

### THE

# Caledonia Springs Guide;

OR,

## GENERAL OUTLINE OF DIRECTIONS

FOR INVALIDS,

### With Desultory Observations.

В₹

JOHN G. BRIDGES.

"There is this difference between those two temporal blessings *health* and money; money is the most envied but the least enjoyed, health is the most enjoyed, but the least envied; and the superiority of the latter is still more obvious, when we reflect that the poorest man would not part with health for money, but that the richest would gladly part with all their money for health."

CALEDONIA: PRINTED AT THE SPRINGS MERCURY OFFICE. 1841. This little manual is intended as a guide to all who drink the Cale donia waters, either at the Springs or at their homes. It may be ha at those places where the waters are sold.

## **INTRODUCTION.**

"Oft what seems A trifle, a mere nothing, by itself In some situations, turns the scale Of fate, and rules the most important actions."

It is not necessary that I should point out the importance of possessing a Canadian watering place. It is too obvious to require comment.

A few years ago the Caledonia Springs scite presented nothing but a small frame building and one or two log huts, with a few halfcleared acres of land around; but what a change has taken place within the last five years. \*

<sup>\*</sup> If proof were necessary of the march of refinement, the following would be one of no small force. At the Hotel of the Caledonia Springs, a place which but a few years ago was a portion of the Great American Wilderness, and of which the celebrity is but quite recent, an Amateur musical performance was given on the 24th ult. of which the following is the programme.

The performers were all ladies and gentlemen visiting the  $Sprin_{2^{s}}$ , and both the amusement itself and the selection for the occasion, are indicative of the taste of the parties. We should be glad to hear of many more such instances.—N. Y. Albion.

This refered to a journee musicale at the Springs.

The woodpeckers loud tap on the hollow stump has given place to the more musical tiny click of the composing stick. The prowl of bears and wolves, is succeeded by the gay promenading of " Nature's fairest flowers," and their attendant beaus. Where the lordly sovereigns of the forest stood-some forty buildings have sprang up in their place. Where the sun could never penetrate the impervious branches of foliage,-now, his glorious course can be watched from the rising in the east to the setting in the west. Where all was wild and undressed nature,---we now find the improvments of civilization. Where the wind breathed in sullen whispers through dense forests,--we may now on the sabbath, hear God's minister speaking His promises to man. This is indeed a change, -of which all may well be proud. And to crown the whole-here may be found the greatest boon, which a bountiful providence has in her power to bestow upon her creatures, -- the Springs of life--- spreading their charms around, by imparting health to the sick,-alleviating at least, if not always curing, the diseases of the human family.

Here, the lame forget to use their crutches,-the pallid cheek, and attenuated frame, change for the rosy hue, and elastic step of renovated nature. Here, the man of business, forgets for a brief period, the anxieties and cares of the busy world, and by drinking deep at the fountain of health, he is enabled to return with redoubled vigour and gout to his pursuits. Here, the man of pleasure, who by too free indulgence in sensualities, has felt the sting inseparable with excess, has time to ruminate on the past, and resolve for the future. Here, the studious, can relax from their severities,-and recover from the prostration of mind and body, so generally attendant on excessive application. Here, the bachelor thinking it time to change his estate, seeks to mate with his kind. Here, the spinster, studies the most becoming smile, and at length, secures a captive to her charms. Here, old and young, married and single, one and all, a if by common consent, appear determined, to wear life like an o' slipper, put on, and put off with ease.

Caledonia, it must be admitted, is not remarkable for the picturesque; and the country around is decidedly too level to afford a pleasing landscape, but, by a little clearing of the woods, a beautiful background view of the bold promontory of land, on the other side of the Ottawa River, will be at once brought into pleasing relief. The distance is five or six miles, with some undulating scenery intermediate.

Within one mile and a half of the Springs, is the Caledonia settlement, where there are as good farms, and well cultivated, as can be found in Canada.

There are three Hotels at the Springs. The Victoria, is ninety eet by forty, surrounded by three thousand feet of verandah promenade. It is well furnished, with a spacious muric suboon. Every comfort is to be met with in it that the invalid could require, or the most fastidious taste expect in a rural abode. The wines are of choice brands and defy criticism of the professed connoisseur.

