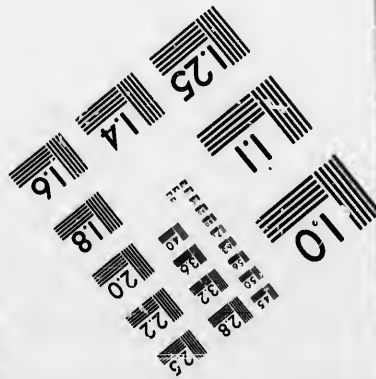
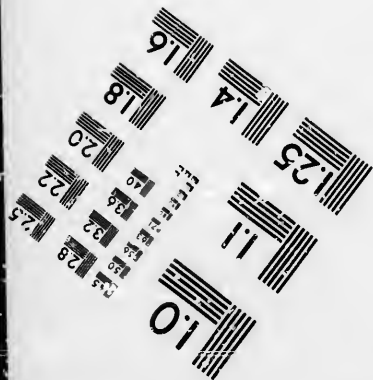
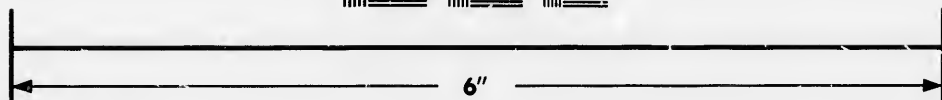
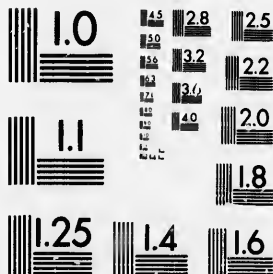


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

1.5
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57

© 1986

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

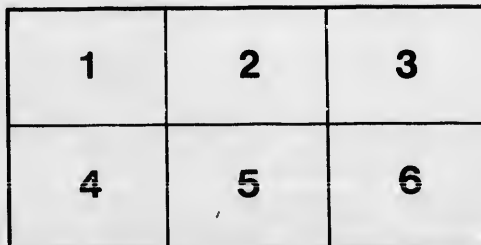
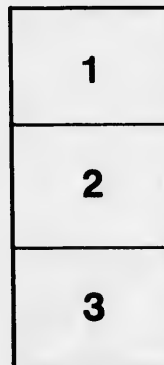
Archives of Ontario Library

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Archives of Ontario Library

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

ails
du
odifier
une
image

rrata
to

pelure,
n à

32X

44

1865-

DISEASES OF THE THROAT & LUNGS.

A PRACTICAL TREATISE
ON,
CONSUMPTION,
BRONCHITIS, ASTHMA,

AND KINDRED DISEASES,

WITH A DESCRIPTION OF THEIR TREATMENT
BY INHALATION.

BY

J. ROLPH MALCOLM, M. D.,

PHYSICIAN FOR PULMONARY DISEASES.

TORONTO:

DRS. HUNTER & MALCOLM.

1865



DISEASES OF THE THROAT & LUNGS.

A PRACTICAL TREATISE

ON

CONSUMPTION,

BRONCHITIS, ASTHMA,

AND KINDRED DISEASES,

WITH A DESCRIPTION OF THEIR TREATMENT
BY INHALATION.

BY

J. ROLPH MALCOLM, M. D.,

PHYSICIAN FOR PULMONARY DISEASES.

TORONTO:

DRS. HUNTER & MALCOLM.

1865.

THE UNIVERSITY OF CHICAGO

PHILOSOPHY

PHILOSOPHY

PHILOSOPHY

PHILOSOPHY

PHILOSOPHY

PHILOSOPHY

PREFACE.

In presenting this Treatise to the Canadian public, I would request for it a careful perusal, not so much on account of the manner in which the subject is treated as on account of the vast importance of the subject itself. When we reflect on the indisputable fact, that of all the manifold diseases which afflict humanity, there is none so frequent in its occurrence or so fatal in its issue as Pulmonary Consumption, and consider that it occurs at all ages and in every station of life, we will begin rightly to comprehend the importance of increasing our knowledge of the nature of this disease, and of devising some more efficient means of arresting its progress and promoting its cure. So long as the people remain ignorant of the causes which produce consumption, and of the symptoms which mark its first stealthy and insidious approaches, we cannot hope that any timely steps will be taken for its prevention, or that those who are unhappily struck by the fatal arrow, will be spared the danger and the sufferings arising from *confirmed* disease of the lungs.

That this want of information does exist among the people cannot be denied; and to obviate it as much as lies in my power, I have written and compiled this treatise. In doing so I have endeavored to avoid technical terms as much as possible, in order that all persons, whether professional or non-professional, may the better understand my meaning.

It has been the practice of the majority of medical men to enshroud their profession in mystery, and keep their patients as much in the dark as possible in regard to the nature of their disease. This is certainly wrong. Medical men should cast off the disguises and lay aside the mystery by which it has too long been their custom to mask everything pertaining to the healing art, and stand forth as teachers of the people. Plain practical essays on Physiology, Hygiene and Medicine will advance the cause of science, diffuse useful knowledge, and incalculably benefit all classes of society.

I propose to confine this treatise to a description of the various diseases of the Lungs and Air-passages, most frequently met with, and a short description of the rational method of treating them by Direct Medication by Inhalation.

I would first call attention to the fact that these diseases cause *one-fourth* of all the deaths in Canada, and that hitherto all the various methods of treatment in general use for their cure have utterly failed; hence the necessity for seeking some other method of medication. By universal consent among the people, and with few and solitary exceptions among the profession, these diseases have been regarded as *incurable*. It was thought that no art of medicine could drive them out or destroy them, when they had once obtained possession of the lungs. Thenceforward they were left to revel at pleasure among the delicate air-cells; to ravage as they would the fine membranaceous surface of this exquisite organ of breath; to choke with tubercles, or

corrode with ulcers, this inlet and gatherer of life; the remedies applied, of a character by no means suited to the nature of the disease; the mode of administering them, still less so.

No sooner is it discovered that the lungs of a patient are diseased, than pills, powders and syrups are administered by the stomach. Its regular functions are disturbed; its digestive powers are weakened; and its assimilation of nutrition is rendered imperfect. Dyspepsia follows with its train of miseries. The organs depending on the stomach for their daily employment are thrown into confusion. The *heart* no longer propels its stream of generous blood in an equal current; the impurities in the blood promoting fitful pulsations. The *liver*, cut off from its healthy occupation, sinks into languid inaction. The *kidneys*, unused to foreign secretions, are yet compelled to labor beyond their design, in removing impurities from the system. — Every department in the economy of life is disturbed and thrown out of order; and is it surprising if all sink together, shattered by the effects of the impurities circulating throughout the system?

On the other hand, let us change our method of treatment. In other diseases we apply our remedies to the diseased organ: Why should we not do so in consumption and other diseases of the lungs? We know the influence exerted on our bodies by the natural air we breathe; and feel, most sensitively, the slightest change in the condition of it. Charge it with a noxious gas, and we become oppressed: inspire it with a salutary balm and we are elated: soothe it with a narcotic odor, and we yield ourselves to its drowsy influence: sweeten it with the fragrance of flowers, and pleasure runs tingling through our nerves. And so we change the effect produced on our senses, our symptoms, or our lives, as we vary in its elements the air we breathe. In no medium around us have we a conductor of greater power; and yet so finely drawn, — so minute, — so natural, — that it enables us to act on the system by the gentlest means; to apply our remedies with certainty; and to reach the disease without doubt. Shall we not, then, take advantage of this natural method of introducing remedies into the system; or shall we continue an un-natural, disagreeable, and ineffectual treatment, by drugs sent on a blind mission, through the stomach?

Medicines, properly administered through the stomach, are of inestimable importance in regulating and raising the tone of the system: nor is their proper use by any means inconsistent with inhalation. They ought, if need be, to co-work together. By inhalation we bring the remedies to bear directly on the diseased lung; as by remedies administered through the stomach we act directly on it and the bowels.

Inhalation, in the treatment of consumption, is the application of the remedy in the most direct manner to the seat of the disease. But inhalation is merely the mode of administration: the medicine prescribed, its nature, strength, times and other contingencies must depend on the judgement of the physician; and he must form his opinion on a thorough knowledge of the case, — its stage, symptoms and peculiarities; hence it will be at once seen how impossible it is to reduce the prescription to a common standard, and applicable to all cases, no matter how different in habits, temperament, stage of the disease, or constitutional idiosyncrasy. There can be no specific so long as men differ so much in constitutional peculiarities.

I do not ask for *faith* in the many successful cases I have treated by inhalation, without presenting at the same time, the reasons upon which the treatment is grounded. I wish persons to be well informed as to their condition, before they are called upon to judge of the reasonableness of my advice. I wish their confidence, it is true, not on grounds of credulity, but on those of rational conviction. By giving them information regarding the nature and causes of Consumption, Bronchitis, and Asthma, and the means of applying the remedies, I hope to arm them against the dishonest practice of empirics, uneducated, and inexperienced in the many phases of pulmonary diseases, whose blundering experiments are too apt to bring unmerited odium on inhalation, rather than on him who abuses it.

It having been the opinion of the majority of medical men, until recently, and is now that of the non-progressive members of my profession, that "consumption cannot be cured," many persons will hesitate to believe any person who holds views at variance with the stereotyped views of some of the older physicians; but this is a progressive age, and medical science is keeping pace with other sciences. That consumption can be and has been cured, even after cavities have been formed, or in other words, after portions of the substance of the lungs have been disorganized and expectorated, is beyond doubt, and can be readily substantiated by any medical man who has taken the trouble to examine the lungs of the dead subject in *post mortem* examinations. I have frequently seen the cicatrices remaining where cavities have healed. Further proof of the curability of consumption can be found in the works of the immortal Lænnec, who demonstrates it beyond doubt; of Sir. James Clark, who asserts "that Pulmonary Consumption admits of a cure is no longer doubtful;" of Dr. Carswell, the distinguished Professor of Pathological Anatomy in the London University, who declares that "Pathological Anatomy has never afforded more conclusive evidence of the curability of a disease, than it has of tubercular consumption;" of the late Dr. Swett, of New York, who says, "I have known a number of patients during the last fifteen years who have had the evidence of consumption, and some of them in an *advanced stage*, who finally recovered, and are now in the enjoyment of good health;" of Dr. Wood, of Philadelphia, who mentions several cases of the disease perfectly cured; of Professor Bennet, of Edinburgh; of M. Boudet, of Paris; and many others whom I might mention, did I not think these sufficient.

To a physician who has grown grey in practice, and cannot call to memory from among the many consumptive patients he has treated, one whom his ministrations have saved from an untimely end, this skepticism is perfectly natural. Drawing his conclusions from his own experience, he rightly judges that consumption *is* incurable; and so it would continue to be did we follow the same mode of practice which he did; but under the use of the recent discoveries in medical science, it is now found quite curable.

The bitterest pill a patient can administer to his physician is to express an opinion that some other medical man can perform what he has failed to accomplish, and hence this class of physicians do not hesitate to characterize all medication designed to effect the cure of consumption as "dishonest" and "empyrial."

It is gratifying to me, however, to know that all medical men are not so narrow-minded. — I am daily receiving from many of them throughout Canada, the most flattering letters, elicited by the success of inhalation in cases under their own immediate supervision; and am able, not only to include many of themselves among my patients; but, by their advice, am daily receiving from their friends and relatives, the most tangible proofs of their confidence in its curative powers.

In the year 1851, my partner, Dr. Robert Hunter, introduced the treatment of consumption by inhalation into the United States, where its success has been so great as to cause the "press" to speak of it in the highest terms, a few extracts from which, together with letters from patients recently cured, I have introduced at the close of this treatise. The same treatment has now been practiced in Canada, by Dr. Hunter and myself for nearly two years, and the success attending it has been beyond the highest anticipations of those, who have hitherto looked upon consumption as synonymous with "the hand of death," and is rapidly convincing the most incredulous of the truth of my statements.

Although medicated inhalation will not, and necessarily cannot, in all cases, succeed in accomplishing the utmost of our desires, it will, under the most adverse circumstances, generally prove a valuable palliative; and no doubt can reasonably be entertained but it will come into general use, and form a new era in the treatment of pulmonary diseases.

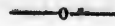
70 BAY STREET, TORONTO,
MARCH 1, 1863.

not so narrow-
 mada, the most
 their own imme-
 ves among my
 and relatives.

treatment of
 been so great
 s from which,
 t the close of
 by Dr. Hun-
 been beyond
 nsumption as
 t incredulous

ll cases, suc-
 most adverse
 easonably be
 e treatment

CONTENTS.



	PAGE
PREFACE	iii
INTRODUCTORY.	
Description of the Air-passages and Lungs, and their functions	9
CHAPTER I.	
Colds, Acute Catarrh, Treatment of do., Chronic Catarrh	11
Treatment of Chronic Catarrh, Osmena	12
CHAPTER II.	
Tonsillitis or Quinsy, Its treatment, Enlarged Tonsils, Their treatment	13
Elongation of the Uvula, Its treatment, Sore Throat, or Inflammation of the Fauces, Treatment, Chronic sore throat, Treatment of.....	14
Diphtheria, Ulcerative and Gangrenous sore throat, Acute Laryngitis	15
Chronic Laryngitis or Clergyman's sore throat	16
CHAPTER III.	
On the Causes which predispose to diseases of the lungs	17
CHAPTER IV.	
Acute Bronchitis, Chronic Bronchitis, their varieties and treatment	19
CHAPTER V.	
Pulmonary Consumption, Comparative prevalence of, in different countries....	21
Nature of consumption, Description of tubercles	22
Symptoms of consumption, Enumeration and comparative value of	23
Cough, Shortness of the breath; Expectoration	24
Hæmoptysis; or spitting of blood, Pain in the chest	25
Circulation, Hectic fever, Night sweats; Thirst	26
Diarrhoea, Emaciation, Appetite, Menses, Hoarseness, Œdema	27
CHAPTER VI.	
Causes of consumption.....	28
CHAPTER VII.	
Diagnosis of consumption, Inspection, Percussion, Auscultation, as means of,	30
CHAPTER VIII.	
Prevention of consumption, practical rules for,	31
CHAPTER IX.	
Varieties of consumption, Acute or galloping consumption	33
CHAPTER X.	
Chronic consumption, Symptoms and course of,.....	34

	CHAPTER XI.	
Latent consumption		
	CHAPTER XII.	
Consumption in infancy and childhood.....		37
	CHAPTER XIII.	
Complications of consumption		38
	CHAPTER XIV.	
Duration of consumption		39
	CHAPTER XV.	
Treatment of consumption		40
" by the stomach, do. by the skin		41
" through the lungs, effects of climate, inhalation of medicated vapors		43
Medicines used for inhaling.....		44
	CHAPTER XVI.	
Asthma, symptoms, causes, and treatment of,		46
	APPENDIX.	
Statements of patients recently cured		49
OPINIONS OF THE 'PRESS'		55

INTRODUCTORY.

My views on pulmonary diseases will probably be better understood by the majority of my readers, if, before describing the diseases, I give a short description of the parts comprised by the terms *Air-passages* and *Lungs*.

In the first place I will notice the mouth and nasal passages, which terminate posteriorly in one common cavity called the *throat*, *fauces*, or *pharynx*. This is that part immediately behind the mouth, and is seen on opening the mouth widely, and depressing the tongue, and includes the *uvula*, a small body depending from the centre of the posterior termination of the mouth, on either side of it the soft palate, which divides into two pillars on each side of the root of the tongue, enclosing two granular bodies called the *tonsils*, or *amygdale*, the surface of which is covered by follicles, which in the healthy state of the parts, assist in secreting a thin mucus which lubricates the throat. Upon examination, the following openings will be found communicating with the throat: above, the *posterior nares* or openings from the nose; in front, the posterior termination of the mouth; and below, the terminal passages of the pharynx in the *oesophagus* or gullet, which conveys the food, etc. to the stomach and the opening leading to the larynx, or the passage to the lungs.

In the nasal passages we find several openings which communicate with cavities and ducts, lined by the same continuous mucous membrane, of which we will name the following: — 1. a communication from each of the cavities situated beneath the eye and on the external side of the nose, known to anatomists as the *antrum maxillare*: — 2. those of the *lacrimal canals*, which convey the tears from either eye to the nostrils: — 3. those communicating with the *frontal sinuses*, two cavities situated behind and between the eye-brows, and capable in some instances, of containing half an ounce of fluid: — and 4. the openings of the *eustachian tubes*, which admit air to the inner side of the drums of the ears.

The *Larynx* is situated immediately behind the prominence of the throat, known as "Adam's apple", or *pomum Adami*, and terminates inferiorly in the *trachea* or windpipe. The upper portion of the larynx is closed, when anything is swallowed, by a valve called the *epiglottis*, which guards the opening so carefully as to prevent fluids or solids from entering the larynx, except by force. Hence the total inability of reaching the lungs by any medicines except those in the state of a gas or vapor.

The *Trachea* extends from the termination of the larynx downwards into the chest, where it divides into two *bronchi*, which pass one to each lung, where they divide and subdivide, throughout the whole of the lungs, to within about one-eighth part of an inch of the surface of the lungs. These bronchial tubes terminate in the air-cells, and are the parts affected in *bronchitis*.

All these parts communicate with each other, and are lined by one continuous mucous membrane, so that inflammation attacking one portion of it may pass readily to the other portions, and has a remarkable tendency to do so: hence the danger of allowing even a slight inflammation of any portion of it to pass unheeded; because it frequently passes from one portion to another, even without pain, or other bad symptoms until the whole extent of the air-passages are involved.

It is estimated by the most eminent authorities who have written on the subject, that the extent of the mucous membrane exposed to the atmosphere at each breath, exceeds *fifteen hundred square feet*, through which the blood is exposed to its influence, at the rate of about ten pounds per minute; or the whole volume of

the blood in the system, in about two minutes and a-half. It is through this mucous membrane of the air-cells the blood is purified, and rendered capable of performing the duties of pure blood. Oxygen is absorbed into it and carbonic acid gas given off; which can be readily proven by enclosing a small animal in a glass jar of air, and after the lapse of a few minutes, testing the relative quantities of oxygen and carbonic acid present; when it will be found, that oxygen has decreased and carbonic acid has increased. Another method of proving that carbonic acid is given off, is to pass the expired air through a clear solution of lime water, by means of a glass tube or straw, when it will almost immediately become turbid, and deposit a sediment of carbonate of lime, or chalk.

