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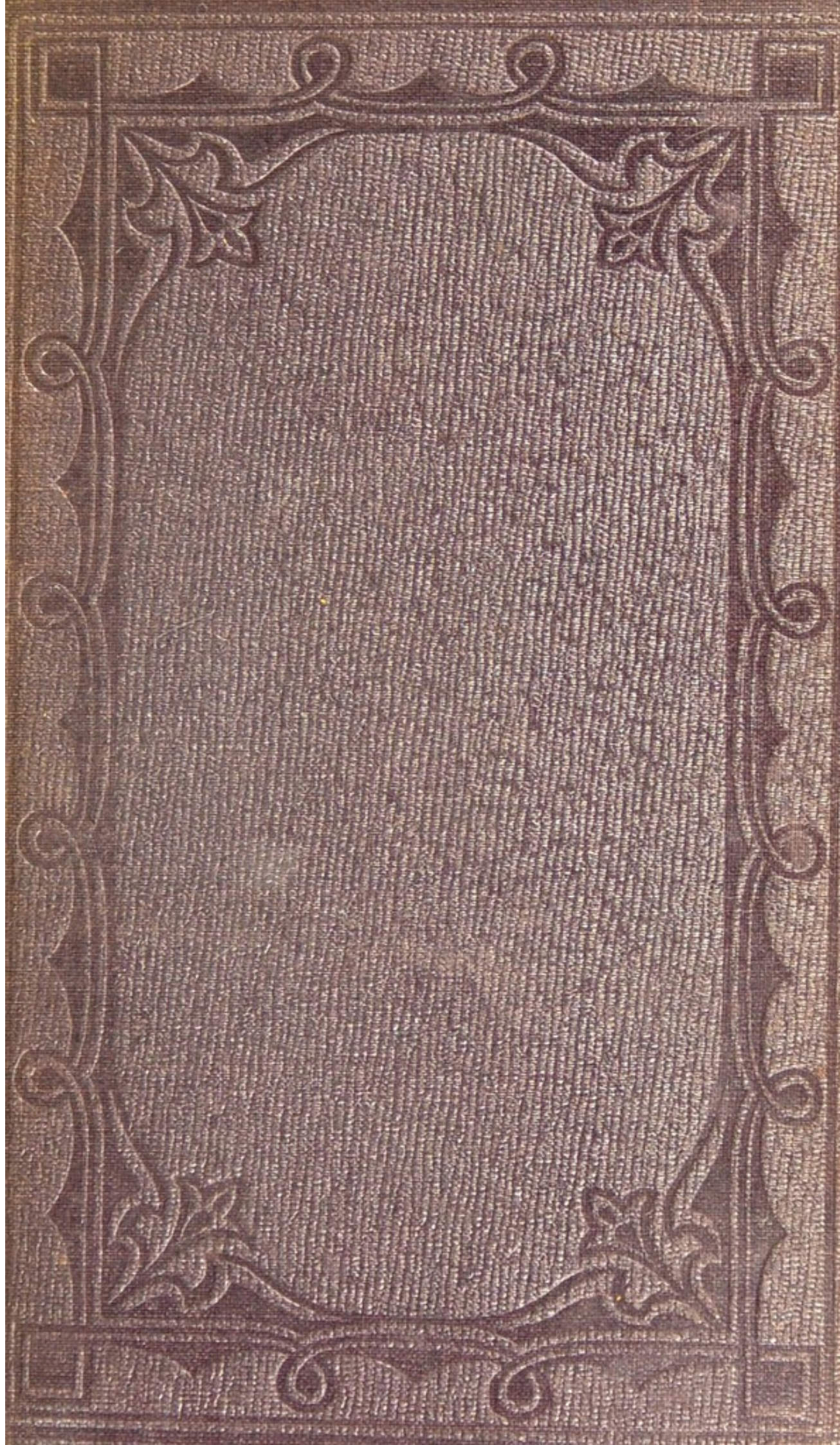
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LOCAL TREATMENT

OF THE

MUCOUS MEMBRANE OF THE THROAT.

LOCAL TREATMENT

LOCAL TREATMENT

BY THE

MEDICAL MEMBERS OF THE BOARD

JOHN W. ...

ON
LOCAL TREATMENT
OF THE
MUCOUS MEMBRANE OF THE THROAT,
FOR
COUGH AND BRONCHITIS.

BY

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FORMERLY MEDICAL OFFICER TO THE BANGOR INFIRMARY,
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CHILDREN, ETC., ETC.

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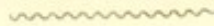
1880

THEORY AND PRACTICE OF THE ART

LONDON :

G. J. PALMER, SAVOY STREET, STRAND.

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CHAPTER III

The first part of the book is devoted to a general survey of the subject, and to a discussion of the various theories which have been advanced to explain the origin of the human mind. The author then proceeds to a detailed examination of the different faculties of the mind, and to a description of the various processes by which they are exercised. The second part of the book is devoted to a description of the different stages of human development, and to a discussion of the various theories which have been advanced to explain the origin of the human mind.

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PREFACE.

