his goods as usual, he was invited to go to the public house for the usual drinks; he had to explain that he could not in future take any or pay for any. In consequence the orders from this firm gradually decreased, but, strange to say, the account

had scarcely closed before the firm was in bankruptcy, Mr. Brotherton's firm thus being saved from very serious loss. Ever afterwards Mr. Brotherton was fond of relating how fidelity to principle had saved him from a serious disaster. He afterwards became the preacher at the King Street Church, and after his death the following inscription was placed on a tablet: "In Memory of Joseph Brotherton, who died January 7th, aged seventy-three years. The first representative in Parliament of the Borough of Salford, and one of Her Majesty's Justices of the Peace for the County of Lancaster. Erected by the Congregation of the Bible Christian Church, Salford, in testimony of their high esteem and reverence for his exemplary life, and in grateful and affectionate remembrance of his faithful and gratuitous services as their minister for nearly forty years. 'Blessed are the dead who die in the Lord, they rest from their labours, and their works do follow them.'" Mr. Brotherton was a very fine, well-formed man, too bulky in later life to be healthy. He had evidently lived too much on starchy food. He may also have used too much milk, for the working classes of Salford affectionately called him "Buttermilk Joe." He died very suddenly, possibly of fatty degeneration of the heart.

There are many clever men who pass through Parliament, yea, and through the pulpit, who do not leave a single smart saying or aphorism behind them. Not so Mr. Brotherton. Taunted in the House of Commons for having become rich out of the labour of factory children, in the course of his reply he made

the famous remark, "My riches consist not in the extent of my possessions, but in the fewness of my wants." There is a valuable lesson embodied in that saying, which was chiselled upon the pedestal of his monument in Peel Park, Salford, and has since been happily quoted far and wide.

The late James Simpson, Foxhill Bank, near Accrington, a gentleman of means and education, who married a daughter of the late Alderman Harvey, a lady of culture and refinement, was the most active leader, and the ablest advocate that the vegetarians have had. He frequently lectured in Manchester, and I was usually one of his audience. He died at forty-seven, when he ought to have been in his prime.

The late William Hoyle, of Tottington, of the "Annual Drink Bill" notoriety, may be said to have died of vegetarianism. He had no other complaint; he had no disease whatever; he was simply starved to death. It came about in this manner; his diet had consisted too much of soft pulpy food, spoon food, which could be easily swallowed without any mastication, and there was as a consequence none of that wholesome excitement of the secretion of saliva in the mouth nor of the gastric juice in the stomach. For this reason his digestive organs ultimately failed altogether. Feeling interested in this case, and looking through one of his works, *Wealth and Social Progress*, I think I found how it was that he fell into the error of diet which shortened his life. The following extract is worthy of attention, especially as Mr. Hoyle evidently endorsed it: "The Flesh

Foods.—Chemistry has shown that albumen and fibrine, whether in flesh or vegetable food, are identical in composition. On this point Professor Liebig says, 'The chemical analysis of these three substances, albumen, fibrin, and caseine, has led to the very interesting result that they contain the same organic elements, united in the same proportions by weight; and, what is still more remarkable, that they are identical in composition with the chief constituents of blood—animal fibrin and albumen. They all three dissolve in concentrated muriatic acid with the same deep purple colour, and, even in their physical characters, animal fibrin and albumen are in no respect different from vegetable fibrin and albumen.'" After this quotation Mr. Hoyle goes on to say: "It is not, however, so much our province to discuss the relative dietetic merits of the various foods (here is where he made the great mistake) as to consider them from the standpoint of the economist. Since the nutrition in both foods is the same, but in vegetables can be obtained at one-sixth or one-eight of the cost, does not economic wisdom condemn our extravagant use of animal food?" William Hoyle acted on this economic theory, and took his fibrine and albumen at the cheaper rate from vegetables, and he paid for this economy by what should have been many years of active useful life; he left keeping the stomach in health and *mastication* of food altogether out of his calculation. He may have taken quite sufficient nutriment, but taken in the form of soft, pulpy, starchy food, spoon meat, which did not involve any mastication, the secretion of

saliva in the mouth was not stimulated, and for the same reason the secretion of gastric juice in the stomach must have been very feeble; hence the ultimate complete failure of his digestive organs. A serious mistake in diet of this kind, continued day after day, week after week, and year after year, will undoubtedly terminate in premature death.

Elma Stuart in her recent work, *How to Get Well and How to Keep so, by One Who has Done It*, seems, by the way she writes, to have had rather a bitter experience of vegetarianism, she says:—

"I earnestly entreat and solemnly warn you, especially if you are ill or any way ailing, never to allow yourself to be ensnared by that calamitous blunder, that gigantic fallacy, vegetarianism. Of all the gratuitous modes of flinging away precious health and inducing illness, this is about the foremost for rashness and folly. I speak from experience, for, regarding it as the ideal human and perfect diet, I anxiously desired to follow it always, and to my life-long repentance tried hard to do so six separate times, beginning more than eleven years ago.

"I carefully studied all its literature on which I could lay hands. I corresponded with and implicitly obeyed the guidance of some of its leaders, with this result, that twice I brought myself so near death's door that I heard the hinges creak, and yet, still undaunted by that dire experience, tried it yet four times more, causing myself very serious illness.

"I never yet knew a vegetarian (and I have known many) possessed of much real stamina."

Some of my many vegetarian friends may think me too hard on their system of diet; but if hard, not unjust. There is another important matter with regard to the effect of their diet on those who reach advanced age which has not been brought under notice, so far as I know. If a vegetarian lives to nearly seventy years there is, in many cases, a tendency to weakness of the brain, mental exhaustion, and sometimes complete mental derangement. This I noted more than twenty years ago, and I know that it is as much the case now as ever. The question is, does this mental weakness arise from general nervous debility, or for want of phosphorus? It is not much of this ingredient that the brain requires, but if left without it, it is starved to some extent. Fish is the best food for supplying phosphorus, and every man is all the better for eating not less than two pounds during the week. Paradoxical as the proposition may seem, fish would undoubtedly be a valuable addition to the vegetarian diet. Nuts are an article which, though properly belonging to the vegetarian diet, are seldom taken. This exclusion may be owing to the difficulty of mastication and the idea that they cause constipation, but if well masticated and form part of the meal when taken there need be no fear of constipation, nor can anything be better on the whole than nuts for the vegetarian, they are so rich in flesh-forming elements.

POPULAR ERRORS IN DIET.

An error in connection with diet which is widespread, many children having had their health ruined in consequence of it, is the idea that highly concentrated food is the best and most strengthening. Parents will do well to note the following:—

"There is one popular error of great magnitude which I am very anxious to expose. It is commonly thought that the most nutritious food is the best food. This is a very natural error, and arises from the popular supposition that there is but one object in eating, viz., that of nourishing the body. But there are two objects, both essential to life, and of these two objects that of nourishing the body is of the less immediate importance. We eat for the double purpose of importing into the system two sets of elements, the elements of nutrition and the elements of respiration. A man will live longer without the elements of nutrition than without the elements of respiration, though he cannot live very long without either. A certain bulk of food and of dress is, moreover, essential to healthy digestion.

"Dr. Beaumont, who had the singular good fortune to have a patient who, though otherwise quite healthy, had a hole in his stomach (made by a musket ball), which, never healing sufficiently, enabled anyone to see distinctly into his stomach while digestion was going on. This man he took into his house and paid him for the privilege of being allowed to make the case the subject of numberless experiments on digestion. Dr. Beaumont declares that bulk in food is nearly as necessary as the nutrient principle

itself. Food which is too nutritious is, perhaps, to the full as inimical to health as that which is not nutritious enough.

"Dr. Prout, one of the most eminent physicians of the present day, has some very judicious observations on this subject. 'Of the numerous shapes assumed by lignin,' says he, 'the best adapted for excremental purposes, is, undoubtedly, the external covering of the seeds of the cerealia, and particularly of wheat (bran). Bread, therefore, made with undressed flour, or even with an extra quantity of bran, is the best form in which farinaceous and excremental matters can be usually taken, not only in diabetes, but in most other varieties of dyspepsia, accompanied by obstinate constipation. This is a remedy, the efficacy of which has been long known and admitted, yet, strange to say, the generality of mankind choose to consult their taste rather than their reason; and, by officiously separating what nature has beneficially combined, entail upon themselves much discomfort and misery.'

"Debility, sluggishness, constipation, obstructions, and morbid irritability of the alimentary canal, have been among the principal roots of both chronic and acute disease in civic life, in all parts of the world, and in all periods of time; and concentrated forms of food, compound preparations, irritating stimuli, and excess in quantity, have been among the principal causes of these difficulties."—From *The Domestic Practice of Hydropathy*, by Dr. E. Johnson, M.D.

Though more space has been taken up on diet than was intended, it is hardly more than its importance warrants.

EXERCISE.

EXERCISE in the open air was formerly an important part of the hydropathic treatment; after every bath the walk and the length of walk was defined according to the condition of the patient. At most hydropathics even exercise, along with tonic, bracing treatment, has been dropped. Chili paste and mustard are the poor miserable substitutes, which can in no way strengthen the nerves or add to the vital force.

Walking exercise brings into play the muscles, quickens respiration and the circulation, and also the action of the skin. A vast number of people suffer in health for want of more active exercise in the open air. A brisk walk of six or eight miles, to any one whose occupation is sedentary, is identical to the muscular work of the labouring man, who, by the sweat of his brow, earns and sweetens his daily bread and ensures sound sleep. Longfellow, in his "Village Blacksmith," puts it:—

> Something *attempted*, something *done*,
> Has earned a night's repose.

Those who do not work for, do not deserve, and ought not to expect health. Nature makes no

mistakes in the rewards and punishment of *well* and *wrong* doing.

"Bodily exertion is beneficial to health; exercise is excellent physic. Everybody who knows anything about the mechanism of the human frame sees, of course, that it was made to work, and we may add that if it does not fulfil the conditions of its structure it is sure to corrode and drop to pieces prematurely. Exercise and temperance are Nature's medicines, and they have this great advantage over all others, that while they promote health and long life they secure for all who put trust in them the means of independence."

SOME IMPORTANT CASES.

IN placing on record a few cases which I have had to do with, the difficulty is in selecting and curtailing, for it would be an easy matter for me to fill a book of this size with interesting familiar cases.

If the reader will refer to Captain Claridge's book, in which he gives an account of cases that Preissnitz treated successfully, he will find that he had many members of Royalty under treatment, with *blue blood* and *poisoned* blood as well in their viens; that he purified and restored to health many of those licentious rakes. I have had sufficient experience of such cases to know that the water cure will do that. There can be no greater purifying process than the hydropathic; it takes full advantage of the great change of matter, which is constantly going on in the human body, keeping up and improving the stamina at the same time.

In my book, *Hydropathy at Home*, the hydropathic treatment is given for various diseases and ailments, most of which is founded on practical experience; but no particulars of cases with which I have been connected are given therein, with the exception of that of the late Joseph Livesey, and that was given to show that rheumatic fever could be cured without alcohol.

I have avoided, not being a medical man, as much as possible the responsibility of taking charge of patients.

Some of the cases treated hydropathically, with which I came in contact in my youth, made on me a lasting impression, which has not been weakened but strengthened by long practical experience. This may account for my impatience with poor, puny, half-and-half hydropathists, who never can have properly understood the system or known what it was capable of doing.

ERYSIPELAS.

The following case occurred in Keighley in the autumn of 1847, the year before I removed to Manchester. In treating the case we had to exercise our ingenuity. Priessnitz himself never used more primitive implements, and if he ever produced better results in so short a time he was fortunate. The patient was a poor hand-woolcomber, and lived in a poor one-storey cottage.

Early on a Monday morning one of my amateur hydropathic friends called upon me to say that his brother Johnny was very ill with erysipelas in the face and head. He wished me to go and see him at once. The case was a very bad one indeed. The face and head were much swollen, puffed up, with no trace whatever of the natural features. Johnny was afraid to trust to drug treatment, as a friend of his had died recently of a very similar attack, and he had been attended to by two of the leading doctors in the town. We were entreated to try what we could do

for him by this new water cure, and we resolved to try. First we cut all the hair of his head close, then enveloped head and face in a wet compress, but did not use a waterproof covering, cut a hole through it to allow him to breathe. We gave him a vapour bath effectively with a small steam boiler on the kitchen fire. After the vapour bath and sponge down we applied a broad stomach compress. This and the compress to the head and face was re-wetted from time to time for two days and nights. In the afternoon we gave him a full wet sheet pack, and two *derivative* sitz baths during the day. We spent the whole day with him. When we left him for the night we were satisfied that we had got the better of the disease, and that he was out of danger. Next day the treatment was milder. He needed no baths after Wednesday. The following Sunday he was at a camp meeting, with no trace in his features of the disease which had so much disfigured him.

He, his brother, and myself received the warm congratulations of a number of friends on the wonderful and speedy efficacy of the "new cure." This case inspired us, uncultured and unlearned as we were, with a degree of confidence in the water treatment that made us somewhat foolhardy. We positively went into dens of typhus fever, begging and praying to be allowed to apply the hydropathic treatment without fear or fee, paying no regard to the danger of infection. Our reward was in saving life. Day after day I went into a cellar dwelling of one room to see a young man whose father I was acquainted with—a very bad case of typhus fever.

At last the doctor said, "He cannot get better; he is too far gone to rally, but you will be better satisfied if you try this water cure." I recollect with what avidity I set to work, and with what satisfaction I watched the patient sleep while in the wet sheet pack. I gave him several short packs the first and second days, with the wet body compress between them. For the two days I only left him to get food and fresh air. The crisis was passed at the end of the second day, and the way that he rallied proved that with the two days' treatment he had received had put him out of danger. He recovered, and afterwards became a big strong man, and emigrated to America. About the same time a very similar bad case of typhus fever was also successfully treated.

The wet sheet pack is a sovereign remedy in fevers. Dr. Edward Johnson, speaking of the service it was capable of rendering in acute disease, says: "The time must inevitably come when medical men can no longer hold out against the use of this most simple, neat, safe, efficacious, and common sense remedy."

With a patient in a burning fever, either typhus or scarlet, tossing about and rambling, no other application could give such speedy relief or be so soothing and grateful. It usually puts a patient to sleep at once, and many times have I seen half an hour's sound sleep, as a result of the first pack, prove to be the turning point in the case.

Considering how much is known of the action of the wet sheet pack, it does seem strange that the medical profession do not use it in all cases of fevers and acute disease. If it was their remedy for such cases, and

they could have it properly applied, typhus, typhoid, scarlet, and rheumatic fevers would lose half their terrors, and many lives would be saved.

There is a notion which is pretty general that those fevers must run their course. In some cases it is possible to check them, or, in other words, to nip them in the bud. I have seen both typhus and scarlet fever completely eliminated by hydropathic treatment within a week, but that depends on the condition of the patient at the time of the attack. With a person in weak health or of low vitality it will run its course.

Nearly thirty years ago a gentleman, who had been restored to health by hydropathic treatment under Dr. Gully, told me that he had a man who was devoting all his time going about in the east end of London amongst the poor and the sick people, giving the wet sheet pack to any to whom it was likely to be of service, the man having his own sheets, blankets, &c. A very useful but novel way this of dispensing charity and carrying out philanthropy, but by no means useless or vain. The philanthropist would get his money's worth, which is not always the case.

SCARLET FEVER.

In order to form anything like an accurate estimate of the curative power of hydropathy you must take a serious extreme case. I will relate one out of many that I have seen. This was a boy about thirteen years of age. The family doctor, and a physician who was called in, had no hopes of saving him. Two friends strongly recommended hydropathy to be tried.

The doctor was willing if they could find anyone to apply it who could give any hope of its succeeding. The boy's father came for me in a trap on a Friday morning, stated that he came with the doctor's consent, and that there was no time to be lost. We started at once, and he drove at full speed five miles into the country. When I had seen the patient the doctor said, "Well, Mr. Constantine, what do you think of him?" I said, "It is a very bad case, and I have never had to do with one so far gone; but if it was my own boy I should try the hydropathic treatment." The doctor answered, "That's right, that's all I want; you can go to work, and I will come in as often as you wish." The boy's father shook the doctor heartily by the hand, and thanked him and said that he had done everything he could for the patient, that what was about to be tried was to them a new system of which they had no experience. I said, "Well, doctor, what about the port wine you are giving him?" "I withdraw it, and the physic, too, if you wish it. I leave him entirely in your hands."

I put him at once into a cold wet sheet pack, applied a cold wet bandage to the throat and glands, and while in the pack applied a cold wet cloth to his forehead, which was frequently re-wetted while in the pack. I cleaned his mouth and teeth with vinegar and water. In half an hour he was taken out of the first sheet, and without being sponged or washed over, was packed in another, *wrung*, but not very dry, out of cold water, which was continued for another half hour. When liberated from that he was sponged

with water not quite cold, and a broad wet body bandage was applied, re-wetted every hour and a half, was packed once in the afternoon and twice on Saturday. The body compress, and the one to the throat, were kept on until Saturday night, when he fell into a sound long sleep. Saturday evening (he had only had two days' treatment) I said to the doctor, "What do you think of him?" He answered, "We must not shout, we are not out of the wood yet." "No, but we are safe with that pulse. He will rally," was my answer. On Sunday morning the patient's safety was beyond doubt. . The father met me at the door with a tell-tale smile on his face, which I shall never forget, and said, "He has slept like an infant." He required very little further attention, the skin peeled off in flakes, two large pieces of which were actually kept in the family as a reminder of the boy's narrow escape from an early grave.

Many years afterwards, a well-made, handsome, young gentleman, who had just returned from abroad, called upon me. He gave me a vice-like grip of the hand, and said, "How are you? You saved my life," &c. It is many years since the event narrated, but father and son are still living, and have never ceased to be grateful for the service rendered on that occasion.

The very last case of scarlet fever, in which I assisted a friend, father of the patient, was a very remarkable one; it gave me a new experience as to what it was possible to accomplish in a short time when all the best influences were brought to bear. The patient was a girl, strong and of good constitu-

tion; the fever was severe. The treatment was commenced on a Wednesday; two wet sheet packs on that day, betwixt the pack a broad wet stomach compress was worn continuously, re-wetted every two hours, and a wet compress to the glands of the neck; this treatment repeated on Thursday and Friday; on Saturday it was modified, the patient was much better, and the fever completely under control; on the following Tuesday the fever was gone, and the pulse was normal. This is the only case of scarlet fever I have ever known to be carried through within a week; I account for this favourable result, in a great measure, by the free use of agrimony tea.

It is well-known that in many cases of scarlet fever which have been badly treated there are after-effects, dropsy for one thing frequently following, the cause of this being the derangement of the kidneys. When the fever is raging, and the skin hot and fiery, the internal organs are left inactive and sluggish, and the secretion of urine is deficient, agrimony tea cannot do any harm; it at once quickens the action of the kidneys, which is a great advantage to the patient. This patient took a fancy to the agrimony tea; to her it was a pleasant drink; she drunk it freely, and reaped the full benefit of it. It may be stated here that when the urine is thick and unhealthy a pint a day of agrimony tea will clear it in a few days; it is of special service in cases of gravel and gout.

RHEUMATIC FEVER.

Joseph Livesey, the founder and father of teetotal societies in England, during his lifetime had five attacks of rheumatic fever; the last attack, in 1869, when he was seventy-five years of age, was a very severe one. Dr. Clowes attended him for three weeks; as he was not making progress the doctor wished him to take a little brandy; he refused, and said to himself, "If need be, I am prepared to die, but I am not prepared to bring a scandal on the good cause for which I have worked so hard, and at my request Mr. Constantine, of Manchester, was telegraphed for. After several visits and the application of the hydropathic treatment in the best way my bed-ridden and painful condition would permit of, I began to improve, and, though my recovery was slow, I ultimately recovered. I did not fail afterwards to 'chaff' the doctor about my refusing to take any of his stimulants. We have since discussed the question more fully, and what is a matter of great satisfaction to myself is that he has become a sound teetotaller, and has delivered for the benefit of the Church of England Temperance Society several lectures, some of which have been published."

Mr. Livesey passed away in his ninety-first year. No doubt hydropathy prolonged his useful life many years, and certainly was thoroughly appreciated by him. In his autobiography he said: "It was the reading of Captain Claridge's pamphlet, in which he described the establishment at Graefenberg, and the wonderful cures performed there, that first drew my

attention to the subject. If I had seen this six-penny book twenty years sooner, I should have been saved a world of suffering and no little expense. I saw at once that the water treatment was really nature's cure, moulded into somewhat of an artistic shape."

Some years ago, an old teetotal friend of mine, who lived in the country, ten miles distance from Manchester, had a sharp attack of rheumatic fever. He insisted on being treated hydropathically, and that I must not send a bathman, but attend to him myself. With ten days' treatment the fever was well in hand. One day I was giving him a vapour bath and wet sheet pack; in rather a halting and hesitating manner he mentioned that the previous day Mr. J., a wealthy neighbour, had called to see him, and was quite concerned, if not alarmed, that he was not under the care of a medical man, and pleaded hard to be permitted to send his own doctor to see him. He said to me, "What am I to do in the matter?" "Wait ten days until you are well of the fever," I answered, "and then call in the doctor if you wish."

GOUT AND RHEUMATISM.

There is a large number of people who ought to be in the prime of life, suffering more or less from rheumatism. Strong men may frequently be seen hobbling along the street as if they were very old men, racked with rheumatism. The chief cause of the rheumatic and gouty condition of body is errors

in diet and in the fluids taken. The drinking customs contribute materially both to rheumatism and gout. Alcohol is not required, but is a disturber in a healthy body. Dr. Balbirnie says: "Gout and rheumatism are cognate diseases—twin brothers in pathology. The source of the constitutional disturbance is the excess of urea and uric acid salts in the blood." Uric acid, in itself, will produce gout. The regular daily use of alcohol prevents the natural waste of tissue, and contributes to retain in the blood the elements of excretion. A diet of conglomerated ingredients, and taking a little of this, that, the other, and everything else, aldermanic dinners of many courses; it is thus that rheumatism and gout and many other ailments are produced and human life is shortened. There are few men who have once given themselves up to gourmandising who have sufficient strength of will and determination to make the change of diet and regimen which is necessary to clear the system of the superfluous matter and the acid, which is the cause of gout and rheumatism. Within the last few years I have met with a few cases when a complete change of diet has been made the result has been most satisfactory. The urea may be cleared of gouty deposit in eight or ten days, even when it has been there more or less for years. Those gentlemen are not only free from gouty pains, but free also from any apprehension of the ultimate result of chronic gout, and they are now performing their various duties of life with ease and comfort, and have evidently gained an extended lease of life, and a knowledge how to maintain their health. These

diseases are both serious and formidable so long as the patients continue the habits which have produced them.

ACUTE RHEUMATISM

must of necessity precede the chronic state, and is a sufficient warning to anyone to set about getting rid of it and not allow it to become a fixed tenant of the body. When the fluids are in the rheumatic condition there is no certainty as to what part of the body rheumatism will manifest itself, but when it is felt in all the large joints there is a pretty full and sure dose of it. Frequently one knee-joint is the only part where the swelling occurs, and very often it causes alarm and fear of white swelling. The following was a case of this nature, which would have speedily developed into a formidable case in a condition of body known as of full habit: "E. M., very sharp acute pains in the knee-joint, much swollen, unable to walk; five Russian baths with shampooing spread over three weeks, and the wet compress, with the waterproof covering, over the part affected, worn day and night, with suitable diet, cured this attack. Such a vigorous effort on the part of Nature to expel an intruding enemy frequently causes alarm, whereas it is the best thing that could occur. Since the enemy is there it is for the patient to render the necessary help. The following case is of a very different nature, and may be termed SLOW INSIDIOUS RHEUMATISM: "A young lady, twenty-two years of age, when it was first felt in one

ancle the doctors thought it must be a sprain, as there was no swelling, and for some months she was treated for sprain; it progressed, however, and by and by there was deposit in both ancles, no spring, the lady walking flat-footed. In the two years under medical treatment, having consulted several medical men, the rheumatism got steadily worse and was becoming chronic, and she was in danger of it becoming a life companion. A complete change of diet, two Russian baths a week for four months, with shampooing and the wet compress, with the waterproof covering to the part affected, brought about a great change. The young lady herself thinks she is quite well, though it is doubtful if the rheumatism is thoroughly eradicated from the system.