When the blood is brought to the lungs by the pulmonary vessels it is of a dark red color, nearly approaching to black, and is known as *venous* blood, or that found in veins; and contains a large proportion of carbonic acid, which is an effete and poisonous product, which, if it be not removed from the blood, rapidly produces disease throughout the system. After the blood has been exposed to the atmosphere in the lungs, we find the color changed, to a bright red, or scarlet, that it has parted with a portion of its carbonic acid, and in its stead taken up a portion of oxygen. This purified blood is then conveyed to the heart, and forced through the whole system, giving renewed life, strength and vigor to the whole body. If, then, there be any obstruction to the free passage of atmosphere to the lungs, the poisonous matters are not eliminated from the blood, the poison is immediately conveyed to the heart, and thence with the blood to the whole system, whereby it soon becomes diseased.

This surface is also extensively furnished with absorbents, which readily and speedily take up poisonous, or other matters which may be mixed with the atmosphere at the time of breathing it.

This is the way in which many diseases are propagated, as small-pox, measles, chicken pox, mumps, typhus, typhoid, scarlet, yellow, intermittent, remittent, or billious fevers, &c. This is also the way in which disease and death are caused by the inhalation of carbonic acid, carbonic oxide, and other poisonous gases; as in improperly ventilated coal pits, wells, caves, etc.: also, poisonous fumes of arsenic, lead, mercury, phosphorus, etc., in gilders, match makers, painters, and other artisans who make use of these substances in their business.

On this function also depends the action of æther and chloroform known as anaesthesia, or insensibility to pain, which has proven so serviceable in surgical operations; although, if administered in excess, or in an improper manner, capable of producing those most disastrous results occasionally seen when they are administered by unqualified persons.

In this connexion I may also notice that excitement and intoxication produced by inhaling nitrous oxide, or *laughing gas*; so frequently seen throughout the country in connexion with chemical experiments and exhibitions.

I may also mention the increased activity produced in the combustion and removal of carbon from the lungs by the inhalation of oxygen gas.

If then, the lungs possess so great powers of absorption, why may we not profit by the example which nature has shown us, and introduce remedial agents in the same manner? This is the basis of the treatment of disease by medicated inhalation.

CHAPTER I.

COLDS, CATARRH, OZÆNA.

By far the most frequent of all the diseases to which the air-passages are subject, is *cold*. This is not at all surprising when we consider that the whole extent of the delicate membrane is, at each breath, exposed to every change in the state of the atmosphere, whether from natural or artificial causes. Our Canadian climate is exceedingly changeable, and our civilized (?) habits render us still more liable to take cold, on account of the frequent changes from crowded, over-heated, ill-ventilated apartments, to the cold air out of doors. How frequent an occurrence it is for persons to leave the ball room, concert hall, or evening party, on a winter's evening where the room has been heated to a temperature of nearly 100°, and walk or drive home without a sufficiency of clothing to protect the body, and without any protection to the mucous membrane of the lungs. The extensive mucous membrane is exposed to the cold air, its secretion is suspended, congestion and inflammation follow, and the patient suffers from an attack of acute catarrh, laryngitis, bronchitis, or inflammation of the lungs, according to the part on which the disease has located itself.

Other fruitful sources of colds are, from sitting in a draught when over-heated, wearing damp clothing, and insufficient protection to the feet and limbs.

Acute catarrh, or "cold in the head", is the most frequent of all the varieties of cold, on account of the mucous membrane of the nose being first exposed in breathing naturally through the nostrils.

The first symptom usually noticed is a dryness, and "sense of stuffing in the nose"; the mucous membrane becomes red, inflamed, and swollen, until the patient cannot breathe through the nostrils, or does so with difficulty. There are frequent, and violent attacks of sneezing, and if the disease extend to the frontal sinuses, there will be acute pain in the forehead. This form of catarrh is known as *influenza*. It may also extend through the lachrymal canal, which conveys the tears from the eye to the nose: if so, the tears may flow down the face, and, being acrid, will excoriate the skin. A thin ichorous fluid begins to distil from the nose, and inflames the surrounding integument. This gradually changes to a bland yellow mucus, and in a few days the complaint has subsided or lost its acute character: but if left to cure itself, it frequently terminates in chronic catarrh. Sometimes the inflammation extends along the eustachian tubes and causes deafness. This is especially the case in scrofulous constitutions.

Treatment. — Acute catarrh is best treated by an active purgative at the outset, low unstimulating diet, cooling diuretics, and the frequent use of warm anodyne or soothing inhalations, to allay the irritation of the mucous membrane.

During convalescence, it will be found necessary to use more than ordinary precautions to prevent taking a fresh cold and suffering from a relapse, which renders it much more liable to pass into the chronic form.

Chronic Catarrh, is generally the sequel of an acute attack. After a longer or shorter time, the liability to attacks of acute catarrh becomes increased, and the patient finds, after these attacks have passed off, that there still remains a discharge of yellow mucus. On looking into the nose we find the mucous membrane thickened, inflamed and in some instances ulcerated.

This disease is met with in several forms, and may consist in "hawking", or clearing the throat frequently during the day of a yellow, or straw colored mucus, which accumulates behind the soft palate, and upon examining the throat, may be seen hanging down in festoons from the posterior nares. Again, small ulcers form in the nose, the secretion of which, dries into scabs, which the patient cannot refrain from picking and removing. In other cases false membranes exude, and are removed from time to time, which may be bloody from the surface of the ulcer from which they have been torn; or the secretion may be produced, and dropping into the throat, discases it, which causes the patient to "snuff or 'hawk'" to remove the offending matter. When the ulcerations are considerable the secretion becomes purulent.

There is frequently a loss of smell, and, when the ulceration has eaten through the membrane to the bone, the discharge has an offensive odor.

This disease occurs at all ages, from childhood to old age, and is not only very disagreeable in itself, but becomes dangerous, on account of the known tendency of the disease to extend downwards along the continuous mucous membrane to the lungs, and result in that dreaded malady, consumption, the mention of whose name awakens grief in thousands of hearts, and whose victims are more numerous than those of any other disease in the whole catalogue of human ills. Chronic catarrh renders the patient much more liable to suffer from attacks of cold on the slightest exposure. It is usually much worse in autumn, and winter, and is most successfully treated during the warm months of summer, because then there is less liability to relapse from colds.

Ozæna, is the name given to very bad cases of chronic catarrh, as when it passes on to ulceration, with purulent, bloody, and offensive, fetid discharges. The disease is most apt to take on this form in persons of vitiated and unhealthy constitutions, whether from scrofulous predisposition, bad habits or dissipation. If neglected, or improperly treated, it usually runs on to ulceration, and destruction of the cartilages and bones of the nose, and may extend to the brain and cause fatal results.

Treatment. Chronic catarrh has, like consumption and asthma, been considered incurable, notwithstanding that the disease is situated where it can be reached by all the various medicines in use; whether in the liquid, solid, or gaseous state.

The treatment which I have found most efficacious, is the daily use of medicated vapor, combined with local applications, by means of a syringe so curved at the extremity, as to apply the remedies to the whole interior of the nose. These applications are varied according to the stage of the disease and the state of the constitution of the patient: — if the disease occur in a patient of scrofulous, or otherwise depraved constitution, I combine constitutional treatment with the other remedies, and purify the blood by means of inhaled medicines.

This course of treatment, when properly pursued, seldom fails to remove the most obstinate case of chronic catarrh. Catarrh is erroneously considered a disease of little importance; but when we consider the tendency which the disease has to extend itself downwards along the mucous membrane, and, that the majority of cases of neglected catarrh end, sooner or later, in consumption, as a result of this; it will be readily understood why I attach so much importance to the attendance to it before such unfavorable results occur. Another reason why chronic catarrh should be removed as soon as possible, is, that it not unfrequently extends along the eustachian tubes to the internal ear, and thus destroys the sense of hearing. This is a most fruitful source of deafness; and no doubt, a majority of cases of complete, or partial deafness throughout the country could be traced to this cause.

It then becomes doubly important that catarrh be removed at once, in order to avoid these most serious consequences.

CHAPTER II.

AFFECTIONS OF THE TONSILS, UVULA, & THROAT.

Tonsillitis, or Quinsy. This name is given to cold when it attacks the amygdalæ, or tonsils, and is an inflammation of the gland. It is marked by a sense of difficulty in swallowing, accompanied by heat, dryness, and uneasiness in the throat, which soon becomes severe pain, and frequently extends to the ear, causing intense suffering. If the throat be examined it is found swollen, red, inflamed, and sometimes covered by patches of altered mucus. When both tonsils are affected, they may become swollen to so great an extent as to touch each other, and render swallowing almost impossible. There is intense headache, active throbbing of the pulse, frequent chills and high fever. The patient experiences great annoyance and difficulty from the constant desire to clear the throat of a thick viscid mucus, which is not easily removed. When actively treated it may subside at this stage, and get well; but more frequently the swelling and inflammation become more and more extensive, involving the cellular tissue and cervical glands; and in this case motion of the jaw, or swallowing, becomes very difficult, or utterly impossible. Suppuration soon sets in and is usually accompanied by slight rigors, or tremblings. The sufferings of the patient at this stage of the disease are exasperating, and continue to grow worse until the abscess is opened, either by nature, or assisted by the physician. On the discharge of the pus the patient experiences great relief, and recovery is then rapid, except in scrofulous persons, and others of vitiated constitutions, in whom the tonsils are apt to remain indurated and enlarged. In some cases this remains to so great an extent as to render it difficult for the patient to speak distinctly, or to swallow; and the removal of the enlarged portion becomes necessary. This operation will be described farther on.

Treatment. This requires to be active at the outset: — a brisk saline purgative, (epsom salts are best) mustard to the external surface of the throat, low diet and cooling drinks. If this fail to arrest the disease, and it pass on to suppuration, recourse must be had to emollient poultices, and the inhalation of warm aqueous vapors. When the abscess is fully formed, and the pus is detected near the surface, it is advisable to evacuate it by means of an opening made by a sharp-pointed bistoury; but great care is necessary in doing so, to avoid wounding the carotid artery, which lies very near the tonsil, and a wound of which, I need not inform my readers is exceedingly dangerous, and frequently fatal in its results.

Chronic Enlargement of the Tonsils, may be either the direct result of an attack of acute inflammation of the tonsils, or may follow repeated congestions of them from frequent colds.

The treatment generally prescribed for this disease is, the daily use of caustic applications to the enlarged tonsil: but it frequently fails; and then it becomes necessary to remove a portion of the tonsil.

This may be done either by a probe-pointed knife or bistoury, or by some of the various "tonsil instruments" in use at the present time. The one which I prefer, is one having an open circular blade, protected by a ring of steel, with a series of stil-letto points, so arranged as to seize the tonsil and fix it, thus preventing either the removal of too large a portion, or the strangling of the patient from the escape of the removed portion, and its passage into the throat. The whole instrument is so nicely guarded that a child may close its mouth, or even bite on it without fear of injury.

With proper precautions this is a very simple operation; but, from the close proximity of the carotid artery, a miss of one-fourth of an inch will frequently prove fatal. The pain resulting from the operation is very slight, and the time occupied, only a very few minutes.

Elongation of the Uvula, frequently results from repeated colds, and if slight, may be relieved by the application of astringents and stimulants: but if extensive, requires removal; as it keeps up a continued irritation of the throat, which may extend downwards to the lungs, or bring on troublesome ulceration of the throat.

The operation for its removal is very easily performed, and causes little pain. — The elongated extremity is seized by a pair of long sharp-pointed forceps, drawn slightly forwards and snipped off by a pair of long-handled, curved scissors. The hæmorrhage rarely exceeds a few drops, and the cut extremity soon heals. When once removed it is never reproduced.

Sore throat, or Inflammation of the Fauces, is the name given to cold when it affects the throat, and may be of several kinds: as common, diphtheritic, ulcerative, and gangrenous or malignant.

Common, or simple Sore throat frequently occurs from exposure to cold, and is marked by a difficulty in swallowing, soon accompanied by severe pain, heat, and dryness. If the throat be now examined, it will be found very much congested, of a bright red color, swollen, and occasionally partially covered by small white patches of altered mucus or coagulable lymph, poured out by the inflamed follicles. The patient soon gets hoarse from the extension of the disease to the mucous membrane covering the vocal organs, and it may also affect the bronchial tubes and lungs, producing cough and shortness of the breath. After a time the secretion becomes more plentiful and viscid. If the disease be very severe there will be active fever accompanying it.

Treatment. This form of sore throat usually runs its course in a few days, and requires no treatment except mild opening medicine to keep the bowels free, and unstimulating diet. Its removal is very much facilitated by warm soothing inhalations, frequently repeated.

This is very apt to recur from time to time, and each attack renders the patient more liable to a subsequent one, until there remains a harassing titillation, necessitating him to *clear the throat* frequently, which increases the evil, by the irritation which it produces. After a time the patient is obliged to swallow frequently, on account of a sensation of something sticking in his throat. It has now become chronic sore throat.

Chronic Sore throat. On looking into the throat of a patient having this disease, we notice the mucous membrane studded with numerous granulations, which appear red and uneven, giving the throat an appearance similar to that of a strawberry. When the disease extends downwards to the larynx we find the voice becomes hoarse and husky, and an increasing desire to *rasp* some viscid mucus from the throat. In no case should this disease be neglected, for it is exceedingly prone to proceed, slowly, but surely, down the trachea and bronchial tubes, to the lungs; until the sufferer finds, to his sorrow, that it is but a step from a *common chronic affection of the throat to confirmed disease of the lungs*.

Treatment. By far the most effective treatment for this disease is the daily use of the ecatarrh syringe, with warm astringent inhalations or fumigations, three or four times a day. These may be combined, if necessary, with the use of gargles; but in no case should the application be so strong as to irritate the already inflamed membrane. When the disease has once passed below the opening into the trachea

or windpipe, no liquid or solid medicine can reach the disease directly, except by a force sufficient to do much harm to the delicate organs of the larynx.

The old stereotyped practice of burning every sore throat with a strong solution of nitrate of silver, (*lunar caustic*) is productive of much harm, and should not be countenanced in this enlightened age. In some cases nitrate of silver is very useful; but it requires to be used with discrimination. It should *never* be used except in association with astringent inhalations, and then much less frequently and of less strength than it has been customary to use it. Many persons now suffering from consumption attribute their disease to the unnecessary use of strong caustic solutions to their throats.

Diphtheria, or Pseudo-membranous Inflammation of the Throat.

— This form of disease is characterized by the early appearance of a fibrinous exudation on the surface of the mucous membrane. It commences in the same manner as an ordinary sore throat, but soon exhibits the whitish, grey, yellowish, or dirty brown patches of the membrane. If these be removed, ulcers are sometimes found beneath them, which may discharge bloody, fetid matter. Swallowing soon becomes very difficult, and sometimes the fluids return by the nose. The exudation has a great tendency to extend downwards into the larynx, trachea, and bronchial tubes, when it becomes very dangerous, from the obstruction which it offers to respiration. The fever accompanying this variety of throat disease is of a low typhoid type. Not unfrequently the posterior portion of the nose becomes involved, and bloody matter is discharged from the nostrils.

In very severe cases, delirium, hæmorrhage and diarrhœa may supervene, which tend to render the case less hopeful of recovery.

The disease is communicable by the breath, from the person affected to those in health, and is exceedingly dangerous to those of reduced bodily vigor.

Treatment. This should be directed both to the local affection, and to the general state of the constitution attending it. The only remedy yet discovered, which has proven to be an antidote for it, is the gas known as *protoxide of nitrogen*, which should be inhaled for ten or fifteen minutes every one or two hours, followed occasionally, by an inhalation of diluted chlorine. These act as purifiers of the blood, removing the poison from it, and by an occasional showering of the throat with a solution of chlorinated soda, arrest the sloughing extension of the ulceration.

A few inhalations of the gases above mentioned, are generally sufficient to arrest the disease, and disarm it of the terrors with which it has been heretofore looked upon. In some instances a gargle of a solution of chlorate of potassa, with a few drops of kreasote, is useful after the greatest activity of the disease has subsided.

Ulcerative, and Gangrenous Sore throat, are bad forms of the other varieties just described, and require the same general method of treatment.

As they are nearly always associated with scrofulous, or syphilitic diseases, it becomes necessary to bear them in mind when prescribing for the throat disease. In these forms, *alterative medicines* by the stomach are beneficial.

Acute Laryngitis, is the name given to a cold when it affects the larynx, and is accompanied by more or less pain and soreness in the throat on swallowing, hoarseness, in some cases so great as to completely suppress the voice, heat and dryness in the throat, chills, fever, dry harrassing cough, and if the disease be very active, difficulty in breathing, caused by the swelling of the submucous cellular tissue of the chink of the glottis. This, in some instances, is so great as to interfere materially with the oxygenation of the blood, and cause the death of the patient.

The treatment requires to be active in the early stages: depletion, mustard poultices to the neck, low diet, and warm anodyne inhalations, with alteratives by the stomach. When the disease progresses to such an extent as to render suffocation imminent, it becomes necessary to make an artificial opening in the windpipe; into which a silver tube is inserted, in order to permit respiration to proceed uninterruptedly. This should never be put off too long, for if it be, the blood becomes so poisoned that the patient may die from the effect of the poison on the brain, and other vital organs.

Chronic Laryngitis, or Clergymen's Sore throat.

This may occur either as a result of an acute attack, or be produced by frequent and prolonged use of the voice, or the constant irritation produced by inhaling irritating substances with the breath, as in the many occupations in which people breathe a dusty atmosphere.

It is attended by hoarseness, uneasiness in the throat, a slight hacking cough, or perhaps merely a *hacking* or *rasping* from the throat of a clear mucus having the appearance of starch. There is frequently a sense of heat, dryness, constriction, itching, or may even be pain in the throat on pressure or use of the voice. The voice gets hoarse on using it and the patient finds himself unable to speak or sing, for more than a few minutes, without difficulty. As the disease advances there is frequently complete loss of the voice. The cough, which was dry and hacking at the outset, soon becomes loose, and the patient now expectorates mucus, altered in its character, or perhaps pure pus. If the fauces be examined they may be found inflamed, or may exhibit patches of ulceration.

From whatever cause it arises, chronic laryngitis is always a serious malady; for it not only threatens complete loss of the voice, but, when left to revel at pleasure, rarely terminates until it has involved the lungs in disease. It will not recover of its own accord, for every slight cold, — every change in the weather, — every breath containing dust, sustains the irritation and increases the inveteracy of its hold.