SINCE the medical press has issued many valuable works, exhibiting the present state of our knowledge of diseases of the lungs, and of the mucous membranes generally, especially those of the throat, and bronchial tubes, it may be asked why I feel it a duty to present my own views to my professional brethren. My answer must be that none of the views laid down in any of these works exactly correspond in practice with the result of my own experience. Every medical man ought to possess more accurate knowledge of the disorders which have occurred in his own person than in the persons of others; and, indeed, I am satisfied, from this source of experience, that the series of rules and remedies directed against symptoms by many talented authors, are of little more

value than to set a practitioner to think for himself, as to the best plan of treating individual cases. This surmise is greatly strengthened by observing, that of many treatises evidently relating to the same class of symptoms, each assigns very different views of the causes and treatment, although each of them may at the same time contain much valuable matter for the management of individual cases.

Under this uncertainty every inquirer is apt to begin, as it were, from himself, or if he does not actually do this, still he contents himself too readily with a general and rough outline of the previous state of the science. He is perhaps unwilling to involve himself, while analyzing the labours of others, in the perplexities which indefiniteness may occasion.

From time to time, out of the mass of accumulated knowledge, there emerge some few well ascertained principles which command general assent. But it is to be regretted that for want of careful transmission to posterity, many successful plans of treatment of diseases fade and are lost with the discoverer's life, or in the obscurity of time. Hence one of the causes why the advancement of determinate knowledge in medicine bears so small a ratio to the quantity of mental labour bestowed.

I wish, however, to guard myself from the possible charge of depreciating in the slightest degree the study of the physiology of medicine, as nothing can be more essentially necessary for every practitioner, in order that he, by combining the science and practice of medicine, may be the better able to perform his duty, and alleviate the sufferings of his fellow creatures in the time of their distress.

I have neither inclination nor time to write more than simple facts of the easy, safe, and efficient mode of cure or alleviation of the diseases from which I myself most acutely suffered in almost every stage and form, which characterize these distressing complaints. From such facts, then, this little work derives its distinctive character. I do not, however, generalize either in theory or practice from single cases, for I am too well aware that no two cases are ever exactly alike.

J. E. R.

17, Chapel Street,
Belgrave Square, 1855.

The first object of the present work is to give a clear and concise account of the progress of the science of the history of the human mind, and to show how far it has advanced since the time of the ancients. It is not intended to be a treatise on the history of the human mind, but a history of the progress of the science of the history of the human mind.

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CHAPTER I.

ON THE INFLUENCE OF TEMPERAMENTS OVER DISEASES, AND THEIR IMPORTANCE AS REGARDS CONDUCTING SUCCESSFULLY THE TREATMENT OF THE LATTER.

TEMPERAMENTS or constitutions are hereditarily derived by every individual from his progenitors, from either of whom he inherits a more or less perfect example of one of the four divisions,—namely, the bilious, sanguineous, nervous, phlegmatic (or serous) temperaments,—or a combination of these. All individuals, according to their temperaments or predominance of their mixed forms, have a tendency to fall into certain forms of diseases. Morbid action of a particular form of disease is not hereditary, only its tendency, the former, or diseased action, depends upon favourable adventine circumstances to particular forms—as the diseases the subject of this work, and also consumption,

gout, indigestion, diseased liver, insanity, nervousness, rheumatism, and most other definite diseases.

Thus, most diseases return after a given time, whether they seceded to natural spontaneous efforts to eject them from the system, or were what is called *cured* by medical art, or removed by surgical operations ; in illustration, the following cases, both medical and surgical, may be named,—viz., acute and chronic affections of the throat, bronchial tubes, lungs, stomach, liver, kidneys ; erysipelas, gout, rheumatism, insanity, and certain fevers ; stones in the bladder after removal by operation, strictures of the urethra, rectum, prolapsus, hæmorrhoids, varicose veins of the legs, cancer, and all malignant diseases, &c.

The diseases of the mucous membranes of the throat and respiratory organs, and of the terminal portion of the alimentary canal, are of vast importance, on account of their various terminations, their multiform complications, their serious consequences, and their frequency—perhaps more so than any other class of diseases to which the human body is liable ; and they give rise to much personal suffering, and inconvenience on attending to business, or pleasure, and very generally to anxiety and mental depression, greatly out of pro-

portion to the real gravity of the disorders, the patient generally associating the cough attending the throat affection, with pulmonary consumption, and the pains attending the rectal diseases, with cancer, and such dire incurable affections.

The diseases of the mucous membranes generally, and especially of those forms under consideration, are met with in persons of all temperaments, but more commonly in the nervous and the serous temperaments. When atrophy or an asthenic condition also accompanies any of these forms of constitutions, the cases prove more or less serious, and always resist the remediable means in a much greater degree than otherwise. The digestive organs are generally abnormally affected, or in that condition to be so, by slight disturbing causes, as exposure to cold, or annoying anxiety, depressed spirits, or a negative electric state of the earth. The spinal nerves and the bladder soon become implicated, and the kidneys secrete various earths and salts, and especially in chronic bronchitis with a broken health from excesses, or from injudicious use of mercury, long residence in a hot climate, over lactation, protracted exposure to cold, and hot and ill-ventilated rooms, and other depressing causes.