Anyone who has paid any attention to the principles of hydropathy knows how efficacious it is in fevers and rheumatic cases, but some may have doubts of its efficacy in internal ulceration, in such a case, for instance, as that of the late Emperor of Germany. In a case of that nature a hydropathist would at once have directed his attention to producing ulceration on the surface, as near to the internal ulceration as possible, and would have set about purifying the fluids as quickly as possible, and of increasing the vital force. By such means the healing-curative power is materially increased. In such a serious and difficult case no chances should have been thrown away; every known hygienic influence should have been brought to bear for the benefit of the patient.

There is not much science or sense in relying on curing serious ulceration by syringing it down the

throat. It is about equal to doing nothing at all, in fact equal to leaving the patient to his fate.

Some years ago it fell to my lot to undertake a case of this kind :—

MALIGNANT ULCERATION OF THE THROAT.

Here was a valuable life in danger. While shrinking from the full responsibility of treating it, there was a duty to a respected friend not to be shirked. Having watched the case, and looked anxiously for signs of healing during the nine months of medical treatment, I knew something of its nature and danger.

In 1887, the case of the Crown Prince of Germany excited great interest in this country. It will be remembered that it was stated over and over again that it was not one of cancer. Full particulars of my friend's case were sent to the *Lancet* by himself, and also to the Crown Prince, through the German consul in Manchester, endorsed by the then mayor, now Sir John Harwood, and I believe that had such a cure been effected by some man of eminence, the case could not but have been taken notice of. The following is a copy of the letter sent to the *Lancet* :—

THE CROWN PRINCE OF GERMANY.

To the Editor of the "Lancet."

Sir,—In a recent number of the *Lancet*, referring to the case of the Crown Prince of Germany, you mention the ground of hope that it is not one of cancer. All are now looking anxiously for reports of

improvement. The Crown Prince's case is deeply interesting to me, having twelve years ago passed through a similar affliction. Judging from the accounts given, I was quite as bad, if not worse, and my case was as great a puzzle to the doctors. For nine months I was under the care of the ablest medical men in Manchester, and one month in London under the care of Dr. Morell Mackenzie, without receiving any benefit whatever, or the slightest hope of a cure. As a last resource I resolved to try hydropathy. Had the late Dr. Gully, of Malvern, been in practice, I should have placed myself under his care. As there is no Dr. Gully at the present day, I induced a friend (not a medical man) who had a practical knowledge of the system, to take me in hand. I went through a course of general treatment. Hot fomentations were applied to the throat twice a day, and I wore a wet compress with the waterproof covering over the throat day and night. In about a week ulceration was drawn to the surface; this was encouraged and kept out until the internal ulceration had disappeared. In six weeks I was well, and have had no return. My experience is this, that hydropathy is the only effective and rational treatment for a case of such difficulty, and I do not doubt that the Crown Prince would derive the same benefit I did. As the physician's mission is to heal, not by any particular process but by the most effective available, I do hope you will find space in the *Lancet* for this statement of my case.

Yours,

December 15th, 1887. T. S.

When the above treatment was explained by the patient to the doctor who had chief charge of the case during the nine months, he said he dared not have applied it, and that if hæmorrhage had set in we should have been "in a mess." It would certainly not have been safe for the doctor, or any other person with no experience in the application of such treatment, to have attempted to apply it. None but a well-trained and skilled bathman could be entrusted with such a critical case. The danger was known and carefully guarded against. Dr. Morell Mackenzie said that hæmorrhage was liable to occur any day (and that if it did occur, it might be fatal) when he had the case in hand, which shows that ulceration was far advanced, and the case therefore a very serious one.

In the course of half a century one meets with some strange cases, and some happy recoveries have taken place where recovery seemed impossible, but the restoration to health of this friend aroused within me a deeper thankfulness than any other case I had met with, because, when the case was taken in hand, success seemed very doubtful. I am happy to say that he is in sound health at the present time.

OBESITY, FATTY DEGENERATION.

In an article in the *National Review* on the diet question, Dr. Crespi has some remarks on the effects of liquids on the body: "The connection between drinking and obesity has long been admitted to be very intimate, and the corpulent, advised by their

medical attendants to eat more temperately, might with equal propriety be cautioned to drink less—not necessarily in the offensive sense of not getting intoxicated, but of not taking so much fluid of any sort. What is the influence on the human body of a long-continued increase in the amount of the fluids consumed? *A priori* one is inclined to believe that obesity is as often caused by over-drinking as over-eating. Even Ebstein has lately accepted this, and now recommends a diminution in the quantity of fluid, even of water, although not to the same degree as does Oertel. But is there any comparison between the fattening qualities of water and of alcohol, strong wine, and beer? Long ago Brillat-Savarin most strongly prohibited the last. 'Starch food,' he said, 'fattens none the less when mixed with water than when taken in beer and other sugary alcoholic drinks.' As for alcohol itself, it, *par excellence*, causes obesity, more especially by reason of its deleterious influence on cell activity."

The hydropathic treatment is well adapted for reducing the weight of those who are liable to get too heavy, if it is fully carried out; but even that cannot be accomplished without the patient conforms to hygienic rules which proscribe indolence, or over-indulgence in food and drink, or wrong diet; and if the patient is not prepared to make the necessary change there will be no reduction of weight. The following is a case in which the patient did conform with a will, and got an ample and lasting reward. He now designates himself a missionary amongst fat people.

To be burthened with an encumbrance of four or five stone overweight, especially with advancing years, and to run all the risk of such an unhealthy condition of body, is no joke. Obesity, superabundance of fat and water, is, in short, dangerous to life. The extra weight may be taken off with perfect safety at the rate of half a pound a day, and the health and strength improved at the same time. Here is a case of fatty degeneration reduced at that rate. Mr. B. weighed seventeen stone without his clothes, could scarcely walk without support, and was therefore in a dangerous condition. He was reduced in nine months to twelve stone four pounds, and could then walk with ease and with great advantage ten or twelve miles at a stretch. It is several years since Mr. B. had his weight reduced, and he rejoices too much in his present health to let it slip away by errors of diet, which are the chief cause of overweight.

In all cases of obesity and fatty degeneration, every pound of weight taken off adds so many weeks, or may be months, to length of life.

FATTY DEGENERATION OF THE HEART.

There are a great many cases of fatty degenerations of the heart which never reach the full stage of obesity. We hear a great deal of heart disease and of deaths from disease of the heart. Improper diet and indolence are the sole cause of this condition of the heart. When it has fairly set in there is no mistaking it, the pulse indicates it with certainty. A few days ago I was out on a pedestrian tour, and

more than forty miles away from Manchester, when I met an old friend, in good sound health. He told me that nearly twenty years ago he was in the dangerous condition described above, that he consulted me, and that I advised him what to do, and so impressed him with the necessity of doing it at once to avoid serious consequences, that he set to work and did it, and that he had reaped the reward in the renewal of good sound health and an extended lease of life. He said, "Do you not recollect me consulting you on that matter?" I answered, "No, I do not; but I recollect you being fat and flabby, and in poor health, very different to what you are now. But you must bear in mind that your case was similar to hundreds of others that I have met with, so that there is nothing singular in yours having slipped my memory."

In some of these cases of obesity, when the liver gets over-loaded and congested,

DROPSY

frequently ensues. Many years ago one of the leading consulting physicians in Manchester, who had a good knowledge of the effects of various baths, was called in to a case of this kind, and he at once ordered sweating baths. The doctor explained to me that if I could start the perspiration by a vapour bath in the bedroom, and then get the patient into bed, and keep up the perspiration for two hours, the patient might rally. The case was a very bad one, and, up to the time of calling in the physician, was thought to be hopeless. For four or five months his

skin had been very dry, and he never perspired. With a dry, inactive skin, the first and second baths had not much effect; but on the third day it poured out of him freely. Twelve baths were all that he required.

The hydropathic treatment is applicable for building up, as it is for pulling down or reducing weight. It restores healthy action to the functions, and by that means improves the general health. Two cases of this nature may be cited:—

GENERAL WASTING—"RUN DOWN."

Business men cannot at any time go to a hydropathic to be recruited, even if such institutions were all that could be desired. T. H. was out of health, run down twenty pounds below his standard weight, stomach in very bad condition. July 1st, 1889, weight nine stone; June 8th, 1891, ten stone eight pounds—a gain of twenty-two pounds; his health has been completely restored, chiefly with light tonic baths, dripping sheets, &c., and an occasional sweating bath, attending to business all the time. This is one of many such cases of over-strained nervous excitement and irritability, constantly occurring in a large city like Manchester amongst overworked men of business, that may be successfully treated without leaving business.

Here is another case of wasting without any active disease. A working man had lost twenty-three pounds in weight. The stomach was deranged and skin inactive. His diet was corrected, and he wore the

stomach compress at night. After three weeks' treatment of this sort he took three or four mild sweating baths, and a dripping sheet daily, thereby putting on a pound and a half weight per week, and completely recovered his health.

NERVOUS DEBILITY.

Mr. B., a gentleman about sixty years of age, was gradually losing the proper command of and use of his legs through nervous weakness. At any time, when he was standing for a few minutes, his knees would bend forward involuntarily, and he seemed in danger of falling. A cold dripping sheet, with plenty of friction, for a few weeks, gave him again the proper use and strength of his legs, which he has retained, and the nervous weakness which had alarmed him very much he began to think must have been a false alarm. But it was no false alarm; frequently middle-aged men may be seen shambling along the street as if suffering from partial paralysis, whose want of proper use of the legs commenced in a similar manner. The following is of a different nature:—

MUSCULAR PROSTRATION.

A youth who had passed through a severe and prolonged attack of diphtheria, which confined him to bed for several weeks, lost almost the entire use of both legs. When able to leave his bed he could not walk without assistance, and fell if he attempted to cross the room without help. The muscles of the

legs were shrivelled and shrunk and were useless—it was distressing to see him make an effort to walk. Five weeks' treatment, one application a day, restored the full use of his legs. For a fortnight he was attended to at home, well manipulated (massaged) on alternate days, the other day taking a bath and being well rubbed afterwards, by two bathmen; he had to be carried from the bedroom to the bathroom. When able to go to town by tram he was manipulated daily, after which he had the hot and cold douche and brisk friction. With nothing but this simple treatment, and the regulation of his diet, and wearing the stomach compress during the night for the first three weeks, his health and strength were restored.

When the muscles are shrunk and shrivelled, which frequently occurs for want of proper use, massage is of special benefit; they must be manipulated often to bring them into play again, to give them a new start, until natural regular exercise can be taken. The tonic baths brace both the muscles and the nervous system, and the friction stimulates and improves the circulation. When the patient has been much run down, the tonic baths must be commenced carefully. In the first place, friction with the cold wet hand, not exposing the whole of the body at one time; as the patient gains strength, the dripping sheet with plenty of friction may be given. In all cases of extreme weakness it is a great mistake to give heavy treatment to overrun the rallying power.

NEURALGIA AND TIC-DOLOUREUX.

In these complaints, which are sadly too numerous, we have the penalties, sharp and decisive, for artificial life and wrong diet. Many victims to tic-doloureux are found amongst the nice young ladies who spend too much of their time in the drawing-room, and too little in the kitchen or assisting in the house work. For want of healthy physical exercise, of work which sweetens life, and the bread of life, the appetite fails, and then the mischief commences. Fancy or high-seasoned food is taken, and the whole digestive canal is deranged; stubborn costiveness may be the result, or the bowels may be irritable and relaxed, and the nerves of the stomach are disturbed; hence the tic pain. With a fair amount of muscular exercise, very plain diet, and good mastication, we should not often hear of tic-doloureux.

SCIATICA

is near akin to tic-doloureux, but it may arise from an entirely different cause. It is easily cured in the early stage by the hydropathic treatment.

It usually commences in the hip, and it may extend down the leg the full length of the sciatic nerve. At the commencement it is only irritation of the nerve, but it may develop into inflammation, and then it becomes serious, and in course of time the nerve may shrivel and be permanently injured. In the early stage one Turkish bath frequently cures it.

Before the Turkish bath was in use in this country, and since, I have seen many sharp attacks cured both with the ordinary vapour bath and the Russian bath, and when the steam is directed to the part affected it gives immediate relief; it is more effective than the hot water douche bath. If these baths do not remove it, the half sheet pack should be taken for a few days until the pain is all gone, avoiding at the same time exciting and irritating food.

Mr. C., of Corporation Street, Manchester, is never tired of relating what a happy and speedy escape he had from a very painful attack of sciatica. He was confined to his bed for some time, and his own doctor had called in another in consultation. There seemed to be little hope of his getting about for some time, when a friend persuaded him to try a Turkish bath. He was assisted in and out of a cab, and into the bath. After the one bath he walked a mile and a half home, and he felt no more of the sciatica.

Drug treatment in sciatica is worse than doing nothing at all, it does no good to the nerve, and injures the rest of the body. When the hydropathic treatment is strictly and fully carried out, it never fails, or, at least, I have never known it to fail, and have seen it tested in hundreds of cases.

PARALYSIS.

Few cases of paralysis are thoroughly cured; but if vigorous hydropathic treatment be *early* adopted, the chances are much more favourable by this than

by any other system. I have known several cases in which the use of both leg and arm has been so completely restored that there was no visible signs of the attack. When the attack has occurred while the sufferer has been at business he has been brought straight away to these baths. Immediately after the attack the patient has reclined on that side which is not affected, and kept the affected side upwards. Two bathmen have rubbed the entire side as briskly as possible for half an hour with the cold wet hand, keeping a cold wet cloth on the patient's head. The patient has then been thoroughly dried with a rough towel and dressed, and, if able, walked about the room. The same course may be repeated twice next day, and light tonic applications continued day after day, such as the dripping sheet and sponge bath, with an occasional vapour bath, and galvanism (if accessible) applied to the feet and hands. The patient should also take as much exercise as is consistent with his strength.

LOCAL PARALYSIS.

A numbness, partial or total loss of power in the part affected, which is sometimes the hand, arm, leg, one side of the face, an eye, &c. This affection often occurs to persons who have no apoplectic tendency, but of weak nerve force. General tonic treatment to improve the general health, with massage and friction with the wet hand to the part affected, is the most suitable treatment.

CONSTIPATION

is caused chiefly by improper diet. In an article on constipation Dr. Allison states that "eating white bread causes it in a great many instances." He concludes by saying: "Could I only pass a law making the sale of white bread criminal, I should do more good for my fellow-men than all the laws that have been passed during the last hundred years, but it would ruin pill and patent medicine makers." With daily bathing, suitable diet, and a fair amount of outdoor exercise, the bowels will always act naturally, and constipation ought to be unknown. Many who have been troubled with constipation for years are amazed at their past folly when they find what an easy matter it is to keep the bowels in a healthy condition without pills or aperients of any kind.

HÆMORRHOIDS OR PILES.

With correct diet, healthy digestion, and with frequent use of the sitz bath, no one will ever have piles; such diet as causes constipation in many cases causes piles.

The vapour bath soothes and relieves them at once, and should be taken every third day, and the cold sitz bath for one or two minutes twice a day. Anyone subject to piles ought to have a sitz bath always supplied with water in their bedroom for frequent use. If this was a universal habit we should not hear much, if anything, of piles, and the quack pill vendors would have to find something else to do; they would become more useful members of society.

GRAVEL, GALL STONE, &c.

There are a very large number of distressing cases of this class, and many lives are cut short. Really, it is not to be wondered when it is taken into account the vast number of people who make no change in their diet as they advance in years. If men touching on half a hundred years continue to eat oatmeal and other foods, which contain a fair proportion of earthy and limy matter, and which was good for them so long as they were forming bone, they must expect to get into trouble, as those minerals accumulate in some, perhaps, a very inconvenient, part of the body. Then again, what a vast quantity of beer some men consume daily, which in many cases enlarges and diseases the liver, besides frequently producing gall stone.

In all cases of gall stone or gravel the food and drink must be corrected and cleared of limy and earthy matter. In a case of gravel, the urea may be cleared in the course of a week; but it is a slower process to get rid of the gall stone. The vapour and wet sheet pack are the most effective baths in those cases.

About twelve months ago a gentleman called upon me and stated that he had usually taken the Turkish bath, but that he was very much troubled with gravel, and wished to know if there was any other bath that would suit him better than the Turkish bath. For several weeks it seemed he had not passed urine, and it had to be taken from him. His diet had not been inquired into, though he was actually taking both food and water containing earthy matter, which was the

cause of the gravel. His diet was at once corrected, and this, with a few slight Turkish baths, followed by the *half* wet sheet pack, caused the free passage of the urine within a week. He has never been troubled with gravel since.

CUTANEOUS ERUPTIONS.

In a large city like Manchester there are many cases of cutaneous eruptions, which, if not absolutely caused, are aggravated by breathing impure air. I have known several clerks in one office, which was not ventilated, where the gas was kept burning several hours during the day in dull foggy weather, very much troubled with eruptions on the skin, the result of slow, but certain and effectual poisoning of the blood. But now and again cases of cutaneous eruptions are met with which are not caused by blood poisoning by impure air, but blood *impoverishment* by poor diet. Here is a case of that kind. A man of strong body and of steady habits, a teetotaller, who seemed to rather pride himself on not caring at all about the kind of food he had, provided that he got some when he was hungry. When asked about his diet, he answered, "Oh, I live on very plain, simple food; I cannot account for this dreadful eruption." His hands and face were in a pitiable condition; for weeks he had worn gloves at business. His breakfast consisted of white bread and butter and tea, frequently the same to dinner, and repeated again at the third meal with very little change or variation. "Yes," I said to him, "your diet has certainly been very plain, very simple, but desperately poor; had

you kept on with it a little while longer you would soon have degenerated into Job's condition."

A complete change of diet and two small Russian baths a week for four weeks cleared the eruption off both the hands and the face. Plain food is the best, but it must be whole and must contain the elements of nutrition if health is to be maintained.

ECZEMA.

Dr. Ruddock says: "This is one of the most common eruptions, constituting one-third, or more, of all skin affections; it lasts a varying time in consequence of successive local developments, and its tendency is to spread. After its disappearance no traces are left of the disease. The skin is irritable; occasionally excoriations or cracking of the part occurs, and sometimes the part around the patch inflames, probably from the irritating nature of the discharge."

Grocers, confectioners, and others, who have to handle raw sugar, are frequently troubled with it in the hands (caused in these cases by an acarus resembling that producing itch); but, usually, eczema is the result of the impure state of the fluids of the body, caused by indigestion or improper diet. In all cases of eczema the fluids are getting into the rheumatic condition. Children with hard, dry, scaly, inactive skins are very subject to eczema. In such cases little can be done for the patient until the skin is got into a healthy state. For softening the skin the vapour baths and the wet sheet pack are the most effective.

Any error of diet must at once be corrected, and alcoholic drinks strictly avoided; two vapour baths a week, and two half sheet packs a week, wearing the stomach compress at night, will usually be effectual. When the hands alone are affected, the fumes of sulphur locally will effect a cure. When convenient, a change of air is of service.

PLEURISY.

Inflammation of the pleura is usually caused by a severe cold, and if active remedies are not used without delay there may be danger of the case terminating fatally. The late Professor Fawcett (Postmaster-General) and the late Lord Grosvenor lost their lives by a sharp attack of pleurisy. They were both what may be termed good lives. Strong men seem to be as liable to have it as weaker men. An old friend of mine, who had been out in South America, and whose constitution had been weakened very much by an attack of yellow fever, was very subject to it, an ordinary cold bringing it on. As soon as he felt it he at once sent a messenger for me, and in the meantime he would prepare some boiling water. One hour's fomentation never failed to remove all danger.

There should be no time lost in applying the hot fomentation over the part affected and in throwing the patient into a profuse perspiration. The flannels for fomenting must be wrung out of boiling water or placed in an ordinary potato-strainer over boiling water for a few minutes, and put on as hot as the

patient can bear. If a dry flannel is placed on the skin and the hot flannel laid on that, a better result will be produced. If the fomentation is done well and continued for about an hour the pain usually ceases and the danger is over. After the fomentation sponge the part with water at seventy degrees and put on the wet compress. If the patient perspires freely while being fomented let him drink plenty of toast and water. Should there be any necessity, the fomentation may be repeated in from four to six hours.

SKIN AFFECTIONS.

The human skin, like the skin of all animals, is subject to certain diseases, such as the following:—

Prurigo.

Professor A. T. Thompson says: "No age, no sex is exempt from the attacks of prurigo; it is observed to make its appearance in all seasons, and to find its victims in every rank of life in all its varieties; the itching is intolerable, augmenting in comparative severity according to the age of the patient. It must be acknowledged that this troublesome affliction often resists every treatment that has been suggested!" This, however, refers exclusively to treatment with drugs.

In its aggravated form prurigo is often mistaken for itch, which it much resembles. One simple feature of the disease is that the worst cases are usually the most easily cured, probably because the disease is more developed.

It is quite clear that Professor Thompson did not know that the sulphur-vapour bath is an infallible cure for prurigo. It is very doubtful if there is any other man living who has seen so many cases of prurigo as myself. I have seen it in a most aggravated form, when it has affected the whole body from the crown of the head to the soles of the feet. This was a young lady who had consulted several physicians; twenty-three sulphur-vapour baths cured her. A few years ago a young doctor from a neighbouring town called on me. The medical man he was with wished him to show me his skin and ask my opinion of it. I said to him, after examining the skin, "Tell Mr. —— that if he will look what Erasmus Wilson says of prurigo, he will find that this is a well-defined case." Three or four sulphur-vapour baths cured it. Some years ago a gentleman who was a frequent bather at these baths had prurigo. I told him he had better take a few sulphur-vapour baths; that I did not know any other cure for it. "No," he said, "he would not take any sulphur baths; he would go to a hydropathic at Malvern, for his wife had got it too, and she would not take any sulphur baths." He went to Malvern, consulted the leading physician there, and told him what I said about the sulphur baths. "Well," said the doctor, "it is like taking a cannon to kill a fly." "Then you can cure it, doctor?" "Oh, yes," was the reply. With a few weeks hydropathic treatmeat he was no better. When he called upon me again he said he had spent a hundred pounds on this confounded thing and was no better.

"Then you are going to try the cannon to kill the fly?" "Yes, and so is my wife; there seems to be nothing else for it." In both these cases cures were soon effected, as neither required more than six sulphur baths. It is not known what causes prurigo. People in the best of health are liable to have it. It is a very simple disease, but very annoying. It is not considered to be infectious.

Itch.

Of all skin diseases, this is at once the most loathsome, and yet, strange as it may appear, it is the most easily cured. The disease is occasioned by the presence of animalculæ, which, effecting a lodgment on the skin by contact or otherwise, increase and diffuse themselves with a wonderful fecundity. The scarf-skin very soon shows symptoms of their presence by its surface being ruffled and raised, but with the scratching it becomes ragged, and small sores may be observed between the fingers, the favourite haunt of the insect.

Two or three sulphur-vapour baths will cure it effectually if a complete change of under-things is put on after each bath.

Itch is very infectious.

Nettle Rash.

is thus named on account of the stinging sensation attending it, and which closely resembles that produced by the common nettle. There is no possibility of mistaking the symptoms, the skin showing small white elevations on a scarlet ground.