The amusements at the Springs, are, an excellent Billiard table,ball room,-rustic swing,-ten-pin alley-and a variety of games, with which visitors, both Ladies and Gentlemen, amuse themselves on the green.

All the cares and restraints,—all the chilling formalities of life, are here by common consent thrown aside. The health recovered man of sixty, is often seen on the lawn practising the graces, with the lowely girl in her teens.

There is a sort of witchery in this rustic retreat, and visitors who come here intent on passing a few days, often remain spell bound for as many weeks.

The Steam Boat navigation of the Ottawa has undergone a great change. Persons leaving Montreal in the morning, are conveyed nine miles by stage to Lachine, from thence by Steam Boat to Point Fortune in about six hours; where the Springs line of four horse stages, are always in readiness to convey them through.

The road for the greater distance is good, and the country through which it leads, picturesque and diversified. The distance is twentyseven miles, eighteen of which from Point Fortune to L'Orignal winds on the margin of the majestic Ottawa, with the towering mountains on the other side of the river, standing in bold relief.

The Springs Stages, leave Point Fortune after the arrival of the boat, on Tuesdays, Thursdays and Saturdays, upwards; and leave the Caledonia Springs on Mondays, Wednesdays and Fridays, downwards. It will be thus easy for Montreal visitors, to leave on Saturday Morning, get to the Springs the same evening by day light, pass a day of rest with their friends at the Spa on Sunday, and after breakfast on Monday raturn, arriving at Montreal before night.

There is a new Steam Boat put on the river by the Ottawa Company FOR PASSENCERS ONLY, and the Ottawa will still make her daily trips for passengers and towing. In addition to which the new line of boats will offer every facility for the travel and convenience of visitors to the Springs. There is nothing now to retard the rapid growth of this interesting abode of HEBE.

Rome was not built in a day, nor is it to be expected that the Caledonia Spa will be found a Saratoga—a Bath—or a Cheltenham, but from the improvements going on, and the co-operation of the Public, it will no doubt soon present, a prominent object of Canadian civilization and benefit.

The American tourist in his visit to Canada, will find the Steam Boat route by the Rideau Canal from Kingston to Bytown, the most interesting. At Pytown he will be well repaid for a days sojourn. should he be so inclined. The Chaudicre Falls,—the rapids;--the splendid view from the heights,—the impetuous waters in wild fury hurled over the half concealed rocks—the spray ascending in clouds as if in sportive dalliance with the wind—the loud angry roar of the descending torrents,—all combine to present an interesting picture of the "Sublime and Beautiful." From Bytown the Steam boat can be taken to L'Orignal, distant about fifty miles, and there, the stages will be always in readiness to convey passengers the remainder of the journey, (nine miles.) to the Springs.

### TABLE OF DISTANCES IN MILES.

From Montreal to the Ciledonia Springs.

BY LAND, BY WATER. Montreal, Montieal, 921 St. Eustache, Lachine, St. Anne, 21 | 30 | 45 | 24 | St. Andrews, Point Fortune, 30 | 51 | 60 | 48 | 27 | 30 Point Fortune, Hawkesbury,  $12|_{12}|_{12}=====$ Hawkesbury,  $12|_{12}|_{12}|_{12}|_{12}|_{12}|_{12}$ L'Orignal, 41 20 17 5 5 17 47 68 77 65 L'Orignal, -Caledonia, 25 183 73'52~288 13 25 55 76 85 Caledonia,

# THE SPRINGS GUIDE.

In offering this little manual for the guidance of invalid visitors to he Caledonia Springs, the author disclaims any intention of upholdng the waters, as a general panacea for all discases.

There is no magic secret in their operation, in removal of the comclaimts for which they are so justly celebrated.