Patients with cough from affections of the throat or bronchial tubes have not the buoyancy of spirits and confidence of ultimate recovery so generally attending cases of pulmonary consumption; but, on the contrary, in addition to their severe physical sufferings, they have, in many instances, great depression of spirits, and fear of a fatal termination. These symptoms must not be generally regarded abstractedly as arising from bronchial disease, but rather from the accompanying derangements of the biliary and digestive organs, renal disturbance, probably secretion of oxalate of lime, urates, mucus, &c. In the phlegmatic and the nervous temperaments, uterine derangements more commonly accompany bronchial cases than in the sanguineous and the bilious temperaments. In the former, there are generally a severe enervating leucorrhœal drain, irregular menstruation, pains in the back, side, and head. In the nervous temperament, unmixed with the biliary constitution, or derangements in the functions of the liver, failing normally to depurate the blood, visceral congestion often attends with general torpidity of the discerning organs. The pain which is characteristic of the nervous temperament is limited to a small spot in the head as bursting upwards, without

depression of the spirits, or interruption to sleep : Whilst in the biliary temperament, with the derangements noticed, the pain is of a dull heavy character thrusting downwards to the centre of the body, extending over a large space with a ligature like tightness over the head, preventing sleep, and inducing frightful dreams. Temperaments of different individuals and their mixed forms give characteristic physical and moral signs of the four temperaments : hence the constitutional and local remediable means must be governed in all diseases by the phases of the temperaments.

How terrific, or unnecessarily protracted and painful, would be the routine practice of treating diseases in all temperaments alike, which, however, is but too common.

Suppose an inflammatory case of some vital organ, in a subject of the nervous temperament, was treated as in the sanguineous temperament, circumstances *pari passu* being alike, the vigorous depletion proper in the latter temperament would annihilate the nervous subject, or throw him into an asthenic or feeble condition, and deprive him for life probably of his wonted physical and moral powers, leaving him a prey to nervous irritability of mind and body, a martyr to

indigestion, which, after a given time, often terminate in nervous atrophy or pulmonary consumption. Again, on the other hand, when the subject of the sanguineous temperament is treated by the rule proper for the nervous, that is by a modified practice of depletion, counter-irritants, soothing, supporting, and occasionally even stimulating means, the patient would quickly sink, for the diseases of the sanguineous subject run quickly into and through their inflammatory stages, or be left for life a martyr to chronic symptoms. The treatment of acute cases in the phlegmatic or serous temperament, commonly pursued in the bilious temperament by drastic purgatives, hot baths, medicines, low diet, and other means of depletion, would probably cause dropsy of some one or more organs, or superadd the asthenic condition to the naturally debilitated, or rather the heavy inactive body and mind of the phlegmatic subject, and thereby render him more indisposed than ever to perform all necessary duty of life. There is a greater degree of enduring force of the mind and body in the phlegmatic than in the nervous temperament, and therefore less tendency to fall into feeble atrophy, or an asthenic condition, to which both are far more liable

than individuals of the sanguineous, and the bilious temperaments.

Again, persons of the latter temperaments inherently have a greater power to resist diseases of the mucous membrane, and are more distinct in character, both in a physical and moral sense, than the nervous and the phlegmatic subjects. There is in the sanguineous more elasticity and tendency to right itself under diseases, as well as under an unapt selected mode of treatment, than in the bilious.

In the bilious temperaments there is a free healthy secretion of bile, and in disease, a tendency to congestion of the liver, or the like condition of the viscera, with a diminished or increased secretion of bile, a corresponding too little or too much activity of the discerning organs, with headache, arid, parchy skin, and dull perception. The successful treatment of these cases will consist of occasional emetics, and full doses of calomel and mixed purgatives that act upon the different parts of the intestinal tube so as to relieve the whole course of it. Mineral acids and alkalines, according to the constituents of the urine in respect to its salts and earths, and the state of the skin in respect to its moisture, dryness, acidity, or alka-

lescence will be found useful. In the sanguineous temperament the fever will be active, congestion vascular, rapidly inducing adhesions of the serous tissues or suppuration of the mucous membranes. The treatment indicated to overcome undue vascular action and its consequences, is general or local bleeding, or administration of nauseating doses of tartar emetic, saline purgatives of those salts that produce most copious serous evacuations ; or if the organ attacked is important, or the symptoms seriously active, then small and frequent doses of calomel to affect the gums, after bleeding the patient, freely or locally, according to the powers, and age of the patient.

The treatment of diseases of the phlegmatic temperament will be a very modified practice, proper for the bilious temperaments ; relieving congestion by less active remedies, and simulating that pursued for diseases of the nervous temperament, aperients, combined with tonics and stimulants, local bleeding, or dry cupping, fomentations, nutritious food, in a condensed form—of easy digestion, at intervals sufficient to warrant the digestion of the last taken, and particularly when the asthenic condition is superadded, still longer intervals will be desirable.