The chief cause of the nettle rash is a disordered state of the digestive organs, sometimes occasioned by peculiar descriptions of food, such as mussels, oysters, crab, lobster, and other varieties of shell fish.

Three vapour or Russian baths, on alternate days, with the heating compress round the stomach at night, never fails to effect a cure. Diet should be light and sparing.

Shingles.

An eruption which forms a belt half way round the body. Usually there is also a good deal of nervous disturbance accompanying the eruption, very alarming to the patient. Two or three vapour baths will do all that is needed. Diet must be light and sparing.

ACCIDENTS.

Many times I have heard it said that you cannot set bones by hydropathy. No; but it will accelerate materially the healing process when the bones have been bruised or crushed by accident. I have known several cases of serious accident in which it has been of great service in assisting the healing.

A gentleman had his spine seriously injured in a railway collision, was under treatment for twelve years, and for the most of that time had to avoid the erect position, otherwise there might have been a very inconvenient curve of the spine. Fortunately, after twelve years of patient nursing, during which time his hair had become white, he stood as erect as before the accident. During the whole twelve years

he used hydropathy as much as his crippled condition would permit of.

Several other cases of serious accidents might be enumerated in which hydropathic applications had materially contributed to the healing and restoration to health.

INFLUENZA.

Within the last few years influenza has become a formidable and rather dangerous disease. Many cases have terminated fatally, and the medical faculty do not seem to be agreed either as to the nature of the disease, nor as to the best mode of treating it.

In his medical quarterly, *The Asclepiad*, Dr. Richardson has made these remarks on the cause and treatment of influenza:—

"Those who try to trace everything in disease to germs and their effects have taken it for granted that the present epidemic is due to a microbe. They have not afforded the slightest proof in favour of their contention. The direction in which we are led by such evidence as admits of being gathered is that the affection is nervous in its character, and depends on an influence which directly affects the organic nervous function. It is an organic nervous paresis. The treatment of influenza by medicinal means has been, up to the present time, an utter confusion. I have met with two or three of my brethren who were firm in believing that the expectant treatment, in conjunction with careful regimen and hygiene, was by far the best and soundest. Amongst those who entertained a desire for some kind of medicament there was no

such unanimity. One was for quinine from the first to the last; another thought well of antipyrin; a third had 'cured' all his cases with salicylate of soda, under the idea, not altogether a bad one, that there was a rheumatic element in the epidemic affection; a fourth was inclined to use salines, especially chlorate of potash; a fifth considered aconite, 'in guarded doses,' the beau ideal measure, especially when the fever was very high. Wanted, a method for restoring the normal tension of the organic nervous system. That is all, and that is cure. One word more in conclusion. The successful remedy when found will not be an alcoholic stimulant. According to my observation, alcohol has added largely to the dangers of influenza."

So far as is known at the present time, the hydropathic treatment for influenza has been the most successful.

The following has come from an unexpected and unknown source. Because of the etiquette of the medical profession the gentlemen who communicated the matter could not give his name and address:—

"To the long list of 'cures' for influenza a medical correspondent of the *Pall Mall Gazette* adds the following: 'In view,' he says, 'of the alarming spread of influenza, I beg to forward a remedy which, while it is perfectly free from harm, is far more efficacious than antipyrin, quinine, and the other drugs generally prescribed by the faculty. Its efficacy can be judged from the fact that about the average time I have found, from a large and varied experience, necessary to bring about a complete cure

is twenty-four hours. This remedy is nothing but cold water. The quickest and surest method of application is the wet sheet pack frequently renewed; but as this requires an experienced hydropathist to carry it out properly, I will give the following directions, which anyone can carry out with little trouble and no danger whatever. The success of this treatment I can vouch for from my own personal experience, as well as from the results obtained by those who have followed my advice, and I can safely say that the lives of hundreds will be saved if it is adopted in time. When you feel an attack coming on, go at once to bed, and as soon as you are warm sponge yourself all over rapidly and vigorously with cold water; then return to bed as before. Do this several times during the day, till you begin to perspire freely in bed, and after you have perspired for a few hours wash yourself all over with cold water, when you will feel perfectly free from pain and fever; or if you think the complaint not altogether driven out, go through the same process again. This treatment, if combined with the wet sheet pack, will seldom fail. The heat is carried out in perspiration of the skin, and the tone of the system is not lowered as it always is by the drug treatment. As a preventive nothing will be found so efficacious as a cold sponge bath on going to bed. It is important not to dry, the heat of the bed with plenty of clothes will soon do that.' "

Mr. Richard Metcalfe, a veteran hydropathist, of Paddington Green, London, has treated many cases of influenza successfully with the wet sheet pack,

and I may add my testimony as to its efficiency. I have no doubt, moreover, that what is recommended as a substitute for the wet sheet pack will answer. The attack is usually very sudden. A person feeling to be in ordinary health may, in the course of a few hours, be very ill; the pulse beating at the rate of one hundred and thirty or one hundred and forty. When the disease runs its course the patient is quite prostrated, and recovery is slow.

BLOOD POISONING.

Deaths from blood poisoning are on the increase. Many of those deaths are due in a great measure to alcoholic poisoning. The daily use of alcohol is a great sinner in producing what is known as full habit of body, a condition which surgeons dread when an operation has to be performed.

Mr. Frederick Treves, the well-known surgeon of the London Hospital, in his *Manual of Operative Surgery*, has some striking remarks on the risks attending operations on the bodies of drunkards. He says:—

"A scarcely worse subject for an operation can be found than is provided by the habitual drunkard. The condition contra-indicates any but the most necessary and urgent procedures, such as amputation for severe crush, herniotomy, and the like. The mortality of these operations among alcoholics is, it is needless to say, enormous. Many individuals who state that they 'do not drink,' and who, although perhaps never drunk, are yet always taking a little

in the form of 'nips,' and an 'occasional glass,' are often as bad subjects for surgical treatment as are the acknowledged drunkards. Of the secret drinkers the surgeon has to be indeed aware. In his account of the *Calamities of Surgery* Sir James Paget mentions the case of a person who was a drunkard on the sly, and yet not so much on the sly but that it was well known to his more intimate friends. His habits were not asked after, and one of his fingers was removed because joint disease had spoiled it. He died in a week or ten days with spreading cellular inflammation, such as was far from unlikely to occur in an habitual drunkard. Even abstinence from alcohol for a week or two before an operation does not seem to greatly modify the result."

There is some danger of blood poisoning, even to a person in health, if a wound is wrongly or badly treated. A wound while healing should be thoroughly cleansed from time to time, and nothing cleanses and assists the healing of a sore like the steam bath. If, after suppuration has begun, a wound is covered over or sealed up with a piece of diachylon plaster, the impure matter may become absorbed into the circulation, and cause blood poisoning. A dear old friend of mine recently lost his life in this manner.

It cannot be too well known that abscesses, carbuncles, and boils ought to be frequently cleansed to prevent any possibility of absorption of the impure matter constituting them into the system.

SIGHT RESTORED

By primitive hydropathic treatment.

Many times have I met with people who have regained their health by very primitive hydropathic treatment. I know of a case of that kind from which those who indulgingly injure their nerves and their health by narcotics, may learn a lesson. The particulars of it are well stated, and though it appeared in Thomas Cooper's *Journal* as far back as May 11th, 1850, I think it is so remarkable as to be worth giving entire :—

My dear Cooper,—I send you a letter containing more useful knowledge than half the books which have been printed during the last month. This is saying much, but you shall judge; I send you not theory, not speculation, not an opinion which may be as good and no better than the one from which it differs. I send you knowledge, not derived from books or conversation, but that best of all knowledge, the result of experience, of universal application, and which it is important that all should possess, such knowledge as I would have been almost ready to worship the giver. Who or what I am matters little. You know me well enough, perhaps better than I know myself. Before I enter on the principal subject of my letter, it may be well to state that some years since, partly from ill-health, but mainly from anxiety and severe mental distress, which latter, as I now believe, in a majority of cases means little else than mental imbecility, I was betrayed by degrees into the habit of opium-eating; and though I never indulged

this habit as excessively as some men have indulged it, yet latterly I became an opium-eater to what might well be deemed a fearful extent. On this subject for the present I shall say no more, because hereafter I may give you my "confessions of an opium-eater," and if I could give them as I would, I too could a tale unfold, enough to harrow up the souls of most men. An angry serpent or a mad dog is a fearful thing, but these are far less dangerous in a town or city than the sale of opium.

To proceed. Seven years since I opened a day school in one of our largest seaport towns. I obtained as many pupils as I could manage, and might have had many more if I would have taken them. My circumstances being easy, the irrational interference of parents, which so often embitters the life of a schoolmaster and destroys his usefulness, I could set at defiance. I managed my school in my own way, and gave, as I had reason to believe, general satisfaction. I am a single man. Well, school over, the curtains drawn, the fire burning brightly in my snug little parlour, tea over, a small pill of opium swallowed, tea things taken away, candles brought in, sofa drawn to a convenient distance from the fire,—on this sofa behold me laid at my length, the bowl of my pipe resting in the snuffer-tray, the other end in my mouth, and, with a book to my taste, was I not the very impersonation of comfort upon an humble scale? or, rather, was I not, remaining as I did from six to eleven, and sometimes twelve o'clock, the very impersonation of indolence, of downright sloth; and did I not richly

deserve the punishment which was imperceptibly, but certainly, coming upon me? True, I had worked during the day, and I hope done my duty, so far as the instruction of thirty boys was concerned. But I call no man industrious who does only what he is forced to do, or what he is paid for doing; unless, indeed, all that he can earn is needed for the support of himself and family. I call him who is otherwise circumstanced, as I was, industrious when he labours, not from compulsion, but from choice, and because he prefers the mere chance of being useful to mere indolent self-gratification. I was, indeed, very comfortable, too comfortable; for fifty years' experience has taught me that in this life there are circumstances in which a man may be too comfortable.

Literary men seldom take up a book unless they want, at the time, the information it contains. They read as a means to some end, which may be temporary; but to those who have read much, and continue to read mainly for amusement, or only partly for instruction, there comes a time when books lose much of their interest, and when a man finds it difficult to get hold of a book that really interests him. I have reached that point, and consequently betook myself to the higher branches of mathematics. These attracted, delighted, absorbed me; they kept me in the house when I ought to have taken air and exercise, and often up at night when I should have been in bed.

Thus things went on very comfortably until May, 1848. During three months preceding I had experienced a dimness of sight, but nothing serious, as

I apprehended, and betook myself to the occasional use of spectacles. About this time two of Mr. Combe's pamphlets on "Popular Education" were put into my hands. It was a holiday, and I read them at a sitting, or nearly so. They cost me six hours. The next morning, the 19th of May, when I attempted to hear a boy recite a portion of Cicero *de Officiis*, I found myself unable to distinguish not only one word but even one line from another. I was surprised, but only at the first slightly alarmed, and hastened to the optician's. I tried all his glasses; they were useless. I wept like a child. The remembrance has at this moment filled my eyes with tears. I went to a physician reputed to have some knowledge of the eye; he examined me and told a person in my presence that my sight would never return, that my eyes were affected with gutta-serena, that nothing could save them, and that in a few months my sight would probably leave me entirely; but he advised me not to accelerate total blindness by tinkering with my eyes. What I felt on hearing this account cannot be conceived; certainly I cannot describe it, and shall not try.

The next month I gave up my school. During the whole year 1849 I was unable to read or write anything. I could see my hands, but could not distinguish the nails. I placed myself under an eminent surgeon, who punished me, but did me no good. During the five years previous to the decline of my sight I have lived temperately and regularly, as man well could live, eating little animal food, and scarcely ever tasting fermented liquors, and never beyond half a

pint of ale at a time. I had little or no bodily pain; still, I was pale, emaciated, bodily debilitated, and my nervous system altogether deranged—and hence, as I now know, the failure of my eyes.

At the moment I write this—twenty-two months from the time of my giving up my school—I am in perfect health, and can read and write almost as well as ever without the aid of glasses! What means have I used? To what am I indebted for this, to me, almost miraculous change? I will tell you faithfully, and for your own sake take notice of what I say.

First, then, I said to myself, now that I am no longer able to labour, I have little money to spend on medical and surgical advice, and if I had, after what I have proved, I have little faith in it; but one thing I will do—I will secure to myself the satisfaction of having done my best, of having left no means untried whence I thought benefit might be derived.

I had heard of cold water; and when I thought of the robust health enjoyed by those who had constant air and exercise, and of the extent to which I had neglected these same sources of health, I determined to throw myself upon nature, and see how far she would second my exertions. I renounced medicine, in every form, and began thus: I walked from eight to ten miles every day. The weather must be bad, indeed, if I yield to it. From four to six times every day I hold my eyes open, mind, in the coldest water I can find. The first thing on rising in a morning I plunge myself up to the knees in cold water; then, with a large sponge I drench myself from head to foot, coming as near to a bath as possible; it should be a perfect one, had I

the conveniency. I then take a rough towel, a long one, and with an end in each hand I saw myself under the soles of my feet, my hams, and all over my body. After this, I well brush my skin with an old clothes-brush. This has been my practice during these last eight months; but I would not discontinue it for eight thousand times eight thousand guineas for the next eight months, if I must be reduced from my present to my past condition.

I shall only add that, though the holding of the eyes open in cold water seems, and indeed is, at the first rather formidable, yet after a few times it becomes as pleasant as simply washing the face. An eminent oculist has since told me that any man adopting and following up this practice, would add at least ten years to his sight.

Should you deem this worth insertion, I may send you other results of my own experience. I wish not for honour, but having freely received, I would freely impart, in token of my gratitude to the Giver of all Good.

I am, my dear Cooper,

Yours affectionately,

ALPHA BETA.

BATHS

And their Use and Effects under Various Conditions.

TO keep the functions active and healthy, the fluids pure, and the body vigorous, a bath should be taken every day.

There are a large number of people who carry out this rule strictly with regard to children, but not in their own persons.

With the hardy and robust a cold bath is best, but with children and those who are not strong the temperature may be raised.

A daily bath ensures more uniform good health and makes anyone less liable to colds.

THE TURKISH BATH.

This bath cleanses most effectually, and, by inducing perspiration, stimulates the excretion of effete matter through the pores of the skin, removing obstruction and congestion, thus purifying the fluids, and relieving the important organs of the body. It can be modified or intensified to suit the delicate or the robust, as the case may be. The shampooing is an important and valuable part of this bath, and a good shampooer, if interested in his work, is quick to judge (by constant practice) the physical condition of the bather, and perceives at once whether the skin is active and healthy or inactive and unhealthy, and adapts the

bath to suit the case in hand. In cases of severe colds, rheumatism, and limy or earthy deposits, this bath is very useful.

THE RUSSIAN BATH.

"Persons of every age, the young as well as the old, can make use of the Russian bath in every season, for hygienic as well as curative purposes."—*Dr. Roth.*

If the Russian bath had been introduced into England in 1857 with the same flourish of trumpets and on the same scale, it is possible that it would have been more popular than the Turkish bath, as it can be taken in less time than the Turkish bath. In Russia everybody takes it, the noble and the serf alike, each regarding it as essential to health; and experience proves that its frequent use neutralises the parching effect of severe cold on the skin. Those who take this bath regularly do not suffer from the severe cold winter weather; it gives warmth to the body. In countries where it is much used rheumatism is almost unknown.

It undoubtedly promotes the healthy growth of the hair; if here as in Russia it were in general use there would not be so many *bald heads* as at present.

Dr. C. F. Taylor on the Russian Bath.

"I have just come from a Russian bath at Roth's. I am charmed with its effects. If you have got anything impossible to do, or to be endured, now is your time. I am impatient to exhibit my pent-up powers."

THE VAPOUR BATH.

"The vapour bath is calculated to be extensively useful both as a preservative of health and as a remedial agent. Many a cold and many a rheumatic attack, arising from checked perspiration or long exposure to the weather, might be nipped in the bud by its timely use."—*Dr. Andrew Combe.*

The effect of the vapour bath as a cleansing process is very remarkable. The infinitesimal particles of vapour penetrate the pores of the skin, dissolving and dissipating all effete matter which may be obstructing the pores; a copious perspiration is stimulated by its genial warmth, and the skin is relieved of a load of impurities and performs its functions as an excretory and absorbing organ more effectually after this bath. Hence, in many disorders it is a powerful agent in arousing the vital energy of the body and enabling it to throw off disease. It has one great advantage—it can be taken in half the time of the Turkish bath; this is important in a busy commercial city. It frequently occurs that patients gain weight while taking two or three vapour baths a week.

Steam has a very healing effect on bruises; the steam jet or douche applied locally has a better effect on sprains and sciatica than a douche of water, and yet many people go from this neighbourhood all the way to Bath in the South of England for the hot douche, when they would derive more benefit from a steam douche at home.

THE WET SHEET PACK.

If Priessnitz, the founder of the water cure, had done nothing else, the introduction of the wet sheet pack to the healing art—which is a real godsend for all kinds of fevers—would have immortalised him.

It allays irritation and feverish excitement considerably; it will reduce the pulse from ninety to seventy beats in a few minutes; it abstracts morbid matter suspended in the blood and fluids of the body. It is a safe sedative in all cases of fever, and certain in its action. If the effects of this bath and the proper mode of applying it were more generally known, fewer cases of scarlatina and other feverish complaints would terminate fatally.

THE HALF SHEET PACK

is used instead of the full pack when the patient has been much reduced and the vital or re-active power is low, in which case only the trunk of the body is enveloped by the sheet.

It is scarcely necessary to say that after this bath, as after all the sweating processes, a bath of some other kind, either the rain, shower, shallow, sponge, or douche, is usually administered, and cold water is generally but not always employed.

THE VAPOUR AND PACK.

This compound bath is both stimulant and sedative; it is used for patients whose vitality is low. Their re-active power is aroused and increased by

the vapour, and they are thus fortified for the momentary chill of the cold wet sheet pack; hence they are enabled to gain the full benefit of the pack without any risk of its being too strong, or their re-active power not being equal to the occasion. This bath is especially good in affections of the liver.

THE WET BANDAGE OR COMPRESS.

It is to be regretted that the efficacy of this most simple application is not better known and appreciated. There are few ailments or casualties in which it cannot be applied with advantage, and it will often afford instantaneous relief. Its timely application will often save a world of trouble, suffering, and expense. It is the best possible *poultice*—a local application of the wet sheet pack. It assists digestion, quickens the action of the liver, and relieves the bowels. A broad compress on the stomach will produce all these effects, but when specially intended to act on the bowels, it should be placed directly on the abdomen. Two or three applications, on successive nights, will generally suffice to create a healthy action, without any risk of a return of constipation, the invariable and natural consequence of the administration of purgatives. If mothers were but aware of the soothing power of a piece of wet rag, they might avoid many sleepless nights both for themselves and their offspring. The skin of infants and children being tender, is keenly susceptible to the influence of water treatment. The easiest

to manage to the uninitiated is a piece of cloth (for an adult) at least seven feet long and ten or twelve inches broad, with strings attached at one end, long enough to go round the body; wet as much of it as will reach across from hip to hip, and immediately over the wet portion place a piece of waterproof fabric, about one foot nine inches long and the full width. If it be intended to apply to the back at the same time, then wet as much as will go entirely round the body. Wring the water well out and wrap it round the body, keeping it as straight and even as possible, just tight enough to feel comfortable without being oppressive.

Some delicate children object to the compress when wrung out of very cold water. There is no special gain in the water being quite cold. The temperature may be raised ten or fifteen degrees with advantage. The bandage is equally effective, and the first shock lessened.

For sprains or a wrench of the muscles there is no local application equal to the wet compress. Veterinary surgeons and those who have the care of horses know the value and make good use of the wet compress.

THE TEPID, WARM, AND HOT BATHS.

The tepid and warm baths are very soothing, and, to some extent, lower the pulse; while the hot bath is a stimulant, having a contrary effect by causing perspiration, which, however, is weakening if continued too long. The cold application which usually

follows is not so grateful after the hot water as it is after the Turkish or vapour baths. In hot weather the tepid bath from ninety to ninety-four degrees is very refreshing, especially at night, after perspiring much during the day, and will generally ensure sound sleep; while a hot bath would have precisely the opposite effect.

It will be observed that all the foregoing baths quicken the exhalation of effete matter from the body through the pores of the skin; they cleanse and purify not merely the surface of the body, but the whole twenty-eight miles of perspiratory tubing. They are especially suitable for restoring the healthy action of the skin, removing obstruction, and thus alleviating, if they do not cure colds, lumbago, acute and chronic rheumatism, congestion, and inflammation.

SULPHUR BATHS.

The sulphur baths are of great value, and they are very efficacious in various cutaneous affections. The sulphur baths are indispensable for certain diseases of the skin.

TONIC BATHS, &c.

THE following baths are all tonic, stimulant, and dispersive, and the daily use of some one of them will promote sound health, and make anyone less liable to colds and the ordinary ailments which afflict mankind. They may be taken with advantage in all cases of debility, nervous or otherwise.

THE DOUCHE BATH

is formed of a single jet of cold water falling from a pipe of one or two inches in diameter. It is a strong tonic and stimulant, and is perhaps the least used of any hydropathic appliance. From its great power, in unskilful hands it becomes dangerous.

THE SPINAL DOUCHE

is a powerful jet of water passing through a flexible tube at a convenient height to admit of its being directly projected on the spine; it is useful in treating spinal weakness, muscular contraction, weak joints, sprained ankles, &c., &c.

THE LOUNGE OR SHALLOW BATH

is perhaps more generally used by people in health, and also by those who are under hydropathic treatment, than any other, as it can be modified to suit

almost any case. When given to those under treatment, the bath attendant rubs the patient vigorously while in the bath, and afterwards with a rough towel or sheet to ensure good reaction.

THE DRIPPING SHEET.

As the douche is one of the most powerful tonic baths, so the dripping sheet is one of the mildest and, therefore, most useful. It is an invaluable bath with which to commence treatment. In cases of general weakness, and of excessive dryness of the skin (when it has lost its vitality) this bath gives tone to the body and tends to restore the healthy action of the skin. When a patient is "below par"—has been "run down"—he will, by taking this bath daily, gain weight.

HOT AND COLD DRIPPING SHEET.

This bath is especially suitable when the skin is inactive and bloodless, as it may be thus excited when other means are not available. The water ought to be one hundred and twenty-six degrees, in which the sheet must be immersed. The cold sheet should follow the hot one quickly.

THE CAN OR PAIL-DOUCHE

consists of from two to four pails of water. The first pailful to be dashed on the front of the bather, and the second on the back, and two more repeated in the same manner. Before taking the cans, apply cold water to the head and chest.

THE SHOWER BATH.

This is a very useful and valuable bath if properly taken. Before pulling the cord, elevate the head so that the water may descend on the face and forehead in the first instance; then incline the head forward so that the water may fall exclusively on the shoulders and back, and as slightly as possible on the back of the head. After this a brisk rub should follow, then precipitate more water on the chest and stomach. If this method be adopted, this bath will lose all its terrors, and be rendered enjoyable.

THE RAIN BATH.

This bath, of modern invention, is now very generally used in hydropathic treatment with the Turkish and Russian baths. A combination of pipes and taps is attached to it, so that hot water gradually diminishing to intensely cold can be applied at pleasure, whilst the quantity can be regulated with the greatest nicety. It is highly electric, and is invaluable in nervous affections, debility, sciatica, neuralgia, paralysis, spinal weakness, and hysteria.

THE SPONGE BATH

can be taken either in a hip or sitz bath, in a shallow tub, or in any vessel large enough to stand in and receive the falling water. This form of bath is largely employed by the humbler classes, many of whom use a coarse towel or a piece of thick porous cloth in place of the sponge. It is invigorating, and its daily use raises the tone of both body and mind.

SUGGESTIONS FOR TAKING BATHS.

NEVER take a bath immediately after a meal. Before taking a Turkish bath, many people take a glass of spirits as a sort of safeguard; this is a mistake. The bath is a pure stimulant in itself.