Their analysis by one of the most celebrated practical chymists, which will be found at the end of this little work,) presents incontroertible evidence of their salutary tendency, upon the established heorem of the highest medical authorities. It is an acknowledged ruth, that nine-tenths of diseases which "human flesh is heir to" are visceral, or have their origin in the stomach and bowels. Such, may be unhesitatingly pronounced, within the compass for which these nvaluable waters present a certain relief, and not unfrequently a perfect cure. It is a singular fact, that although medical men have uscertained to a nicety by analytical investigation, the chemical properties of the Caledonia Springs waters, and can prepare it after the formule; yet it is not in the power of medical science, to produce the same happy results in the cure of diseases by the compounds of art, (although of the same exact chemical proportions) as are effected through the spontaneous and natural agency of the living springs, a boon placed to the acceptance and beneficial use of man by a bountiful Deity, to remove or alleviate many of the diseases of the human family, from hereditary entailment, or these that are generated by self-abuse. Such an inestimable benefit placed within the reach of rich and poor, should teach us to look around with satisfaction, and upwards with gratitude.

# The Waters should be drank at the Springs.

Many persons labor under an impression, and it is an argument frequently used, that an equal benefit can be derived by Invalids drinking the waters at their homes, as by their use at the fountain head. I beg to differ with them. I do not assert that their medicinal properties are lessened by transportation; but I contend, that change of scene, abstractedness as much as possible from care, or matters that may fret the mind; and the opportunities afforded by watering places, for lively converse, and cheerful society, operating by the laws of social sympathy, contribute very much to recovery.

The sympathy between mind and body is universal, and universally admitted. The removal from the scene of care,—and that general soother of mind and body,—HOPE,—created by witnessing daily the sanative virtues of the waters in the recovery of others, have a tendency to calm the troubled action of the vessels, to check and soothe the violent and irregular impetus of the nervous system, and to admingister a beneficial stimulus to the oppressed and debilitated powers of nature.

Every powerful exertion of the mind, produces some corresponding change in the body. I need but advert to the experience of all, that when upon occasions they have wished for some delicious fruit, or savoury viand, have they not felt sensible of the salivary glands being stimulated to a free secretion of saliva. In like manner and equally so, does change of scene and cheerful society operate upon the body beneficially in disease, through the sympathy of mind. Not only does a visit to a watering place, afford a temporary relief from the pernicious influence of cares and solicitudes, but in general, invalids can the more readily conform to the strict regimen which may be prescribed for them. They are besides removed from the temptations of friends, or the killing kindness of nurses, fostering disease by the different condiments often forced upon their patients, by a mistaken but well-meant solicitude.

## Spirituous Liquors and Wines.

I would not be unmindful of impressing on the minds of *invalid* visitors, the positive necessity of observing the most rigid abstinence, with regard to wine and spirituous liquors. No two things can be more opposite in their effects, and great evil may be apprehended by indulgence in these, and the use of the waters at the same time. They are in fact decided antagonists, and the spirituous influence will in general prevail, and counteract the beneficial tendency of the waters. There may perhaps be a few exceptive cases, but then it should be taken discretionally, and only upon the recommendation of a medical attendant.

### Diet.

A desire for food, and a perfect enjoyment of it, is an almost immediate effect produced by the use of the waters, to those who strictly adhere to the rules laid down for heir guidance. In fact, a great difficulty exists sometimes in convincing invalids, who are convales. cent, of the absolute necessity of imposing upon themselves a limit in this indulgence. But reflection will show every considerate mind, that eating to repletion must be a means of retarding recovery, by imposing upon the functions of the Stomach, in its debilitated state, a greater task than it is capable of undergoing. Although nature may make the demand upon us, yet should we supply her sparingly at first. In the early stage of convalescence, such articles of light diet only should be indulged in, which the digestive powers can easily pass through the necessary process. That perfect Mastication of food should be observed, and by dyspeptic patients in particular, must be very obvious to every one. Mastication is the source of good digestion. It is in fact not what we cat, but what we digest well, which nourishes the body. By thorough mastication of food, greater facilities are thereby afforded to the gastric juices to dissolve it, the nutritious property of the food is extracted, and the more readily converted into chyle.-Chyle is the principle on which the blood subsists, and if it be not formed by a healthy action of the Stomach, then prostruction of strength, must as a natural consequence follow.