Treatment. Being a local affection, it should always be treated by the application of astringents and alteratives to the diseased part. On account of the great irritation produced by the application of solids or liquids, even when in very minute quantities, and the difficulty of introducing them, it becomes necessary that they be introduced in some other manner; hence the utility of mild medicated inhalations of vaporized medicines, and by breathing them with the atmosphere, introducing the remedies in such a gentle manner, as to reach the disease directly and without difficulty. In addition to the use of the inhaling instrument, warm, sedative and astringent fumigations at night on retiring, will materially assist the removal of the disease.

Very few cases of it will fail to be removed by this treatment, and those few will generally be found complicated with extensive tubercular depositions in the lungs, and the cure will depend on the possibility of removing the disease from the lungs.

This being a local disease, does not require that the stomach be tortured with nauseous and unnecessary medicines, which certainly can do no good, and may possibly do harm. Neither is it advisable to burn the throat with strong solutions of caustic, as it is very rarely that they can be introduced into the larynx, on account of the instantaneous closure of the glottis on the approach of foreign substances; and in the few cases where a drop is forced through the opening it causes so great sense of suffocation as to render the operation very hazardous, and occasionally fatal consequences have resulted from the attempt to burn the throat.

Many consumptives attribute their disease to the frequent and unnecessary application of strong caustic solutions to their throats.

: depletion, mustard
with alteratives by
to render suffocation
the windpipe; into
proceed uninterrupted
the blood becomes so
on the brain, and

throat.

produced by frequent
ced by inhaling irri-
which people breathe

t hacking cough, or
ar mucus having the
dryness, constriction,
e of the voice. The
ble to speak or sing,
se advances there is
dry and hacking at
es mucus, altered in
they may be found

serious malady; for
o revel at pleasure,
will not recover of
weather, — every
retardancy of its hold.
reated by the appli-
ecount of the great
hen in very minute
essary that they be
ated inhalations of
re, introducing the
y and without diffi-
arm, sedative and
the removal of the

and those few will
itions in the lungs,
se from the lungs.
h be tortured with
no good, and may
th strong solutions
larynx, on account
gn substances; and
uses so great sense
asionally fatal cou-

unnecessary appli-

If the disease be not checked by the use of proper treatment, it passes readily down through the bronchial tubes to the lungs, and the patient too frequently finds, to his sorrow, that it is but a step from chronic laryngitis to disease of the lungs.

The name *bronchitis* is frequently, and very inappropriately applied to this disease, and too many physicians mislead their patients by using it in this popular acceptance of the term. The patient is told "that his disease is only bronchitis", which he has always understood to mean an affection of the throat, and of little consequence. This is most emphatically wrong: — There are no bronchial tubes until the trachea or windpipe has reached below the termination of the throat in the chest, and hence there cannot possibly be bronchitis without the disease being situated in the lungs, as the bronchial tubes form part of the lungs.

Let us then, hear no more, the application of the term bronchitis, in this popular sense; and I entreat medical men to no longer prove themselves to be "false lights" by misleading poor unwary victims to neglect immediate attention to their disease, by leading them to believe bronchitis to be an affection of trivial importance.

How many valuable lives would annually be saved, — how many heart-rending sorrows, bitter pangs, social ties severed, sorrowful partings from loved ones fondly cherished, be averted, were this fearful misconception removed! How numerous are the hearth-stove circles which are annually broken, and the remaining members clad in the habiliments of mourning, as a result of this unjustifiable error? Can it be possible, that a sensible man will wilfully deceive a confiding patient, by such practices, when he knows full well that his opinion is only inducing the patient to delay seeking that aid, which cannot be applied a moment too soon; and the postponement of which be a question of certain destruction to him? Fair would I say no! but alas, do we not meet with almost daily instances of the same wicked practice! — Let us pause, contemplate the result, and retrieve our error, before any more precious lives are sacrificed by this juggernaut of error! Its victims are too numerous already! — In the future, let us be candid with our patients, and inform them as to the true nature of their disease; and no longer sin against an Almighty Father by deceiving them, and thus lead them to hasten an inevitable doom, which alas, comes but too soon, when all the most improved methods of treatment are skillfully applied!

CHAPTER III.

ON THE CAUSES WHICH PREDISPOSE TO DISEASE

THE LUNGS.

I have now completed the description of diseases of the nose and throat, and, before taking up the diseases of the chest, I propose to briefly notice the principal causes which predispose to those diseases.

It will be well for us to recall the statement previously made as to the extent of the mucous membrane exposed to the air at each breath: — viz. fifteen hundred square feet, that this is also exposed to any irritating or poisonous ingredients which may be contained in that air, and that, in the various mechanical pursuits of

life, the atmosphere inhaled is filled with more or less minute particles of dust, and other irritating materials. In the persons of stone cutters, grinders, polishers of wood and metals, workers in cotton and woolen factories, &c., where quantities of dust and spiculæ of metal, are continually floating in the atmosphere, there is a very alarming proportion of disease of the lungs, caused, no doubt, in many instances, by the irritation of the mucous membrane by the foreign matters inhaled with the air.

The comparative prevalence of disease of the lungs in the various professions and trades, will come under our notice again, when treating on consumption; hence I will devote no more space to the more minute details at present, but confine myself to merely mentioning the causes which render the lungs more liable to take on diseased action.

Other fruitful causes, are the frequent changes in the density and humidity of the atmosphere; both from natural and artificial causes. The natural causes lie beyond the control of man: — the artificial ones are more subject to our power; and would be far less productive of disastrous results, did we not follow to so great an extent, the customs and habits of the mischievous fashions of the present day. It is an every day occurrence to see persons crowding together in the theatre, ball-room, concert-hall, lecture, or evening party, where the atmosphere is heated to a high temperature, and the rooms poorly ventilated; where they are compelled to breathe the noxious emanations from the lungs of the numerous assemblage; and then immediately go into the open air where the temperature is from fifty to eighty degrees lower than that of the room just vacated. The poisonous effluvia arising from many of the lanes, cess-pools, and poorly drained portions of our cities, where, at every breath, we are compelled to inhale the poisoned air, which, coming in contact with the delicate structure of the lungs, cannot fail to exercise a deleterious influence on the health of the body; which depends to so great an extent, on the purification of the blood by means of the oxygen absorbed through the mucous membrane of the lungs.

The unnatural positions of the body assumed by many tradesmen also predisposes to disease of the lungs, by preventing the chest from expanding sufficiently freely to allow the lungs to take in enough air to keep the blood in a proper state for the due performance of its functions. This will be more especially noticed in persons who stoop or draw their shoulders forward while engaged at their regular occupations; and also in those votaries of fashion who indulge in the injurious practice of tight lacing.

The various forms of intemperance are also very fruitful predisposing causes of disease of the lungs.

In consideration of these, and many others which might be mentioned, is it at all to be wondered at, that consumption and other pulmonary diseases are so prevalent? In so far as we depart from the course which nature has marked out for us in these matters, we render ourselves liable to the penalties which she has imposed on the violation of her laws, and until we pay more strict attention to those laws, the couch of sickness and the premature grave will not want for tenants from the ranks of youth and beauty.

Having noticed the principal causes which predispose to pulmonary affections, I will proceed in the next chapter, to a description of those diseases.

CHAPTER IV.

ACUTE, AND CHRONIC BRONCHITIS.

Acute Bronchitis, is the name given to a cold which affects the mucous membrane lining the bronchial tubes, and is sometimes called "cold in the chest". It may be slight in extent, or involve the whole mucous lining of the bronchial tubes.

It usually commences with a chill, more or less severe, fever, dry, hoarse and painful cough, and a sense of tickling, heat and fullness, or stuffing in the chest. The cough is very severe, occurring in paroxysms which give great annoyance to the patient from the sense of tearing or scraping in the chest. After a time the cough becomes more loose and the expectoration becomes frothy at first, and then gradually changes to a yellowish color, or may even exhibit streaks of blood. The expectoration is of a very tenacious nature and the patient finds it very difficult to remove it from the mouth. The respiration is usually more or less hurried and difficult; the membrane, in the early stage, being dry and swollen. This may vary from a slight oppression to a sense of very great difficulty in getting the breath, and usually is less troublesome as the expectoration is increased in quantity. If the disease be very extensive and affect the smaller branches of the bronchial tubes, it may prove fatal from the want of sufficient capacity of the tubes to admit enough air to support the system and purify the blood. In cases of great debility of the system the same result may take place, from nature not possessing sufficient strength to remove the quantity of tough, viscid mucus which is secreted; thus allowing it to obstruct the tubes and preclude the passage of air to the lungs. This latter is most frequently seen in the extremes of age.

The disease may pass through the several stages without the occurrence of serious results, and the expectoration gradually diminishes in quantity until it ceases altogether; or it may subside into a less active state and lurk in the lungs in the form of *chronic bronchitis*.

It has a great tendency to extend to the air-cells of the lungs, and involving them in the disease, bring on an attack of inflammation of the lungs with the bronchitis.

Treatment. Acute bronchitis is an active inflammation and requires prompt and vigorous treatment at the outset. Medicines by the stomach, which, by controlling the action of the heart, diminish the quantity of blood forced through the lungs, are very useful. Emollient, soothing, and expectorant inhalations are also very beneficial in removing the viscid mucus from the tubes; and in the more advanced stages, it may be found necessary to use those of a stimulating nature, to arouse nature, and assist her to throw off the mucus, which, if not removed, would obstruct the tubes and imperil the life of the patient.

The diet should be of a non-stimulating nature during the early stages; but may be changed to a more nourishing one as the expectoration becomes of a yellowish color, and profuse in quantity; or it may be necessary to support the system by means of wine, rich soups &c.

Chronic Bronchitis is generally the sequence of an acute attack, of greater or less severity, or of a series of neglected colds.

It, too, may vary much in the extent and severity of its attacks: not unfrequently showing itself only during the winter, and disappearing on the recurrence of warm

weather; and is then known as a *winter cough*. On the appearance of Spring, the cough may leave him entirely, and he think himself well again; but no sooner does the cold and changeable weather of Autumn appear, than he finds himself subject to take cold, and perhaps has scarcely recovered from one before another worse one shows itself; which, in its turn, is succeeded by another; and so on until the disease extends to the lungs.

In more severe cases it is marked by a troublesome cough, accompanied by expectoration of a transparent, blueish, straw-colored, or greenish mucus, most abundant in the morning on arising. There are occasional darting pains through the chest, and if the disease be aggravated by a recent cold, there may be heat and a sense of tightness across the chest. He finds himself much more short of breath on exertion than he was when in health, much more liable to take cold, and, as the disease progresses, loses considerable flesh, has hectic fever, or perhaps only slight flushings in the afternoons, and followed in some instances, by night-sweats, which increase more and more until the disease terminates in death,

Bronchorrhœa is another variety of bronchitis, in which the cough and expectoration occur in paroxysms; the patient sometimes expectorating from a pint to several quarts of transparent, frothy, or glairy mucus during the twenty-four hours.

Dry Bronchitis is another form, and is characterized by a thickening of the bronchial mucous membrane, with corresponding diminution of the calibre of the tubes, with a comparatively slight expectoration of transparent, blueish, or pearly sputa: of a very tenacious consistence; or perhaps with no expectoration.

We may have the tubes dilated throughout the whole of both lungs, or any part of either of them: or the mucous membrane may be ulcerated; in which cases the expectoration is purulent, and closely resembles that of the second stage of consumption, the distinction from which requires a very careful discrimination to accomplish.

This disease seldom terminates in recovery under the ordinary treatment by the stomach; but proceeds uninterruptedly to the lungs, and the patient passes into the first stage of consumption before he is aware of it. This may occur in the following manner: — the mucous membrane of the bronchial tubes becoming thickened, diminishes the size of the tube: and thus prevents the admission of air in a sufficient quantity, on which depends the proper performance of respiration; for if an insufficient supply of oxygen be admitted into the lungs to burn off the superfluous carbon in the venous blood brought to the lungs, and thus convert it into pure, or arterial blood, a portion of the carbon remains in it, which, by accumulating in the system in small quantities, may produce tubercles. That consumption may be produced by withholding pure air, has been demonstrated by confining healthy lower animals: for a time, in poorly ventilated apartments, when they soon die of consumption; and on examining the lungs after death, they are found studded with tubercles.

Treatment. Chronic bronchitis being situated within the chest, and being a local disease, is best treated by local remedies; but, as it is exceedingly difficult, if not utterly impossible to reach the part by the use of solid or liquid medicines; it is found to be nearly, if not quite incurable, by the ordinary methods of treatment: hence the inestimable benefit derived from medicines introduced in the gaseous state by inhalation.

In the first place it will be found necessary to cleanse the tubes of the diseased mucus, by using expectorant inhalations, and then to soothe and heal the diseased surface by means of others of an anodyne and alterative nature. Inhalation is performed thus: — the inhaling instrument, a representation of which is given on next page, is half-filled with cold, tepid, or hot water, as the case may require, and a prescribed quantity of the necessary medicine added to it, the vapor of which is caused to mix with the air inspired, by breathing through the instrument.

appearance of Spring, the
gain; but no sooner does
he finds himself subject to
before another wise one
so on until the disease

, accompanied by expecto-
a mucus, most abundant
pains through the chest,
y be heat and a sense of
rt of breath on exertion
and, as the disease pro-
only slight flushings in
ats, which increase more

the cough and expecto-
ratoring from a pint to
the twenty-four hours.
by a thickening of the
ion of the calibre of the
arent, blueish, or pearly
peccoration.

both lungs, or any part
ated; in which cases the
second stage of consump-
mination to accomplish.

inary treatment by the
patient passes into the
y occur in the following
becoming thickened, di-
on of air in a sufficient
ration; for if an insuffi-
of the superfluous carbon
it into pure, or arterial
mulating in the system
ption may be produced
healthy lower animals:
ie of consumption; and
with tubercles.

the chest, and being a
xceedingly difficult, if
liquid medicines; it is
methods of treatment:
roduced in the gaseous

e tubes of the diseased
and heal the diseased
re. Inhalation is per-
which is given on next
se may require, and a
the vapor of which is
instrument.



THE INHALING INSTRUMENT.

The patient should inhale the medicated vapor, gently and deeply into the lungs, by drawing in the breath through the flexible tube, and glass mouth-piece, until the chest is expanded; but not to so great an extent as to cause uneasiness or violence from straining. This is continued from five to fifteen minutes, and repeated from two to four times a day according to the requirements of the case.

Inhalation is the method of using the medicines; but the kind of medicine used, and the quantity to be given at each dose, can only be determined by due enquiry into the peculiarities of each particular case of disease; hence the absurdity of reducing the prescription to one common standard, and treating every case alike, without regard to the stage of the disease, or the peculiarities of the constitution of the patient. Treated in this manner few cases will fail to be cured; but if left to run on without interruption to its progress, it sooner or later extends to the lungs and involves them in disease also.

CHAPTER V.

PULMONARY CONSUMPTION.

I shall now proceed to the description of this melancholy disease, which is so immensely prevalent, and almost universally fatal throughout the greater portion of the civilized world. That it prevails to a great extent is never denied; yet there are few who know the actual percentage of deaths from it, or rightly comprehend the fearful mortality from its ravages.

The following table, compiled from the statistical reports of the troops stationed at the places mentioned, shows the proportion of deaths from consumption among them, compared with the total number of deaths from disease. —

West Indies, blacks, ...	one-fourth die from consumption,		
" " whites, ...	one-fifth	" "	
Great Britain,	one-third	" "	
France,	one-third	" "	
CANADA,	one-fourth	" "	
North & Middle States,	one-third	" "	
Southern States,	one-fourth	" "	
Mediterranean,	one-sixth	" "	
Cape of Good Hope, ...	one-seventh	" "	
East Indies,	one-thirty-third	" "	
Australia,	one-thirty-fifth	" "	

It will be seen from the foregoing table that in Canada, our home, and necessarily the country most interesting to us, *one-fourth* of all the deaths from disease are caused by this one. It then becomes us to seek for some means by which, if possible, this percentage may be lessened, and the mortality from this scourge, in some measure averted. Sir James Clark, in calling attention to this subject in England, says; — "In the long catalogue of human infirmities, tuberculous diseases are undoubtedly the most deserving of the study of the physician; whether we regard their frequency or mortality. Confined to no country, age, sex, or condition of life, they destroy a larger proportion of mankind than all other chronic diseases taken together. * * * * * If, to the frightful destruction of mankind by consumption itself, we add the numerous crippled and disfigured sufferers whom we daily meet with, and couple these results with the painful reflection that the predisposition to tuberculous diseases is transmitted from parent to offspring, it will surely be unnecessary to press upon medical practitioners the claim which this class of diseases, above all others, has upon their earnest consideration".

Yet how few are there among the medical men of this Province who devote even ordinary attention to it. They content themselves by allowing a patient to pass from the incipient stage of the disease, when it can nearly always be removed if properly treated, through the second, into the third and last stage, without even an inquiry whether anything more can be done than palliate their sufferings for the time being and soothe the passage to the grave. If asked why they do so; they will quote in justification of their course, the old adage, "consumption cannot be cured," in defiance of the most positive fact, and the united testimony of every author of ability who has written on the subject. I may mention the following: — Bayle, Lannec, Andral and Louis, in France; Reid, Murray, Mills, Scudamore, Coregan, Flood, Forbes, Hastings, Watson, Clark and Carswell, in England; and Parrish, Morton, Gerhard and Swett in America.

I shall proceed to take up, in this and subsequent pages, the nature, symptoms, causes, varieties, and lastly those principles of practice, which, if adopted in time and faithfully carried out, will lead to a successful issue of the treatment of the disease.

Nature of Pulmonary Consumption.

The name consumption was formerly applied to a variety chronic diseases which were characterized by a wasting away or consuming of the flesh; but of late years has been applied to that form of emaciation etc., depending on, and associated with the presence of tubercles in the system; and they are usually developed chiefly in the lungs.

Tubercles are small granular bodies deposited from the blood, usually beneath the the mucous membrane of the smaller bronchial tubes or the air-cells of the lungs; or they may be deposited on the surface of that membrane. They are first seen as small greyish, semi-transparent, granular bodies studding the mucous membrane, and are known as *miliary tubercles* and constitute the *first stage* of consumption. These vary in size from a millet seed to that of a common pea, and unless very numerous, cause little variation in the feelings of the patient. He may not be aware of any sensible change unless it be an occasional hacking cough, and slight shortness of the breath on exertion, as ascension of stairs or walking up hill.