Reading and discussion should be avoided in the Turkish bath; the brain ought to be at rest, and the skin, in cricketers' phrase, have an "innings."

Anyone with a dry hard skin will do well to avoid the Turkish bath. In such cases, the skin requires softening, and the moisture of either the Russian bath, or the ordinary vapour bath, or the vapour and pack will be found of great service.

For rheumatism, lumbago, coughs, colds, or influenza take the Turkish, Russian, or vapour bath, the wet sheet pack, or the vapour and pack, or the hot fomentation and pack.

For general debility, languor, &c., take the dripping sheet, shallow, shower, rain, or douche bath, with vigorous rubbing.

For nervous irritation and debility, caused by excessive drinking or smoking, take a course of full hydropathic treatment.

FOR PRESERVING HEALTH

an occasional sweating (the vapour, Russian, or Turkish) may be taken, and the preference given to either as may best suit the constitution. This

effectually relieves the system of a load of impurities, and thoroughly cleanses the 7,000,000 pores of the skin and assists it in its excretory action.

Those who are in health may with advantage take various kinds of cold baths daily, such as the shallow, the shower, the dripping sheet, the rain, plunge, or sponge bath.

Early in the morning or at eleven o'clock in the forenoon are the best possible times.

The cold bath should be taken when the body is comfortably warm, *never when it is chilled.*

Never take a cold bath without first cooling the head and chest with water, so as to prevent congestion of the brain and lungs.

After all cold baths, especially in cold weather, it is best to dry the body with a *rough sheet*, as it at once excludes the cold air, and ensures a quick reaction.

A brisk walk of fifteen or twenty minutes should follow each cold bath. When the weather does not admit of this, some indoor exercise must be substituted.

Those who are not equal to the cold bath will find their health improved by a daily bath, the temperature being raised sufficiently to make it agreeable, being careful not to make it too warm; brisk friction after the bath always helps the reaction.

Appendix.

SOME RECOLLECTIONS OF PUBLIC MEN.

DURING my seventeen months' service with David Ross, referred to in the body of the book, I had a rare opportunity of extending my experience of human nature. Ross, having been mixed up with the Chartist movement, as well as being a lecturer on temperance, was well-known to a large number of professional agitators.

After we had made a fair start with the baths and the money was coming in pretty freely, a number of these men began to visit and hang about the place, like hungry sharks around a boat. Some of them I had heard speak in Keighley, and had in my simplicity thought them great men; but I soon discovered that, so far from being anything of the kind, they were very little, frail creatures, with a strong aversion to honest labour and a great liking for strong drink and tobacco. In their case, though it is not always so, smoking was an excuse for idleness. They were professional agitators, ready to mount the stump at a few minutes' notice and expatiate on the grievances of the working classes and the tyranny of their employers. The question of capital and labour as it is now before the public would

have been quite a godsend to these men. They, however, knew their own littleness, for whenever a man such as Thomas Cooper appeared amongst them they were exceedingly respectful, and would say, "Ah! he is a clever fellow," or "He is a fine fellow." But some of the Chartist leaders who had sprung from the ranks were men of sterling worth, and they did good service. They had great influence with the working classes in recommending them to keep off drink and acquire frugal habits. Abraham Sharpe, of Bradford, was one of those worthies; most of them have passed away, but Abraham is still living and is comfortable, out of the fear of want in his old age, under the safe protection of Angus Holden, Esq., M.P.

There is only one of those veterans left in Manchester, W. H. Chadwick, who still rejoices in the name of "old Chartist." Chadwick was imprisoned in his youth for expressing too strongly his political opinions. He was a born orator, and he can still carry an audience with him. Through life he has been a staunch teetotaller; he has never wavered in his Radicalism, and is even now still ready and able to plunge into a political fight for the good old cause. The late Tory Government put Chadwick's old friend, Thomas Cooper, a few months before he died, on the civil list, and it seems to me that Chadwick's services, as a life-long political educator amongst the working classes, only requires to be fairly represented to the present Government to be duly recognised in some form. These men woke up the political life of the people, and they should not be

neglected, it may be left to starve, in their old age. Chadwick's habits are simple and frugal, and his wants are few; and, as he has done some good work in his day, he is, I think, entitled to some reward.

Amongst the visitors to Ross's baths were several literary and learned men. One of the most remarkable, and at one time the most frequent, was David Hughes, a teacher of languages. He was hump-backed, had a large head, and in appearance was the poet Pope over again. To hear him talk was a great treat. His speech was always accurate, stately, and solid; and frivolous, slovenly talk must have been very disagreeable to him. I never lost an opportunity of chatting with him. He was invariably courteous, and showed me great attention. He would explain the contents of any book he happened to have with him, and he seldom came without one, for he frequently remained at the baths all day. This learned, grand, small man passed away in the year 1849.

In contrast with David Hughes was a poor schoolmaster, who attended the baths every Saturday for his day's food. He was a very humble man; but one day when he was enlarging on his high profession, one of those worthless orators before referred to fairly disconcerted him by saying "Oh, you teach boys; I teach men."

MR. DAVID CHADWICK.

At that time the vegetarians were numerous in Salford, the late Joseph Brotherton being their leader and preacher. Many of them came to the baths, and

amongst these Salford visitors was David Chadwick, who was then borough treasurer for Salford, and afterwards M.P. for Macclesfield. At that period of his life he was a smart man, who impressed you very much, and of whom you felt sure of hearing again. Not long ago he called upon me, and I was pleased to find that he was still the genial sympathetic David Chadwick of former days.

SIR WILFRID LAWSON, BART.

Sir Wilfrid Lawson (father of the present Sir Wilfrid) came to Manchester in 1849 with a son who was in a weak state of health, for the purpose of enabling him to take a course of baths. Sir Wilfrid himself took several vapour baths, and I well recollect that he was very gentle and nice in manners, entirely unassuming, an excellent specimen, indeed, of a fine old English gentleman.

MR. RICHARD OASTLER AND FACTORY LEGISLATION.

The first really great man it was my privilege to give a bath to was Richard Oastler, grand old "King Dick," as he was affectionately named in Yorkshire. He was a man of the Cromwellian mould, a born leader of men, and there was power stamped on every lineament of his face, somewhat softened and subdued, however, by his deep religious convictions.

Mr. Oastler had taken an active part in the agitation for the abolition of slavery in the West Indies, thus affording him training that enabled him to take the lead in the agitation for the Ten Hours

Factory Act. In 1830 he was on a visit to Mr. John Wood, of blessed memory, the senior partner in the firm of Wood and Walker, large manufacturers in Bradford, Yorkshire. At that time Mr. Wood was much disturbed in his mind on account of the hardships of the overworked factory children, of tender age, in their own factories. They were, however, the most humane employers in the district. But Mr. Wood wanted something to be done for these children, and he solemnly entreated Mr. Oastler to take the lead in the agitation for the Ten Hours Bill. Mr. Oastler made the desired promise, in Mr. Wood's bedroom at five o'clock in the morning, before the open Bible. That promise was kept, and Mr. Wood found most of the necessary sinews of war to carry on the agitation. Mr. Oastler had a relative in the neighbourhood of Manchester, whom he visited annually, and, as he was a rheumatic subject, he took the opportunity of taking some vapour baths. Having first heard his name when a small boy in the factory, and always thinking of him with something approaching reverence, to give him some baths was a pleasure that I had never dreamt of.

One evening, when staying with his relative at Bowdon, Richard Cobden, who was also on a visit to a friend near by, called upon him to pay his respects and to say how glad he was that the Ten Hours Bill had been passed and that it had worked so well. This pleased the old king immensely, and he called to tell me about it next morning. He was quite elated by the circumstance, and passed a high

eulogium on Cobden. The Ten Hours Bill passed into law in 1847, and the Yorkshire people have honoured themselves by erecting, near the Midland Station, Bradford, a fine statue to Oastler, who is represented in the attitude of addressing a meeting, with two factory children, a boy and a girl, clinging to him for protection. The design was suggested by a working man, Joseph Firth, of Keighley, an old friend of mine, who was on the committee for collecting the funds for the statue.

I recollect the "old king" and the late Busfield Farrand having a little fun at Firth's expense, in a meeting in Keighley. While Firth was addressing the meeting they slipped two or three oranges into his outside coat pocket, one opening the pocket while the other popped them in. A portion of the audience could see what was going on and were greatly amused. Firth on his part was happy, for he thought his speech was having a good effect. When, however, he sat down and found his pockets full of oranges, he could but join in the hearty laughter which followed.

Mr. Oastler died at Harrogate, and was buried at Kirkstall Church, near Leeds. His Yorkshire admirers mustered in large force at the funeral to pay the last tribute of respect to him. Lancashire was poorly represented, there being only twelve from Manchester, ten of whom represented the short time committee and factory workers. Myself and another went out of personal respect to the "old king."

I think it speaks well for human nature that the beneficent factory legislation now in force has been

brought about chiefly by the manufacturers themselves.

In 1802 the first Sir Robert Peel passed the first Factory Act. In 1815 he brought in another bill for the better regulation of factories, and was prepared to embody ten working hours in the bill. He failed to pass that bill, but in 1816 he appointed a Royal Commission to enquire into the condition of factory workers, &c. In 1819 he passed another bill restricting the hours, &c.

In 1815 Robert Owen, of Lanark Mills, Scotland, proposed to the spinners and merchants of Scotland, assembled at Glasgow, that they should solicit the Government to repeal fourpence and a fraction per pound tax on cotton; enact a Ten Hours Bill, and insist on all the factory children attending school to be taught the three R's, and that an educational test should be applied to each child before being allowed to work in any factory. Robert Owen was the author of the Ten Hours Bill, and the first Sir Robert Peel, also a large owner of factories, heartily approved of it. Robert Owen was afterwards known for his theory of universal brotherhood, and his failure to carry it out at Harmony Hall, Hampshire. The grand building which he erected for the residence of the brotherhood and sisterhood now has formed for the last forty years Queenswood College, a valuable educational institution.

MR. JOSEPH LIVESEY.

Joseph Livesey, of Preston, father and founder of the present teetotal societies in England, was one of

the "1842 converts" to hydropathy. In early life he had had several attacks of rheumatic fever. When young, as a hand-loom weaver, he worked in a room so damp that in some parts of the year the water slowly ran down the walls near to him. In this way he contracted chronic rheumatism. But despite this rheumatic affliction, by paying attention to the laws of health, and by the judicious use of baths, he got through an immense amount of good work. He created and made a large business for himself, and few men have worked harder for the public good. He made a fortune in his own business; he took the lead in the temperance movement; established a newspaper, the *Preston Guardian*, which became a valuable property; and he took an active and important part in the agitation for the repeal of the Corn Laws. He was a quiet, unassuming, active, energetic, patriotic man, who never spared himself when working for the good of others.

After I began business he never came to Manchester without taking a bath, either a vapour and wet sheet pack, or a vapour and shower. In summer weather he would take a wet sheet pack without the vapour.

When the late John Smedley, of mustard-and-chili-paste craze, printed what he called *Smedley's Hydropathy*, Mr. Livesey came for a bath one day with this book in his hand. He said to me, "Have you seen this?" I answered, "Yes." He then said, "I am asked to review it in the *Preston Guardian*, but shall not. I should only offend him.

He has made a mistake in naming the book; instead of *Smedley's Practical Hydropathy*, it ought to have been *Smedley's Medley Book*."

THE "MANCHESTER SCHOOL" OF POLITICIANS.

When I commenced business, in 1850, progressive political life was very vigorous in Manchester. The Corn Laws had then been repealed four years, and the country, and especially Lancashire and Yorkshire, were reaping the full benefit of free and increased trade and remission of taxes. The Manchester school of politicians, with Richard Cobden at their head, and with John Bright developed into a modern Demosthenes, was in full force, and were making their power felt, to the extent even of changing the foreign policy of the Government. Their watchwords were—reform, retrenchment, and non-intervention.

Most, if not all, the active spirits of the Manchester school have passed away; but their policy still lives. A mighty conquest was theirs, when they succeeded in laying that terrible old ghost, the "balance of power," which had been made sponsor for many foolish and wicked wars.

Richard Cobden was the commander-in-chief of this school. John Bright and W. J. Fox were the great orators. The Rev. Dr. McKerrow was chaplain-general, ever ready to pronounce a blessing on their labours. George Wilson was captain of the ship, and he had a true compass to steer by. S. P. Robinson was the honorary secretary, and the ship was manned by some sterling men, such as

Archibald Prentice, Dr. John Watts, Alexander Ireland, Alderman Abel Heywood, and Jacob Bright. Only the last three named are still living.

As most of these men have made free use of baths, I have come in frequent contact with them. Archibald Prentice was the editor of the *Manchester Times*. He wrote the *History of the Anti-Corn League*, also *Recollections of Manchester from* 1792 *to* 1832. It is amusing to recall how that when Prentice sat at any time in a vapour box, with only his head out, he would rattle away on politics all the time.

MR. GEORGE WILSON.

George Wilson was a genial, good-hearted man. In bathing he confined himself to the vapour and shower bath. After his bath he would sit down and have half an hour's chat. He was fond of going over some of the events in the agitation for the repeal of the Corn Laws. For many years he was chairman of the Lancashire and Yorkshire Railway Company. On one occasion he told me of a scheme he was thinking of for bridging over the Irk, and bringing Victoria Station close to Corporation Street, with the entrance and various platforms from Corporation Street; but the London and North-Western Railway Company would not work with the Lancashire and Yorkshire Railway Company, and the scheme fell through; now, in consequence of that scheme not being carried out, Victoria Station, Manchester, is one of the most inconvenient and complicated stations in the world.

MR. S. P. ROBINSON.

S. P. Robinson was a fine, well-built, handsome man, in his later days a fine old English gentleman, with abundance of silvery hair on his noble-looking, erect, and well-poised head. He was honorary secretary to the Anti-Corn Law League, also to the Free Trade Hall Company, up to the day of his death. He was a man of strict honour and integrity, but a man altogether of harder grit than George Wilson; but they thoroughly understood each other, and were always good friends. Mr. Robinson frequently took the Turkish bath, but he often, besides, called for a half hour's friendly chat with me. In his later days, his circumstances being easy, he kept his eye on a few old friends who were not so well circumstanced as himself. George Wilson's funeral was a public one, many thousands of mourners and sympathisers attended it. S. P. Robinson's was a quiet one.

MR. ALEXANDER IRELAND.

Alexander Ireland is hale, strong, hearty, and mentally active at over eighty-two years of age. His life has been one of constant industry, and he is still busy with the pen. He was the skilful and successful manager of the *Manchester Examiner and Times*, which, from the time of its first establishment, became a powerful political organ and valuable property, remaining so up to the time of his resigning its management. Few men have had such

an extensive literary acquaintance as Mr. Ireland; among those he knew were Thomas Carlyle, Emerson, George Combe, and W. and R. Chambers. I gave Mr. Ireland some baths as far back as 1850, and he has frequently spent his holidays at a hydropathic establishment. He drops in for a bath now and again at the present day.

MR. ALDERMAN ABEL HEYWOOD.

Alderman Abel Heywood, who has been twice Mayor of Manchester, is the father of County Court Judge Heywood, as well as the father of the Manchester Corporation. For work Mr. Heywood has been a wonder. He has built up a large business of his own, and there is no other member of the Corporation who has done half so much as himself for the city. Many years ago I made some remarks to a rather free-living alderman about Mr. Heywood's capacity for work. In answer to which he said, "Ah! he takes nothing." He meant that he did not drink nor gormandise. That alderman was Heywood's junior by many, many years; but his free-living several years ago passed him over to the majority. Mr. Heywood is rather tall, but thin and spare. He was one of the early converts to hydropathy, and has practised it more or less all along, though over eighty-two, and his pulse was recently found to be firm and strong, like that of a farm labourer.

MR. JOHN BRIGHT.

John Bright was a frequent bather, and our firm heated a private Turkish bath for him at One Ash, Rochdale. Soon after patenting the convoluted stove, he came to these baths occasionally, for he liked a good shampooing. Unfortunately, in early life, he had not, like Lord Palmerston, Mr. Gladstone, and Mr. Holden, acquired the habit of taking daily, active walking exercise in the open air. Had he done this it might have prevented him getting stout. It is hard on a man to have to carry both accumulated years and accumulated weight; the machine comes to a standstill that much sooner. When he was staying at Llandudno, which place he was very fond of, he went daily to the hydropathic, Neville Crescent, for a Turkish bath. Immediately after the bath he went to the billiard room, and would play two games in the way of exercise. I have myself played many a pleasant game with him. But such exercise is a poor substitute for a brisk walk in the open air, which would expand the chest, arouse the circulation, and quicken the exhalation from the skin. The last time I met him at Llandudno I walked with him from the hydropathic to the "George," where he was staying. When we arrived there he looked up at his room window, which was lighted up, and then remarked that "A few weeks before George Wilson died he came and spent the evening with me in that room." Many times, after he had taken a bath at my establishment, he has sat down to smoke a cigar and make sly inquiries about old

active political colleagues whom he had lost sight of. He was always delighted to learn that they were in comfortable circumstances; only one of these old friends was in need of help, and he did not forget him.

John Bright carried himself with dignity, but beneath the austere exterior he had a very tender heart; he was, for instance, very fond of children and of pet dogs; the three which he kept were as fond of him. A few years before he died he paid a visit to Mr. Holden, at Oakworth House. He was entertained there in a princely style befitting one of Nature's nobles and the greatest living orator. When leaving the house he thanked Mr. Holden heartily for his hospitality, and congratulated him on the possession of his splendid winter gardens, and the grand house and all its appointments. "But," said he, "you will excuse me, Mr. Holden, I notice there is one thing short." Mr. Holden asked what that was; to which Mr. Bright answered, "Why, there is no dog in the house."

IS VEGETARIANISM STARVATION?

IN the *Manchester City News* of October 22nd (1892) there appeared the following notice of *Fifty Years of the Water Cure*, which gave rise to a lengthy but interesting correspondence on the rather remarkable question, "Is vegetarianism starvation?" selections from which I have thought it well worth while reprinting, containing as they do much information on the subject of diet generally:—

A Pioneer of the Water Cure.

Mr. Joseph Constantine, the introducer of hydropathy into Manchester, and its leading practitioner for now forty-two years, has written a readable book in his *Fifty Years of the Water Cure*. (Pp. 148. Manchester and London, John Heywood.) From a literary point of view it is lacking in method and consecutiveness, and on its scientific side it may possibly not pass muster with "the faculty;" but it is entertaining and full of shrewd suggestions, the result of a long and varied experience. Mr. Constantine was born in the Worth Valley, midway between Keighley and Haworth, the home of the Brontës, in 1823; he had a hard upbringing, going to work in a factory at the age of nine on a wage of a shilling a week, and subsequently, at the age of thirteen, being put to the poor, ill-paid, and unhealthy occupation of wool-combing by hand, an industry which was finally put out of existence about the year 1860 by the mechanical

inventions of Mr. Isaac Holden, the octogenarian M.P. Mr. Constantine thought it was time for him to seek his fortune across the sea, and was on the point of emigrating when the Priessnitz hydropathic system was made known in England by the publishing of Captain Claridge's book, and afterwards the erection of Ben Rhydding. He started baths in Oxford Street in 1850, and there he has since remained.

In this book Mr. Constantine tells something of his earlier days, and a good deal of the system which he has so ardently pursued, and of the benefits which have arisen from it. He practises what he teaches, and is able to quote his own experience as a tribute to its value. "During a working period of not less than sixty years," he says, "I have not lost one day through illness." In addition to descriptions of the several kinds of water application and narratives of the remarkable cures effected in cases which have been given up by medical men, Mr. Constantine has much to say about exercise and diet. Although he is the stern foe of alcoholic liquors and tobacco smoking, he is almost as strongly opposed to what he regards as the errors of the vegetarians. He attributes the sudden death of Joseph Brotherton, M.P., and the comparatively early deaths of James Simpson, of Foxhill Bank, and William Hoyle, of Tottington, both prominent advocates, to their practice of vegetarianism. "William Hoyle," he says, "had no other complaint; he had no disease whatever; he was simply starved to death." He confirms from his own observation the opinion of Dr. de Lacy Evans that "vegetarians enjoy no better health and live no longer than those around them." He adds that "if a vegetarian lives to nearly seventy years there is, in many cases, a tendency to weakness of the brain, mental exhaustion, and sometimes complete mental derangement." Mr. Constantine thinks for himself; his observations bear the impress of shrewdness and common sense; and no one can read his book without bringing away some serviceable hints on the right conduct of daily life.

TO THE EDITOR OF THE "MANCHESTER CITY NEWS."

OCTOBER 29TH.

Sir,—The anniversary meeting of the Vegetarian Society is always interesting to philanthropists, who are anxious to learn methods of feeding people at the smallest expenditure of money and labour. The man who makes two blades of grass grow where one grew before is held in much esteem. Not less deserving of praise is the man who makes the discovery that one blade can be made to answer the purpose of two. Our friends the vegetarians, in another direction, cry Eureka!—they have made the discovery. In adopting the vegetarian system of diet they not only claim credit on the score of humanity, but that the system is not only more economical than beef eating, but more nourishing and nutritious. This statement has received much adverse criticism from eminent chemists and physiologists; for the most part general, but not always without individual application. Now, however, we have a plain and direct accusation of the system as the cause of the premature deaths of three important and useful public men. Mr. Joseph Constantine, in his new book, *Fifty Years of the Water Cure*, "attributes the sudden death of Joseph Brotherton, M.P., and the comparatively early deaths of James Simpson, of Foxhill Bank, and William Hoyle, of Tottington, both prominent advocates, to the practice ef vegetarianism." Mr. Constantine says further (I quote from your notice of the book, not having a copy to refer to), "William Hoyle had no other complaint; he had no disease whatever, he was simply starved to death." It is true the author of this opinion is not a professional man—neither chemist, physician, nor physiologist. On this account the vegetarians will discount the statement. And yet it may contain much truth.

One fact which came to my knowledge strongly supports Mr. Constantine's opinion. James Simpson was in London when his last illness occurred. He was too, I believe,

lecturing upon vegetarianism. He had with him, as secretary, Mr. Betteney, who for many years was the secretary of the Manchester Omnibus Company. On the occurrence of his illness three eminent medical men were consulted, without the knowledge of each other, and each gave the same opinion—that Mr. Simpson had been inadequately fed, that physic was not wanted, but that beef tea was. Of course, with the prejudice entertained against beef in any form, beef tea was not taken. This statement was made to myself by Mr. Betteney, who was with Mr. Simpson at the time of his illness in London. Not long afterwards Mr. Simpson died. This fact goes far to sustain Mr. Constantine's bold but very probable assertion.

JOSEPH JOHNSON.

Douglas, Isle of Man.

NOVEMBER 5TH.

Sir,—In last Saturday's issue you print a letter from Mr. Joseph Johnson, and the previous week you had a notice of Mr. Constantine's book, both conceived in a spirit of hostility to vegetarianism. The book notice, appearing just before our annual meeting, I took as a challenge and gave an answer to it at the meeting, but it did not get into the papers—not even in yours, where the attack appeared. In my reply I gave Mr. Johnson credit for the notice, and if my conjecture was right, his signed letter is intended to confirm himself. I also gave him credit for two paragraphs which have had considerable circulation, that I trust yielded him some profit. His efforts to create prejudice against us have no doubt had a certain success, seeing that his task was so easy. His method also was well calculated to succeed, being the use of half truths; and what matters it to him if thereby some people's private affairs are intruded on and their feelings are hurt.

It was alleged that Mr. Brotherton's life was shortened by his vegetarian practice. Mr. Brotherton died about twenty-five years ago of heart disease, aged seventy-three.