Diseases in the admixed forms of temperaments must be treated upon the same principles, but modified according to the predominance of any particular form of temperament. Individuals of the bilious and the sanguineous temperaments may fall, though merely like those of the phlegmatic and nervous temperaments, into feeble or asthenic atrophy; but every case bearing these formidable symptoms are not serious, unless the character of the patient's original constitution conspire with the actual symptoms, for without such predisposition, the feebleness may be temporary, the results of rapid growth, severe illness, or wounds, or self imposed restraint of diet, to suppress fulness of habit. Sir Benjamin Brodie, when I was his pupil, used to mention in his lectures, a case of a single lady of full habit, and of *doubtful age*, with a fractured leg, who pursued starvation, which prevented the union of the bones, until the cause was found out, when the diet being altered for a generous one, the bones soon commenced to unite, and continued to completion in about the usual time.

The diseases, the subject of my narrative, like all other diseases, go through most of the conditions of functional, acute, chronic, or organic forms.

These are terms that imply only degrees of diseased action, and very indefinitely, for we know not when the acute form of disease ends and the chronic begins, or the functional ends and the organic begins. The functional condition not producing sufficient change of structure of the tissues of organs is not cognizable to our senses, not even with the aid of a microscope, after death. These diseases vary in degrees of severity in different individuals, and are characterized according to certain combinations of qualities—as physical, moral, and intellectual, or constitutions by which the natural aptitudes of mankind in regard to health and disease are distinguished. The digestive organs in diseases of the mucous membranes are always primarily or secondarily deranged more or less severely, and obstinately resist remedial means, especially when directed regardless of temperaments and their modifying influence upon the digestive organs. In my opinion, no practitioner should undertake the treatment of any disease without possessing some arrangement of the patient's temperament, though I fear it is too often otherwise the case, which must involve him in perplexities and difficulties very unsatisfactory to the patient, and to his own reputation. This probably

is the true source of the unsettled confidence in the legitimate therapeutic science, by many who support some fanfaron practitioner of homœopathy, hydropathy, mesmerism, with *inter alia*, abundant quackery and folly of the day.

Temperaments of individuals govern their aptitudes to certain diseases, their degree of activity, severity, and moral and intellectual sufferings. Thus, the same disease and in the same degree will characteristically vary physically and morally in different patients. I dwell upon different forms of temperaments because I found that my pupils, from the time I commenced to lecture on surgery in 1827, to the time I ceased doing so in 1852, were generally unacquainted with the signs of different temperaments, of their modifying influence over diseases, and of their importance in conducting the remediable means ; consequently, I thought it my duty to teach them by contrasting one pupil with another, a plan much more effectual than by writing or words, for we are liable to fall into error in explaining a thing not well defined, and indeed cannot be expressed wholly in words to be understood ; sight and study of an example will impress a much clearer conception of them than terms which the best writers have ever used. The

line of demarcation between the heads of their divisions is sometimes indefinite and uncertain, but never to an extent to destroy their practical utility by a practitioner who has studied them in the living subject under varied forms and circumstances.

CHAPTER II.

ON DISEASES OF THE MUCOUS MEMBRANE OF THE THROAT, THE SEAT OF COUGH AND BRONCHITIS.

THE immediate seat of catarrhal and bronchial cough is in the mucous membranes of the throat, mouth, and nose, intimately sympathising with its continuation throughout the intestinal tube and other organs pervious to the air, and particularly with the skin. In the normal state the mucous secretion is only just enough to lubricate and protect the organs the membrane covers from friction and irritable substances. However, under the influence of catarrh or bronchitis, the mucous glands and membranes secrete an extraordinarily large quantity of mucus, varying in degree of viscosity and colour from nearly that of water to that of bird-lime, according to the urgency of the exciting cause, irritation, or inflammation. Mucus is not

miscible in water, and sinks in it, unless buoyed by bubbles of air adhering to it, for it contains solid matter, of about six per cent. of earth and salts simulating those of the blood ; but the most important constituent of it is mucin, an alkaline that may be readily precipitated by acids of its albuminous compounds.

The mucous membranes are most abundantly supplied with blood vessels to supply glands and epithelial cells, whereby their respective products are eliminated from the blood, and in the bronchial tubes and lungs for the reception of oxygen from the air, and for the exhalation of water and carbonic acid, probably by the cilia on the free margins of the epithelial cells in their tessellated, and cylindrical forms ; in the latter form, it covers the nasal cavities, the posterior surface of the velum pendulum palati, the fauces, the larynx, trachea, and bronchia, their finest divisions terminating in the tessellated form which gives rise to the numerous diamond-shaped disks, together with scales, consisting of epithelial cells, which are continually exuviated and renewed from the blood, and by the aid of the microscope are seen in the expectorated mucus. The mucous membranes are not much supplied with nerves and sensibility, ex-

cept at the inlets and outlets of the body, for the purpose of giving notice to eject the contents of the bladder and rectum, and reject disagreeable or irritating matters from the mouth, and nose.