### Sleep.

It is an incontrovertible fact, that disease is often increased by invalids remaining too long in bed in the morning, to make up as they allege for a deficiency of sleep in the night. Reflection will point out the necessity, and a little determination will enable invalids to overcome this enervating practice. By rising early, and going to bed in good time, sleep will become sound and refreshing. The effort must be made, and persisted in; those who desire to experience benefit by using the waters, need only expect it by early rising, and taking such exercise as they are capable of, before breakfast. It should however be of a temperate description, and regulated so as not to produce fatigue. The necessity of exercise will be made conclusively apparent in the explanations which follow.

### **Medical properties of the Springs**.

Having thus briefly, but I trust plainly noticed the circumspection necessary to be observed for the recovery of health, by invalids who seek to drive benefit from the Springs waters,—I shall proceed to describe their different properties, and to advert to those diseases over which they exercise a beneficial influence.

There are three Springs,—The SALINE, GAS, and WHITE SUL-PHUR. The most surprising thing is their proximity with each other, and yet differing so greatly in their properties. The two latter being but about four feet apart, and the former but a few rods from them. The Gas and Saline waters are safe and agreeable aperients. The Saline is the most powerful.

In Dyspepsia, or derangement of the digestive organs, they are found extremely efficacious, and the most inveterate and confirmed cases in general, give way to their continued and judicious use.

In affections of the Liver, Kidneys and Urinary Organs they possess extraordinary virtues. In Dropsy, Scrofula, Fever and Ague, Jaundice, Habitual Costiveness, Nervous and Sick-headache and Impurities of the Blood, they are found very serviceable.

In complaints engendered by an injudicious or indiscriminate use of mercury, and also diseases to which young females are subject, come within the immediate influence of these invaluable restoratives. By their timely aid, the sufferers from Chlorosis (and from neglect of which many unfortunate young females are fated to an early grave,) may be restored to society in the enjoyment of life's greatest blessing—Health.

It must be known to most of my readers, that in the cure of diseases generally, there is no hocus pocus,—no secret magic talisman by which the medical profession effect it. There are three natural drains or outlets, by which the efforts of art are directed, to assist the operations of nature,—the Stomach and bowels,—the Urinary organs—and the Skin. Upon all these the Caledonia Springs waters act powerfully. Their baneficial tendency must be therefore made conclusively apparent.

## Direction: for taking the waters.

The Saline and Gus waters should be drank at six o'clock in the morning, commencing with four or five consecutive glasses, and if the effect desired be not produced in half an hour, it is advisable to take a glass at intervals of ten minutes until it has. Their operation is greatly accelerated by a moderate excreise of walking. The aperient effect should always be produced before breakfast, and no difficulty need ever be experienced in accomplishing it. Unlike every Cathartic medicine, not the slightest degree of pain, nauses, or even uncasiness of any sort is produced. But the most remarkable fact is, that an action may be kept up on the Stomach and bowels for months, by their unremitting dully use, without producing the slightest debility of those organs, or eny log of strength.

I have before observed, that the Gas Spring is the mildest in its operation on the bowels, and it certainly is the most grateful and exhibitating to the system, of any mineral waters that I have ever met with. An elasticity and buoyane, of spirit is produced that is truly delightful. It will be found in the use of both the *Saline* and *Gas* Springs waters, that when taken in the morning fasting, they operate as a Cathartie, but if after breakfast at any period during the day, they act chiefly as a Diuretic, with but little, and frequently no operation on the bowels. In some constitutions they operate most powerfully on the kidneys.

The Sulphur Spring water, may be drank as a common beverage

in almost every case, and I recommend it to invalids, particularly in Cutaneous affections and Rheumatism, to be taken with their dinner, in preference to the common well water. In a short time it will be found not only palatable, but persons generally become very fond of it.

The GAS SPRING may be regarded as a curiosity. The ebullition of the escaping gas may be heard at a considerable distance. A small tin apparatus is most evenings in requisition by the visitors, which being placed over the spring, in a few minutes collects a considerable quantity of gas, and on applying a light to the small tubular part of the machine, it immediately ignites, and gives for some time a beautiful, clear, bluish flame, which flares up spirally to a considerable height.