Are we to learn, after all this time, that this is a genuine discovery? No doubt when I die somebody who knows less than nothing will say the same of me, although half a dozen younger brothers and sisters, not vegetarians, have been allowed to die before me unquestioned. No doubt such an allegation seems to Joseph Johnson's "like proof of Holy Writ." Mr. Simpson, who, at his best, was described, as I remember, as "a reed shaken with the wind" (by Mr. Johnson), is also made an example because he refused beef tea in his last illness. All vegetarians unhappily are not so firm when sick unto death. They take beef tea under pressure and die all the same. I could give instances, as also where they have refused it, though told it was a matter of life and death, and yet have recovered. Can these things be confirmed by evidence of a dead man? Mr. Betteney will be supposed by your readers to have confirmed Mr. Johnson's inference (there needs no witness of the facts); yet Mr. Betteney continued his vegetarianism a long while after, and changed on quite other grounds, whereby, though (alas!) he has not escaped death, he has escaped being published as a victim.

Mr. Simpson and Mr. Hoyle were capable men, and knew about themselves more than Mr. Johnson or Mr. Constantine, and yet in their judgments there were other sufficient causes for their breakdown. If I refrain from giving details it is from disgust at such post-mortems on my friends.

JAMES CLARK.

Salford.

[The insinuation or assertion that Mr. Johnson wrote the review of Mr. Constantine's book, and then followed it with a letter to "confirm himself," is unworthy of Mr. Clark. Mr. Johnson is not on the staff of this paper, and whatever he writes for it is invariably signed. He states in his letter that he "has not a copy of the book (Mr. Constantine's) to refer to," and that he founded his remarks upon our notice and quotation from it.

EDITOR.]

NOVEMBER 12TH.

Sir,—The Rev. James Clark, in his letter in the *City News* of Saturday last, shows temper. He is angry with Mr. Joseph Johnson and myself, and he hits out wildly. He is wrathful because we have expressed our belief that the diet of the vegetarians as practised in this country is inferior to the mixed diet; that it is liable to and often does derange the organs of digestion, weakens the nervous system, and shortens life.

This exhibition of temper reminds me of a rather innocent joke which sadly disturbed the equanimity of the late Robert Milner, who was a strong vegetarian and an active member of the Brotherton Church. Mr. Milner was a director of the Mechanics' Institute. The directors arranged a picnic to Alton Towers. When there and while at lunch some one shouted to Mr. Hutchings, the secretary, "Where is Milner?" Mr. Hutchings replied, "Round the corner pitching into a vegetarian sandwich." "A vegetarian sandwich, what's that?" Mr. Hutchings answered, "Two pieces of bread with a cabbage leaf between them." At this little joke all laughed heartily, except Milner. He lost his temper; it spoiled his pleasure for the day. Mr. Milner had been reared in the country, and was a fine well-formed man. He was strong when he joined the vegetarians, but with the vegetarian diet he became the weakest man of such a stature in the vital parts I have ever met with. A firm he had done business with got into difficulties, and suspended payment. He was a creditor to the amount of four or five thousand pounds, and his supposed loss affected him so much that he went to bed, though at the time in his usual health, and died, it was said, heart-broken, at an age when he ought to have been in his prime. The account was afterwards paid in full with five per cent interest. Is a system of diet which produces such nervous weakness as it did in this case to be held up and recommended to the people as superior to the one from which it differs?

If the Rev. James Clark prefers to shut his eyes and not to see the evidences which are constantly before him of injured health by the vegetarian diet, he ought not to be angry because others see them and speak of them. For more than forty years I have had special opportunities of observing the effect of the vegetarian diet on people of various ages and conditions of life. My views and conclusion, therefore, have not been hastily formed. The diet is too soft and starchy. The stomach cannot be kept healthy without good mastication. If the stomach once loses its power to digest food by being supplied with too much soft spoon food, everything else goes wrong.

The late William Hoyle's case is a typical, but not by any means a solitary, one. About twelve months before he died I recommended him to go to the Hydropathic at Llandudno, and consult Dr. Thomas, in the hope that Dr. Thomas would persuade him to change his diet. Dr. Thomas, who, in early life, had practised vegetarianism for several years and was obliged to give it up, tried his utmost to prevail upon Mr. Hoyle to make a change. The doctor had a strong opinion that at that time it was possible to save him; under the circumstance he did the best he could for him. Mr. Hoyle gained weight while there at the rate of one pound per week. When he returned to Manchester he said to me that Dr. Thomas had a great deal to learn on the subject of diet.

While the vegetarians have had some influence in checking the too free use of animal food, it is possible that on the whole and generally they have done more harm than good. They are not guided by any well-defined and definite principle. They forbid flesh food and stop there. They leave people of declining years to grope in the dark, to help themselves to such food as is given to growing youths who are forming bone. Large numbers of people of advanced years go to the vegetarian restaurant for oatmeal porridge under the mistaken notion that they are taking food light to digest.

With such diet they get the digestive organs thoroughly deranged. It ought to be the first duty of any society claiming to be dietetic reformers to publish a list of foods best suited for the various periods of life.

JOSEPH CONSTANTINE.

Sir,—One advantage of vegetarianism, so its adopters intimate, is placidity and evenness of temper. The proof of the pudding—the vegetarian pudding—is in the eating. Here is a prominent exponent of the system who meets with a little opposition, and straightway the Rev. James Clark gets into a rage in a most unseemly fashion. Are not we, the flesh eaters, justified in asking the Veges, "What are ye more than others?" But why should Mr. Clark have got so excited?" My letter in the *City News* was deserving of thanks, as it gave members of the Vegetarian Society an opportunity of discussing and rebutting Mr. Constantine's statement that the deaths of three eminent vegetarians were occasioned by their practice of vegetarianism. I thought in my innocence that I was adding to information on the subject by contributing a fact—one of those stubborn things that "winna gang"—a fact, by the way, which remains undisturbed, that three eminent medical men in London declared that James Simpson had been inadequately fed, and what he wanted was beef tea. Surely that fact is an important factor in the question. I don't create the fact; I simply cite the fact. But why am I held up for condemnation at the vegetarian annual meeting, and credited with doing something which I did not do—with writing "two paragraphs that have had a considerable circulation;" and being credited with writing the notice of Mr. Constantine's book in the *City News?* As to the paragraphs I certainly never saw them; as to the notice you, Mr. Editor, cleared me of the imputation. Quite true; I am rather given to the *cacoethes scribendi;* but then, as you, Mr. Editor, bear witness, I put my name to what I write.

I have written considerably upon the subject of vegetarianism, and possibly created opposition to the system. No doubt this induces Mr. Clark's wrath. By the way, I don't consider myself an "opponent" of the vegetarian system, I prefer the word "exponent" or "examiner." It cannot be said that my opposition is owing to prejudice or want of knowledge or thought. So long ago as 1856 the first number of the *Popular Lecturer*, edited by Mr. Henry Pitman, contained a lecture I delivered in Manchester, entitled, "The Vegetarian Fallacy;" subsequently I published a little brochure entitled, "The Vegetarian Humbug. By a Beef-eater." I also held a public discussion with Mr. Clubb, Mr. Simpson's secretary, in 1851, which was reported in the *Examiner*. It is amusing to look back at this incident. Mr. Clubb was sent to Manchester by Mr. Simpson to work up the cause, chiefly among the teetotallers. He was a pleasant, genial young gentleman. As I was at that time the secretary of the Temperance Advocates' Society I became intimate with Mr. Clubb. Knowing the interest always taken in public discussions, he suggested a friendly discussion on the claims of vegetarianism. He would furnish me with the arguments to be used in opposition, to which he would be prepared with a reply. This induced me to give a little attention to the subject—to read it up and refer to authorities. The result was not a make-believe, but a statement of views honestly held by the disputants. As the result Mr. Clubb did not become an anti-vegetarian, nor did I become a vegetarian. Mr. Clubb subsequently went to America, and edited a paper called the *Ottawa Clarion*. During the Civil War he joined the army of the North, and assisted in freeing the slaves. This little glimpse of personal history will show that I have not ignorantly exercised my right of offering an opinion, and the reasons for the opinion, on the subject of vegetarianism.

Mr. Clark would evidently have it inferred that there was something criminal in my writing "two paragraphs" (which

I did not write), and which he trusts yielded me "some profit." Surely I am as much entitled to write in opposition to vegetarianism as Mr. Clark is so entitled in its defence? As to the "profit" insinuation, if Mr. Clark would have it understood that my opposition is dictated by a money consideration I can only pity him for the suggestion. I may be pardoned for informing Mr. Clark that before he was born, or about the time he wore petticoats, I was spending time and money in furthering the temperance cause. I have delivered temperance lectures and addresses all over the kingdom, but never received a penny for expenses or for my services. When Manchester did not possess a temperance society with an available shilling for propagandism I spent £200 in temperance serials, the last being *The Teetotaller*, published at a halfpenny, bearing date 1851. With this record will Mr. Clark venture to insinuate that I am mean enough to write paragraphs in opposition to vegetarianism for money? Mr. Clark should not forget to be a Christian gentleman.

Anent the germane question. Did the three eminent London doctors declare that Mr. Simpson's illness or prostration was induced by inadequate food to sustain him in health? If they did, then the inference is plain—vegetarianism is not adapted to all constitutions. Mr. Simpson went about the country affirming that animal diet was not needed; in his instance eminent medical men said it was. Why should not the fact be recorded to warn off from the system, which, to say the least, was not conducive to Mr. Simpson's health or longevity? It is to be regretted if any of his relatives or friends are aggrieved by the reference. And yet this is the method of propagandism adopted by the vegetarians. What other method of demonstrating the advantages or disadvantages of the system can there be than individual reference?

Mr. Broadbent's letter, which follows Mr. Clark's, suggests much that might be written upon the subject, but your space, Mr. Editor, forbids. I am afraid you are already voting the

correspondence a bore, and wish the writers would dine upon what they liked and say nothing about it. One matter in Mr. Broadbent's letter needs to be noticed. He would have it understood that I endorse the belief that Mr. Brotherton, Mr. Simpson, and Mr. Hoyle's deaths were hastened through the practice of vegetarianism. No word of such a statement appears in my letter. I should require proof and knowledge before offering such an opinion. I discount Mr. Constantine's opinion in my letter in so many words—that he is neither "chemist, physician, nor physiologist." Evidently I deem knowledge of this nature necessary to form an opinion of any value. The opinions of the London physicians, because they have the requisite knowledge, is of value. Mr. Broadbent is doubtless earnest in his belief and practice; he would do well, however, before he attempts to answer a letter, to read it. JOSEPH JOHNSON.

Douglas, Isle of Man.

Sir,—I remember the death of Mr. James (not Joseph) Simpson, of Foxhill Bank, very well indeed. I wrote a biography of him—the first, I believe, I ever wrote—for the *Blackburn Weekly Times*. In order to get the necessary facts about him, I hunted up everybody of any note who was likely to know anything of him, amongst others, the late Mr. Thomas Simpson, a cousin, and an extensive colliery proprietor, whom I knew much more intimately through his being a member of the Blackburn Board of Guardians, and several leading teetotallers (I very much doubt if there was a single vegetarian in the whole district), and the opinion invariably expressed to me was that had not Mr. James Simpson been so rigid a vegetarian, his life might have been prolonged for many years. I can vouch for it that Mr. Thomas Simpson was very strongly of that opinion. Is it at all strange that I should also form that opinion and still adhere to it? Mr. James Simpson was of a weakly and delicate constitution; at his best, physically speaking, but a poor

specimen of humanity, and I fear that his appearance, however powerful might be his eloquence—and he was an able and accomplished speaker—was very much against his winning many converts to the side of vegetarianism. He was too much of "a striking example" for that. Indeed his advocacy of vegetarianism partook largely of a Quixotic enterprise. He died from consumption, if my memory serves me, in July, 1858, at the comparatively early age of forty-five years. NICHOLAS CHADWICK.

289, Waterloo Road, Hightown.

NOVEMBER 19TH.

Sir,—It appears my conjecture about the writer of the notice in your paper, and of certain paragraphs relating to vegetarianism was erroneous. Deceived by the anonymous character of these productions, and believing I had penetrated the veil and discovered malice, I used the cudgel and laid on soudly. Woe is me! I hit the wrong sconce, and what can I now do but express my deep regret to Mr. Johnson, and hope he will be none the worse for the misadventure? His indignation at being supposed to have written the stories that produced "a little profit" I hope will not be lost on the actual writer if he should read this correspondence. All Mr. J. says about his own disinterestedness is full of interest, and gives me the chance of telling him that his old friend and mine, Mr. Clubb, is now my brother minister in Philadelphia, and editor of an excellent vegetarian monthly, *Food, Home, and Garden,* a copy of which I will send for his perusal.

It is hardly possible that Mr. Johnson should have been engaged in temperance work before I was born (1830), but that was a harmless flourish.

Any mind of ordinary delicacy will understand that some reserve should be exercised in public writings concerning family affairs. That reserve I do not intend to break through. Suffice to say Messrs. Simpson and Hoyle were

probably more competent than their critics to know the cause of their illness and to judge, with helpful advice, what they needed. Mr. Simpson was a specialist in diet, and though he was neither vain nor boastful, I have heard him tell how physicians were glad to have his advice on the subject. No doubt "beef tea" has been believed in as confidently as Dr. Sangrado believed in bleeding and hot water, and in the same fanatical spirit. To-day one of your correspondents questions its value and suggests a rival preparation. Hundreds of others, not vegetarians, disbelieve its saving virtues. If Mr. S. declined it, as he did, because he was taking in its place food more nutritious, is he to be blamed because certain doctors pressed their ideas upon him? I hold not.

One of your correspondents mentions Mr. Thomas Simpson's opinion, but he can hardly think any special importance attaches to that. I knew Mr. Simpson and those who were about him in his last illness, one of whom reported his words to this effect: "Let there be no mistake as to the cause of my illness; my diet has nothing to do with it. It arises from incessant overwork of the mind." Those who knew him could accept his testimony. Would there were many living like him, so truthful, so pure, and so self-sacrificing. If anyone regards him as a martyr I do, but it was in the cause of philanthropy and religion.

JAMES CLARK.

Sir,—I would not again venture to occupy space in your columns, were it not for a desire to impart a little information in reply to two of your correspondents, whose letters appeared in your last issue. "Sarcophagus" (what a singular signature!) asks will vegetarians forego boots, shoes, gloves, and other garments? One cannot say what they *will* do; I only know what one of them did. My friend Clubb did his best to be consistent with his adopted principle in the diet business. He discovered a firm in London making boots and shoes of

a manufactured material in which leather did not enter. Very speedily he discarded his old understandings, and adopted boots made entirely of a vegetable substance. As I have never heard since of anybody owning a pair of these anti-leather boots, I conclude that the invention was a failure.

Mr. Andrew Walker tells your readers that "beef tea has been scientifically proved to be a stimulant and not a nourishment." All right; I didn't say it wasn't. I am not going to dispute that it does not contain "albumen and fibrin;" but let it contain what it may, three of the most eminent London doctors stated that beef tea was needed to restore Mr. James Simpson when prostrated in his last illness. That is the only fact which I "inscribe on my buckler." And yet I have had a little experience anent the effect or action of beef tea. Thirty years ago, my two infant children were, as mothers say, "down" with bronchitis, which the sympathising doctor gently intimated would prove fatal. In the course of reading for the discussion with Mr. Clubb on vegetarianism, I had found among other information in Liebig's *Familiar Letters on Chemistry* that mixed beef tea and port wine had a wonderful restorative effect in almost the last stage of exhaustion. During the night that should have ended the lives of my little prattlers, I gave them every half hour a half teaspoonful of the mixture, beef tea and port wine. Next morning the doctor came to condole with us on the deaths of our children, as he was sure would be the case; he found them playing with their toys!

JOSEPH JOHNSON.

Douglas, Isle of Man.

Sir,—The above question is a suggestive one, and opens up a subject which every man and woman who would make the best possible use of this life should not be satisfied to lightly glance at and then dismiss. Vegetarianism is now in the balance, and there are some awkward facts and experiences being piled in the opposite scale which threaten

to make some of the magnificent assumptions of that creed prove less weighty than they look. The much-vaunted wholemeal bread of vegetarians is being "found out" to be largely a fraud.

Here is a quotation taken from Professor Goodfellow's *Dietetic Value of Bread*, recently published by Macmillan, the author being the lecturer on hygiene and physiology at the Bow and Bromley Institute, and by no means unfriendly to the baking interest. On pages 198-199, we read as follows: "The ingestion of a large quantity of wholemeal bread with other foods increases the percentage of waste in those foods. When an individual lives on milk alone for a considerable period the waste varies from five to nine per cent, according to the digestive powers of the individual. In a subject experimented on by the author, the waste was found to be about eight per cent when milk formed the only food. When ordinary wholemeal bread was given in addition to the milk, the waste in the milk rose to nearly eleven per cent. The same results were obtained with other foods. This increase of waste is probably due to the more frequent evacuations of of the bowels produced by the irritation of the bran particles. Summing up, we may fairly come to the following conclusions concerning ordinary wholemeal bread: (1) It contains more actual waste matter than white bread. (2) It is not so thoroughly digested as white bread. (3) Its ingestion in considerable quantities leads to an increase of waste in other foods. (4) It may cause diarrhœa and irritate the villous coat of the intestines."

Dr. Winckler, of Berlin, also gives his personal testimony in support of the French medical view, that a purely vegetable diet induces a thickening and clogging of the arteries caused by chalky deposits, together with other baneful results; while the still later writings of Dr. Emmett Densmore are conclusively damaging to the contentions of vegetarians. This gentleman was formerly himself an ardent vegetarian, but was compelled by what he saw in a large

practice, in which he made the treatment of indigestion and kindred diseases a speciality, to relinquish the idea that either bread, porridge, and vegetables are truly natural and physiologic human foods. The rather novel and revolutionary doctrine he now holds is that, inasmuch as the cereals, pulses, and all starch containing foods need a secondary intestinal process before they are converted into assimilable food as grape sugar, they are foods which unduly tax the organism, and ought only to be resorted to where man's "natural food" is absolutely unattainable. This natural food, he maintains (and supports by a series of plausible arguments drawn from anatomy, physiology, and impartial medical evidence), is simply fruit and nuts, a diet in which the minimum of starch enters. By fruits he means primarily the sweet southern fruits, in which the starch element of bread is replaced by a naturally-prepared grape sugar, immediately assimilable, satisfying, and sustaining.

Perhaps your space will allow of my quoting from the epitome which appears in the November number of *Natural Food*, the monthly organ of the school which Dr. Densmore has founded, and which runs as follows: "The Natural Food Society is founded in the belief that the food of primeval man consisted of fruit and nuts of sub-tropical climes spontaneously produced; that on these foods man was (and may again become) at least as free from disease as the animals are in a state of nature. Physiologists unite in teaching that these foods are adapted to digestion in the main stomach, where, it is contended by this society, the great bulk of our food should be digested; whereas cereals, pulses, bread, and in fact all starch foods are chiefly digested in the intestines, and hence, it is maintained, are unnatural and disease-inducing foods, and the chief cause of the nervous prostration and broken-down health that abound on all sides. Since nuts and fruits—especially the former—are not always obtainable in right varieties and conditions, and since most people have weakened powers of digestion and assimilation,

and are thus unable properly to digest nuts, and are also obliged to perform more work than is natural or healthful, it is recommended that milk, curd or mild cheese, and eggs be liberally used instead, and as supplemental to the fruit diet. For all those not vegetarians, and also for all with whom milk and eggs do not agree, the usual diet of fish or flesh is recommended instead. These animal products and flesh foods are 'natural' only in the sense that they are suitable for digestion in the first stomach, and are free from the objections made against bread and other cereal and starch foods; and are valuable and necessary as long—and only as long—as men and women, under the exigencies and strain of modern life, are obliged to perform more work than is natural or healthful. We urge that all fruits in their season—including figs, dates, bananas, prunes, raisins, and apples, fresh and dried, each of many varieties—be substituted for bread and other grain foods and starch vegetables; and experience convinces us that this course will be found by a brief experiment highly beneficial, alike to the meat-eater and to the vegetarian. All persons about to experiment with the non-starch food system are urged at first not to use nuts; but to use instead whatever animal food they have been accustomed to. The central feature of this system consists in abstention from bread, cereals, and starchy vegetables, and the liberal use of food-fruits."

I shall be very pleased to forward fuller information in regard to this particular development of the dietetic reform movement to any inquirer who will write to my address for it. The non-starch diet in health and sickness alike will probably be found to solve many of the problems which have presented themselves, not only to food reformers, but to temperance advocates and earnest social reform men of all kinds. A study of its basic principles will certainly throw much light on the question that heads this letter.

W. MITCHELL.

78, Elm Park Road, London, S.W.

November 26th.

Sir,—I must leave the narrower question of whether Messrs. Brotherton, Simpson, and Hoyle starved themselves to those who knew them, and confine myself to the wider one heading this correspondence. It is difficult to argue on a technical and scientific question with those who are unfamiliar with the rudiments. The quotation of authorities is not satisfactory. Those in favour of one side may be matched, perhaps, by others on the contrary side; meanwhile the ordinary reader, to whom one professor or doctor is as good as another, gets hopelessly puzzled.

A great number of people attach most importance to the opinion of their own medical attendant; even though he may know little or nothing of the science of dietetics, and misunderstand vegetarianism. There is nothing surprising in Mr. Hoyle's doctor thinking he was starving himself by being a vegetarian. Such opinions amongst the medical profession were almost universal a score or less number of years ago. To-day they are more guarded in their assertions; some few, even, cautiously recommend the system. I say cautiously, because they have to pay attention to the prejudices of their flesh and wine-loving patients, and not risk loss of practice. Vegetarians naturally hear less in opposition to, and more in favour of, their system of diet, from the medical men they meet with than do others. Not very long ago, alcoholic stimulants were considered a necessity. A little more than half a century since, Mr. Robert Warner was refused an insurance policy on his life for the simple reason that he was a teetotaller. This resulted in the formation of a new society, called the United Kingdom Temperance and General Provident Institution, for accepting such lives. Now it has been shown by insurance statistics that teetotallers have a greater average life than temperate drinkers, they are eagerly accepted by life offices. Thus we see that the medical profession, like others, are liable to error from prejudice, or reasoning from insufficient or imperfect data.

Mr. Simpson was quite justified in refusing beef tea. It is now well known by doctors that extract of meat, made by Liebig's process, is not a true food but a stimulant. Were it necessary I could give quotations. It is true, as is stated by Mr. Andrew Walker, that there are several recent meat extract preparations which are true foods or nutrients; but they are preposterously overrated, and their price out of all proportion to their real value. It is absurd to imagine that out of an ounce of extract you can get more than an ounce of nutriment; we have then to take the water in them into consideration. From a flesh-eater's point of view the manufacture of meat extracts is a deplorable waste of food. The fibrin of the meat, which is the principal constituent, is wholly or partially rejected.

Eminent chemists may generally hold the opinion that a little flesh meat is justifiable, but I think it will be difficult to find a single one who has recently, in the light of modern research, stated that the vegetable kingdom is deficient in any respect in supplying nutriment. Professor A. H. Church, in his *Food Grains of India*, takes it for granted, as though argument were superfluous, and gives a large number of dietaries, each containing the calculated quantities of food constituents deemed necessary. In none of these does flesh form any part. A common and unfair method of attacking vegetarianism is to take the potato or other excessively starchy vegetable, and, because of their deficiencies, reason that vegetarianism is unscientific. It would be no less ridiculous for us to single out a man who had a partiality for fat pork and other indigestible meats, and who suffered from digestive disorders, and reason therefrom that all flesh-eating products produced derangement.