The adjacent organs that these nerves supply, when inflamed, become intensely sensible and painful, and the muciperous glands, mucous membranes, and their follicles, secrete most abundant mucus or muco-purulent matter. In the nervous temperament the mucous membrane of the throat is peculiarly susceptible to irritation from cold and dampness of the atmosphere, and to easterly wind, particularly those who have been once attacked by bronchitis ; whenever the functions of the skin, in respect to perspiration, are restrained by cold, or by the positive electricity of the body being unduly diminished by the humid air carrying it off, the mucous membranes are proportionably irritable, inducing increased cough and copious viscid mucus, with abundance of its solid constituents, epithelium nucleated cells, thus reducing rapidly the strength of the patient.

My personal experience proved that bad conductors of heat, as flannel, and bad conductors of electricity, as catchouc clothing, were far superior in restraining my cough than warm

rooms, or even my bed, together with all the usual remedies, as opium, squills, ipecacuanha, belladonna, benzoic acid, ether, conium, hyoscyamus, blisters, leeches, croton oil, tartar emetic, gargles, and some scores of other farrago that weakened, and made me sick of them, and even of life. Cod-liver oil I never could relish or believe to be useful in cough, though it is now vaunted for that affection, as bacon, mustard seed, hot water, &c., were formerly for the cure of indigestion. I have not seen it doing the wondrous good it is reputed to have done, in vast number of diseases, besides those of the lungs, for which it has been of late the fashion to administer it. I expect that its new rival, linseed oil, will prove equally fallacious, but more serviceable in its legitimate use of fattening beasts rather than sickening invalids.

Humid atmosphere greatly increased my bronchial irritation and cough, as compared with dry and much colder weather, but it never occurred to me that the difference depended probably upon the electricity of my body being carried off by the moist and not by the dry air, until I attended a lecture and saw the mode of collecting the hydro-electricity at the Polytechnic Institution, when my cough became intolerable, with a pricking

pain in the trachea, this continued unabated until I dined at seven o'clock. I also noticed that several of the audience coughed more than usual at the lecture. I concluded the reason was, that the positive electricity was withdrawn from the audience to illustrate the NEGATIVE hydro-electricity so copiously furnished by boiling water. It is common for delicate persons to feel greatly depressed, morally and physically, before and during a thunder-storm ; gouty or nervous persons are subject to the same feelings, and to flying pains ; also persons who are subject to occasional nervous pains are very liable to a recurrence of them during the negative electric condition of the earth and of their bodies. Patients suffering from indigestion and painful diseases feel worse at these disturbed periods and unequal distribution of the electric fluid.

The whole animal creation is remarkably affected : Cattle are listless, and feed less, if at all ; and birds that sing are silent. Fishes will not take ground bait, nor trout the fly. Leeches are made ill, and die by thousands, as well as many insects. My experience of suffering at the Polytechnic, many years ago, led me to think and to watch the effects of the different states of electricity upon diseases in my practice and in my own

person. It is well known that warmth greatly assuages bronchial cough; hence most patients have a respite during the summer; but after a series of acute attacks during several winters, it becomes established in the chronic form, prostrating the powers of life, and rendering the system irritable and peculiarly susceptible to chills and catarrh from the slightest changes in the temperature of the atmosphere. I found that walking on the shady side of the street induced severe spasmodic attacks of cough, that lasted often from one to three hours, with copious expectoration, so that I experienced but little mitigation of my sufferings in summer, as compared with winter; nay, I thought I was better during the winters, and stronger at their termination, than I was during and at the end of the summers.

In 1833 my bronchial affection first attacked me, after a severe cold, and continued more or less severe until February, 1853, when I was completely cured of all its symptoms. I shall now proceed to sketch an outline of its severity, the futility of the usual remedies, and the successful mode of treatment I at last adopted, and have since tested with the like success in several patients. My cough continued from the commencement of

my attack, with only slight mitigation during the summer for several years, and I had frequent renewals of inflammatory attacks, during which I expectorated a very large proportion of pure pus mixed with the mucus, measuring together from half a pint to a pint and a-half, in the twenty-four hours. During several years I threw off false membranes lining the bronchial tubes, their perfect counterparts varying in length up to two inches. Until I was cured, I coughed up occasionally, for days consecutively, fibrinous matter of the shape and size of the mustard seed, and when these and the false membranes were about being dislodged, the cough was severe and continuous, often for hours. I was confined upon several occasions to my house, and once for nine weeks, in a hectic condition, saturating my linen with perspiration every time my cough allowed me a brief sleep. I lost in weight thirty-nine pounds and three quarters. My kind medical friends, who daily visited me, fully expected that I should not recover the next attack, if I did the present one, because my bowels were more continuously relaxed than usual. My stomach secreted constantly a very large quantity of pure sulphuric acid, and very rarely muriatic acid ; this acid secretion caused much flatus and