The practicability of lighting the Victoria Hotel with gas from this Spring is not doubted, and the endeavor is shortly to be made.

Over the Gas Spring there is a very pretty octagonal building, with a walking gallery around it, the interior is fitted up as a grotto, with a beautiful variety of lichens and moss. A round table fills the centre of the room, in the middle of which is the apparatus for pumping the water from the Spring below. Visitors can thus sit in this cool retreat, and enjoy the delightful health-giving beverage in all its freshness, and containing all the gaseous properties, as it is forced up from under the surface by the suction pump.

### Caution against abuse.

It may not be unnecessary to caution invalids against an inordinate and indiscriminate use of either of the Springs waters. A greater evil than a good may arise from it. I have known persons erringly to imagine, that their recovery must progress in proportion to the quantity which they consume. It is necessary that prudence should regulate their use, or their good effect will be lessened.

### Bathing.

I must not omit to speak of the warm and cold Baths, as an cuxiliary in the removal of some diseases. Bathing is found extremely grateful to sufferers from Rheumatism. In some cases, the shower bath will be found a useful agent, but the application of either, i should recommend to be had recourse to, only under the direction of a Physician. In others, it is advisable to use the warm bath just before bed time, and by retiring immediately after, a free perspiration will be induced, which will greatly contribute to a cure of disease by one of the principal outlets—the skin.—If it be used in the middle of the day, a moderate exercise of walking should be had recourse to.

General bathing is indispensibly necessary to a healthy action of the skin, at all times when the weather will permit. It has astonished me that so many enlightened people of the age, should neglect this one great means of the preservation of health. From neglect in this particular, it may be asserted with truth, that in the majority of persons who do not avail themselves of it, the pores of the skin are half-closed, and unfit for use. It is at the same time a benefit and a luxury.

In our public seminaries particularly, every recourse to it should be afforded to the rising generation, for it not only invigorates the system, but it begets attention to cleanliness in youth; a due regard to which cannot be too early inculcated, influencing so much as it does, their habits in manhood. The Baths at Caledonia are prepared with the Springs waters, and their cfficacy when taken internally, is in many cases greatly enhanced by their auxiliary external application. A vapour both has recently been added to the establishment, and is found a valuable assistant to the waters.

### Desultory Observations.

The Caledonia Springs waters, although not extolled as a general panacea, yet may be viewed as of inestimable value in the cure of chronic complaints. I have no hesitation in recording my opinion of them, as surpassing any thing that I have ever met with in the whole range of the materia medica, in the cure of Rheumatism. In some cases the good effect is so quickly experienced as to astonisle he patient. A gentleman who visited the Springs the early part of ast season, and who had been confined to his room the greater part of the winter with inflammatory Rhoumatism, upon being asked by nyself a few days after his arrival,-if the waters agreed with him ? Agree ! replied he, I have heard of magic influence before, but never tnew what it meant till now. Five days ago I could move neither and or foot, without excessive pain,-and now I can dance a jiguiting the action to the word. Nor is this case of speedy relief rom intense suffering, at all isolated, a great number of cases have come within my own knowledge, wherein a few days have produed an immediate convalescence.

A strongly marked case of Rheumatism has just been under my ersonal observation. A few weeks ago, a gentleman arrived here rom Montreal, a cripple, suffering intense agony—sleep was denied im at night, and his days were past in changing from a sofa to a hair, and from thence to bed; an incessant shifting was resorted o in the vain hope of getting rest, or an intermission of racking ain. He had been for a long time under the most eminent of the aculty at Montreal, and army surgeons of great professional acquirnents, without deriving any, even the least benefit. He left the Springs a few days ago in robust health, freed from pain altogether, and able to walk as well as he ever could.

It is the duty of gentlemen of the medical profession, to discard all narrow-minded or selfish feeling, and to give the waters of the Caledonia spa, a calm, cool, and dispassionate enquiry "nothing extenuate nor set down aught in malice"—the honest result I have no doubt would be, that they not unfrequently (and always in chronic affections) will bid their patients repair to the Caledonia Springs.