Mr. Constantine takes a narrow and prejudiced view of our system of diet. He ignores the fact, that, with few exceptions, vegetarians are those who have during the greater part of their lives been brought up on the usual flesh dietary and have adopted the change in the hopes of improving

defective health. He states that "the diet is too soft and starchy; the stomach cannot be kept healthy without good mastication." He quite overlooks the fact that the ordinary non-vegetarians are open to the same charge, and that soft food is not a necessary part of our system. The cause of the deplorable loss of teeth in early age is judged to be due, in a great measure, to hot and sloppy food. Many of us have to deplore that owing to the errors of our forefathers—who it must be remembered were not vegetarians—we are unable to masticate properly nuts and other hard food. In the publications of vegetarians it has over and over again been urged that solid food should be taken as far as possible. Many object to soups and all liquid foods, and a few are so extreme as even to disfavour all cooked substances. I am in agreement with Mr. Constantine that too soft foods are eaten, but why should he lay it to the charge of the system of vegetarianism, instead of individuals?

The foods at our vegetarian restaurants are, I think, very imperfect. Many of these establishments are under the direction of men whose interest in vegetarianism is a purely monetary one. They depend for the most part upon non-vegetarians, who form by far the larger proportion of the customers. We who complain or suggest simpler, less highly seasoned, or different fare, are told that the restaurants have to cater for the public taste, and not to the few advanced or more rigid vegetarians.

Mr. Andrew Walker writes as one who has read some antiquated books. Before criticising us he should have taken the trouble to read a few of our publications so as to know how we stand. In one sentence he disposes of our whole system of living by stating that the teeth, stomach, and intestines of man disprove our position. The structure of the human teeth we consider the strongest point in our favour. If our opponents will study the copious illustrations in Tome's *Dental Anatomy*, or in Owen's *Odontography*, both of which are in the Manchester Free Reference Library, they

will be cautious in what they say. The statement that we possess canine teeth and therefore should take flesh meat is worthless. The male ourang outang and chimpanzee have enormous canines, compared with which ours are insignificant. The camel has strong cananiform teeth; the horse also possesses some, and so do many others of the frugivora and herbivora. Dr. A. Kingsford has ably treated the anatomical aspect in her book, *The Perfect Way in Diet.*

Dr. B. W. Richardson, F.R.S., gave a lecture in 1888 on "Foods for Man, Animal and Vegetable: a Comparison," which appeared in *Longman's Magazine*, and has since been issued in pamphlet form by the Vegetarian Society. He reviews the whole question in a manner very favourable to vegetarians. He states that "weight for weight, vegetable substances, when they are carefully selected, possess the most striking advantages over animal in nutritive value."

He also confirms the vegetarian's argument from the digestive organs. He writes: "We have said that the length of the digestive apparatus of an animal like the sheep is some twenty-eight times the length of the body of the animal, while the length of the same apparatus for digestion in an animal like the lion is only three times the length of the body. In man the length of the digestive tract is six times the length of the body, therefore man is nearer to a lion than to a sheep, because six is nearer to three than it is to twenty-eight. But in this mode of calculating man has been reckoned up from head to foot, which is not fair. It is right to reckon the trunk of the man only, and then, as my friendly monitor shows, the tables are sharply turned; then in a man of medium stature the length of the alimentary surface is sixteen times that of the body, and sixteen is nearer to twenty-eight than three is to six. Admittedly it is just a point nearer; twice three is six, but twice sixteen is thirty-two, not twenty-eight."

A. W. D.

99, Heaton Moor Road

["A. W. D." cannot have read my book. I condemn an excess of starchy food for vegetarians, also for non-vegetarians.

Dr. B. W. Richardson received a brief, fairly well backed, from the Vegetarian Society, to come to Manchester to say the best things he could in favour of their system of diet. It seems to me, that if he had pointed out the errors of that system, he would have better earned his fee. His lecture was not calculated to make converts to vegetarianism. He told us that he was not himself a vegetarian, I suspect he knows better than to confine himself to that diet. Clearly it was a case of follow the *light* not the *lantern*.

The most successful vegetarian restaurant proprietor in England was obliged to give up the vegetarian diet on account of his health, and now, while his customers are busy with the spoon in his establishment, he is equally busy in an adjoining restaurant with the knife and fork, enjoying a well-cooked chop or steak. To my mind he is in this wiser than his customers.

Anyone curious to learn how the stomach can be upset by one meal, ought to go to a vegetarian banquet and partake of each dish as they are presented. I warrant they would not wish to repeat the experiment.]

Sir,—The headline, "Vegetarianism: Is it Starvation?" may be answered either in the affirmative or negative with perfect safety and truth. You have inserted a letter from Mr.

Harrison which would go to prove that his father, being a butcher and a great meat eater, died at the age of fifty-four, while he himself having now reached nearly sixty, and being a vegetarian, is still living. My experience, as the son of a strict vegetarian—so strict that he, like the gentleman mentioned by Mr. Johnson, wore shoes made of a vegetable substance and discarded all woollen clothing for over forty years—does not agree with Mr. Harrison's, for I at one time was slowly starving on a vegetarian diet, and was emphatically told by a medical man that I must choose death or change my diet. I was rather an enthusiast, as most vegetarians are, and held out for some time after this statement was made to me, but eventually I gave way, took to a meat diet, and have been a healthier and stronger man ever since, and, like Mr. Harrison, have worked eighteen hours a day, and, at a push, twenty-three, had an hour's sleep, and started a new day. So when my case and Mr. Harrison's are placed side by side, we only justify the old saying that what is one man's meat is another man's poison, and we don't prove anything that may be used as a convincing argument one way or the other.

The sect I was brought up among, though not making it imperative, encouraged a vegetarian diet, and absolutely forbade the use of meat in any form one day in the week. Some families rigidly abstained altogether, and in one case I am as certain as it is possible to be that a lady with every comfort around her was slowly starved to death. I remember being told that she had an intense craving for a mutton chop; that she almost fainted with desire when passing a restaurant where meat was being cooked, but she was a member of one of the most rigid families in the sect with whom a vegetarian diet agreed, and with the best of everything of its kind around her would sit down without appetite to table, and thus would eat less than was sufficient to maintain life. I mentioned this case some weeks ago to Mr. Harrison, and I understood him to agree with me that it was possible to

starve on a vegetable diet. If so I think in the question debated through your columns the fact should be admitted honestly.

Coming back to my father's case, he would, by a vegetarian lecturer, be held up as a wonderful example of the benefits arising from a vegetable diet, for, as I have previously stated, he was a strict vegetarian for over forty years, died at the age of seventy-seven, and was a strict abstainer from liquors. With all that, he agreed with me that the lady I have alluded to did really die of starvation. Like most other questions it is in the happy mean that safety lies. I believe more meat is eaten than ought to be, and my experience is that heat and cold are best met by adjusting the diet accordingly. But after all that has been written and said on this subject, the only way to arrive at a definite conclusion is to try personally the effect of a vegetable diet. JOHN WILLIAMS.

King Street, Didsbury.

Sir,—Mr. Constantine's statement with reference to the soft, sloppy, injurious condition of ordinary vegetarian diet confirms the importance of the "vital food" theory propounded by Mr. A. Hills at the annual meeting of the Vegetarian Society. A conference on "vitalising foods" will be held by the London Vegetarian Society at the following address on the first of December, when, in addition to the theory advocated by our president (Mr. Hills) that uncooked food contains a vital force which can be absorbed by the human system, it will be maintained that the mastication of dry hard foods increases the assimilative power of the saliva, and improves the general digestion and vital powers of the system. I shall be pleased to send pamphlets on this important subject to any one forwarding a stamped and directed wrapper. MAY YATES,

Organising Secretary London Vegetarian Society.

Memorial Hall, Farringdon Street, London.

Sir,—I have read with considerable interest the correspondence in the *City News* on the subject of vegetarianism, and have been led to the conclusion that the standpoint of the supporters of that doctrine has not been defined with sufficient exactitude. For, although calling themselves vegetarians, they, I am informed, by no means confine themselves to a strictly vegetable diet, and do not hesitate to partake copiously of milk, eggs, butter, cheese, and any "nutritive products" which are derived directly from the animal world, and which can no more correctly be designated "vegetable" than mutton cutlets, beef steaks, or pork chops. Hence the contention that vegetable diet is superior to animal food is a palpable fallacy, and all arguments dependent thereon fall to the ground.

The articles of food above-mentioned, namely, eggs, milk, cheese, and butter, contain precisely the same nutritious constituents as ordinary animal food, and therefore any cause for the alleged longer duration of life in so-called vegetarians must be looked for elsewhere than in their actual diet. So far as I can learn, the preference for food as above indicated, is a matter of pure sentimentalism, and cannot be defended successfully on physiological grounds. It would tend to a clearer insight into this interesting subject did some of you vegetarian correspondents enlighten us on their principles and practice herein.

SARCOPHAGUS ALTER
(which, being interpreted, means
"Another Flesh-eater").

Sir,—The discussion on the above subject must be interesting, not only to the partisans of each side, but to many others who like myself have no very strong feeling either way. If the quantity of animal food which enters into my diet be any criterion, I am not very far from being a vegetarian, but as already stated I am not one of that class, who I look upon as mainly composed of faddists, and who you will find are also anti-vaccinators and anti-everything else

almost. However, I observe in Mr. Johnson's last letter a word in praise of beef tea, which I think I can endorse from my own experience. Last spring I was the victim of an attack of typhoid fever, and no solid food was allowed to be given me as a matter of course for a month or so. During the whole of this time I subsisted chiefly on beef tea, milk, eggs, and claret, but chiefly on the first-named, the stew-pot being kept in the oven night and day during the whole of the time; and although over fifty years of age, and possessed of a very delicate constitution, and therefore, as the doctor has since stated, a "bad subject," I passed through the ordeal successfully without a single complication, maintained my strength so that I was enabled to get in and out of bed without assistance during the whole of the period (!), a thing my nurse said unprecedented in her experience, was at business again within seven weeks, and have since been as well as at any time during many years past.

I must therefore protest most emphatically against the statement that beef tea is not nourishing, and if nourishing it must, I presume, be also stimulating; and I for one, although I do not accept all the doctors say for gospel—for we know that even they differ in opinion on some points—think there is ample reason to believe that the statement of the three eminent doctors in London that Mr. Simpson required beef tea to bring about his restoration to health, was a true one. ANTI-FADDIST.

Sir,—A woman may give her opinion, I suppose, if guided by experience. It would seem that the faculty of being a vegetarian depends upon the capacity of the stomach and digestive organs; as the capacity of those vary as much in individuals as do the capacity of brain power and muscular energy. So says Ruskin. Again, a great many of us would be vegetarians, especially those loving animals, for nobody can live in the country next door to the cows, as it

were, without getting a higher liking for them than eating them.

To form my own opinion I tried vegetarianism for three weeks. It did very well for the first week or ten days; after that a gradual lessening of the energy, a lowering of spirits and direct guidance of the will. I broke the "pledge" in the shape of a red herring; I felt I could not hold out any longer. Once again, when staying in a remote part of Cornwall, where butchers' meat was not readily to be had, after living on steaks cut from an immense bass weighing seven pounds, and caught with rod and line on the quay one moonlight night, the same symptoms appeared—of lassitude, want of energy, and weakness of direction of the will. These are not pleasant symptoms; they take from the lightness and brightness of things. No sooner had the landlady of the lodgings herself brought me a plate of roast pork from her own table (a gift) than there was an improvement in spirits, a desire to walk out, an increased interest in the world and its doings. It was as if a curtain had been taken from the sky. On the same sojourn I walked five miles to get a slice of fat bacon, and was glad of that, though not one to eat bacon or pork as a rule.

This is my experience of a vegetarian diet; but it may, as I said, be a capacity of digestion and not diet, and this is why some cannot be vegetarians who would. Still, as one of your correspondents remarks, "too much meat is eaten in these days." The amount and quality of food should be adjusted to the kind and quality of the work we are going to do. We may do well to take the good advice of St. Paul, who, where writing to the Thessalonians (II. Thessalonians, iii. 10), said: "For even when we were with you, this we commanded you, that if any would not work, neither should he eat."

SARAH CASH.

Delamere.

At the annual meeting of the Vegetarian Society the Rev. James Clark made a speech, reported in the December number of the *Vegetarian Messenger*, in which he referred to my book and also to Mr. Joseph Johnson, whose letter opened the foregoing correspondence. Mr. Clark's speech is far from being brimful of wisdom. It may, indeed, be that, on reflection, he would not care to have it reprinted here or elsewhere. He, amongst other things, says, "Many of us know Mr. Constantine and respect him, and, although he is not the Emperor Constantine, with authority to issue edicts and compel obedience, his views are entitled to respect and consideration." If I had ever assumed, or claimed to be something that I was not, or attached some empty unmeaning initials after my name, there would have been some excuse for this little play upon the name.

The following statement is not made in the spirit of retaliation, but for the information of my readers who may wish to know who the Rev. James Clark is: That gentleman is the spiritual guide of the vegetarians, the defender of their faith, as well as the minister at the Bible Christian Church, Cross Lane, Salford, formerly the Joseph Brotherton Church, King Street, Salford. Once there were two churches of this creed in Manchester, but they both died out, so that the church in Cross Lane has now to accommodate the vegetarian worshippers of Salford and Manchester combined. The Rev. James Clark is therefore in the position of having a church all to himself for the borough of Salford and the great city of Manchester, with no healthy and invigorating com-

petitors. The doctrine, the gospel of vegetarianism, preached at this solitary church, is not spreading, new converts are few and far between, and no new churches are in course of erection. It may, therefore, well be asked if this stagnation or retrogression is for want of a healthy stimulant, or whether the doctrine is not a false one that ought to die out. This is a problem which ought to be solved.

The Rev. James Clark says "that the late James Simpson was a specialist in diet, and, though he was neither vain nor boastful, he had heard him tell how physicians were glad to have his advice on the subject." Just so, physicians are frequently in difficulties with patients whose ailments are caused by over-eating. A specialist in diet may mean a man with a knowledge of diet best suited to people of various ages *in* or *out* of health, of very different conditions in life, &c.; or it may mean a man of narrow contracted ideas of diet—a faddist.

Dr. Salisbury, of lean beef and hot water notoriety, is a specialist, but the diet which constitutes his speciality is opposite to that of the vegetarians. The diet that he recommends has made progress in that particular, it has left the vegetarians far behind, and has made great inroads in their ranks. There are many who were formerly vegetarians rejoicing now at their improved health since they adopted his system of diet, and nearly the whole medical profession have been influenced more or less by his system, finding, as they have done, that the drinking of hot water cleanses the stomach and the digestive canal. The profession has learnt also that corpulency can

be reduced with safety, and the stamina maintained at the same time, by the lean beef diet. This anti-vegetarian diet is making headway, and, if the vegetarians are to hold their own, they must trim and set their sails, keep a firm hand at the helm, and a sharp look out for rocks ahead.

Dr. Allison is also a specialist, but the diet which he recommends to everybody, regardless of age, is very different from Dr. Salisbury. Dr. Allison holds that wheatmeal in itself contains sufficient nutriment cooked in various forms, with very little addition of other foods, to keep the body in health. This diet may do very well for growing youths, but by no means for people over forty.

Dr. Densmore is also a specialist in diet. He strongly opposes Dr. Allison's diet, and recommends nuts and fruits, eggs in abundance, and beef if nuts are scarce. Eggs contain too much lime for people well advanced in years.

A great many people injure their health and get into trouble by trying to follow absolutely some one of these specialists. A special diet is frequently well suited to a special case. There is more than a grain of truth in those various and conflicting theories of diet; but, as society is constituted, not any one of them can be universally adopted; neither would any one of them be suitable for all people of various ages and conditions in life.

There is a specialist, not in diet, but in mastication, who may be followed with advantage by everyone, that is, Mr. W. E. Gladstone, the Premier of England. A vast number of people do not masticate their food

as they ought. With most people it seems to be a bite of food and a drink of fluid to wash the food down to avoid mastication and save time. This has become so much a national habit that it is practised by those to whom time is of no great importance. It is said that Mr. Gladstone gives every mouthful of food thirty or thirty-two nips. In conversation the other day at Mr. Holden's residence, Mr. Alfred Illingworth, M.P. for Bradford, said that he had noticed on several occasions, when dining with Mr. Gladstone, that after everyone else had finished, he seems to be in the middle of his meal owing to his extra mastication, and that when he rises from the table he has not had sufficient food. The thorough and special mastication will have a tendency to prevent him from eating too much, which is of great importance and advantage to anyone advanced in years. This brings us back to the importance of the health of the digestive apparatus. If the functional power of that apparatus is once destroyed, either by drinking spirits—I have known that to be effectually done by one week's spree—or by constantly using soft food and neglecting mastication, it must ultimately end in death by starvation.

Every chemist knows the importance and the necessity of keeping his laboratory clean and in good working order. The water-taps are fixed conveniently to his trough to enable him to wash and cleanse with little trouble; the ventilation must be perfect to carry off easily and completely the foul gases; but, above all, the various chemicals must be used in accurate and exact proportions, too much or too little

of any ingredient spoiling the whole process. And so it is with the supply of nutriment to the human body. The most wonderful laboratory ever known to man is to be found in the human stomach and intestines, and the various and marvellous apparatus employed in those parts in the chemical process of converting food of different kinds into blood, is far away beyond the ingenuity of man. Well might the sages of old say "Man was made in the image of his maker." Then, again, there is that wonderful fluid, the gastric juice, which can dissolve any kind of dead animal or vegetable substance. It has no effect on living animal matter, but if a man is killed when digestion is going on in the stomach, the moment that life is extinct it acts upon and eats through the coat of the stomach.

The Almighty has provided or ordained matters so that man may live on any part of the habitable globe, and if the food is not grown to his hand, he may obtain, by healthy labour, such food as is good for him in the climate where he happens to be. Our climate is varied and very changeable; hence we need to vary and change our diet according to the temperature and season of the year. But perverse, ungrateful man, like a spoiled child which gives endless trouble to those around it, says no, I will not have *this*, I will not have *that*, I will only have so and so. The late Bishop Lee was not of this class. At an ordinary dinner he would say an ordinary grace, but at a grand spread he would rise with full voice and with all the dignity he could command, and say, "Oh, Lord, we thank thee for thy bounteous provisions, &c."

One of the correspondents in the *City News* gives a list of long-lived vegetarians. It would have been very extraordinary if such a list could not have been produced amongst the rank and file of the sober steady-going men of which the vegetarians are composed. But that list would have looked very small against a list of those who, from the practice of vegetarianism, have died off young and in middle life in this district during the last forty years, if anyone had happened to have been taking note of such cases.

The late James Simpson said, on his deathbed, "Let there be no mistake about the cause of my illness. My diet has nothing to do with it; it arises from incessant overwork of the mind." No doubt he believed that, and from what the physicians had said to him of his poor condition of body, he would be apprehensive of the damaging report to vegetarianism which might go forth to the public. And, again, for some time previous to that date, his work must have been a heavy burthen to him—work which, perhaps, would have been performed with alacrity and ease by a man in good sound health. Moreover, how was it possible that he, a man of "light and leading," could have been wrong in his grand theory of an improved and superior diet? Could he have been in the dark and leading the people astray? Such a thought could not be entertained for one moment. James Simpson was a good and a well-meaning man, and if the poor mistaken vegetarian diet was the cause of his early death, though I never said it was, it has much to answer for, and the sooner it is given up, on this part of the globe, the better for future generations.

Some of the correspondents who have written in favour of vegetarianism have evidently not read my book, and they have commented on what I did *not say* in it.

The hydropathic treatment in its early days was not confined to baths; it was a system of hygiene which embraced pure air, exercise, suitable clothing, and strict attention was paid to diet. It was on the matter of diet that I formed the acquaintance of many vegetarians, and attended their lectures in the days of James Simpson.

A good and respected vegetarian friend and I frequently discussed the dietetic question. He passed away many, many years ago. If he could have been induced to test, as an experiment, the mixed diet on his own person for near twelve months, as I tested the vegetarian diet as an experiment, he might perchance have been living to-day.

We had a long and stiff discussion one evening on vegetarianism *v.* the mixed diet. When pretty well cornered, he declared that I was as much a vegetarian in principle as himself—that I argued for the sake of argument, and that I eat animal food to satisfy a morbid appetite. I assured him that he was entirely wrong, that I was opposed to vegetarianism on principle, and that eating animal food was not a matter of appetite with me, and to prove that I would do without it for the next twelve months. I gave it up at the end of eleven months in consequence of a brother visiting me from America.

Though that practical experiment on the vegetarian diet was made forty years ago, previous to that date

I had paid attention to diet from the hydropathic standpoint. The food which I selected during those eleven months would compare favourably with the diet of vegetarians of that, and, may be, the present day; but had I held on to it, I am convinced that I should not have been here now in good health taking part in this controversy.

There is, however, certainly a great deal to admire in some of the vegetarians for the devotion they show to their system, and for the sacrifices they individually make to spread its doctrines. Many cases have occurred of those who had taken a leading and active part, swearing by it on their deathbed, even when it had shortened their lives; for myself, I think such devotion and martyrdom is worthy of a better cause.

There is a tendency with many people, when they discover that they have been wrong in their diet, living too much on some particular kind of food, to rush off to the opposite extreme. I know that this has been the case with many who have tried the vegetarian diet more as an experiment than from conviction. Knowing the old vegetarians well, I did not expect that anything I could say would influence them, but that it might deter others from falling into the errors of their diet. The most fanatical amongst them may learn a useful and valuable lesson from Mr. Isaac Holden. The following interview with him is reprinted in full, as much for their benefit as for the general public.

Mr. Holden is a high authority on diet and regimen for *later life*. He is careful to take food and fluid free from limy and earthy matter, and when in his own

house he breathes pure filtered air. His bedrooms are twenty degrees Fahrenheit higher than ordinary bedrooms in severe winter weather, and the air is changed completely every half hour. This condition is a near approach to sleeping in the warm genial open air. People say it makes you "nash," sensitive, sleeping in warm bedrooms, but this is by no means the case if the rooms are warmed and ventilated on a proper system.

Mr. Holden, at eighty-six, is not sensitive, though his bedroom in winter is sixty-two or sixty-three degrees Fahrenheit. When at home he never neglects his walks, and he has, within his own grounds, seven miles of well-drained gravelled footpaths, from which, after a shower, the water runs off easily, but, for all this, he frequently strikes out towards the moors along the main road on the way to Colne, where are some of the favourite spots which Charlotte Brontë delighted to visit. I have accompanied him in this walk in midwinter, when not only the snow on the ground has been soft and slushy, but rain and sleet has been falling at the same time. When I wanted to shield him with my umbrella, he said, "Oh, no, thank you, I shall not take any harm." This truly wonderful *grand old man* walks out in all sorts of weather without an umbrella, but it is a happy circumstance that his ever watchful and faithful factotum, Mr. Berry, has often something to say as to the boots suitable and the outer covering when the weather is inclement.

MR. ISAAC HOLDEN, M.P.,

In his 86th year.

THE SECRET OF LONG LIFE.

Instructive Experiences of an Octogenarian.

Interview with Mr. Isaac Holden, M.P.

A representative of the *Keighley News*, having sought an interview with Mr. Isaac Holden with respect to his dietary and mode of life, called by appointment at Oakworth House one day this week, and was very cordially received in the magnificently appointed library by the worthy member for the Keighley Division. Mr. Holden expressed himself as perfectly willing to give any knowledge that he might have acquired if it could be of any use, but he had no desire to talk of his experiences simply to gratify curiosity. Some people had an idea that he wished to live to a great age. That was not exactly his object, but he did desire so long as he lived to retain his senses, and to avoid the miseries and infirmities of old age.

Our representative assured Mr. Holden that he had not come out of mere idle curiosity, but having heard that he had adopted a rather strict regimen of living, and it having proved tolerably successful, he thought it was well that the outer world should have the benefit of an experience which had been so satisfactory.

DELICATE IN EARLY LIFE.