These miliary tubercles increase in size by accessions of fresh particles, also derived from the blood, and gradually change their color until they become opaque, yellow, and cheesy in appearance. These are called *crude tubercles* and constitute the *second stage* of tubercles. If cut into at this stage they are found softer in consistence, and very much resembling old cheese in appearance. They may vary in

our home, and necessarily the deaths from disease are means by which, if possible, this scourge, in some measure, is to be removed. On this subject in England, tuberculous diseases are un-; whether we regard their sex, or condition of life, they are chronic diseases taken destruction of mankind by disfigured sufferers whom painful reflection that the parent to offspring, it will be the claim which this class of

Province who devote even allowing a patient to pass early always be removed if late stage, without even an te their sufferings for the why they do so; they will mptom cannot be cured." timony of every author of the following: — Bayle, Mills, Scudamore, Coregan, in England; and Parrish,

es, the nature, symptoms, which, if adopted in time of the treatment of the

chronic diseases which ac flesh; but of late years g on, and associated with y developed chiefly in the

ood, usually beneath the air-cells of the lungs; or They are first seen as e mucous membrane, and of consumption. These l unless very numerous, y not be aware of any d slight shortness of the

resh particles, also deri- until they become opaque, tubercles and constitute are found softer in con- ce. They may vary in

size from a small pea to a filbert, or even in some instances that of a hen's egg. They will cause more or less shortness of breath according to their size and number, and there may be cough and expectoration of mucus, on account of the irritation produced by them in the surrounding tissues of the lungs. They will also cause a loss of flesh if they be numerous.

Tubercles may remain in either of the above conditions for a greater or less time, according to the constitution of the patient and progress of the disease; but sooner or later they become softened and break down, destroying the surrounding tissues, which, together with the tubercular matter are expectorated in the form of pus, leaving an ulcerated cavity in the lungs, which gradually extends its dimensions until large portions of the substance of the lungs are expectorated. This is usually brought about by a fresh attack of cold, and as tubercles continue to be produced, we may have successive crops of them form, enlarge and soften from time to time during the progress of the disease. Not unfrequently the ulcer lays open some of the smaller blood vessels of the lung, and then blood will be mixed with the purulent expectoration, or if the vessel be larger the patient may expectorate considerable quantities of pure blood.

After the first shock sustained by the system on account of the ulceration and expectoration of a portion of the substance of the lung, there is generally an improvement in the symptoms and the patient imagines himself recovering; but alas he too soon finds another crop of tubercles begins to soften and be expectorated, until the system becomes so much reduced, the result of the repeated shocks sustained by it, that hectic fever, night-sweats, and great loss of flesh and strength supervene, the powers of life are gradually undermined and the patient sinks into the grave, another victim to the ravages of this fell destroyer.

Such is a brief outline of what takes place in the lungs in the three stages of consumption. I have told you that consumption is caused by the presence of tubercles in the lungs; and you will naturally ask—what is the cause of tubercles? This is a question upon which authorities have long differed, but the most approved answer to it is that *tubercles depend upon an improper oxidation of the blood in the lungs; thus leaving an excess of carbon in the blood which in turn is deposited in the form of tubercles in the lungs.* The deposition of this tubercular matter in the lungs depends on its pre-existence in the blood. Now whatever tends to retard the due oxygenation of the blood in the lungs predisposes to the deposition of tubercles; hence any obstruction to the free passage of air to the lungs; whether from partial obliteration of the bronchial tubes from thickening of the mucous membrane by inflammation, or a blocking up of them by mucus; any deficiency in the quantity of air admitted from constrained positions of the chest; or any deficiency of oxygen in the air caused by other impurities supplanting it, favors the production of tubercular matter in the blood and the deposition of that matter in the lungs.

Symptoms of Consumption.

Having described the usual course of the disease, I will now take a more minute survey of the particular symptoms which mark its presence in the lungs. It is a matter of great importance to distinguish the commencement of disease in the lungs; as it is much more easily removed if subjected to proper treatment in the early stages. The symptoms which indicate the first existence of it are unfortunately very equivocal; to which may frequently be added the difficulty of obtaining a knowledge of the state of the patient, on account of the unwillingness on the part of him and his friends to disclose his true symptoms: but I fear in the majority of cases too little attention is paid to the symptoms in the early stages by the medical attendant, who too often characterizes it as "*a mere cold*" or "*a slight bronchial*"

affection" which will pass off in a few days of its own accord, and contents himself with prescribing by the stomach some palliative "*cough mixture*" which masks the real state of the disease, and leads him to neglect it until it has passed into a more advanced stage and become firmly seated. He should in every case where there is the slightest suspicion of pulmonary disease carefully enquire into every symptom and make a thorough examination of the lungs, in order to be fully satisfied as to the nature of the disease before prescribing remedies for its removal.

In order that the comparative value of the various symptoms met with in these cases may be better understood, I will take them up one by one, and give a brief description of them. In the first place I will speak of cough.

Cough.

This is generally the first indication of pulmonary irritation, and the first circumstance which attracts the attention of the patient or his friends. It is slight, dry and hacking during the first few weeks, and occurs chiefly in the morning on arising from the bed. It is often so slight as to escape the notice of the patient, or if noticed is thought to arise from some irritation in the throat, and to be of little consequence: he rarely suspects that it has any connection with the lungs. It may continue thus for weeks or even months without any expectoration; but by degrees it increases in frequency until it occurs occasionally during the day; but to a far less extent than in the morning; and then perhaps is attended with an expectoration of a transparent rosy fluid resembling saliva, which is supposed by him to come from the throat.

When such a cough steals on a person without any apparent cause, it should excite suspicion, and lead to a thorough examination of the chest. It may prove unimportant; for cough does not always indicate consumption; but nevertheless it is an indication of the approach of serious mischief.

Cough is not always present in consumption; for it sometimes runs through its various stages without there having been any cough, save a gulping kind of effort in raising the matter from the lungs. This, however, is rare: for more frequently as the disease advances, the cough increases in frequency and severity; occurring at all times, without any evident cause or excitement: but as a rule, is most severe in the morning and evening. It not unfrequently disturbs the sleep very much, and by day often causes vomiting and pain in the chest, and towards the termination of the disease causes so much exhaustion as to lead the patient to imagine himself to be suffocating.

Shortness of Breath, or Hurried Breathing.

This is generally the next symptom which makes its appearance. The number of respirations in health varies from fifteen to seventeen in the minute; but in this disease it is no unusual thing to find them increased to twenty-five or thirty, and that too without exciting the attention of the invalid. It is usually first noticed on making some more violent exertion than usual, as walking quickly, or running up a flight of stairs, and probably would not have been taken notice of then but for the accidental occurrence of more tightness across the chest after the exertion than usual. Towards the close of the disease this is one of the most troublesome symptoms, and causes the patient the greatest amount of uneasiness.

Expectoration.

Expectoration is seldom present at the outset; but occurs after the cough has continued for a longer or shorter time. On first making its appearance it is a transparent rosy fluid resembling saliva; assuming by degrees a more tenacious nature, and gradually becoming yellow or greenish in the morning; or may exhibit

and contents himself
ure" which masks the
as passed into a more
ry case where there is
e into every symptom
be fully satisfied as to
removal.

oms met with in these
one, and give a brief

, and the first circum-
s. It is slight, dry
e morning on arising
patient, or if noticed
of little consequence :
It may continue thus
egrees it increases in
ar less extent than in
ation of a transparent
from the throat.

arent cause, it should
chest. It may prove
but nevertheless it

nes runs through its
ping kind of effort in
or more frequently as
rity; occurring at all
le, is most severe in
p very much, and by
e termination of the
agine himself to be

ng.

ce. The number of
ute; but in this dis-
e or thirty, and that
lly first noticed op-
kly, or running up a
of then but for the
exertion than usual.
some symptoms, and

after the cough has
appearance it is a
e a more tenacious
ing; or may exhibit

streaks or specks of a yellow matter floating in the transparent or frothy mucus. As the disease advances still farther the yellow matter is increased and is expectorated with less difficulty, and may be streaked with blood. It may either float on water or sink to the bottom, when thrown into it, according to the violence of the cough necessary to raise it, and the number of bubbles of air mixed through it.

There is no uniformity in the quantity of the expectoration in different cases, in the same stage of the disease; in some instances being very diminutive, even where there is extensive disorganization of the lungs; while, on the other hand, it may be in considerable quantities from the commencement, and gradually increase until it reaches a pint or more, during the twenty-four hours. Others do not expectorate at all during the whole course of the disease: but this is a rare exception; not the rule.

Hæmoptysis, or Spitting of Blood.

Hæmorrhage from the lungs, or spitting of blood, is a symptom which does not always occur in consumption; but seldom appears unless there is disease in the lungs. It rarely occurs unless tubercles are now in the lungs, or the lungs are congested and in a condition very liable to a deposition of tubercles. It may take place at any period during the progress of consumption: being, in some instances, the first symptom noticed; or it may not appear until just before dissolution takes place: but usually before the disease has made much progress. It seldom proves immediately fatal: or in other words, patients rarely bleed to death from the lungs.

By spitting of blood I mean every discharge of blood from the lungs; whether it be a few streaks of blood mixed with the matter expectorated, or in quantities of several pints of pure blood. In some form or other it occurs in about four-fifths of all cases of consumption.

It is by no means a rare occurrence for the physician to cheer up his patient by telling him that "the blood only came from the throat": but the throat so very seldom bleeds, that in nine hundred and ninety-nine cases out of every thousand, where blood is coughed up, even in small quantities, it comes from the lungs, and speaks a terrible warning.

It may be caused by disease of the heart, injury to the chest, or suppression of the monthly flow in females: but hæmorrhage occurring in any individual not suffering from either of the above, is generally indicative of tubercles in the lungs. So much is this the case, that M. Louis, who wrote an elaborate work on this disease, found no single instance of hæmorrhage from the lungs, out of twelve hundred cases, which was not associated with tubercles in the lungs, or followed by their development, save in those cases occurring from the three causes above named.

If you value health, or have any desire to prolong your life, begin at once to combat the disease ere it proceeds any farther, for *delay is death*.

Pain in the Chest.

Pain in the chest is present in about two-thirds of all cases of disease of the lungs at some time during the course of the disease, but varies much in extent and severity. Sometimes it partakes the nature of a *stitch*, or sharp pain in the side, at other times merely a sense of *weight* or *oppression* in one side of the chest, or beneath the collar, or breast bones; and in other cases merely a sense of *burning* in the chest, or beneath the shoulder blades. It may be in the opposite side of the chest, or low down in the side, while the tubercles are nearly always deposited in the top of the lungs. The pain is not situated in the lungs, but in the walls of the chest, or in the pleura; and, being sympathetic, is rarely felt immediately over the seat of the disease. Sometimes it may resemble rheumatic or neuralgic pains;

and in other cases may be so troublesome as to make it extremely unpleasant, or even impossible for the patient to lie on one side.

From the great variability in its presence or extent, it is by no means a reliable symptom of consumption; inasmuch as in about one-third of the cases of this disease, it never makes its appearance; and in many others does not do so until nearly the last stage of the disease. When it is present, and is associated with any of the other symptoms of consumption described in this chapter, it should always be regarded as a suspicious circumstance, and lead the patient to have the lungs carefully examined, in order that, if disease be present, it may be eradicated while yet in the early stages.

Circulation.

The *pulse* is generally more frequent in this disease than in health; but in some instances may be perfectly natural, or even slower than usual. In all cases it is necessary to guard against error in this symptom, by first ascertaining the natural frequency of the pulse in each particular case. The average normal standard of eighty beats per minute may be too high, in many instances; but if the frequency of the pulsations exceed this, and cannot be traced to any other cause, it should at once lead us to examine the lungs for tubercles. It corresponds very nearly in a ratio with the frequency of the respiration, and for each additional one of the latter, per minute, above the standard of health, there will generally be found an increase of five in the number of pulsations. Those cases in which it is least disturbed are more favorable than those in which it ranges from 100 to 120 per minute.

The strength of the pulse should also be attended to in forming our opinion of the state of the lungs: being usually more feeble in this disease than in health.

Hectic Fever, followed by Night Sweats.

During the early stages of the disease, the irritation produced by the tubercles frequently causes a sensation of *chilliness*, in some cases amounting to a slight shivering in the after part of the day, after which the patient notices the palms of the hands and soles of the feet feel hot, or burn; or there may be a *slight fever* after going to bed, which towards morning is succeeded by a perspiration; but he rarely experiences well marked *hectic fever* and *night sweats* until the tubercles have begun to soften. It may be very slight at first, only being noticed by the patient feeling a desire to *turn his back to the fire* in the afternoon; or it may make its appearance by a chill, followed by fever, when it is frequently mistaken for a paroxysm of *ague*, and treated accordingly, without any attention to the cause on which it depends!

As the disease advances the paroxysms of hectic fever become more marked, and the night perspirations so profuse as to drench every thing near the body of the patient while sleeping, and appear to be very closely connected with sleep.

It occurs in nearly all cases of the disease; not more than one in ten escaping its attacks, and is one of the most distressing symptoms attending its progress, becoming so fearfully so at times that the patient dreads the approach of the night, on account of its concomitant attendant, *night sweats*; which are very exhausting to the feelings of the patient, and cause rapid wasting of the flesh.

Thirst.

This is not a very remarkable symptom; sometimes existing only to a very limited extent, and at others very distressing: but seldom entirely absent. M. Louis found it present in three-fourths of all the cases which came under his notice,

Diarrhœa.

During the incipient stage of consumption the bowels are more or less costive, but as the tubercles are deposited they become more regular, until after some time diarrhœa sets in, which adds very materially to the discomfort of the patient.

In some cases it makes its appearance at the commencement of the disease, but is generally a symptom of the more advanced stages of it. It may occur in paroxysms, and be followed by, and alternated with *constipation*, and is one of the most debilitating of the symptoms of the disease, and, according to the frequency of the evacuations, will generally be found the loss of strength and flesh.

During the continuance of the diarrhœa the cough and expectoration are sensibly lessened: the former being diminished in frequency, and the latter in quantity. It not unfrequently alternates with profuse night sweats: and is nearly always present at some time during the progress of the disease. M. Louis only found it absent in four cases out of one hundred and twelve. In those cases where it becomes chronic and resists all treatment, it depends upon ulceration of the small glands scattered over the inner surface of the bowels, and is a symptom of ominous signification.

Emaciation.

When the progress of the disease is not fatally interrupted by some accidental occurrence, few patients die from consumption without being very much reduced by emaciation. Often the *losing a little flesh* is the first symptom which calls his attention to the state of his health; while in others, especially young females, the disease has made considerable progress before the patient becomes aware of any visible change. It may gradually increase, although the appetite be good, and the quantity of food taken be abundant and nutritious. When diarrhœa has set in it progresses rapidly, and before death closes the scene, there is frequently little left but the integuments and the bony skeleton.

When a person becomes thin, without any apparent cause, and has at the same time, a quick pulse and hurried breathing, you may almost certainly conclude that there is mischief in the lungs, even though there may be no cough to lead the patient himself to suspect disease in that quarter.

The Appetite.

The appetite varies much in different cases, and at different periods in the same case. Sometimes it is ravenous, and at others is very poor or entirely gone. Not unfrequently, a poor appetite and weak digestion are among the earliest symptoms; and many consumptive patients have been first treated for *dyspepsia*.

The Menses.

The menstrual discharge is frequently suppressed soon after the commencement of the disease, and in many instances is the first noticeable change in the health of the lady; and after the discovery of the disease in the lungs, the careless physician attributes it to the suppression of the monthly flow; when in reality, the tubercles existed before, and were the cause of that occurrence; only requiring a careful examination of the lungs to detect their presence.

Hoarseness.

Hoarseness may be present in the earlier stages of the disease, and then results from inflammation and thickening of the mucous membrane of the larynx: but in the latter stages arises from ulceration. In the latter form it is generally associated with *Apthæ*, or soreness of the mouth, which first appears as a red and glossy appearance of the sides of the tongue and throat; but this is soon changed

into ulceration, which may also extend to the glottis and cause complete loss of the voice, and sharp pain on attempting to swallow.

These are two of the most distressing of the symptoms which are associated with the latter stages of consumption, and harass the patient exceedingly.

Aphæ, and ulceration of the mouth and throat, in this disease, rarely precede death more than a few weeks. Some writers attribute them to the excoriating effect of the expectoration which accompanies the latter stage of the disease.

Œdema.

Œdema or dropsy generally is present towards the termination of the disease; but may, in some instances, make its appearance in the earlier stages of its progress. It is generally first noticed as a swelling or bloating of the feet, and gradually extends up the ankles and legs, but seldom affects the body. The face and arms may be dropsical in the mornings as the disease approaches a fatal termination.

Incurvation of the Nails.

This is frequently present in consumption, and causes them to be shaped like oyster shells; but is not a symptom of much importance.

With this I close my description of the symptoms; and will next proceed to notice the *causes* of consumption.

CHAPTER VI.

CAUSES OF CONSUMPTION.

I have already stated that consumption is caused by a deposition of tubercles in the lungs, and that these tubercles are caused by an excess of carbon in the blood, from the want of a sufficient supply of oxygen for its removal.

The function of the lungs, as I have before stated, is to remove carbon from the blood, and substitute for it pure oxygen.

The average quantity of carbon removed from the system by the lungs of an medium-sized man, taking moderate exercise, is *thirteen ounces* per day of twenty-four hours; and for the removal of this, *thirty-seven ounces of oxygen* are required. This is performed through the mucous membrane of the 150,000,000 of air cells in the lungs. If from any cause the supply of oxygen be deficient, or the capacity of the lungs for its absorption lessened, a portion of this carbon is retained in the blood, which favors the deposition of tubercles in the lungs.

By far the most potent cause of consumption, in this climate, is the frequency of attacks of *Catarrh*, *Sore throat* and *Bronchitis*. These cause it by obstruction to the passage of air, consequent on partial closure of the bronchial tubes; either by a thickening of the mucous membrane, or a collection of tenacious mucus in them. In bronchitis we often find the bronchial tubes reduced in calibre to one-half the usual size, thus cutting off a large proportion of the supply of air, and making the patient very *short-breathed*.