irritation of a burning nature, which frequently induced sickness. The mouth, throat, and the bronchial tubes were in a negative state of electricity, secreting mucus, which is always alkaline, while my stomach was in the positive electric state, secreting acids. Each pole of my battery appeared to contend for the mastery. The liver secreted vitiated bile; indeed the whole of the secreting organs, in spite of all rules of medical treatment and diet, were in a high degree of functional derangement; sometimes there was constipation continuously for four or five days, but more frequently diarrhœa which resisted the usual remedies. The decoctum hæmatoxyli, taken frequently in doses of two or three ounces, was the only medicine that uniformly succeeded in arresting the latter complaint. The sulphuric acid occasionally succeeded, but this, in order to suppress the night sweats, and to improve my strength, I had been long in the habit of taking in modified doses, with sugar and water. Julepum acidi-nitrohydrochlorici I found decidedly to benefit the secretions of the liver and kidneys. I also used this acid, in warm water, to sponge my body, and I found that the pain in the stomach, arising from the acrid secretion, was more durably relieved

by its internal and external use than by the liq. potass. in very large doses ; indeed whatever quantity of alkaline I swallowed, the stomach seemed proportionably to secrete more acid, consequently I gained no advantage ; magnesia acted too violently upon the bowels to allow me to take it in a sufficient dose to neutralize the acid of the stomach. I believe that the almost continuous relaxation of the bowels was caused by swallowing some of the very over-abundant mucus secreted in the mouth and throat, for when the mucous membranes, glands, and follicles of these parts are irritated or inflamed from any cause, as toothache, cynanche-tonsillaris, dentition, catarrhal and bronchial affections, the alkaline constituents of the mucus are greatly increased, as well as the epithelium, and these uniting with the acid of the stomach, form an aperient which favours the continuance of diarrhœa, as in cases of phthisis, and in infancy during dentition.

When the liver secretes vitiated bile, it has not the antiseptic quality of normal bile : hence the putrefactive fermentation of the contents of the intestinal tube, indicated by an evolution of flatus ; indeed diarrhœa is frequently the consequence of want of sufficient bile, even when normal in

quality, to neutralize the acrid gastric fluid ; consequently the latter passes on irritating the mucous membrane of the intestines, perverting its normal secretions, and rendering the dejections highly offensive and of a putrid flesh odour. In my own person the want of the natural quantity and quality of the bile first induced constipation of the bowels, with a rumbling confused action from flatus, instead of their normal quiet peristaltic onward movement ; but after some days, the irritated bowels became obstinately relaxed, and the edges of the aperture excoriated from erythematic inflammation. From *post mortem* examination of analogous cases, I feel fully satisfied that aphthous patches of the internal membrane, occurred at the same time.

Patients often say that they would be very well if they could but do without eating, and that the moment they partake of any kind of food they suffer either from a burning sensation in the stomach, or pain in the bowels, headache, drowsiness, restlessness, unrefreshing disturbed sleep, fidgetty sensations, and cramp of the lower extremities, pain in the pectoral and intercostal muscles, lowness of spirits, and many other symp-

toms which often simulate, and occasionally are mistaken for active or chronic disease of some particular organ.

In my own person the above symptoms were for a long period more or less continuous in spite of every medicine I tried, especially the burning sensation arising from the acrid acid secretion in the stomach, which began immediately after eating, and continued to pour forth until the viscus was empty. My frequent and prolonged paroxysms of cough caused sickness and ejection of whatever portion of ingesta there remained of the last food taken, just like a child with the whooping-cough, so that it often astonished me how nature was supported. Indeed I whooped during the paroxysm very frequently, and as sometimes occurs in severe cases of whooping-cough, emphysema was established throughout the cellular parts of my body, in consequence of a breach of continuity in some portion of the respiratory apparatus. Prior to this distressing change, I had been for months in a cachectic and asthenic state of frame, and was greatly emaciated by the severe bronchial cough, and a very extraordinarily large secretion of mucus and muco-purulent matter, nocturnal sweats, and frequent attacks of diarrhoea. To show how per-

fectly general the emphysema was, I need only observe that whilst I was in a warm bath every part of my skin that I could see, even the soles of my feet, were covered with minute bubbles of air in the closest possible approximation. I could distinctly write my name by dispersing the air with the head of a small pin, or the end of my nail, but in two minutes the letters were obliterated by the re-formation of the bright little bubbles.

For several months, nay years, my pulse ranged from 96 to 120, and often higher, particularly after the bowels were relieved, when I generally felt very faint. During the most severe stages of my lengthened illness, the pulsation of each carotid was annoyingly loud both night and day, and equally so in every position. When I was a little better and stronger, I heard only the left beat, but in either case the noise often prevented me from sleeping for hours together. The noisy beating of the carotids always came on, as they left off, singly and consecutively, and only after more than ordinarily severe paroxysm of catarrhal irritation, expectoration, and hectic fever.

During the most severe attack of all, I suffered severe pain in both of my ears, which after three weeks ended in sloughing of the soft parts

in considerable quantity, at the back and upper part of the throat, just opposite the velum pendulum palati. After the cavity was re-organized the pains finally left me, but the glands of my neck became swollen and very irritable, and the left inguinal glands became much inflamed, and finally terminated in an abscess, followed by a considerable destruction of the cellular substance over them, leaving an irritable ulcer that resisted for months every means tried to heal it, owing doubtless to my cachectic and prostrated condition.

CHAPTER III.

CATARRHAL AND BRONCHIAL COUGH.