Having been reassured on this point, Mr. Holden proceeded: "Well, you know it is very likely that I should

never have been careful about my health if I had had a strong, powerful, vigorous constitution to begin with. People who have no difficulty of digestion, no difficulty of elimination owing to the vigour of their organs, go on without reflection, without habit, without knowledge, without self-control, and they run their heads against a wall. And very strong men, who should live the full term of human life finish at one-half—finish at sixty—which is just mid-life. I know cases innumerable of men who started with a constitution twice as strong as mine. They had no stomachs; I had a stomach, and was obliged to take care of it. Well, do you know when I was a young lad I was so feeble that I had to be under the care of my mother during the cold period of the year.

HIS EARLY STUDIES.

"I could never go to school in the winter—a puny, little, unthriving child. We had a book in our house that is well known in Scotland, Buchan's *Domestic Medicine*, and there was in that an introductory chapter on hygiene; it was very primitive and very simple. Science had not been able to throw light on the path of the hygienist in those days; they had to learn everything by the rule of thumb. But though it was a system of hygiene got up in that way, still it was very useful. Well, that introductory chapter in Buchan's *Domestic Medicine* was my first study in hygiene. Then I met with Wesley's *Natural Philosophy*. An old Methodist preacher came into my father's house—my father was a Wesleyan, and his parents were Wesleyan, and I am connected with my old family religious denomination more or less still—and he said to me, he saw I was studying what we now call physics, 'Isaac, have you ever read John

LIME CLOSES THE FINE ARTERIES AND CAUSES DEATH.

Wesley's *Natural Philosophy?*' I said 'No;' and he replied, 'Well, if you will come up to my library I will lend you a

copy.' It was in five volumes—very neat, little duodecimal size—and in the first volume there was an article that struck me very much, and I remembered it till I got a copy of my own, which was only a short time ago, and I got it almost by accident. It was on the cause of natural death, and he makes out, as clearly as we know it to-day, that the reason is that the arteries become ossified, and then the capillary vessels become blocked up with lime, and that brings on natural death, so that in the case of a man that dies a natural death—that is, without any disease and simply because he is worn out—if you cut into his brain it is like cutting into a sand-bag; it is full of lime. Now Wesley spoke of that as a hopeless case, as a thing that could not be averted. Well, that was my second book, which appealed to me very strongly, and it has been a cue to my mode of living. You know before and during Wesley's time there was no analysis of food; they did not know of what the different classes of food were composed, and therefore they did not know what were the sorts of food that filled the system with lime. Now all these lime foods are very good for young animals forming bone; they are, in fact, necessary in that case, but when that process is completed, then the human being ought to avoid lime foods. He will always get plenty to supply the waste, and if he takes beyond that it goes to ossify his arteries and to block up the fine capillary veins, especially of the brain, but likewise throughout the system. As the name denotes, these capillary vessels are so small that you cannot see them by the naked eye, and therefore the smallest quantity of earthy matter circulating with the blood and sticking fast in one of these arteries leads to another atom remaining behind, and so it goes on till this artery becomes blocked up. There are many of these connected with the brain alone, including those of vision, of hearing, of the sense of smell. These are kept alive by the circulation of the blood, and if the arteries get blocked up you suffer from defective sight, and as you get old go blind altogether, perhaps. When you

find that your sight, your hearing, and your power of smell is going, it just shows that your arteries are getting made up with lime. Well, now, Wesley was the first man who called my attention to that in the '30's. I met with another book, which was for a different purpose—it was on 'Easy Parturition,' by 'Parallax,' and there he shows that to prevent local ossification women must live upon fruit as much as possible, and must not drink hard water. Putting these two together, I said to myself, 'Then I must make fruit a great part of my diet.' That was in the '30's. Well, in 1879

DR. DE LACY EVANS,

a grandnephew of the celebrated general, published his book on how to prolong life. It is a very interesting and wonderful book from that point of view, perhaps the finest I have met with in all my search on this particular question. At the commencement he calls it 'An inquiry into the causes of old age and natural death, showing diet, &c., best adapted for lengthened prolongation of existence.' Then I came across one equally wonderful. I was going along a street in France one day, when my eye caught the title of a book just published, which ran :—

'DE LA LONGÉVITÉ HUMAINE ET DE LA QUANTITÉ DE VIE SUR LE GLOBE, PAR FLOURENS.'

In that book he takes into consideration the whole round of animal life. He instances the life of an animal, which does not, you know, cook its food nor live in houses, but in the open air, under perfectly natural conditions, and he takes the period from birth to maturity and shows that five times that period is the average life of the animal. Such maturity —that is when the bones have become perfectly hardened— in the case of a man is attained about the age of twenty-five years. And thus five times twenty-five years would be the average life of man under perfectly natural conditions of living. Of course there would be cases of people who would go beyond that, and others that would fall far short of it,

due to some accidental cause—to some excessively strong or feeble organs. This was the study of Flourens's life, and his theory is now accepted by the scientific world. Well, that was another stage in my learning. I ought to say that this writer insists very much on regular habits and so on. This is all to show you that I started life with the conviction that I must have knowledge—that I must not depend on my own experience, but on the experience of the world, because you know the experience of all time is contained in these books on physiology. You cannot trust to your own experiments; you must be guided by the experience of mankind. Other valuable works I ought to mention are the physiological writings of Combe. Well, you will gather that I consider it the duty of every cultured man to learn all that belongs to his own personal wellbeing; in fact

I LOOK UPON IT AS RATHER A DISGRACE TO AN INTELLECTUAL MAN

not to take advantage of the work of the world in teaching us how to live."

"Physiology," asked our representative, "is one of the subjects, I suppose, you would desire to see taught in our elementary schools, Mr. Holden?"

"Yes, I have always insisted on that,

HYGIENE AND PHYSIOLOGY,

being taught to children. Well, to show you how particular I have been, I might give you some of my text-books on physiology and hygiene: *Outlines on Physiology*, Marshall, 1867; *Practical Hygiene*, by Parkes, 1873; *Physiology Humaine*, by Biclard, 1869; *Longévité Humaine*, by Flourens, 1873; *Nutrition in Health and Disease*, Bennett, 1877. Of course, I have many more, but these are about the best of the lot. Yonder part of my library (pointing to a large compartment) is full of books on physiology and on gout. Well, then, having done what I could to get a little knowledge

of what has been done in the past, I felt I must pay some little regard to my own experience and find what is good and what is bad, and having acquired a knowledge of what is right, to put it rigidly into practice. That has been my system, and it is to that which I attribute good health at eighty-six."

"Might I ask a general question? In the case of a normally strong man in the years of middle life, would you recommend any

FLESH MEAT?"

"Yes, I can give you a few particulars about that. I have by the gradual process of learning and experience found that flesh meat is good to renew waste of muscle if you take exercise, but it must be limited or extended just as you take more or less exercise or perform more or less hard physical labour. You must supply the waste, but all that goes beyond that the kidneys have to eliminate, and those organs become overtaxed and then diseased, and hence you have complications leading to the most miserable maladies. Now, there is another thing which is conducive to good health, but you cannot arrive at a vigorous old age by taking it up when you are on the brink of old age. I mean

OPEN-AIR EXERCISE.

I was so impressed with the importance of exercise when I was a student that I endeavoured to find time between five and six or six and seven o'clock in the morning to have a vigorous walk in the open air. When I went to my first commercial engagement, with Messrs. Townend, of Cullingworth, I said to them, 'Gentlemen, I hope you will find me a faithful servant, but I must make a condition that I cannot dispense with, that is to have

TWO HOURS' EXERCISE

in the open air every forenoon.' That was a hard condition to make, because a bookkeeper is generally wanted at the

works during business hours. Their concern was the second in Yorkshire when I went to it. I said, 'Gentlemen, if you will grant me that, I will look upon it as taking my holiday for the year, and therefore you may always count on me being in the office all the year through. I mean work, and you shall have in some form or other a return for my daily holiday.' I very soon became manager of the mill. I had to be there at six o'clock in the morning, and several nights in the week I had to remain till eleven to see all the wagons for the markets charged. Every Saturday, every Monday, and every Thursday I was there till eleven o'clock at night, and so I took my holiday of two hours from seven to eight and from eleven to twelve—two hours in the open air."

"ALL WEATHERS?"

"Oh, yes, all weathers. I never stopped in for the weather, neither for snow, hail, nor rain; and it did not matter whether it was hot or cold, I never shortened my walks. And

I DON'T DO IT TO-DAY.

That lays the foundation of youth in old age. Then my diet was always sparing. I never varied more than a few pounds in weight since I arrived at maturity. I keep my weight down to eight stone six pounds, or somewhere about that. If I begin to get heavier than that, I cut off the supplies. If I get lighter then I eat a little more, but the great thing is to be moderate, and not to overburden the functions of excretion. In reference to diet, that is one of the most important rules. But it is no use knowing unless you keep it. I have made a point to keep it."

"Returning to the normally strong man," said the interviewer, "who takes physical exercise, you recommend a certain amount of meat. Would you recommend that, too, in the case of a man in the later years of life?"

"With advancing years it is wise to take less, because the excretory power gets less as you get older. I have not suffered in that respect yet, but I shall do."

"The perspiration arising from open-air exercise is a great help to the kidneys, I suppose?" remarked the interviewer.

"Oh, yes. That is a question that has been deeply studied by Dr. Meldon, of Dublin. I may tell you that he made an arrangement with a proprietor of Turkish baths, and he analysed the perspiration of a great variety of subjects, particularly of people suffering from gout, and he found the gout virus in the perspiration, thus showing that intense heat, say one hundred and fifty degrees, applied to the skin brings it out. I and Dr. Dobie, of Keighley, waited upon the doctor in Dublin the last time I was in Ireland, and he said he had never met with such a case as mine. He was so interested that we had four hours' conversation with him. There appeared to be no doubt in his mind that the skin assisted the kidneys in the elimination of waste matter—uric acid and urate of soda."

"Then I need hardly ask you whether you are in favour of tubbing?"

"Yes, I have practised bathing for sixty years."

"Would you recommend its cautious use, or do you favour heroic bathing?"

"Well, you know young people may do anything, but when you get on in life, and especially if there is any feebleness of the heart's action, you must be cautious and have your water tepid. In any case you must cool the skin and shut the pores before you put any clothing on. Just the same with a Turkish bath. You have a Turkish bath of a certain character every night

UNDER THE BEDCLOTHES,

and you must adopt the same process as if you were coming out of a Turkish bath proper.

YOU MUST GIVE THE SKIN A LITTLE FILLIP,

which will produce shrinkage, and then it regains its power. It is the same as an elastic body; if you do not allow it to go back it will lose its elasticity."

"You look upon bathing as the education of the skin?"

"Yes. Of course the one great thing I have attended to is habitual exercise in the open air, as you see, and severe discipline in reference to everything. Regularity of habits is an important thing. Get your meals at the same hour, and do everything as much as possible at the same hour, even your exercise. And then

I EAT WITHOUT DRINKING,

and thus retain all the vigour of the saliva. You see how I have taken my beverage to-day—my diluted glass of coffee I sip with my cigar. *I take nothing* to drink while I am *eating*, and one advantage of that is that you eat less. You have to chew till your saliva has softened your food, just as water or other liquids do. It takes you longer to eat that way. You get bothered with it, and you want to get away. I have practised it for a long time. And then after reading 'Parallax' and De Lacy Evans I have always lived largely on fruit. Sometimes for a whole month I touch nothing but fruit."

"Raw or cooked?"

"I cook my apples. I suck my oranges. I take all the flesh of the orange. The orange is an invaluable fruit, and it is a pity they are not cheaper than potatoes; they ought to be as cheap. The same ground will produce ten times the amount of oranges that it will produce potatoes, and oranges are more nourishing than potatoes. And the banana, I think, on a given piece of land, can be grown to produce ten times as much food as the same land would produce wheat. So that if ever fruit becomes, as it was originally, the food of mankind, the earth will produce—well, if we say what is sufficient for double our present inhabitants it will be a long

way under the mark, perhaps five times the number of people, in a most healthy state of existence.

FRUIT: IT IS A PERFECT DIET."

"Do you refer to the banana, or apples, or oranges, or all?"

"All; yes, certainly. The juice of the orange I know contains ninety or ninety-five per cent of water. I do not reckon the water, but the fruit itself. The food of the orange is very great. You would be astonished to find how long you could live on oranges alone. Then there is the grape, which is most valuable. I cultivate far more grapes than I require for myself, but I almost live on grapes; or, at least, they form a great part of my food. The grape might be produced, if grown on a large scale, at a very reasonable price, and now that we are getting cool chambers in our ships, we shall be able by and bye to obtain most valuable fruit from abroad at a cheap rate, because the cost of shipment is so small.

I TAKE EVERY DAY

two or three baked apples, perhaps two oranges, and maybe thirty or forty or sixty or seventy grapes. I know them better by their number than by their weight. I take to my breakfast at present one baked apple, one banana, one orange, twenty grapes, and a biscuit made from banana flour with butter. That is my breakfast and my supper. My mid-day meal consists of about three ounces of beef or mutton, with now and again a half-cupful of soup. If I take a little fish I take so much less of meat. Perhaps the most digestible way of taking meat, and one which is highly suitable for invalids is this: Take a small piece of raw mutton and reduce it to powder in a mortar, and then pass it through a cullender, and pour some boiling soup over it. That is a splendid thing, but it should be reserved for invalids A new system of diet has come out lately and I go with it very strongly, because it is practically what I have adopted

for a long time. Dr. Densmore and his wife have come over from New York in order to induce the English people to use the fruit diet alone. But they are willing to do anything in order

TO BANISH STARCH FOODS

from the human diet. As is well known, all the cereals and some sort of vegetables contain starch, but there is none in fruit and none in meat. The starch diet is very bad for gout and rheumatism; it produces acidity in the blood; it has to go through a chemical process in the stomach, and it has to be converted into sugar of fruit before it is assimilable. There is just one other thing. When I was about thirty years old I went into a house where there were two old people. They had a blazing fire, and the poor old things were sitting up to the fire burning their shins to get warm, and the house was as cold as possible. I said to myself, 'That is not the way for human beings to live,' and I resolved from that time to study

VENTILATION, AND HEATING, AND SANITATION,

in order to build my own house, and you have the results here. Since you came into this room the air has been changed thrice, and you were not aware of it. You are practically living in the open air. If there were twenty people smoking here you would see no smoke. There are three outlets in the ceiling, three times the strength of this fire-draught connected with the large chimney yonder. All my rooms are ventilated, and the air entirely changed in periods varying from half an hour to three-quarters. I got practical men, and they could tell to a nicety how soon I could empty this room of its air. There are two shafts supplying air, and these two go into a horizontal flue which runs the whole length of the room, and from this the air breathes into the room through a film of perforated

zinc, or otherwise you would be almost blown off your seat. There is a constant and equal breathing in and out, and you will always find the thermometer in this room all the year round at about sixty-two degrees or sixty-three degrees. We have double windows to prevent any current arising from the air being constantly changed. All through I have measured my inlets and exits, and so made one correspond with the other in every room. Each room supplies its own air, and from every room the air is taken away by the same exhaust. The large chimney exhausts the whole house. The air in passing out first goes up the flues to the ceiling, and then passes into a chimney, which goes down into the cellar, and from thence into the large chimney. That is done in every room of the house and every bedroom, and so the smallest bedroom is just as healthy as the largest room we have."

"And now, Mr. Holden, there is just one more question. What would you say as to the frequency of meals?"

"I think a strong man may take only one meal per day, and it will suffice for him, but where there is physical or mental activity I think it is better to take two or three meals."

And so ended one of the most pleasant of interviews.

INDEX.

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NOTICES AND COMMENTS.

"MANCHESTER GUARDIAN."

October 4th, 1892.

Mr. Constantine, whilst not a professed author, has felt before now the fascination of pen and ink. When his *Hydropathy at Home* was written he had no thought of further book-making, but intercourse with his friend Mr. Isaac Holden, M.P., who appears to have mastered the art of longevity, led him to prepare a book on *Health and Activity in Middle and Later Life*, and now he sends forth another work of a somewhat composite but certainly interesting character. "During a working period of not less than sixty years," observes Mr. Constantine, "I have not lost one day through illness." That his lines have not always been cast in pleasant places is evidenced by his autobiography—a narrative which when read by boys and youths of to-day ought certainly to stimulate them to greater exertion in making good use of the educational facilities of the present day, so abundant in comparison with the slender opportunities of the boys of the working class, and often indeed of the middle class also, in the period of Mr. Constantine's youth. He was born in the Worth Valley, in 1823, and at nine years of age he went to the factory; but before thus entering upon the work of life he had a couple of summers chiefly devoted to fishing and bird-nesting. At thirteen he left the factory to learn the trade of hand-wool combing, an industry that has now passed away. Mr. Constantine's reminiscences include glimpses of the Brontës, of Thomas Cooper the Chartist, and of Dr. Samuel Crompton, as well as of the pioneers of hydropathy in Manchester and elsewhere. Mr. Constantine has a firm faith in the water cure and in teetotalism, and attributes his own good health to their combination, but adversely criticises vegetarianism. He has, naturally, a great deal to say about the various kinds of baths, but we are inclined to think that most people will find the autobiographic notes the most interesting part of the book.

"MANCHESTER COURIER."

January 14th, 1893.

As the title of this little work suggests, the book is chiefly devoted to the experience of the author and other persons, and very instructive and entertaining reading it is, for instead of dry, dogmatic statements we have personal testimony of the value of hydropathic treatment for curing diseases or maintaining health. Perhaps the most interesting part of the book is that portion in which the author gives his own experiences, which, notwithstanding the irrelevant matter that occasionally creeps in, is instructive.

"CHRISTIAN LEADER."

DECEMBER 15TH, 1892.

Mr. Joseph Constantine, if one may judge from his appearance by his portrait, is a healthy, well-preserved old gentleman. We gather that he has had sixty years of continuous health, and equally continuous work; and we learn the secret of this long spell of unbroken vigour in his *Fifty Years of the Water Cure*, just published by John Heywood, 1, Paternoster Buildings, London. Mr. Constantine is a hydropathist. He has studied the water cure, he has himself practised it, and he commends it to everybody as the best of treatments for the varied ills to which flesh is heir. But not hydropathy alone. To the use of the bath he adds such accessories as proper diet, pure living, and healthy exercise, and he tells people how they are to live so as to attain a greener and an older age than their unhydropathic compeers.

"HEALTHY LIFE."

NOVEMBER, 1892.

We welcome this excellent addition to the literature of hydrotherapeutics, from the pen of one who has achieved great success in and from its practice, and the spread of its advantages.

The baths of the author, so long established in Manchester, have become a well-known and well-patronised institution there, although they now partake more of the character of public baths for occasional bathers, and are not so much utilised for continuous and methodical treatment. Such institutions do serve a good and useful purpose, as places where such treatment can be had by those advised to follow it from the advice of their medical advisers, or according to their own inclinations.

Looking at the book in its entirety, it is interesting, well-compiled, and will prove, we think, to be a very valuable addition to our library on the subject, and should be in the possession of all who have benefited from, or who are interested in hydrotherapeutics.

"BRITISH TEMPERANCE ADVOCATE.'

DECEMBER, 1892.

Mr. Constantine has here given us a most interesting and instructive volume. The subject of bathing must ever interest the true reformer. Dirt in, on, or about the body is bound to produce disease and death, and foster a condition in which vice and crime can thrive. Mr. Constantine has been fifty years practising hydropathy, and it needs not be said with great success. The short story of his life is full of interest, and shows us once again how a youth born into adverse circumstances, may, and will, triumph if he be wise, patient, and persevering. The story of Thos. Cooper, the Rev. Patrick Brontë, Dr. McLeod, and others, are terse and living. The whole book, which we suppose can be bought for half-a-crown, is one that will well repay any one for the reading.

"LEEDS MERCURY."

OCTOBER 12TH, 1892.

Hydropathy has long passed the empirical stage, and its value as a curative agent is not now questioned by any one. As to its great merit we have the

testimony, among others, of Mr. Joseph Constantine in *Fifty Years of the Water Cure* accompanied by autobiographical notes. A portrait of Mr. Constantine forms the frontispiece to the volume, and portraits are also given of other eminent hydropathists. The present is the author's jubilee year as a hydropathist. He was born in the Worth Valley, at Hermit Hole, and in his autobiography there are reminiscences of the Brontës, Mr. Isaac Holden, M.P., Thomas Cooper the Chartist, and others, and an account of the origin and progress of the Water Cure in the West Riding. The use of hydropathy in dealing with various diseases is described at considerable length.

FROM ALEXANDER IRELAND, ESQ.

December 12th, 1892.

Dear Mr. Constantine,

I have carefully read your volume (*Fifty Years of the Water Cure, with Autobiographical Notes*), and have much pleasure in saying that in my opinion it contains much valuable information and advice regarding the important question of diet and regimen; advice which, if followed, must lead to the improvement of health and the prolongation of life.

Your long practical experience gives additional weight to the advice you lay before your readers.

I trust your book may have a wide circulation,

Yours sincerely,

ALEX. IRELAND.

P.S.—The experience of good Mr. Holden is very interesting, and you have done much service in recording it; your own recollections of your early days I have read with much pleasure.

The following racy letter is from the member for

NORTHAMPTON,

December 29, 1892.

Dear Mr. Constantine,

It was very kind of you to send me your book. I have dipped into its contents, which has made me feel I am a very great sinner and how very hard it will be for me to enter the kingdom of heaven or to emulate your friend Mr. Holden, who must be quite a hygienic saint. I am sadly afraid you will be as one crying in the wilderness; where appetite is concerned we take a deal of converting. You have, however, done a great service to poor suffering humanity, in showing them the way; if they will not walk therein, upon their own shoulders must the burden fall.

I was hardly prepared for you putting a veto upon my porridge. Why, I have been doing violence to my feelings for years eating porridge, with the idea I was on the right track, adding years to my life.

Ah, me! how one's cherished opinions vanish before the increased light.

But be assured I am very much obliged to you for sending me the book; and I shall read, mark, and I have no doubt learn a great deal.

You will be glad to learn we have done a good work in setting up the Turkish baths; they are patronised more than I expected at the commencement.

Wishing you the compliments of the season, and with kind regards,

Believe me, yours truly,

Joseph Constantine, Esq.

M. P. MANFIELD.

HYDROPATHY AT HOME.

Third Edition. Price 2/6.

By JOSEPH CONSTANTINE.

People's Edition, abridged, paper cover, 6d.

The Mayor of Manchester writes:

Town Hall, Manchester,
November 8th, 1888.

My Dear Mr. Constantine,

I have perused with very great interest the book which you were good enough to send me upon the practice of the water cure at home. I am quite sure it will be found very useful to a great many suffering and infirm people. It reveals very great knowledge of the subject, and compiled with your long experience must be an invaluable guide to those who are studying the subject.

Yours very truly,
Sir J. J. HARWOOD, Knt.,
Mayor of Manchester.

"Every person who wishes to keep in health, or to be restored to health, should read this useful little treatise."—*Manchester Courier.*

"As to the book itself, it is simply invaluable to the heads of households; and as a book of reference, it seems to us indispenable."—*Reformer* (Glasgow).

HEALTH AND ACTIVITY

IN

MIDDLE AND LATER LIFE.

By JOSEPH CONSTANTINE.

Price 2/6.

TREATING ALSO OF THE CHIEF CAUSES OF SHORT LIFE; WITH A STEEL ENGRAVING OF ISAAC HOLDEN, ESQ., M.P.

"The chapters on diet, pure air, and a warm dry house, on hydropathy, walking exercise, and alcohol, are all worthy of careful attention. The book is well calculated to diffuse much needed instruction in the science of healthy living, and the art of preserving life and the enjoyment of life to ripe old age."—*The Alliance News*, August 8th, 1890.