Any impurity in the atmosphere, whether from improper ventilation or particles of dust floating in it, may cause consumption. It is well known that artisans who are confined in dusty workshops, and the inhabitants of low, filthy apartments where the air is not purified by ventilation, are all very subject to be carried off by

this disease. The following are among those most liable to consumption from breathing a dusty atmosphere: — Stone-cutters, Miners, Coal-heavers, Flax, Cotton and Wool-dressers, Dressers of Feathers and Hair, Brass and Steel-polishers, Grinders, Needle-pointers, Grain-heavers, Rice-dressers, &c.

Dry-grinders seldom live beyond 32, and Stone-cutters, Flint-dressers and Miners, 40. Wet-grinders may live to 48 or 50, as less dust is floated on the atmosphere from the wetted stones.

Another class of artizans is peculiarly liable to consumption from the constrained positions of the body necessary for the performance of their work, or acquired, through inattention, while at their work. Of these I may mention Shoe-makers, Tailors, Weavers, Seamstresses, &c. &c. Insufficient expansion of the chest to admit enough air to preserve the proper balance between the oxygen and carbon in the blood, is the chief cause in this instance.

Farmers, Seamen, Butchers and Tanners are the least liable to consumption, probably on account of spending so much of their time in the open air; and in the case of the latter two, being so much in contact with fatty matters.

Is Consumption hereditary? Yes, but not to so great an extent as is generally believed. — A child may inherit consumption if its mother had the disease at the time of its birth; but not otherwise. It may inherit a *predisposition or tendency* to the disease, which renders it more liable to incur the disease on exposure to any of its exciting causes. This predisposition may be only an increased liability to attacks of catarrh on slight exposure, or increased irritability of the bronchial mucous membrane. Even where predisposition is present, a large majority will escape the disease altogether by proper care and attention to the general principles of health.

The statistics of consumption show that a very small percentage of the cases of it have been predisposed to it by family. Not more than one out of five can trace any family taint of constitution. The remaining four have acquired the disease, usually by inattention to a slight hacking cough, a series of neglected colds, or continued irritation of the throat and bronchial tubes from inhaling irritating matters with the air.

Let no one then neglect any of these premonitory symptoms of the disease because he or she may not be able to trace any family predisposition; for we have already shown that a very large majority of the cases of consumption had no such predisposition; but had acquired the disease. Neither let any one suppose, that because he may not be of a consumptive family, he may recklessly expose himself to all kinds of inclemencies, for the same reason.

It is customary for persons who have large and full chests to suppose that they are free from danger on that account. They frequently strike themselves a severe blow on the chest and say "there is no danger of me dying from consumption; see the development of my lungs". They should understand that with proper care they are less liable to take the disease than others of weak and poorly developed lungs, but that it is not an impossibility for them to take the disease. Very nearly one-half of the patients applying to me for the treatment of their disease are of this class; having large, full and well-developed chests. With a proper supply of pure air and good diet, and due attention to the ordinary rules of health, they would probably have escaped; but, laboring under the impression that they were invulnerable, their fancied security has become the cause of their downfall. Supposing themselves to be free from danger, they have neglected a *slight cold* until it became a *seated hacking cough*, which in turn has terminated in *confirmed consumption*, and he discovers, perhaps too late to remedy the evil, that a full and well-developed

chest is no certain safeguard against the attacks of pulmonary consumption.

It will be observed, from the above, that whatever interferes with the free supply of pure air to the lungs will predispose to disease of them, and render him liable to the deposition of tubercles in the lungs or consumption.

CHAPTER VII.

DIAGNOSIS, OR DETECTION OF CONSUMPTION.

Disease in the lungs is detected by the several means, *Inspection*; *Percussion* and *Auscultation*.

Inspection.

Inspection is the examination of the shape, size and relative amount of motion of the two sides of the chest. If, for instance, we find one side of the chest very much contracted, with the spaces between the ribs more or less drawn in, and very little expansion of that side on inspiration, we at once suspect a deficiency in the quantity of air entering that lung; but from what cause, can only be told by attention to the other signs associated with it. It may be a consequence of pleurisy, and adhesions of the pleura resulting from it; or may have arisen from the contraction of a large cavity in the lung, the result of the expectoration of a tubercular portion of it; or from an abscess of the lung from some other cause.

Percussion.

Percussion means simply tapping on the walls of a part to detect the comparative density of the contents of it; on the same principle as the farmer taps on his cider-barrel to know the quantity of cider still remaining in it:—if the barrel be full, the sound will be dull over the whole surface of it;—if half-filled, the lower portion will emit a dull sound when struck, and the upper part a resonant or hollow sound.

The lungs, in their natural state, contain a large proportion of air and emit a clear or hollow sound on percussion; but if the quantity of air contained in them be diminished by *tubercles*, or other cause, the sound will be *dull*, because the tubercles and blood are more dense than air.

Again: if there be a large cavity near the surface of the lung, the sound over it will be more hollow than that of healthy lung; hence it becomes very necessary that the physician should acquaint himself thoroughly with the healthy sounds of the lungs, else he cannot distinguish preternatural dulness or resonance.

Auscultation.

If the ear be applied to the chest in the natural condition of the lungs, a gentle rustling sound is heard, which is known to medical men as the *respiratory murmur*. It can be heard, either by the naked ear, or by the use of an instrument called a *stethoscope*, which is more readily applied to the greater portion of the chest than is the naked ear. If it be applied over the larger branches of the bronchial tubes a hollow sound resembling that caused by blowing through a tube will be heard.

If, on listening over a part of the chest where the respiratory murmur should be distinctly heard, we find it indistinct or inaudible, and some other sound substituted for it; we know that the lung beneath that portion of the chest is in an unhealthy condition; but what that condition is, can only be learned by long experience, and

consumption.
 with the free supply
 under him liable to

careful comparison with the healthy sounds; and with the appearances found after death. If there be a small quantity of fluid in the air-passages we will have a bubbling sound, varying according to the size of the tube or cavity in which it is produced, from a fine crackling sound in the smaller tubes, to one of gurgling in large cavities. These sounds can only be learned properly by careful attention at the bed-side of patients.

One thing must be said of medical men: — very few of them ever acknowledge an error in diagnosis, or admit an error in judgement; and yet I fear it is not too much to say, that not one general practitioner in a hundred is able to distinguish, by the stethoscope, one stage of consumption from another, or between *purulent bronchitis* and *tuberculous ulceration of the lungs*.

TION.

ection; Percussion

Who, then, can feel surprise at the frightful ravages of consumption, when the great mass of physicians to whom invalids first apply for relief are incompetent to pronounce a proper judgement on the state of the lungs until the time for the most successful treatment has passed. This evil must continue so long as medical men resist the division of the profession into special departments, and until they encourage their patients to apply to those whose devotion to one class of diseases gives them the skill and experience essential to correct diagnosis and successful treatment. It is very seldom that a general practitioner, however skillful, has the time or sufficient experience to become a good stethoscopist; and yet, so long as he continues to treat consumption, the lives of his patients hang upon his skill in this science. The remedies employed must depend on the stage and form of the disease, and no physician can skillfully and successfully treat a patient while he is in doubt and uncertainty as to the nature and extent of the pulmonary affection.

amount of motion of
 the chest very much
 in, and very little
 in the quantity
 by attention to the
 ris, and adhesions
 attraction of a large
 ar portion of it; or

On the other hand, when a physician devotes his whole time and attention to the diagnosis and treatment of one class of diseases, he cannot fail but to become more skilled in those diseases than if that same time were divided among the whole catalogue of diseases to which human flesh is heir.

ect the comparative
 r taps on his side-
 barrel be full, the
 e lower portion will
 hollow sound.

CHAPTER VIII.

n of air and emit a
 contained in them be
 because the tubercles

PREVENTION OF CONSUMPTION.

the sound over it
 very necessary that
 lthy sounds of the
 noe.

“Prevention being much better than cure”, it becomes very advisable for us to seek by every available means to ward off the disease from those who may be predisposed to its attacks, and also to protect the healthy person, as far as possible, from those influences which are known to produce the disease.

Prevention in Infancy.

f the lungs, a gentle
respiratory murmur.
 instrument called a
 of the chest than is
 the bronchial tubes a
 will be heard.

The most important part in the case of the infant is to procure a nurse free from any hereditary taint. If the mother be unhealthy another nurse should be obtained; but if the child have inherited the predisposition from the father, and the mother be free from the taint of disease, she should nurse her own child; taking care to avoid all habits of life which could in any way interfere with health.

y murmur should be
 er sound substituted
 is in an unhealthy
 long experience, and

The child should not be weaned before it is from twelve to eighteen months old, in order that it may have the natural easily-digestible nourishment during the trying period of teething. It should have no other nourishment than the milk of the mother until after it has attained the age of six months; and then should only

be allowed a small portion of other easily-digestible nutriment, composed chiefly, for the first two or three years of its life, of milk and farinaceous articles of diet.

The *dress* should be loose, and sufficiently warm to protect the infant from all inclemencies of the weather; taking care to remember that the infant can endure less cold than the adult. It should always be especially attended to, to keep the extremities well protected. No infant should be allowed to go with the arms naked, and the legs chilled, from the want of proper coverings during the cold weather. Nothing is more erroneous than the prevailing opinion that exposure of infants in a half-covered state to the cold atmosphere will harden them, and render them less liable to take cold. — This practice is fraught with evil consequences and destroys many children.

Bathing is very essential to the health of infants, and should be performed by sponging with tepid water, followed by friction with a warm dry flannel in the morning; and immersion in a warm bath in the evening, before the child is dressed for the night.

Air. It should always be an indispensable item in the nursery to see that a good supply of pure fresh air is furnished for the infant to breathe, as nothing tends more to the production of consumption than the want of a due supply of pure wholesome atmosphere. Therefore, too much attention cannot be paid to the ventilation of the nursery. It should be situated in an elevated part of the house, of a good size, with lofty ceilings, and so arranged as to admit plenty of the sun's rays.

In moderate weather, an infant, after the first four months of its life, should be carried into the open air daily for several hours; but if the weather be at all cold and disagreeable, it will be advisable to keep it within doors.

Prevention in Childhood.

The same general rules about clothing and ventilation which have been laid down in speaking of the care of the infant, will apply to that of the child: and in addition to these, it will be well to attend to the amount of open-air exercise the child takes.

When a child has attained sufficient strength to play out of doors, it can scarcely have too much of it, allowing its own feelings to be its guide when to discontinue it. It is also advisable to allow it to select the method according to its own desires, only forbidding such as are positively injurious.

Girls should be allowed the same plays in the open air as little boys, during the early years of their life; as the free use of their arms and limbs will materially tend to strengthen them.

The *clothing* of children should at all times be suitable for the season of the year, taking care to wear flannels next the skin during the greater part, if not the whole of the year. If exchanged for a lighter material during the extreme heat of Summer, it should be resumed early in the Autumn and continued until late in the Spring. Cotton may be substituted for it during the nights with advantage.

Education. Children who may be at all predisposed to disease of the lungs, should never be confined in a close school-room until after they have attained the age of nine years; and then the school hours should be much curtailed. From five to six hours a day for young children to be confined in a school-room is far too long.

The injudicious practice of teachers stimulating the precocious unhealthy child to increased exertion, beyond its powers, because it does great credit to the class, is very reprehensible; and should meet the disapprobation of every sensible parent. It is far more advisable that he should urge the child to pay more attention to the physical development of the system, in order that it may not suffer from the precocious development of the brain.

Had due attention been paid to this matter, many unhealthy men and women would have been more robust at the present day; and we would now have, among our friends, a far less number of consumptives languishing under the tortures of this fearful malady.

Prevention in Youth and Adults.

The same general rules apply to the youth and adult: — a due amount of open-air exercise, with gymnastics etc., not too much confinement, or close application to studies, regular habits, temperance and good diet, will, in the majority of cases, prevent the disease from making its appearance, even in those who may be strongly predisposed to it by inheritance.

The most healthy exercise for both sexes is riding on horseback; as no other exercise calls the whole muscular organization into action to so great an extent, as a good gallop over the country, on the back of a noble steed.

In conclusion I would call the attention of parents and children to the choice of a proper profession. No occupation should be selected unless there be full satisfaction in regard to the capability of the constitution and strength of the candidate for the full and complete performance of all the duties of that profession. Persons of a scrofulous habit should never choose a profession which entails on them habits of a sedentary nature; but on the contrary, should select some occupation which necessitates them to be in the open-air a considerable portion of the day.

CHAPTER IX.

VARIETIES OF CONSUMPTION. ACUTE CONSUMPTION.

There are four distinct forms of consumption recognized among medical men, each having some peculiarity in its character, rendering it necessary that the medical attendant should recognize the variety before prescribing remedies for its removal.

Acute, or Galloping Consumption.

The usual duration of consumption is from nine months to two years, from the first appearance of the disease to its final termination; but this variety is that which runs its whole course in from two weeks, to three months. There are two forms of it: the first, appearing to depend, for its short duration, on the violence of the disease; and the second, on the feeble powers of the constitution in which it occurs.

The symptoms which attend the first form are usually but little different from those of a low inflammation of the lungs, and too frequently the true nature of the disease is not discovered until after death, when, if the lungs be examined, they are found studded with tubercles. It is most common in young persons, between the ages of fifteen and twenty-five, of full habit, clear complexion and ruddy cheeks, and frequently follows an attack of some acute febrile affection, as measles, small-pox, scarlet fever etc.

It generally commences with a severe cold, which appears from the first to be deeply seated in the chest, causing a sensation of great oppression, shortness of the breath and cough, which, though slight at first, soon increases in severity, and is accompanied by an expectoration which passes through all the ordinary changes of consumption in a few days. Hectic fever and night sweats soon set in, and not unfrequently diarrhoea contributes its share to the destruction of the patient, who

sinks rapidly, until, at the expiration of a few weeks, death puts an end to his sufferings.

The second form of acute consumption occurs chiefly in delicate young persons, (more especially females) of weak powers of life, with languid circulation, whose hands and feet are habitually cold, and their best state of health is one of great debility: they cannot endure a moderately elevated temperature without oppression, and cannot be exposed to a lower one without chilliness.

Its symptoms are often very closely allied to those of the latent variety of the disease. The cough is usually slight at the commencement, and unattended by expectoration, the breathing is slightly hurried and the pulse somewhat more frequent than in health; but the friends, thinking she is naturally delicate, do not become alarmed until the disease has made so great progress as to render its symptoms very prominent. The cough gradually grows worse, expectoration appears, frequently tinged with blood, the breathing becomes very much hurried, night-sweats supervene, the countenance becomes pale and shrunken, with a pale leaden hue beneath the eyes, the lips lose their color, and every feature shows too plainly the near approach of a fatal termination, until the bodily strength becomes so much reduced that an attack of diarrhoea rapidly terminates the existence of the patient; or she may die more suddenly from a fainting fit on some slight exertion.

This form of the disease is one of the most insidious, and requires the closest observation of the practitioner, as it is very liable to be overlooked, both on account of the obscure character of its symptoms, and the little importance attached to it by the patient's friends.

CHAPTER X.

CHRONIC CONSUMPTION.

By far the most frequent form of consumption is *Chronic Consumption*. It is thus named in contra-distinction to the acute or galloping variety just described, because it takes a longer time to run its course, and destroy its victim.

It may commence with a slight, dry, hacking cough, occurring in a person who is somewhat debilitated and appears out of health, which is so slight at first as to escape the notice of the patient; he has no fever, and on taking moderate exercise, has a good appetite. At first the cough usually comes on just after arising from the bed in the morning, and rarely causes much annoyance during the day; but as the disease advances, occurs at all times and causes the patient great annoyance. It may entirely disappear on the appearance of fine weather in the ensuing Spring; or if he take another cold, and suffer from an attack of acute catarrh, he finds, on the disappearance of the catarrh, that the cough still remains, a *slight dry hacking*. — Or it may commence by *spitting of blood*, either in quantities of fresh red blood, or in streaks of it mixed with the expectoration. — Or as a general debility, or wasting of the tissues, which gradually increases as the disease advances. In this latter case the patient may feel *chilly*, or may only have *cold hands and feet*, alternating in the afternoons, or towards evening, with dryness, heat and feverishness in the palms of the hands. This may not be felt by the patient himself, but is noticed by his friends on shaking hands with him. After retiring he may feel the soles of the feet hot and burning. He may have slight flushings in the afternoons, which, in some instances, are followed during the night by perspiration.

ts an end to his
ate young persons,
circulation, whose
alth is one of great
without oppression,

ent variety of the
nd unattended by
e somewhat more
ly delicate, do not
to render its symp-
ectoration appears,
arried, night-sweats
pale leaden hue be-
too plainly the near-
es so much reduced
the patient; or she
n.

requires the closest
ed, both on account
ortance attached to

Consumption. It is
riety just described,
victim.

g in a person who is
slight at first as to
g moderate exercise,
fter arising from the
g the day; but as the
annoyance. It may
eing Spring; or if he
e finds, on the disap-
try hacking. — Or
fresh red blood, or in
al debility, or wasting
s. In this latter case
et, alternating in the
hness in the palms of
noticed by his friends
es of the feet hot and
ch, in some instances,

In females, *monthly irregularities* are occasionally the first noticeable symptoms, and are frequently *wrongly* charged with producing the disease in the lungs. In other cases the first symptoms which attract the attention of the patient are those of derangement of the stomach and digestive organs; many patients having been dyspeptic before the cough made its appearance: but in others digestion remains healthy and the appetite good, until the disease has made considerable progress, when there is frequently a loss of appetite, with diarrhœa. After hectic fever and night sweats make their appearance, the progress of the disease is more rapid, and the loss of flesh much more visible; being noticed more especially in the limbs, which appear shrunk, and the joints much more prominent than usual: the features, at the same time, becoming sharper and the eyes increased in brilliancy.

The *cough*, which at first was dry and hacking, sooner or later becomes more moist, the matter expectorated becoming transparent, blueish, yellowish and greenish, in turn. At first it is a frothy mucus; but after a time exhibits small specks of yellow or straw-colored matter interspersed through the other; and still later, becomes completely yellow, or greenish-yellow. Sometimes it has a sweetish, and at others a saltish taste. When the tubercles are softening it is always of a yellow color, and purulent in character.

There is generally more or less *pain* in the chest, side, or beneath the shoulder blades. Sometimes it is only a sense of oppression, and in a few cases never makes its appearance during the entire course of the disease. When the tubercles are softening in considerable quantities, there are hectic fever, night sweats and considerable emaciation.