CATARRHAL and bronchial cough may safely be regarded as a local complaint primarily seated in the mucous membrane of the nose and throat, consecutively extending downwards along its course to the respiratory organs, denuding it in spots of its natural protecting tunic, the epithelial cells, and implicating more or less severely the muciperous glands and other organs according to the predisposition or temperament of the individual, and the intensity and prolongation of the exciting causes: hence then the multiform consequences and the various and often serious terminations of this affection.

It is a singular fact that the mucous membrane of the respiratory organs is not primarily the seat of catarrh: it seems never to ascend, and only to

descend from the nose or throat. I have no doubt that in my own case the disease extended to the stomach and bowels, established and kept up a severe functional derangement of these organs, and also of the liver, and thereby induced a low degree of fever, dry hot skin, hectic morning sweats, &c. At the commencement of catarrh, the cuticular function, in respect to perspiration, is generally restricted, and hence the blood is not normally depurated—the heat and dryness of the skin closing up the termination of the perspiratory tubes, and suppressing the sudoriparous glandular secretion, which should eliminate from the blood water, acetic and lactic acids, chlorides of potassium, and sodium, urea, protein, and some other organic matters. There is reason to believe that at least one hundred grains of azotized matter are thrown off daily from the skin; any causes then which check this excretion must increase the action of the kidneys, and also be likely to produce derangement of their functions; besides they may excite vascular congestion or inflammation of other internal organs, as the brain, lungs, heart, or induce an attack of rheumatism, gout, or some disease of the skin itself. Dr. Fourcault has proved that complete suppression of perspiration in rabbits,

by the application of varnish over the skin, after shaving off the fur, causes death, by what he terms cutaneous asphyxia, which is marked by imperfect arterialization of the blood, and considerable fall of temperature. A partial suppression by the same means gives rise to febrile symptoms, and to albuminuria. These experiments place in a very striking point of view the importance of the cutaneous surface, as a respiratory organ, particularly when the functions of the kidneys are imperfectly performed. The normal function of the skin maintains the natural standard of heat of the body, to a limited extent, by either increasing or decreasing it, as circumstances may require. It is decreased by perspiration, when the skin is not too dry to allow it to pass: hence, in febrile diseases, the great relief obtained by cold or tepid sponging of the body. I have found that when half an ounce or more of liquor potassæ subcarbonatis is mixed with half a pint of warm or cold water, the soothing effect is much enhanced, particularly when the functions of the liver are performed imperfectly. This solution not only more effectually softens the skin, but it cleanses it by decomposing all acrid, greasy, and other sudoriparous or sebaceous excretions deposited on

its surface. When the function of the cutaneous glandulæ is interrupted by any cause, as by inactive habits of life, neglect of ablution, &c., the blood must soon become surcharged by that decomposing organic matter, which it is the special office of these glands to eliminate; consequently the blood contains the *materies morbi* of fever, and other general and local disorders, for which the most successful treatment will be to use the means that best promote the cutaneous functions.

Since all vital processes in warm-blooded animals depend upon a certain standard of heat, which in man is about 100° , it is reasonable to expect that the means for generating heat should be certain and somewhat more varied than those known means provided for suppressing it. The calorifying power of the body depends upon a due supply of the combustible material, carbon, received into the system as food; but in cases of disease and inappetency, the chief source of supply is the fat or adipose tissue naturally stored in the system during health; in either case being absorbed into the circulation, and in the lungs and arteries brought in contact with oxygen, it is consumed in the generation of heat which is distributed with the blood, to every part of the body. In

proof of this theory, it is usual to adduce cases of phthisis, wherein the lungs are disorganized and impervious to air, with the exception of a small portion which respire most rapidly—thirty or forty times per minute—and the pulse becomes too quick to be counted, inducing heated skin considerably above the natural standard; but in cases of asthma and cholera, wherein respiration and the pulse are slow, the heat of the skin soon proportionably falls below the natural standard. In my own case, when Dr. Elliotson attended me, my pulse ranged from 96 to 140, and my breathing was only eleven or fourteen times per minute; yet John Hunter mentions a case of compression of the brain from a blow, in which the patient respired only three or four times per minute, yet the heat of the skin was considerably higher than natural. Dr. Carpenter, in the last edition of his valuable work on Human Physiology, gives several cases transcribed from authors, which indicate that in general the temperature of the body and the rapidity of the pulse bear certain relation to each other, subject, however, to variations from causes not yet understood. Abstractedly it must be allowed that cutaneous respiration has the power of generating heat, which is proved by cases, where the lungs are

nearly entirely destroyed by disease, yet the skin retains its natural standard, or even a much higher degree of heat, rendering it in the latter case impervious to the transmission of perspiration.