"It is satisfactory to be told that man, if he only dieted himself properly, would live to over one hundred and twenty-five years; and the advice given to eschew smoking and alcohol, to masticate well, and to consume quantities of fruit and wheatmeal bread, is no doubt hygienically sound."—*Daily Telegraph*, July 8th, 1890.

"Those who obtain this book will find it a striking guide to health, and will, if they read it and follow its teachings, have reason to regard Mr. Constantine as a benefactor for the rest of their lives."—*The Templar*, September, 1890.

The books may be had at John Heywood's and all Booksellers; and at the Baths, 23, Oxford Street, Manchester.

CONSTANTINE'S

Convoluted Stove,

FOR WARMING AND VENTILATING

Cathedrals, Churches, Chapels, Schools, Town Halls,
Concert and Lecture Halls, Hotels, Mansions,
Hospitals, Laundries, Workhouses,
Turkish Baths, Manufactories, Warehouses,
Drying and Disinfecting Rooms,
Shops, Offices, Workshops,
etc., etc.

SUITABLE FOR ALL DRYING PURPOSES, AND EVERY SITUATION WHERE PURE WARM AIR IS REQUIRED.

Estimates and plans for warming any building forwarded on application with particulars of requirements.

EFFICIENCY IN ALL CASES GUARANTEED.

Communications to be addressed to "THE CONVOLUTED STOVE WORKS," *Chorlton Mills, Hulme Street; or 23, Oxford Street, Manchester.*

The Ventilation and Warming of Public Buildings.

From the vast number of miserably futile attempts at warming and ventilating places of worship and schools, it might appear that it was all a mere matter of experiment and that it cannot be thoroughly done. Many people indeed believe, at the present time, that that is the case. If the warming and ventilating engineering science is really in that deplorable condition it is high time that something was done to effect an improvement. But the science is hardly in so bad a case as that. We have at the present time in our midst a large number of Turkish Baths heated with a moderate amount of fuel to a very high temperature which is steadily maintained, without any danger of fire, and in the hot rooms, which are well ventilated, there is a change of air equal to thirty cubic feet per minute for each bather.

If this is done in Turkish Baths, surely there ought not to be any doubt or difficulty in warming and ventilating places of worship, since they require a much lower temperature.

The problem of efficient warming and ventilation is solved at the Free Trade Hall, Manchester, and we may add also that of acoustics, for it is one of the best and easiest rooms to speak in of all the large halls in England, It is warmed easily and with little fuel, and when there is a gathering of some five thousand people the air in the room is changed at the rate of three times in an hour.

The immense area (1,500,000 cubic feet) of the Royal Exchange, Manchester, is warmed at an average cost of fuel per annum of £8. 16s.; and the Free Trade Hall £2. 10s. for the whole winter.

The Great Mission Hall, Mile End Road, London, is warmed and ventilated on the same principle, as far as its conductor, Mr. Charrington, could carry it out, after having heard of the Free Trade Hall system. The building was nearly ready for roofing before he became acquainted with the plan. The hall is one of the best ventilated, and one of the easiest to preach in in London; that hall, the Free Trade Hall, and the Royal Exchange are warmed by Messrs. Constantine's Convoluted Stove.

When large halls such as these are so easily warmed and efficiently ventilated there should surely be no difficulty with churches not one-fourth their size. It is simply a question of making all the necessary arrangements in the original plans for an efficient heating apparatus with the necessary flues for the supply of fresh air and outlet flues for vitiated air, the whole to be constructed on the Automatic System, in which no valves are needed.

Warming and ventilation of churches, chapels, schools, &c., is of great importance, as defective warming and bad ventilation affects the health of a large number of the population.

Pure Warm Air and Ventilation.

SOME FACTS WORTH REMEMBERING.

Every ordinary-sized man takes into his lungs in one hour, two hogsheads twenty gallons and ten pints of air. One hogshead of blood is submitted to this air, in the hour, for purification.

For health, pure air is of the first importance. Pre-breathed air is injurious: it is vitiated, and loaded with impurities. The air in all sleeping apartments should be completely changed at least once every hour. This may be effected, and a genial temperature maintained through the house in cold winter weather, by a Convoluted Stove fixed in the basement. Anyone breathing impure air for several hours during the day or night must suffer in health, as the blood is to some extent poisoned.

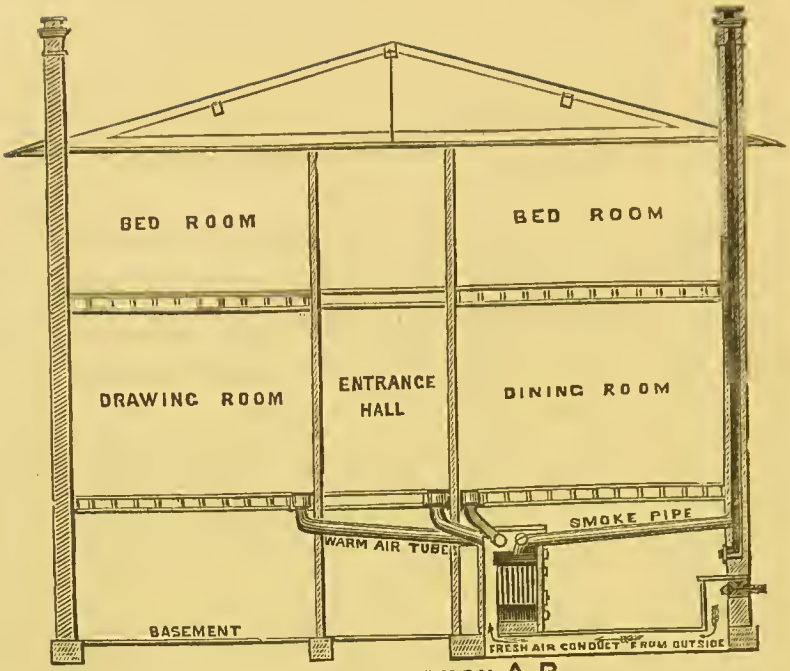
The invention of the Convoluted Stove solved the problem of efficient and economical warming and thorough ventilation of large buildings. Proofs of this are abundant. Efficient warming and ventilation at the present time and with the present heating apparatus, and what is known of the necessary arrangement, is neither difficult nor expensive if proper provision is made when the original plans are drawn.

In a large hall, accommodating five or six thousand people, the air can be easily changed three times in the hour.

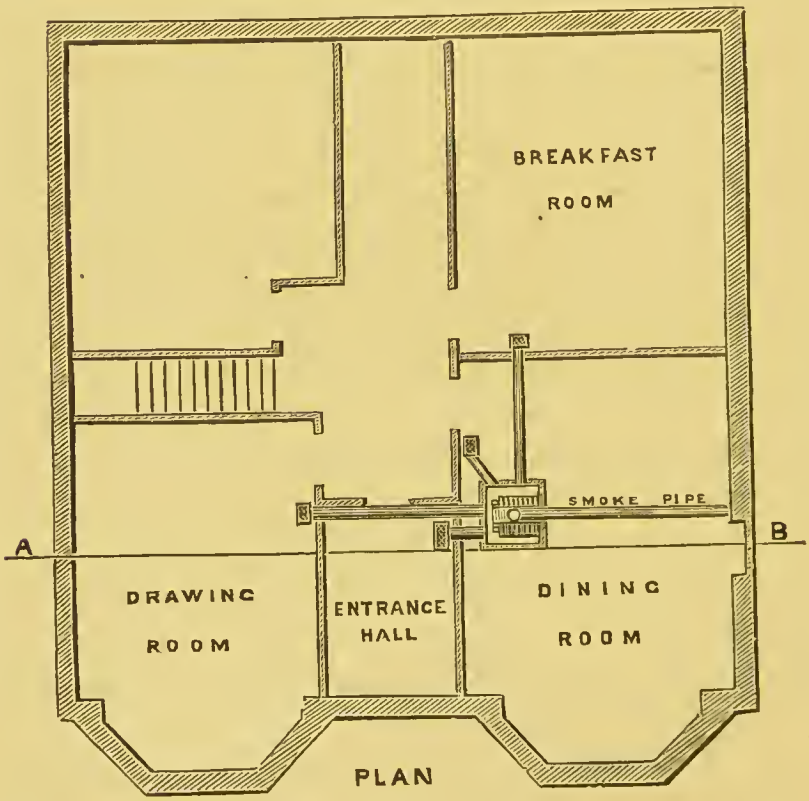
The warmth from hot-water pipes fixed near the floor in a place of worship or in a school is meagre, and does not radiate any distance—it never reaches the upper strata—the roof remains cold, and when the congregation assemble, the warmth from their bodies ascends, displaces the cold air at the roof, and causes cold draughts to descend in currents.

No building is efficiently warmed if the heating power of the apparatus is not equal to raising the temperature easily in all parts of the building 23 degrees above the outside temperature, whatever that may be.

When a building is efficiently warmed and comfortable, the temperature is much higher near the roof than the floor.



SECTION THROUGH A.B.



PLAN

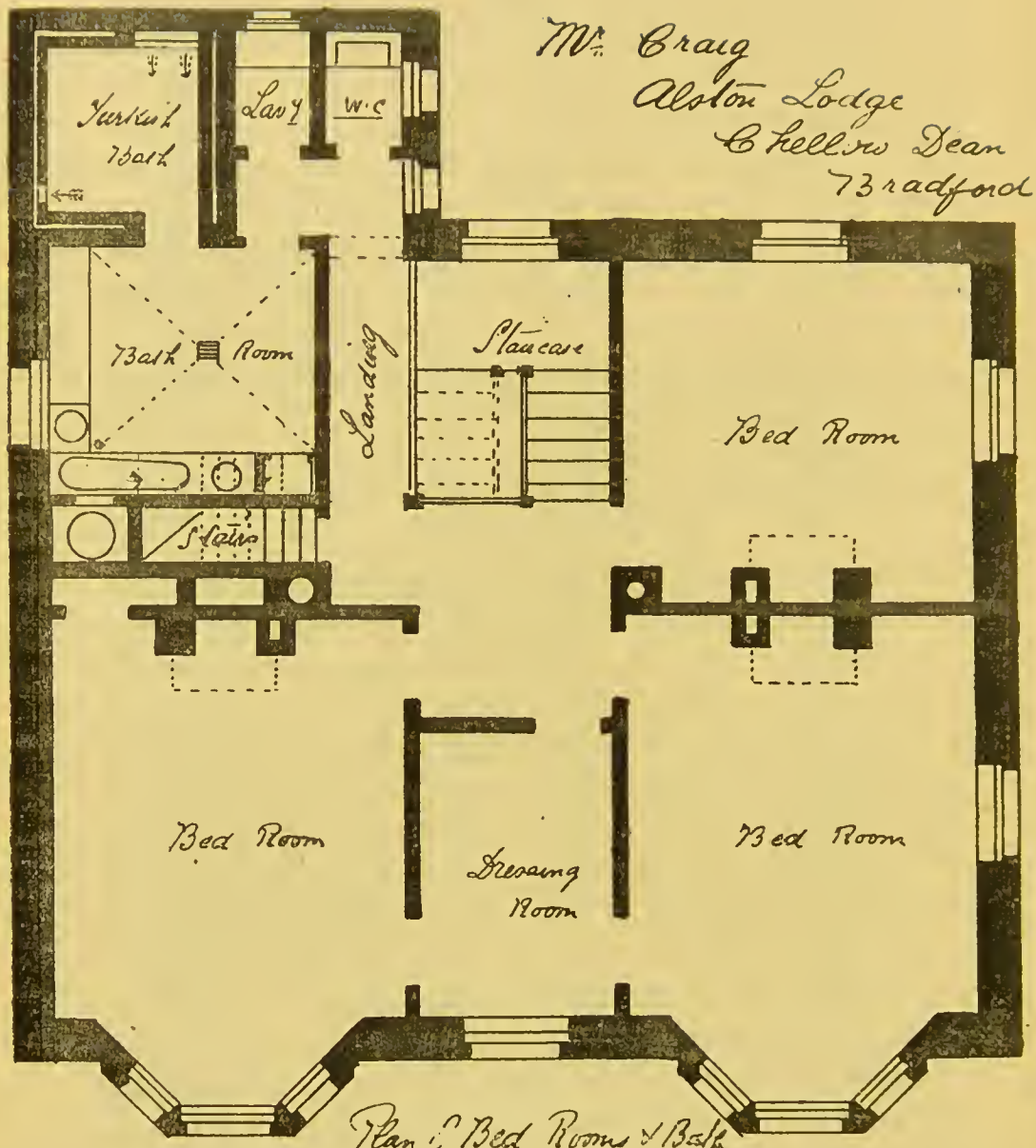
MANSIONS AND LARGE HOUSES.

In houses where the rooms are large and lofty, great difficulty is often experienced in obtaining and keeping up a genial temperature. The usual open fireplace is so limited in its heating power that, beyond the radius of a few feet, it is a long time before the influence of the fire is felt. For the aged and infirm, and for all who are in a weak state of health, a genial and uniform temperature in the various rooms and in the corridors is of special benefit. The Convoluted Stove is especially adapted to cases of this kind, and merely requires the insertion of air flues and a smoke flue in the walls, which may be provided at *small cost* when the house is in course of erection, and any cellar in a central position will do for the apparatus. The principal rooms and the entrance-hall may be thus kept at an agreeable temperature day and night, with *less* fuel than is usually consumed in *one* open fireplace. By this arrangement (all the firing being confined to the basement) the dirt from fires in the various rooms is avoided, and labour saved, and there is but little smoke in the immediate neighbourhood of the house to injure flowers and plants. (This arrangement is shown on plan and section, opposite page.) This mode of warming is most effectual in drying new or damp houses.

In the house of the Wesleyan minister at Oxenhope, near Keighley, Yorkshire, the walls were so damp that the wall papers were discoloured and loose, and the health of the whole family suffered. A small Convoluted Stove was fixed, and in a few days dried the house thoroughly.

Rev. T. Lloyd Knapp, vicar of St. James', Oldham, says: "It thoroughly warms the house, and has both *expelled the permanent damp feeling*, which we never could get rid of with ordinary fires, and has *entirely stopped the progress of dry rot*, which was threatening almost all the lower rooms."

Houses already built can be fitted with the stove with very little alteration, and Mr. Constantine will be happy to advise with persons wishing to adopt the best system of heating.


Mr. Craig
Alston Lodge
Chellow Dean
Bradford
Turkish Bath
Lavy
W.C
Bath Room
Landing
Staircase
Bed Room
Stairs
Bed Room
Dressing Room
Bed Room
Plan of Bed Rooms & Bath

PRIVATE TURKISH BATHS.

Private Turkish Baths are greatly on the increase. Their construction need not be very expensive. If, when the plan of a new house is drawn, a hot room for a small bath is arranged, adjoining the ordinary bathroom, a double saving is effected—one heating apparatus will warm the house throughout, and heat the Turkish bath; and a bedroom may be used as a cooling room, as per plan.

With such an arrangement every room in the house is not only warmed, but efficiently ventilated (into one main shaft); in the bedrooms a complete change of air is effected every half-hour throughout the night.

TURKISH BATH AND HOUSE ALTERNATELY HEATED BY THE SAME STOVE.

Alson Lodge, Chellow Dean, Bradford,
June 13th, 1891.

Messrs. J. Constantine & Son.

Gentlemen,—I am pleased to say that I have no difficulty in heating my private Turkish Bath from the *same apparatus* (your Convoluted Stove) by which the house is warmed. The warm air can be easily directed to either the bath or the house, as it is required. The ventilation of my house is all that one could desire. The warming and ventilation in a house of this size promotes not only comfort but health.

Yours truly,
THOMAS CRAIG.

ECONOMY IN HEATING TURKISH BATHS.

In a large bath, where a high temperature has to be maintained day and night, the first cost of the Convoluted Stove may be saved in fuel, as the following testimonial shows:—

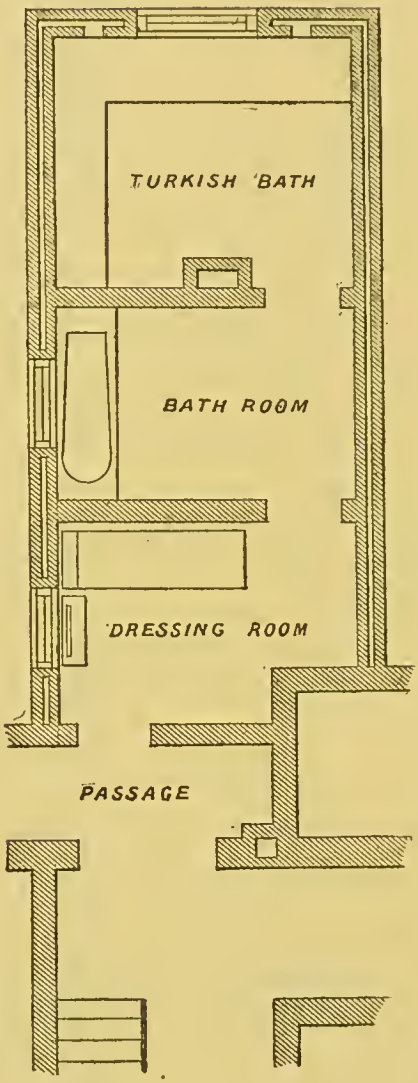
The Hydropathic Establishment and Winter Residence,
Llandudno, April 18th, 1891.

Dear Sir,—It is now over eighteen years since your Stoves have been in use here. Our Turkish Baths are more than double the area they were in 1872. At that time we used flues for heating them, and spent over three pounds per week in fuel, and found it hard work to keep the heat up to 150° in the hot rooms. Now we spend six shillings per week for fuel, and the hot rooms, without difficulty, are over 200° Fahrenheit. We have now a constant flow of pure warm air passing through the rooms. The ventilation cannot be excelled.

Yours truly,
H. THOMAS, M.D.

PLAN OF

Private Turkish Bath.



Messrs. J. CONSTANTINE & SON have heated and fitted up with Spray, Shower, and Douche, in some cases with a Lounge, as shown on plan, many Private Turkish Baths, which are very convenient as to space occupied.

Heating, Ventilating, and Fitting completely Turkish and other Baths.

J. CONSTANTINE & SON not only warm and ventilate large public buildings, churches, chapels, &c., but they have had a long and practical experience in heating and fitting baths of all kinds.

The fitting of the Grand Turkish Bath, one of the best in England, at the Hotel Metropole, Brighton, was entrusted to them by the eminent architect, Alfred Waterhouse, Esq., F.R.I.B.A.

The Directors of the Hartlepools Baths Co. entrusted the arrangement of their new building (fitting of Spray, Douche, Lounge, &c., and the heating and ventilation of the Turkish Baths) entirely to them, with the following satisfactory results:—

HARTLEPOOLS BATH CO. LIMITED,
TOWER STREET, WEST HARTLEPOOL, *August 29th*, 1891.

TO MESSRS. J. CONSTANTINE & SON,
MANCHESTER.

Gentlemen,

Now that your portion of work in connection with the above Company has been completed, I beg leave to say that everything has been carried out and left in a thorough and highly efficient manner, both in material and workmanship. 1st, The stove and boiler are perfection, and your stove fitters have given us the highest satisfaction for skill and workmanship. 2nd, Your plumbers and bath fitters have carried out their part of the work in a most excellent and skilful manner. I may say that I have never seen work carried out and so perfectly complete—and I have had over twenty-three years' experience in this work, and during that time have had five such places erected for me. When we went to test your plumbing work with the hot and cold water full on throughout the building, there was not a single joint in the whole place wanted re-doing or even looking at—"all was perfect"—and it was very pleasing. We tested all the works, viz., stove, boiler, tanks, baths, douches, and all water arrangements, in the presence of the following Directors, last Thursday, viz., Henry Withy, Esq., J.P., J. J. Woods, Esq., and J. Wilson, Esq.; and our Mr. Withy expressed to your foreman plumber that they were highly satisfied with everything. Now, will you kindly send in your bill for all work done, as early as possible, to T. H. Tilley, Esq., Messrs. Turnbull and Tilley, Church Street, West Hartlepool? Enclosed I beg also to hand you a list of carriage of goods out of the £2 received.

With kind regards to Mr. Constantine, senr., and junr.

Yours very obediently,
ROBERT SCOTT,
On behalf of the Hartlepools Bath Co. Limited.

Illustrated Circular Free, and Tenders on application to

J. CONSTANTINE & SON,

CONVOLUTED STOVE WORKS,

Stockton Street, Clarendon Street, or 23, Oxford Street,

MANCHESTER.

Estimates and Plans of Warming arrangements for Cathedrals, Churches, Chapels, and Schools, Town Halls, Hotels, Mansions, Halls, Cottages, Laundries, Workhouses, Public and Private Turkish Baths, Manufactories, Warehouses, Drying Rooms of all descriptions, Disinfecting Rooms, Shops, Offices, Workshops, &c., on plans being forwarded showing the area to be warmed and situation of Apparatus Chamber.

Messrs. J. Constantine & Son will be glad to send a competent person to survey and consult; and if the order for warming the building be not afterwards given, his expenses only will be charged.

The demand for the Convoluted Stove in winter is so great as to tax all the resources of the establishment—and is increasing year by year. Those intending to adopt the Apparatus are respectfully requested to give as much notice as possible, and not defer their arrangements until immediately before the Stove is required.

Efficiency in all cases guaranteed.

All communications will receive prompt attention. Address: Messrs. J. CONSTANTINE & SON, Convoluted Stove Works, Stockton Street, Clarendon Street, Chorlton-on-Medlock, or 23, Oxford Street, Manchester.

CONSTANTINE'S BATHS,

23, Oxford Street, St. Peter's, Manchester.

TARIFF.

Turkish Bath—
- Private 5/0
- First-class 2/6
- Second-class 1/6
- Ladies' Bath—private. 5/0
- Ladies' Bath—1st class 2/6
- Do. do. *after 5 p.m.* 1/6

Russian Bath—
- Large Bath—private... 5/0
- Large Bath—public ... 2/0
- Small Bath 1/6

Vapour Bath—
- Private 1/6
- With Wet Sheet Pack 2/6
- With Warm or Tepid Bath 2/0
- Local Vapour 1/6

Lamp or Indian Bath .. 2/0

Sulphur Bath—
- Vapour or Water ... 2/6
- Calomel 2/6

Shower Bath—
- Hot and Cold 1/0

Saline 1/6

Alkaline 1/6

Warm Water Bath ... 1/0
- With Shower or Dripping Sheet 1/6
- Wash down in the Turkish 1st class ... 1/0
- Do. do. 2nd class ... 1/0
- Bold or Tepid Lounge 1/0

Wet Sheet Pack 2/0
- With Vapour 2/6

Dripping Sheet—
- Cold 1/0
- Hot and Cold 1/6

Douche Bath... ... ... 1/0

Ascending Douche ... 1/0

Rain Bath 1/0

Sitz Bath—
- Hot and Cold 1/0

Books of Tickets are issued at reduced rates:—

First-class Turkish	10 for £1	0 0
Second-class Turkish	10 for	0 12 6
Russian—public bath	10 for	0 16 0

These Baths are Opened at 8 a.m. and Closed at 9 p.m. Tickets issued for Turkish Baths until 7-30; other Baths until 8 o'clock.

STONEY LEA

Hydropathic

AND

Boarding Establishment,

ILKLEY, YORKS.

VISITORS.

Terms - - - - - - - - -	£2. 2s. 0d.
July, August, and September - - -	£2. 5s. 0d.

PATIENTS.

	Additional.
Introductory Consultation Fee - - - -	10/6
Ordinary Medical Attendance (per week) - -	10/6
Baths (including use of Bath Sheets) - - - -	3/6

Physician:

THOMAS SCOTT, M.D., M.R.C.S.E.

THOMAS EMMOTT, Proprietor.

Postal and Telegraphic Address:
T. EMMOTT, ILKLEY.