After the first crop of tubercles have softened, broken down, and been expectorated, there is generally an improvement in the symptoms; the cough partially disappears, the expectoration improves in character, the hectic fever and night sweats abate, and if the patient gain a few pounds in weight, he readily imagines he is *getting better*, and that he will soon recover; but too often this is only like a temporary calm in a storm, and is soon followed by the re-appearance of the disease with increased strength, when another, and perhaps a larger crop of tubercles are softened, which, occurring from time to time, steadily and surely undermines the strength of the patient. These repeated attacks recur until the bodily vigor becomes so much reduced that, an attack of diarrhœa supervening, rapidly reduces the little strength remaining, and the patient sinks, another victim to this merciless destroyer.

The cause of this apparently paroxysmal recurrence of the attacks is, that the tubercles have been deposited at various periods, usually on attacks of cold, which have been neglected. After the cold disappeared the patient seemed quite well again; but the deposit of tubercles still remained in the lungs. — After a longer or shorter time another cold was taken and another crop of tubercles deposited: and so on, until those first deposited commence to soften and break down the tissues of the lungs; forming *ulcers*, which corrode deeper and deeper, until they lay open some of the small vessels of the lungs, when he has an attack of *spitting of blood*. As each successive crop of tubercles soften and are expectorated, a portion of the lung is destroyed; until finally so much of it is disorganized, that not enough is left to perform the proper purification of the blood, when the patient speedily becomes emaciated and death relieves him from his sufferings.

This is the usual course of consumption, when allowed to pass on unchecked to a fatal termination.

In the next chapter I will describe the *latent* variety of the disease.

CHAPTER XI.

LATENT CONSUMPTION.

This name is given to certain cases of the disease not marked by any of the usual local symptoms which point to disease of the lungs; such as cough, expectoration, shortness of the breath or spitting of blood, until the disease has nearly completed its course. Nevertheless the disease is making steady, silent and stealthy progress, and slowly but surely undermining the health of the patient. The tubercles are *latent* or *concealed*.

It may occur at any age, and from its insidious advancement, requires the closest scrutiny of a well-experienced physician to detect its presence. It usually begins by a general debility of constitution, so slight for some time as to escape the notice of the patient or his friends. After some time he feels not quite so well as he formerly did, and finds that he is slowly declining in bodily strength and vigor, has slight fever, or occasionally derangement of the bowels, (perhaps even diarrhœa) or night sweats; but the sensations are usually so slight as not to be thought sufficiently important to justify him in applying to a physician. If, by some accidental occurrence, he take cold and suffer from pain in the chest, or other symptom of consumption, and apply to a physician not very well experienced in disease of the lungs, he will probably be told that "*it is a slight cold, and will get well in a few days*", or that his loss of strength, etc. arise from *liver complaint, indigestion or dyspepsia*. The eye of a physician experienced in the disease would at once detect in the countenance, that which would induce him to carefully examine the lungs with the stethoscope, when the cause of the bad symptoms would be immediately disclosed; but the general practitioner, whose time is so thoroughly occupied with attendance on acute diseases, and sees so few chronic affections of the lungs, or from habit takes so little notice of them, that he does not observe the change nearly so soon as one, who, by devoting his whole attention to those diseases, becomes more thoroughly acquainted with them than he possibly can.

Let it not be supposed that latent consumption is a rare disease; for in hospitals, and other institutions where it is customary to make *post mortem* examinations of the bodies of those dying in the institutions, it is found on examination that a very large percentage of those who have been treated for other diseases, have had *tubercular deposits* in the lungs: but during life no symptoms pointing to the lungs as the seat of disease were present. Lænnec, the great authority on this disease, says; "We may indeed say that the greater number of cases of consumption are *latent*, since nothing is more common than to find tubercles in the lungs of persons dying of what was supposed to be some other disease, they never having shown during life, any symptom of consumption. It has frequently appeared to me, from carefully comparing the history of my patients with the appearance on dissection, that the greater number of *first attacks* are *mistaken for colds*." And Sir. James Clark, in speaking of the liability to mistakes of this nature says: "I have known more than one example of extensive tuberculous disease of the lungs, discovered by a *post-mortem* examination, where, during life, the disease was looked for in the *stomach, liver, or bowels*."

From the above facts it will be well understood that we may have extensive disease in the lungs without any of the usual apparent symptoms of the disease, and that those persons who imagine that they cannot be consumptive because they never had cough, pain in the chest, or expectoration, are frequently very much in error.

Experience has proven that many persons are now carrying in their lungs tubercles in the latent form, who have none of these symptoms, and that it is only a question of time until the disease shows itself by some of the more evident symptoms, when too often it has progressed beyond the reach of curative efforts. By taking it in the early stages, when it is masked or hidden by the other symptoms which are attributed to the affections of the stomach, liver, or bowels, it might, in many cases, be eradicated; but, from the carelessness or inattention of the attending physician it is allowed to pass stealthily on to disorganization of the lungs before its true nature is discovered.

It then becomes doubly important that persons should become alarmed when they find themselves gradually growing thinner and weaker, with imperfect digestion and irregular bowels, and at once have their lungs carefully examined; not trusting to the judgement of the physician who attributes the symptoms in all these cases to the *liver complaint*, *dyspepsia*, or *indigestion*.

CHAPTER XII.

CONSUMPTION IN INFANCY AND CHILDHOOD.

It cannot fail to attract the attention of every reader of mortality bills, to notice the very large percentage of deaths among infants and children. From the most reliable statistics it is found that *one-half* of all the children born die within the first four years of their existence; and that nearly *forty per-cent* of them die before they have attained the age of two years.

This must be surprising to those who consider that these occur at that time of life when the recuperative powers of the system are the most active; yet it will be observed how rare an occurrence it is to find a death of a child attributed to *consumption*.

Why is this? Is it because consumption is a rare occurrence in children? No.— In the great majority of instances it is because the medical attendant has neglected to examine the lungs for the indications of disease in them, but has contented himself with examining and prescribing for the symptoms which are more noticeable. Consumption is much more common among children than is generally believed: — Dr. Guersent, one of the physicians to the Hôpital des Enfants Malades of Paris, an institution appropriated to the treatment of patients between the ages of one and sixteen years, states as the result of his observations, “that *five-sixths* of those who die in that establishment are more or less tuberculous.” The observations of MM. Lombard and Papavoine go to substantiate the same fact. Dr. Allison of Edinburgh estimates that one-third of all the deaths of children in that city are from consumption. A very large percentage can be proven by any medical man who will take the trouble to examine the lungs of those children who may die under his care.

The *symptoms* which mark the presence of the disease in children are not very manifest; there is no spitting of blood, no expectoration to examine, for it is *swallowed* immediately on being raised from the lungs; — the *cough*, when present, is in paroxysms and sometimes very nearly resembles hooping-cough, — there is generally some fever in the afternoons, but it is usually attributed to *worms*; — at night there is a slight perspiration on the child's forehead, but rarely well-marked night-sweats; there is frequently diarrhœa, but it is attributed to *indigestion*, *worms*, or *Summer-complaint*; and in a very large majority of cases, there is continued and steady

wasting of the flesh. Yet none of these symptoms are sufficient to show that the child has consumption. It is only by the use of the stethoscope that the disease can be diagnosed with any degree of certainty; and too many physicians never apply it to the chest of the young sufferer; but content themselves with prescribing something for the more prominent symptoms; without even thinking (if we may judge from their actions) that there may be tubercles in the lungs.

If a child suffer from eruptions about the face or behind the ears, pustules on the edges of the eye-lids, swelling or enlargement of the upper lip, soreness of, and discharges from the nose, swelling of the glands of the neck, and gradual wasting of the strength and flesh, it is always advisable to have the lungs carefully examined by the stethoscope. None of these point unfailingly to consumption; but they all indicate a bad state of the general health which greatly predisposes to it, if tubercles be not already deposited. A careful and thorough examination of the lungs by a well experienced medical man will decide the matter beyond doubt, and should never be neglected. If disease be found in the lungs, I need not inform the reader that "chalk mixtures" or "paregoric," although they may check the diarrhoea for the time, cannot remove the disease from the lungs. It can only be removed by carefully attending to those principles of practice which I will describe in a subsequent chapter on the treatment of consumption.

CHAPTER XIII.

COMPLICATIONS OF CONSUMPTION.

Before proceeding to speak of the complications of consumption I will offer a few general remarks on the varieties of the disease. It must have appeared strange to my non-professional readers to find such a great variety of symptoms in different cases, produced by the one cause: viz. tubercles in the lungs; and that the symptoms are not precisely the same in every case of the disease. — Why are they not? It is because the constitutional peculiarities of the several patients are so widely different. These differences we call *temperaments*. For instance: If a person of high nervous temperament be attacked by tubercles in the lungs he will probably suffer much more from pain in the side and chest than one of a lymphatic, or sanguine temperament; if he be of a sanguine temperament the disease will probably be accompanied by *spitting of blood* as one of its early and prominent symptoms; and if of a bilious temperament, he will be more liable to derangements of the liver, stomach and bowels than either of the others.

Those peculiarities of constitution known to physicians as *idiosyncrasies* also exert a modifying influence over the symptoms of the disease, and may lead to some error in diagnosis unless the physician exercise great discretion, and bear them in mind when forming his opinion.

Complications of Consumption.

From what I have said in the preceding chapters of this work the reader will readily trace the connection between the circulation of impure highly carbonized blood through the whole system and its deleterious effects on other organs of the body. These vary according to whichever organ happens to be weakest at the time: being, in one case, the stomach, in another the liver, in another the bowels, etc.

The *Stomach* may be inflamed or ulcerated, diminished in size or enlarged to two or three times its original size. The *Liver* may be studded with tubercles, or more or less changed into a substance resembling fat in appearance. The *Bowels* may be inflamed or ulcerated, either in the mucous lining of them, or in the small glands found beneath it. — In the latter case there will be obstinate diarrhoea as a result of it. The *Kidneys* may be affected as a complication of the disease; in which case there will be pain in the back or derangement in the secretion of urine.

The foregoing complications are all situated at a distance from the disease in the lungs; but there are others more closely connected with it; as *ulceration of the epiglottis*, which generally occurs late in the disease, and when extensive, causes fluids to be returned by the nostrils when the patient attempts to swallow them; 2. *ulceration of the Larynx and Trachea*, when there will be more or less hoarseness according to the extent and situation of the ulceration; in some cases amounting to complete loss of the voice. These all appear to be caused by the corroding effects of the matter expectorated from the lungs, in its passage along the mucous membrane of the air-passages. 3. *Affections of the pleura* are of various grades from simple congestion to ulceration and perforation of it. When it is simply congested or slightly inflamed there is more or less pain in the chest, which appears to be the principal inconvenience caused by it; but when it passes on to inflammation we may have water and pus form outside of the lung in the cavity of the pleura, which, by its presence, interferes materially with the process of respiration: or we may have the pleura perforated by outward ulceration of a tubercle situated near the surface of the lung, thus allowing air and matter to escape into the cavity of the pleura, and causing pain and a sense of great suffocation.

These are usually associated with the latter stages of consumption when present at all during its course, and are exceedingly distressing symptoms.

I need not inform my readers that these all tend to complicate the disease and render its diagnosis much more difficult; requiring careful investigation to discover the true cause of them. It is too often the case that physicians, through inadvertance, neglect the primary disease and treat the complications alone, a course which cannot fail to lead to unsatisfactory results.

CHAPTER XIV.

DURATION OF CONSUMPTION.

Consumption has almost universally been thought to be a lingering disease, and persons who have been attacked by it thought to have had a lease of life for a few years at least. — True, it extends over a lengthened period in some instances, but not invariably so, for from the researches of eminent authorities on the subject it has been calculated that the average duration of the disease is twenty-three months, but that the larger proportion of them *die in less than nine months.* —

Thus, out of 314 cases which came under the notice of MM. Louis and Bayle, 24 died within three months of the first appearance of the disease, — 69 others between the third and the termination of the sixth months, — 69 others during the next three months, and 32 during the next three months; making in all 194 out of 314 who died during the first year from the invasion of the disease. — Of the remaining 120, there were 33 who died within the next three months; and 12 within the next three; and 28 during the next six months; making 73 within the second year,

or 267 within two years from the first symptom. Of those remaining there were 28 who died before the expiration of the fifth year and only 19 who lived beyond that period. By reducing the above numbers to the standard of one hundred we have the following results from their experience:—Of every hundred persons attacked, 85 per cent died within two years, 76 per cent within eighteen months, 72 per cent within fifteen months, 62 per cent within twelve months, 52 per cent within nine months, 30 per cent within six months, and 8 per cent within three months.

Age and sex appear to have but little or no influence over the duration of consumption after the first year, during which M. Louis found a considerably greater number of deaths among females.

From the mortality bills of the City of London, England, it is found that the three months of the year during which most consumptives die are the months of December, February, and March; and the three during which the least number of deaths from Consumption occurs are; July, August and September.

From the above statistics it will be seen why I urge on patients the necessity of attending to the earliest symptoms of the disease, not delaying until it has destroyed a portion of the lungs, under the supposition that it is one of slow progress, and that three or six months hence will do quite as well as now; for experience has proven that in a great many cases it will pass into the second, or even into the third stage before that time has elapsed. Let patients then take heed to the earlier symptoms and have the cause removed at once, for, in many instances. *delay is death.*

CHAPTER XV.

TREATMENT OF CONSUMPTION.

Before describing the treatment of consumption it will be advisable that we enquire by what processes tubercles are removed from the lungs.

There are two ways in which this may be accomplished: one is by absorption, the other by expectoration of the tubercular matter and cicatrization of the cavity.

A familiar example of the process of absorption is seen when a boil swells up until it appears on the point of breaking and then gradually disappears without having done so:—the matter is taken up by the absorbent vessels and removed from the body with excrementitious substances. Goitre, or “thick neck” is removed in the same manner. This is the way in which consumption is cured in the first stage, or early part of the second one; but when it has passed beyond that it is generally removed by the second process.

Suppuration and cicatrization are frequently seen in cases of abscesses, boils, wounds, burns etc. In the first two instances the matter is formed in the abscess, comes to a head, breaks and the matter is discharged; new substance, known to medical men as granulations, is poured out in the cavity, which unites the sides of it and the abscess heals, leaving a scar or *cicatrix*. The same process is seen in the case of wounds and burns, except in these the matter or *pus* is not often collected in a cavity, but is secreted by, and discharged from the abraded surface.

These are similar to what takes place in the lungs:—the tubercles soften or suppurate and are expectorated, and if properly and successfully treated new substance is thrown out in the cavity which unites its surfaces, leaving a cicatrix; but

when left to run its own course, the ulcer, when once formed, gradually enlarges its borders, corroding deeper and deeper into the surrounding tissues of the lung, until so much of them is disorganized that worn-out nature yields to its destroying influence.

It will be observed that when lung tissue is once broken down and expectorated *new lung tissue is never re-produced*; the cavity is partially filled by another substance and contracts into a cicatrix; but that portion of the lung is lost forever, as the cicatrix is useless for purposes of respiration. When the ulcer is healed no more matter is secreted, and in the case of disease in the lungs, purulent expectoration ceases, because no more matter is formed to be removed by expectoration.

Now that we have seen the process of cure, let us review the different methods of medication in use to assist nature in these processes.

There are three channels by which medicines are introduced into the system: — 1. by the *stomach*, — 2. through the *skin*, — and 3. through the *mucous membrane of the lungs*, or by *inhalation*. We will examine the results of each of these separately.

Treatment by the Stomach.

Treatment of consumption by medicines administered through the stomach has been used since the earliest foundation of medical science, and almost every remedy in the whole catalogue of the *Materia Medica* has, at one time or another, been vaunted as a "specific" for its cure.

Physicians appear to have no established principles of practice: — One believes it to be a disease of *depression of the vital powers*, and administers "stimulants" and "tonics" to raise the strength and tone of the system: while another of equal ability and reputation declares it to be *inflammatory*, and pursues the opposite plan of lowering the strength by administering depleting remedies. With so many conflicting opinions regarding the nature of the disease, it is not at all to be wondered at that every new medicine discovered has been lauded to the skies as a specific, and the physician who prescribed anything else during the time of its popularity pronounced a "quack", "fool", or "old fogey". To give merely a synopsis of the various methods of treatment adopted and the remedies used, would require much more space than the limits of this treatise would admit. Suffice it to say that each has soon been found useless and thrown aside, to be replaced by its successor, which in a short time has shared a similar fate and fallen into disuse.

Such cannot fail to be the results when medicines are administered by the stomach for the removal of disease in the lungs, inasmuch as the remedy has to traverse with the blood, and act on other parts of the system with equal power to that which it exerts on the lungs. The ulcers are in the lungs, and why should the remedies be applied to the stomach?

Treatment through the Skin.

This is subject to the same objections as that by the stomach, for less of the remedy is absorbed into the blood than when it is administered through that channel, and consequently it is far less active than when that method of administration is used. Friction over the chest, either with a warm flannel or with some counter-irritant substance is very useful for relieving pain, but has little or no influence for the removal of tubercles from the lungs, or prevention of a further deposit of them.

The complete failure of all methods of treatment previously used is well portrayed by Sir. James Clark, who says: — "The total inefficacy of all means hitherto adopted for diminishing the frequency or reducing the mortality of this class of diseases, is of itself sufficient incitement to us to seek for some other method

of remedying the evil." — And again, the same author, when speaking of the results of the treatment employed in his day, says: "It is melancholy to reflect that cures occur in so small a ratio that in estimating the duration of consumption we cannot bring them into the calculation!" Magendie, the eminent authority in Medicine, said: "that all the careful and minute examinations of the disease by the most eminent observers, had not thrown one particle of light on the treatment of it: that we must learn the *cause* of it; perhaps detect the tubercular matter in the blood, and as a further step ascertain the means of destroying it, or preventing its formation." Not many years ago Professor Carswell, the eminent London Pathologist, said: — "It may not be too much to hope that by means of a more intimate knowledge of Organic Chemistry, we may be able to detect in the mucous secretions or in the blood, those changes which indicate the existence of the tubercular diathesis, and thus perhaps be led to discover a remedy for the disease before it has effected its localization and produced changes in themselves incurable."

Since these were written new discoveries have been made in Organic Chemistry and tubercles in the lungs found to depend on an excess of carbon in the blood, as was before stated when speaking of the causes of consumption.

For some time past it has been found by medical men to be by far the most successful method of practice to treat ulcerations of the mucous membranes by applying the remedial agent directly to the diseased part. In ulcerations of the throat the remedies are locally applied; in ulceration of the mucous membrane of the bowels injections are used in order that the affected part may be directly reached; and in ulcerations of the eye and stomach the remedies are also directly applied.