I have much pleasure in giving my humble testimony to the liberal and honorable feeling displayed by a great number of the profession already, who rank high in public estimation, according well with their deserts.

It has frequently happened that in long standing and inveterate chronic cases, where medical men have in vain tried every thing which their professional experience could suggest, to arrest the progress of disease, as a dernier resort, despairing of accomplishing it themselves, and to get rid of all further responsibility, they have advised their patients, to *try the springs*,—and many, very many, are the living proofs, that unfortunate sufferers were not "hoping against hope" at the last hour. Indeed very few invalids leave the Springs without experiencing benefit, if not perfect recovery.

From the celebrity which these mineral springs have so justly obtained, it is not unreasonable to expect, that they will at no very distant day exercise a powerful influence over the prosperity of the district in which they are situated particularly, and the Province of Canada generally. They will not only supercede the necessity of visiting the Saratoga or other Springs in the United States, and thereby keep within our own little world that indispensible article-money,-from their superior claim to the consideration of the valetudinarian, over ALL other mineral springs yet discovered in America, by their variety as well as their powerful efficacy in the removal of disease,—but they may also with justice attract the attention of the tourist of pleasure, and general traveller from afar.

Indeed, Caledonia Spa is already alike the resort of the youthful and gay, and the grave, contemplative and recluse, of our own country, with an occasional sprinkling of our American friends. Many more of whom we shall doubtless often have the pleasure of welcoming, when this infant Cheltenham shall be more generally known. Its rise and future prosperity may be distinctly traced through the vista of time.

I am glad to perceive that a new era dawns upon the steam-boat navigation of the Ottawa. It would be a positive sinning against the interests of the Ottawa District generally, and their own good particularly, that indifference in *steam-boat companies* to the necessary facilities for visiting the Springs sheuld be manifested. A great deal has been done by all engaged in the Springs undertaking, particularly by Mr. Parker; and however much individual good *may* arise out of it, that it is yet a means of encompassing a great public benefit, by placing to the acceptance of the sick "a balm in Gilead" is apparent. It remains then with the public, to show a merited liberal appreciation of the effort, by co-operation.

The domand for the Springs waters at a distance is very great. Four thousand cases of a dozen bottles each, have been forwarded (since Mr. Parker's proprietorship) to various parts. It has been also sent to France and Liverpool. Many thousand gallons are annually taken away in bulk, some of which goes a distance of a hundred miles by land.

Agents are appointed in the citics, and it is intended to establish agencies at every large town in Canada, and also in New York, and many of the important places in the United States.

### The Author's Note.

In presenting this little manual to invalids, great will be my recompense, if I shall have the satisfaction of perceiving that my hints are judiciously applied.

It is truly distressing to see as is often the case, unhappy victims suffering from their own neglect, when the means of relief have been within their reach, and by simple attention on their own part, it may have been experienced.

In this unpretending labor, I have most studiously endeavored to avoid prolixity, abstruseness, and professional technicality. It has been written with all the simplicity possible, and I have throughout kept in view, that it was intended for the MANY.

CALEDONIA SPRINGS, Feb. 10, 1841.

# THE FOLLOWING ARE THE CERTIFICATE AND ANALYSIS OF

Dr. Chilton.

### CERTIFICATE.

The Waters of the Caledonia Springs will prove highly serviceable in the treatment of various chronic diseases.

They possess those happy natural combinations of medical ingredients which are almost universally acknowledged by medical men, to be more beneficial as remedial agents, than any imitation of them which we are capable of forming.

It affords me great pleasure to hear that they are becoming extensively known, and that many invalids have already received signal benefit from their use.

JAMES R. CHILTON, M. D.

New York, July 10, 1837.