The mucous membranes in all these situations are similar to that lining the air-passages, and why medical men have treated the eye, throat, stomach and bowels, with so much success, by local applications to the diseased part, and still continue to treat ulcerations of the mucous membrane of the bronchial tubes and lungs by applying their remedies to the stomach and skin only is a question which I will leave for them to answer: it certainly is at variance with reason or common sense, and should be immediately abandoned. If medicines taken in the stomach will cure affections of the lungs and air-tubes without local applications, why will they not cure the less important affections of the eye in a similar manner, both being mucous membranes; yet what medical man neglects to apply eye-washes to the eye? If local applications are so useful the one instance, why have they not been tried in the other? Who would think for one moment of allowing an ulcer on the hand or foot to go untouched and apply the remedy to the stomach instead! Yet it would be quite as reasonable to do so as to pursue the treatment by the stomach when the ulcers are in the lungs. Certainly it would be more in accordance with sound judgement and good sense to apply them to the diseased surface, whether it be on the surface of the body or on the surface of the mucous lining of the lungs exposed to the atmosphere.

Medicines are used in three different forms; the *solid*, *liquid* and *gaseous*. We all know full well that solids cannot be applied directly to the disease in the lungs, except in a state of very minute division, and then they act as foreign bodies, and cause a great sense of "stuffing up" or "clogging" of the lungs, as is constantly seen when persons have inhaled a dusty atmosphere for some hours. They feel considerably oppressed until by an increase of secretion and expectoration nature has removed the offending substance. — And that medicines in a liquid state cannot reach the diseased part, because even a single drop of water when drawn into the wind-pipe causes a very severe fit of coughing and an approach to strangulation: hence the only remaining method of applying remedies directly to the disease in the lungs is to use them in the state of gas or vapor; by *inhaling* them with the breath.

It would be absurd to deny the self-evident truth of the beneficial effects of this last-mentioned method, even if we lacked evidence to substantiate it; but happily the success attending the direct medication method of treating disease of the lungs has, since its introduction into this continent, both in the United States and Canada, been so cheering and unprecedented, that it has already taken its stand as an established principle of practice.

Treatment through the Lungs.

Before taking up treatment of Consumption by Inhalation, it will probably be advisable to say a few words on the effects of *Climate*, acting as it does more especially through the lungs.

It has long been the custom of medical men to advise a "change of climate" in every case of consumption, without regard either to the stage of the disease or the condition of the patient. This is very cruel in all cases. If the patient be in circumstances not allowing him to make the change, it will harass his mind with anxious longings when he most needs repose; and if he have the means, it is too often the case that he merely goes abroad to find a foreign grave! Taken from his home and the associations of his nearest connexions, who would have soothed his sufferings by a ready anticipation of all his wants, he finds himself a stranger in a strange land, surrounded by persons to whom his fate is a matter of indifference, and who administer to him only for hire, what would have been cheerfully performed at home for affection. If change of climate did, even in a rare instance, cure the disease in the early stages (which I very much doubt) it could not do so when it has become fairly developed. If a person be predisposed to consumption, a permanent residence in a less changeable climate than this may ward off the disease, but merely spending a winter occasionally in a warm climate is of little or no benefit. After the disease has become considerably advanced it is worse than useless to expatriate the sufferer, for it too commonly only hastens his end, and he discovers, after a long and tedious journey, that instead of finding the Earthly Paradise sought for, where he will forget his cares; and where the balmy air will heal his lungs and give him new life and vigor, that he has merely been sent to foreign lands, away from home and friends, to die among strangers.

Dr. Forbes, who spent several years at one of the principal resorts of consumptives, tells us that "in *no single instance* of well marked consumption among those sent there, did he witness a *cure*, or even a *temporary palliation*, which could be attributed to the effects of climate;" and his experience is corroborated by that of other eminent authorities on the subject. Why then will medical men recommend change of climate as his only hope, when, as we have just seen, in the great majority of cases it only serves to hasten his doom!

If a change of climate be decided on, those most favorable for those consumptively inclined are, the East Indies, Cape of Good Hope and Australia: and then the patient should make up his mind to remain there permanently: a winter or two will not cure.

On Inhalation of Medicated Vapors.

This is performed in two different ways: one by medicating the air of the room in which the patient remains for a longer or shorter time: the other by using an inhaling instrument, a convenient form of which is figured and described on page 21 of this treatise.

The next question you will probably ask is — "What medicine shall we inhale?" If you will call to mind what you have read in a previous chapter on the causes of

consumption, you will have no difficulty in answering at once *Oxygen*. We have seen that tubercles are caused by an excess of *Carbon* in the blood, that this carbon is burned off in the lungs by uniting with oxygen; hence why should we not supply that which Nature so unmistakably calls for? But pure undiluted oxygen gas has been found by far too powerful an agent to be inhaled for a length of time without a deleterious influence; and thus it becomes necessary that it be diluted with some less powerful agents. We take advantage of this, and combine some of those volatile remedies which experience has taught us exercise a beneficial effect on the diseased lungs.

Those which we use for consumption are divided into four classes: 1. the *Expectorant*, which assists in removing the mucus and diseased matter from the lungs, 2. *Anodyne*, to soothe the inflamed or irritated membrane, 3. *Astringent*, to diminish excessive secretion, and 4. *Alterative*, to change the action of the diseased membrane. But the *blood* is impure, and contains tubercular matter: What can be done to remedy that? *Remove it by Inhalation!* We have seen that the impurity in the blood is a carbonaceous one; and Nature has the peculiar faculty of uniting oxygen and carbon in the lungs and throwing off the combination as carbonic acid. Carbon is present in the blood in excess, as an impurity, and in order to remove it we supply an excess of oxygen to the lungs, which, unless the vital powers of Nature be too much exhausted, will combine the two and remove them as before mentioned.

We have also seen (see page 10) that the lungs possess great powers of absorption, and we derive great advantage from it in the removal of tubercles from other organs of the body. A portion of the inhaled medicines is absorbed into the blood and circulates with it to distant parts of the body, thus acting not only as local medication, or direct application to the disease in the lungs; but also as an indirect one to other parts of the body: hence it is very unjust to say that Inhalation will prove unsatisfactory because it is a local application only, and does not reach the disease in other parts of the system.

Inhalation, by acting directly on the parts affected, not only promotes the cure of the disease, but also, from the commencement, adds greatly to the comfort of the patient by relieving his more troublesome symptoms. The *cough* is relieved by the expectoration of the offending mucus; the *shortness of the breath* vanishes on the removal of the local obstruction; *hectic fever* and *night sweats* disappear with the alleviation of the pulmonary irritation; and *spitting of blood* and *loss of flesh* cease at once when the blood is properly purified. Thus this method of treatment not only affords a reasonable hope of cure, but immediate relief from the distressing symptoms which so greatly annoy the patient.

The usual course of treatment pursued by me in an ordinary case of consumption in the adult, is to prepare the mixture for inhaling of such a strength that one teaspoonful contains sufficient for a dose. The inhaling instrument is charged as follows: — Remove the cork and tubes from it and half-fill it with hot water, taking care to add the water very gradually until the glass becomes heated, to avoid breaking it. To the hot water the medicines for inhaling are added, the cork and tubes are replaced and the patient is directed to take the glass mouth-piece between his lips and draw in his breath (*inhale*) through the instrument, gently and deeply, but not straining the chest, for five, ten, or fifteen minutes, as may be advisable, and resting occasionally when fatigued. This is repeated from two to four times during the twenty-four hours according to the requirements of the case, the patient taking care not to go out into the cold air during the first half-hour after he has finished the inhalation, for fear of taking cold.

In the case of very young children it is impossible for them to use the inhaling instrument, when we resort to the method of medicating the air of the nursery, thus acting gently, mildly, effectually, and almost insensibly on the diseased lungs.

The question is often asked me: "Do you give no medicines by the stomach?" Certainly I do when I find them necessary, either for the relief of the patient or for assisting in restoring the powers of life to their usual standard. If the digestive powers be weak I strengthen them by the use of *tonics*: if the patient be feeble and emaciated I order good nourishing diet and rich soups, or Cod Liver Oil, to sustain the strength of the system; although good rich cream is quite as good, and much more palatable, if the stomach do not reject it. At the same time I endeavor to correct the functions of the liver, bowels, or kidneys, if they be deranged, and recommend the patient to protect the body from cold by wearing flannels next the skin, and to keep the feet warm and dry. These are valuable hygienic assistants, but employed alone will not remove tubercles from the lungs.

Subject, as the human race is, to so great a variety of opposing influences, it cannot be expected for one moment that any method of treatment will prove invariably successful, for it is appointed to all men "once to die," and miracles must not be expected; but I am fully convinced that if these principles of practice are adopted in time and faithfully carried out, that no future Authority will be able to truthfully adopt the language of Sir. James Clark, before quoted, in which he says: "It is melancholy to reflect that cures occur in so small a ratio that in estimating the duration of consumption, we cannot bring them into the calculation." This was his conclusion after a careful investigation into the statistics under the usual system of treatment by the stomach, and the results cannot be otherwise so long as physicians depend on dosing that organ for the cure of the lungs.

I have now explained the treatment by *inhalation* as practised by Dr. Robert Hunter and myself, and that it has been attended with a success not hitherto attained or even deemed possible in these diseases cannot be denied. Believing that these principles of practice, when adopted in the early stages and faithfully carried out, will be of inestimable benefit to the inhabitants of these Provinces, I earnestly entreat them to study them carefully and profit by their exposition. It cannot be hoped that any means will ever be discovered to restore the lost functions of the lungs that have been completely disorganized; but I claim that by inhalation we have the power of arresting and curing diseases of the throat and lungs in stages that are far beyond the reach of any other human agency.

My object has been to *instruct*. Had I chosen to present to you a picture of the thrilling scenes which daily occur in the pathway of the physician: — Man, in the pride of maturity, torn from all that he loves, and borne to the silent tomb! — Woman, in all her beauty, with the first blush of love on her maiden cheek, hurried away just when the future seems propitious of all that is necessary to make life desirable: — The *infant*, with more than a giant's grasp, torn from the fond arms of its distracted mother: — The *youth*, just entering the confines of manhood, with all the hopes so fondly cherished by doting parents, centered in him, and to whom they look for solace in their old age: — The *husband*, by whose daily toil his little family are supplied with the necessaries of life: — The *wife*, when but a few weeks have passed since she stood a bride at the altar, looking forward to a life extending far through the vista of the future, on which her beloved partner was to shed rays of contentment, prosperity and joy! — Had I detailed to you the death-bed scenes, the last sad partings which daily occur as those endearing ties of affection are snapped assunder by this insidious enemy of our race; or had I recalled the memory of the silent procession wending its way to the churchyard, and shown you afar the loved objects go down to the dismal grave, rather than to point out a way of escape from

the toils of the insatiated destroyer, I might have seen a tear glisten in the eye, or have heard a sob of anguish, as some fountain of by-gone sorrow was opened by the recital. But my object has been to point out the dangers which surround the living, and to rescue your minds from the bondage of error by appealing to your reason, not to blind your judgement by exciting your passions.

I have sought to inspire the breast of the invalid with hope, by pointing out the merits and success of inhalation, and I will now conclude my treatise on this disease by again warning those who are affected with any of the symptoms of consumption previously enumerated not to delay longer, but at once employ that method of treatment which is daily not only curing the disease in the early stages; but is rescuing many of those who are already far advanced in consumption, and who had been given to understand by their medical advisers that their case was hopeless; and it only remained for them to patiently struggle on for a few weeks, or months, until death would relieve them from their sufferings.

I would solemnly warn him that if his disease pass into the last stage, no means may be sufficient to save; and it requires a mind of strong moral courage to calmly look on futurity unrolling in clouds of gloom and darkness!

CHAPTER XVI.

ASTHMA.

This disease is characterized by a spasmodic action of the muscular fibres of the bronchial tubes, causing great difficulty of breathing, usually occurring in paroxysms, and amounting in some instances to impending suffocation.

In the majority of cases the paroxysms are very slight at the outset, being only a slight sense of "stuffing" in the chest, or constriction, with a slight wheezing sound, and a dry hacking cough, which usually becomes moist before the paroxysm disappears; but in others it commences with a severe attack at the outset.

The paroxysm may be preceded for a few hours by certain premonitory symptoms, as languor, heaviness of the head, or stricture across the lower part of the chest, which warn the patient of its approach; but in other cases comes on without any of these symptoms. It usually comes on during the night, awakening the patient out of sleep, and is accompanied by a sense of compression of the chest, with great difficulty of breathing and a wheezing sound, resembling that of air rushing through a constricted passage. The patient instinctively assumes the erect or semi-erect posture, or rushes to the window to get a breath of fresh air, in some instances remaining for hours with his head out of the window, even on a cold winter's night. His features are anxious and distressed, and every muscle appears to participate in the struggle to get the breath, until the perspiration exudes copiously. Inspiration is much more difficult and painful than expiration. There is usually little or no cough during the early part of the paroxysm on account of the difficulty of getting the breath, and for the same reason he speaks as little as possible. After a longer or shorter time a copious secretion of mucus generally takes place, when the cough becomes more frequent, the mucous secretion is expectorated and the paroxysm soon passes off. — After the severity of the symptoms just described has somewhat abated the patient usually falls asleep, and awakens on the following morning comparatively well; but there is still some difficulty of breathing, with more or less wheezing, and a soreness of the muscles, perhaps with pain in the chest, which

are increased by exercise or the horizontal position. There is generally some derangement of the stomach, and a general feeling of languor which wholly unfits him for his usual avocation.

These symptoms may gradually disappear and the patient speedily recover, or he may have a recurrence of the paroxysm on the ensuing night, which, recurring from time to time, reduce his strength and spirits until he cares little whether he lives or dies. After the paroxysm has passed off the patient may enjoy very good health for weeks, months, or even years without another; but sooner or later they return, each appearing to increase in severity, until after a time he finds himself unable to perform the slightest exertion without suffering from an attack of asthma.

Spasmodic Asthma occurs at all ages; but appears to be most frequent in middle-aged males; perhaps because they are more exposed to the inhalation of irritating matters, both solid and gaseous.

The *predisposing cause* of asthma appears to be a peculiar nervous irritability, the precise nature of which is not well understood. In some cases it is hereditary, in others it is acquired.

The *exciting causes* are various: the most frequent being cold; but inhalations of dust or other irritating matters will also cause it in those who are predisposed to it. Many asthmatics cannot remain in a house where the beds are being made, or in a room where a candle is being extinguished without having an attack. Others cannot inhale the atmosphere in the vicinity of a field of new-mown hay without a similar result. Some cannot reside near pine forests; while others are most free when in their vicinity.

In the early stages Asthma appears to be purely a functional disease, and may continue so for a length of time, but more frequently, as it advances organic changes take place, which greatly complicate the disease. When it continues to recur for a length of time the bronchial mucous membrane usually becomes thickened, and in many cases more or less inflamed, which obstructs the free passage of air to the lungs, and thus leads to consumption. In other cases the repeated congestions of the heart, caused by the obstruction to the circulation of blood through the lungs, causes enlargement of the heart. Organic diseases of the brain, liver, lungs, etc. may arise from the same cause. From these it will be observed how important it is to have the disease removed as soon as possible, and before these serious affections follow in its trail, and incurable organic changes take place.

Treatment.

Treatment by the stomach in this disease is liable to the same objections as in consumption, and has met with quite as much, if not a greater want of success as in that disease. So much is this the case that Asthma has long been considered incurable, and would, no doubt, continue to be so did we not possess a way of reaching the spasmodic action by direct application to the affected part. Of all the chronic diseases to which the lungs are subject, there is, perhaps, not one which is more certainly curable, or which manifests more speedily the beneficial influence of direct treatment than Spasmodic Asthma. It is seldom incurable except in those aggravated cases in which the bronchial tubes and air-cells of the diseased part are already disorganized or rendered unable to perform their functions.

Notwithstanding its ready yielding to proper treatment there is probably no other disease which requires a more persevering continuance of that treatment. In old cases not less than six to nine months should be set apart for treatment and even in recent cases it should be continued for from two to four months. The patient should never discontinue its use for two or three months after the last trace of the

disease has disappeared as it has a very great tendency to recur if the treatment be discontinued immediately on the disappearance of the symptoms.

The plan of treatment which I have found most successful is as follows: — During the attack to overcome the spasmodic action of the muscular fibres, and during the interval to remove the tendency to a recurrence of that condition. Both of these are performed by inhalation. We inhale *antisposmodic* vapors to overcome the spasm of the muscular fibres of the bronchial tubes; — *sedative* ones to allay the irritation of the bronchial mucous membrane; — and *alteratives* to change the action of the diseased part.

These are assisted by fumigating the apartment of the patient at night, and during the day if oppressed for breath, with medicated vapors, generated either by burning pastiles, or by chemical decomposition. If there be much mucus obstructing the free passage of air through the tubes, I combine expectorant remedies with the others to assist in its removal. At the same time the patient should avoid as much as possible those circumstances which experience has taught him have a tendency to cause a return of the paroxysms; such as taking cold, inhaling dust, etc., and restore any other organs of the system that may be deranged or diseased to their usual state of health.

The habitual use of tea and coffee has an injurious effect on the majority of asthmatics, and should be dispensed with.

These principles of practice, if faithfully and perseveringly carried out, will seldom fail to cure the most inveterate case of asthma; (unless organic changes have taken place) even of ten, fifteen, twenty, or thirty years standing. Notwithstanding its efficacy in very many severe cases, I would recommend no one to neglect their disease until that time has elapsed, believing that it will do quite as well a few years hence, for experience has undoubtedly proven that it will then require a much longer time to effect its cure, and possibly changes may take place which may render it incurable. Hence I advise any person who has the slightest symptom of asthma to have it removed as soon as possible lest it be put off until changes take place which cannot be removed by any human agency.

Lin
of pat
suffici
great

The
many

SIN
space
my ca

Ab
until
ular h
celebr
and al
benefi
two m
way to
could
could
even
in wh
most i
my fla
in bed
positio

I h
self, f
and co
sense
which
whole
great

I co
taking

I to
cod-liv
moniu
have b

APPENDIX.

Limited space prevents me from giving more than a very few of the statements of patients cured, or "notices of the press;" but I trust the following will be found sufficient to show the favor with which this system of treatment is received, and the great success attending its practice; both in Canada and the United States.

(Mr. John Bailie's Letter.)

The first one which I shall copy is from a resident of this City, well known to many of our prominent citizens, and who was formerly afflicted with Asthma. —

(To the Editor of the Globe)

SIR, — Being moved by a sense of the duty I owe to my fellow-men, I would ask space in the columns of your widely-circulated journal for the following particulars of my case, which was deemed by all who knew me to be incurable.

About ten years ago I was attacked by Asthma, which continued to grow worse, until after a short time it became so bad that I was obliged to discontinue my regular business of carpenter and joiner. In the meantime I applied to all the most celebrated physicians within the distance of twenty miles of my residence [Pickering] and also to several in the city of Toronto, none of whom afforded me any permanent benefit. My disease continued to increase in severity until I became so bad that, for two months at a time, I could not walk two hundred yards without stopping on the way to rest myself. I had lost my appetite and become very much reduced in flesh; could not take a regular meal without suffering soon after from an attack of asthma; could not, at times, remain in a house while a bed was being made or the floor swept, even though the doors were closed between where it was being done and the room in which I was; could not allow the candle to be extinguished in my room, as it almost invariably brought on an attack of the disease; could not wash my neck or change my flannels without taking cold and suffering from the paroxysms; could not lie down in bed, frequently from eight to ten weeks at a time, and could not lie in a horizontal position, in bed or elsewhere, at any time for the last two or three years.

I have frequently been, for several weeks at a time, so that I could not dress myself, for fear that the exertion of doing so would cause the paroxysm to return, and could not lift anything, however light, from the floor without suffering from a sense of very great suffocation. I spat up large quantities of greenish-yellow matter, which was frequently interspersed with blood; and the asthma had disarranged the whole system so much that I suffered very much from palpitation of the heart, with great pain in the head in addition to the oppression of the chest.

I could not go out of doors at all on stormy days, even if well wrapped up, without taking cold and having asthma.

I took, at various times, by the advice of medical men, emetics, Cherry Pectoral, cod-liver oil, garlic, and cough mixtures in great variety and numbers; smoked stramonium, lobelia and tobacco, and in fact tried all the remedies I had ever heard to have been useful for asthma, but all to no purpose.

In the meantime I discontinued business and removed to Toronto, thinking that rest and a change of air and habits might assist me in again becoming able to superintend other workmen, as to work again with my own hands was wholly out of the question. I resided in Toronto about eleven months without finding any relief; but, on the contrary, the attacks were increased in frequency and violence, and for several months I had been subject to very exhausting night-sweats, with swelling of the feet and limbs.

I was given to understand by my medical attendants that my case was hopeless, and a few months, at most, would terminate my earthly career; which was also the opinion of my friends. I had now given up all hopes of recovery, but was prevailed upon, as a last resort, to try the inhalation system of treatment, under the care of Drs. Hunter and Malcolm. With this determination I applied to Dr. Malcolm in the month of December last.

After using the medicines for two or three weeks I found myself considerably improved; the cough, night-sweats, and swelling of the limbs gradually left me; the appetite returned, the paroxysms became less frequent and less severe; the breathing became less oppressed; the palpitation of the heart subsided, and my strength was gradually regained, until, at the expiration of two or three months I again resumed my work. I am now able to work hard all day at my usual business, and can run a mile without difficulty. My appearance and feelings are now those of perfect health, and, although I have used none of the inhalants for more than two months, have no signs of asthma, and now find myself free from the great liability to take cold to which I was former subject. My friends are all very much surprised to see me again looking so ruddy and healthy, after being considered as a hopeless case; and I cannot speak too highly in recommendation of this treatment.

I would also tender to Dr. Malcolm my sincere thanks for the care and attention which he has bestowed on my case, as it was from him the treatment was received, Dr. Hunter being absent from the office during the greater portion of the time my case was under treatment.

Any person wishing any further information in regard to my case, can obtain it by applying to me at my residence, No. 92 Terauley street, Toronto.*

With many thanks, Mr. Editor, for your indulgence, I remain,

Your much obliged servant,

Toronto, July 6, 1864.

JOHN BAILIE.

* Mr. Bailie has since removed to No. 378 Yonge street.

The above interesting letter, setting forth in plain unvarnished truth, his previous condition and subsequent recovery, needs no comment. He can be seen in his shop daily by any person who chooses to call.

(*Mr. John Hamilton's Letter.*)

The following letter, also copied from the '*Globe*' shows the happy effects of this treatment in consumption. When Mr. Hamilton commenced the treatment, about two-thirds of his left lung was filled by a deposit of tubercles, and useless for the purpose of respiration; but after he had used the inhalants one week a very perceptible improvement was observed, and the tubercular deposit gradually diminished, until the lung was again perfectly freed of all obstructions. He still remains well and strong, and has not the slightest indication of consumption remaining.

DE.
to the
of trea

Dur
crease
of a fe
region
streng

Hav
ner as
great
treatm
of man
signall

Not
emiuer
city, v
the left
althoug
resort.

I ha
breathi
gradua
and my
so rapi
perfect

Alth
haling
compet

Havin
confiden

In c
tain it
the Dor
four tim

Ch

The s
it is ca
through

SIR,
Drs. H
pub lish

[To the Editor of the Globe.]

DEAR SIR,— Allow me through the columns of your widely read journal, to offer to the public one more testimonial as to the curative powers of the inhalation system of treatment in pulmonary diseases.

During the last winter I was attacked by shortness of breath, which gradually increased, and was soon accompanied by a severe cough, which returned at intervals of a few hours duration, expectoration of a frothy matter, pain in the side over the region of the left lung, profuse night sweats, loss of appetite, and so much loss of strength and shortness of the breath that it was with difficulty I walked twenty yards.

Having recently lost a sister from consumption, who was attacked in a similar manner as myself, and in whose footsteps I feared I was rapidly following, I naturally felt great anxiety about my state, and as my sister received no benefit from the ordinary treatment, although skilfully applied, and as consumption has put a period to the lives of many whom I knew I had but little faith in a system of treatment which had so signally failed in nearly every case I can call to my recollection.

Notwithstanding that the treatment by inhalation had been denounced to me by eminent medical men of the city to be a humbug, I applied to Dr. Malcolm, of this city, who, upon examination of my case, found so extensive deposits of tubercles in the left lung, that he had serious doubts of being able to effect their removal; and, although Dr. Malcolm held out but faint hopes of recovery to me, yet as my only resort I determined to try the inhalation system.

I had not been under treatment more than a week or ten days when I found my breathing beginning to improve, the appetite to increase, the cough and expectoration gradually growing less, the pain in my side to abate, the night-sweats to diminish, and my general appearance to indicate an improvement. This improvement increased so rapidly that at the expiration of three months I had every indication of being perfectly well.

Although several months have elapsed since I took any medicine or used the inhaling apparatus, I feel in as good health as ever I did, and find that I am just as competent to go through violent and long continued exertion as ever.

Having been so greatly benefited by this treatment I cheerfully, and with the fullest confidence in its powers, recommend it to all persons afflicted with disease of the lungs.

In conclusion, I would state that any person wishing further information can obtain it by calling on me at my residence, three miles north-east of the City Hall, on the Don and Danforth road; or at the St. Lawrence Market, where I am three or four times each week; or by addressing me through Toronto Post-office.

I am, yours respectfully,

JOHN HAMILTON.

Chester, Oct. 10, 1864.

[Case of Rev. Benjamin Locke.]

The subjoined letter, from a clergyman, requires no comments or explanations, as it is candidly and truthfully written, by a gentleman, well known to many persons throughout Canada.

(To the Editor of the Globe.)

SIR,— Having received the greatest amount of benefit from the treatment of Drs. Hunter and Malcolm, I consider it to be a duty I owe to suffering mankind to publish a statement of my case, in order that all persons suffering from any disease

of the throat or lungs, may be induced to apply to them for relief, and I unhesitatingly assert, for the encouragement of those thus afflicted, that I firmly believe the system of medicated inhalation pursued by these physicians is the only rational one for these diseases.

About fifteen months ago I was attacked by a dry hacking cough, which soon became troublesome, annoying me exceedingly during the night, and on arising in the morning I was compelled to cough for some length of time to remove the matter accumulated in the lungs during the night. I had severe pains in the chest and beneath the shoulders, with a sense of oppression over the part of the lungs immediately beneath the collar bones. My expectorations were yellow, purulent, and occasionally mixed with blood. I had lost twenty-eight pounds in weight, was much emaciated, and suffered so much from shortness of breath, that I was unable to attend to my ordinary duties. Upon examination of the chest both of my lungs were found affected; and having lost both parents, two brothers, and a sister from consumption under the ordinary treatment for the disease, although under the care of the best physicians of the day, I decided at once to try the effect of inhalation, feeling that it was the only method offering me any hope of recovery.

With this determination I applied to Dr Robert Hunter, in the month of July last, and after a careful examination of my chest, was pronounced to be extensively diseased throughout the upper half of both lungs, and must expect to continue the treatment for some length of time in order to effect a cure.

Soon after I commenced the use of the medicines I noticed a decided improvement in the symptoms. The spitting of blood soon ceased, and expectorations gradually became less, the appetite returned, the breathing improved, and my lost strength and flesh were again regained; until now I feel so much improved that for some weeks past I have been cutting my own firewood, and feel quite as little difficulty in doing so as before my illness.

I now feel perfectly well, with the exception of a slight uneasiness in the throat after a prolonged exertion of the voice, as the conducting of Sabbath services, which I feel confident will soon yield to the remedies which the physicians have kindly sent me to relieve it.

Having experienced such happy results from a method of treatment, which I consider has, through the blessing of God, rescued me from the brink of the grave, I cheerfully recommend it to the afflicted, believing that wherever tried it will, as it has done in this section of the country, produce a revolution in the opinions of the people in reference to the curability of pulmonary consumption; and the most incredulous be compelled to admit that the disease can be cured even after it is far advanced.

I shall ever pray that the blessing of High Heaven may continue to attend that heart-cheering, lung-restoring, life-saving treatment pursued by the physicians above referred to.

I am, dear Sir,
Yours very truly,

Pickering, C. W., Feb. 23, 1864.

Rev. BENJAMIN LOCKE.

[Case of Mr. James Moore.]

Mr. Moore, the witer of the following letter, is well known to many of the citizens of this city; and the letter speaks for itself.

Sir
reque
and r
and M

In
sever
hoars
until
large
exter
had
little
and h

Ha
anxie
ted p
my le
survi
ing a

W
Dr. P
very
ease,
by in

I h
feelin
When
tions,
altog
myse
stand

Du
be ex
as we
and f

Ha
given
and I
fully
pulm

M
Toro

E

[To the Editor of the Leader.]

SIR,— Influenced by a sense of duty I owe to mankind, I would respectfully request the insertion in your valuable paper of the following statement of my illness, and recovery from consumption, under the inhalation treatment of Drs. Hunter and Malcolm of your city.

In the month of October, 1862, I caught a very severe cold from getting wet several times in succession. This occasioned a very harassing cough with great hoarseness. Every morning upon arising I would cough for some length of time, until I would be completely exhausted. I was expectorating thick yellow matter in large quantities, was very much emaciated, had night perspirations in an alarming extent, had considerable pain in the chest, side, and beneath the shoulder blades, had great shortness of breath, hectic fever in the afternoons, no appetite, and so little strength as to be unable to walk ten minutes without complete exhaustion; and had all the other symptoms of a confirmed case of consumption.

Having already lost two brothers from this dreadful disease, I naturally felt great anxiety about my state, and consulted with several of the most talented and celebrated physicians of this vicinity, as well as of the city of Toronto, who all agreed that my left lung was very badly diseased, and were of the opinion "that I would scarcely survive the spring months, but if I did that I would probably live until the following autumn."

With this gloomy prospect before me, I was induced by my friends to consult Dr. Robert Hunter on the first day of August, 1863, who, upon examining my case very carefully, quite agreed with the other physicians as to the locality of the disease, but was of the opinion that a cure could be effected by his system of treatment by inhalation.

I had not used the medicines *one week* before experiencing a decided change in my feelings, and the symptoms gradually disappeared, until not a trace of them remained. When I found myself nearly recovered, I diminished the frequency of the inhalations, as ordered, until the disease wholly left me, when I discontinued them altogether. I have used no medicines now for more than two months, and find myself free from all cough, difficulty of breathing, or other bad symptom, notwithstanding that the weather has been extremely unfavourable.

During this spring I have been able to do quite as much work as could possibly be expected by a man of my age, and find that I can now carry a bag of grain quite as well as ever, and have sown [brodcast] all my crops this spring, without difficulty, and feel quite as well as before.

Having received such unparalleled benefit from their treatment, even after I had given up all hopes of cure, I would tender my sincere thanks to both Drs. Hunter and Malcolm, for the care and attention they have bestowed on my case; and cheerfully and confidently recommend their treatment to all persons suffering from pulmonary diseases.

My case is well known throughout this township, as well as in the city of Toronto.

I am, dear Sir,

Your obedient servant,

Etobicoke, June 4, 1864.

JAMES MOORE.

(To the Editor of the Globe.)

SIR,—Allow me, through the columns of your valuable publication, to give the public a short account of my late illness and recovery by the use of treatment by inhalation.

About two years ago, I caught a severe cold, which left me with a cough that was very troublesome, and accompanied by an expectoration which, after some time, showed streaks of blood. I had pain and soreness in the chest, cold chills, hectic fever, night-sweats, shortness of the breath, loss of flesh, loss of appetite, sore throat, and in fact all the symptoms of a well-marked case of consumption.

By family I am strongly predisposed to consumption, several members of both my parents' families having died of it.

In this condition I applied to Dr. Robert Hunter about one year ago, who, upon examination, found extensive disease of both lungs, and gave it as his opinion that my cure was doubtful. But upon trial of his remedies I soon found myself improving rapidly, and after about six weeks became so much better that I discontinued their use, believing that nature would complete the cure. In this I was mistaken, for after lingering for some time in partial health, without becoming strong, I was obliged to obtain more medicine from Dr. Malcolm, Dr. Hunter being absent from the office at the time.

Upon resuming the treatment I began to improve again, which improvement continued until the disease wholly left me, and I am now in the enjoyment of good health and able to resume my business. This, after having been considered by nearly all who knew me as being a hopeless case of consumption, is, indeed, very satisfactory to me, and I take great pleasure in recommending this treatment of Drs. Hunter and Malcolm to the afflicted, believing that it, through the blessing of God, will effect cures of consumption where no other system of treatment is of the slightest benefit.

With much gratitude to the above-named physicians for their kind care and attention to my case, and many thanks, Mr. Editor, for your indulgence,

I remain,

Your obedient servant,

Yorkville, Toronto, 14th Sept., 1864. WILLIAM G. SWAN.

This
answer
advise
elsewh
tively,
Being
of his
remote
these in
public
be con

For
founde
of the l
dosing
ifying
old tre
most re
be four
doubt
learned
theories
able; w
stomach

'To
series
our col
fact, th
'hose le
and lea
judgme
to the l
disease,
think fe
edge.'

Senti
of the

The

The
The 'A
Mirror,
Adverti
Whig,'
burg D
The W

OPINIONS OF THE PRESS,

FROM THE 'LONDON C. W. FREE PRESS.'

Can Consumption be cured?

This is one of the most momentous questions of the day, and by most persons not easily answered. Every invalid is more or less interested in its solution, and to that end we advise a perusal of the letters of Dr. Robert Hunter on Consumption, which we publish elsewhere. We have read all the letters which have emanated from him very attentively, and have found in them much that was novel in relation to pulmonary diseases. Being fully impressed with the force of many of his propositions and the rationality of his treatment, we deem it our duty to direct attention to the subject. If only the remotest possibility of relief to suffering humanity presented itself, or the progress of these insidious diseases could be but temporarily checked, Dr. H. should be considered a public benefactor, but when they offer a reasonable hope of cure the subject deserves to be considered with care and attention.

FROM THE 'HAMILTON SPECTATOR.'

The Inhalation System.

For three weeks we have been publishing communications from Dr. Robert Hunter, founder of the system by which the various medicines made use of for the cure of diseases of the lungs are applied, in the form of vapor, directly to the organ affected, instead of dosing the stomach. This peculiar system of inhalation has been followed by most gratifying results during the past few years—many of the more obstinate cases under the old treatment—in fact, pronounced incurable—yielding to a course of inhalation in a most remarkable manner. The letters we have been and shall continue to publish will be found to contain a full exposition of Dr. Hunter's peculiar medical views, and we doubt not will be perused with interest and profit by our readers. Of course, not being learned in medical matters, we are unable to express an opinion for ourselves on the theories advanced: but we have no hesitation in saying they appear sound and reasonable; while the advantage of inhaling the remedies into the lungs instead of filling the stomach with nauseating drugs, the afflicted will know well how to appreciate.

FROM THE 'NEW YORK TRIBUNE.'

To such as are not absolutely impervious to new ideas, we would commend the series of letters by Dr. Robert Hunter, which have from time to time appeared in our columns, with regard to the nature, symptoms, and curability of consumption. The fact, that their author is a regular and thoroughly educated physician, does not give those letters their value—that is founded on their combination of medical knowledge and learning, with practical common sense—a quality which commends itself to the judgement of all who possess it. We solicit the especial attention of those interested, to the letter in this paper, proving that consumption, though a dangerous, is a curable disease, yielding to skilful and judicious treatment, like most if not all others. We think few can read this and resist the conviction that the author speaks from knowledge.

Sentiments of similar purport to the above have been expressed by many members of the 'press,' but limited space prevents me giving more than the names of them.

The following are the names of a few of them. —

The 'New York Times,' The 'Detroit Free Press,' The 'New York Herald,' The 'Home Journal,' The 'New York Express,' The 'New York Evening Mirror,' The 'New York Journal of Commerce,' The 'New York Commercial Advertiser,' The 'New York World,' The 'New Orleans Bee,' The 'Richmond Whig,' The 'Lynchburg Republican,' The 'Louisville Journal,' Ky., The 'Pittsburg Dispatch,' The 'Cincinnati Gazette,' Ohio, The 'Wilmington Journal,' N. C., The 'Wilmington Del. Gazette,' &c. &c.

CARD.

The author of this treatise devotes his attention to the treatment of diseases of the *Throat*, *Lungs*, and *Heart*, exclusively. He can be consulted personally, or by letter, at No. 70 BAY STREET, TORONTO.

Office Hours, from 9 A. M. to 4 P. M.

iseases
onally,