# ANALYSIS.

## OF THE MEDICAL SPRINGS OF CALEDONIA, UPPER CANADA.

### GAS SPRING.

## One quart of water

| Chloride of Sodium, |             | ,      |   | ,  | ,     |    | , | 89,75 |        |
|---------------------|-------------|--------|---|----|-------|----|---|-------|--------|
| Do                  | Magnesiu    | т,     |   |    |       |    | • | •     | 1,63   |
| Do                  | Potassium   | 1,     |   |    |       | •  |   |       | ,55    |
| Sulphate o          | of Lime,    |        | • | •  | •     | ,  | • |       | 1,47   |
| Carbonate           | of Lime,    |        | , |    |       |    |   |       | 2,40   |
| Do                  | Magnes      | ia,    |   | •  | •     | ÷  |   |       | 2,50   |
| Do                  | Soda.       | ,      |   | •  | 3     |    | • |       | 1,00   |
| Do                  | Iron,       |        |   | •  |       |    |   | •     | ,03    |
| Iodide of           | Sodium,     |        |   |    | •     |    |   |       | ,35    |
| Resin, a v          | egetable ex | tract, | · | •  | •     | Δ. |   | •     | ,52    |
|                     |             |        |   | Gr | ains, |    | , | •     | 100,20 |

Carbonic Acid, Sulphuretted Hydrogen, Nitrogen.

Gases,

## WHITE SULPHUR SPRING.

## One quart of water-

| Chloride of Sodium, .                     |             | ,    |       |        |   |   | 60,44 |
|---|-------------|------|-------|--------|---|---|-------|
| Do Magnesium,                             | •           |      |       |        |   | , | ,62   |
| Sulphate of Lime, ·                       | •           | •    |       |        |   |   | ,68   |
| Carbonate of Lime, .                      |             |      | ,     | •      |   | • | ,82   |
| Do Magnesia,                              |             |      |       |        |   |   | 3,60  |
| Iodide,                                   |             |      | •     | ł      | r |   |       |
| Vegetable Extract, &c.                    |             | •    | •     | •      | • |   | ,30   |
|   |             | Grai | ns,   |        | • | • | 66,46 |
| Gases, { Carbonic Acid<br>Sulphuretted Hy | <del></del> | _    | bic i | nches. |   |   |       |

## SALINE SPRING.

## One quart of water.

| Chloride of | Sodium    | • |   |   | • | • | 108,22 |
|-------------|-----------|---|---|---|---|---|--------|
| Do          | Magnesium |   | • |   |   |   | 2,01   |
| Sulphate of | Lime      |   | • | ÷ | , |   | 1,28   |

| Carbonate of Lime |          |   |        |   |   |   | , | 2,00         |
|-------------------|----------|---|--------|---|---|---|---|--------------|
| Do                | Magnesia |   | •      |   | • | , |   | 2,00<br>5,12 |
| De                | Soda     | · | ,      | • | < | • | • | ,82          |
| Iodide of Sodium  |          | · | •      |   |   | • |   | ,38          |
| Vegetable Extract |          | • | •      |   | • |   | • | ,61          |
|                   |          |   | Grains |   |   |   |   | 120,44       |

One hundred cubic inches of the Gas from the Gas Spring analysed.

is as follows :

| Light Carburetted Hydrogen |       |      |   |     |        | ,   | ٩ |   | 82,90  |
|----------------------------|-------|------|---|-----|--------|-----|---|---|--------|
| Nitrogen .                 |       | •    | • |     | •      |     |   |   | 6,00   |
| Oxygen                     | ,     |      | 4 |     |        |     |   |   | 1,56   |
| Sulphuretted               | Hydro | ogen |   |     | •      | ,   |   |   | 4,00   |
| Carbonic Ac                | id.   |      |   | •   |        | •   |   |   | 5,54   |
|                            |       |      |   | Cub | ic inc | hes |   | - | 100,00 |

### JAMES R. CHILTON.

NEW YORK, October 26, 1836

### REFERENCES. 7

MONTREAL. Hon. Mr. Justice Pyke,

 ✗ Dr. Robertson, Dr. M'Culloch, Dr. Holmes,
✗ Dr. Stevenson,

Dr. Arnoldi X Dr. Crawford, Thomas B. Anderson, Esq. Nahum Hall, Esq. John Mathewson, Esq. Willium Workman, Esq. Charles Bowman, Esq. George Hall, Esq. T. B. Wragg, E-q. R. H. Hamilton, Esq., Curtoms, Carter & M'Donald, Druggest, Wm. Lyman & Co. do

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