When bronchial catarrh penetrates extensively into the lungs, the mucus is not only unduly secreted, but retained upon the surface of the tubes, thereby interrupting the due contact of the respired oxygen on the blood-vessels, preventing its due absorption, and therefore, proportionably diminishing the amount of carbonic acid normally thrown off : hence those oxidating processes, which minister to the elimination of effete matter from the system, being more or less imperfectly performed, an accumulation of morbid substances in the blood must take place, and thus may fever, functional or organic disease of the kidneys, liver, or of some other organs, be induced. These conditions greatly increase bronchial catarrh and expectoration, therefore it is of the utmost importance that the secreted mucus should be decomposed, and its viscid adhesiveness destroyed, in order that violent expiration during the frequent attacks of spasmodic cough, may not only be modified and lessened numerically, but also erosion of the epithelial covering of the mucous mem-

brane prevented. The epithelial covering, however, is generally quickly reformed, yet under the influence of catarrh, spots frequently remain uncovered, in consequence of the altered condition of the secretion, and the affected parts of the air passages becoming extremely sensitive, and inducing constant hacking cough, of a character the reverse to what is occasioned by viscid rusty mucus, or muco-purulent discharge, or by false membrane. These denuded spots are very superficial, have sometimes a red glairy appearance, and at other times the color of pus, they are frequently mistaken for ulcers; but the latter only occur in tuberculous patients, in whom they generally rapidly extend, having hard elevated edges, just the reverse of epithelial abrasion. All, however, are most successfully treated by caustic or astringent salts.

The severe cachectic state of my health, during the several years I suffered from catarrhal affection of throat, was primarily brought on by long continued moral depression and anxiety, arising from poignant calamity, and afterwards promoted by daily hæmorrhoidal copious hæmorrhage. These complicated afflictions brought me to the verge of death, and which, for years, I firmly believed would very

shortly take place, since all remedies constitutional, local, and operative, according to the most scientific practical rules of the day, had entirely failed, under the superintendence of some of the most eminent practitioners that have distinguished themselves for the last twenty years.

For fifteen years I never enjoyed even moderate health for a single week. My mouth and throat were always covered by a coating of mucus, the saliva being always viscid, with a bitter taste, and my breath heated and offensive, the usual consequence of imperfect oxidation of effete matters, retained in the body in a state only just converted into products peculiarly offensive, to be thrown off from the lungs and every part of the skin, the kidneys, separating, and passing off urea, and other highly azotized products.

In catarrhal affections, where the blood is not normally eliminated of its effete matter, much benefit will be experienced by the use of hot baths and friction; also from the use of alkalines, or acids mixed in water, and applied by means of a sponge to the surface of the body, and selected, according to the state of the skin in respect to its dryness or moisture—acids in the latter case, and alkalines in the former. The state of the bowels

must also be taken into consideration. The clothing should be sufficiently warm to resist chills, and to favour perspiration, and, if possible, residence in a cold and damp situation should be avoided, and a warm climate during our winter months ought to be preferred. The food should be nutritious and easy of digestion,—as game, turkey, and chickens. Chemical function of the skin should be promoted by freely exposing the body to the rays of the morning sun, to promote cutaneous respiration, and circulation so advantageous for indigestion, and its immediate consequences. Doubtless, the Romans were acquainted with these advantages, since they were much in the habit of sunning themselves. It is desirable to partake of viands that contain only about 12 per cent. carbon, instead of from 50 to 86, as is usual in temperate and polar regions.

By thus dieting, the functions of the lungs will be less called for, and those of the skin more perfectly performed, to the relief of the kidneys. Imperfect elimination of the blood in the lungs, skin, and kidneys, must leave in the blood morbid material, which not only will increase catarrhal disease, but any other, going on in the system.

Doubtless, in my case, the proximate cause of the bronchial catarrh was the debility, caused by

hæmorrhoidal hæmorrhage, supervening on poignant and long continued grief, which had established a most severe and obstinate derangement of the digestive and discerning organs, and consequently cacochymy. After these debilitating causes had continued for some time, oxalic diathesis and occasional deposition followed, which greatly increased my lowness of spirits, a characteristic symptom of oxalic deposit in the urine. I feared that oxalate of lime calculus might form, during the continuance of this diathesis, ere I could alter the condition and remove the tendency ; in this, however, I succeeded, and warded off a nephritic attack, but my skin became of a greenish-yellow colour, a peculiarity first pointed out by the late very eminent and excellent man, Dr. Prout. The urine was free from sediment, bright and clear, and sometimes of a pale citron yellow or greenish hue, and of a low specific gravity, the distinctive characters of this diathesis. The octahedral crystals of the oxalic acid are only detected by the aid of the microscope, or after the urine is condensed by evaporation. I was induced to examine the urine, because the moral depression, irritable heart, great weakness and flatulence after eating, reminded me of the late

Dr. Golding Bird's writings, and of the probability of oxalate of lime deposit.

I was soon relieved of the oxalic acid diathesis by keeping myself warmly clothed, dieting sparingly, but upon nutritious food, and abstaining from beer and wine ; but I partook of weak brandy and water when more than ordinarily depressed in mind and annoyed by flatulence. The only medicine I took was diluted nitric acid three times a day ; nitromuriatic acid, in hot water, I applied daily with a sponge freely over my body, after previous friction with a dry warm towel. I soon, however, left off the nitric acid, Dr. Prout's remedy, as it was disagreeable to me, and depended alone upon endosmotic absorption of the nitrohydrochloric acid, in the proportion of two scruples of hydrochloric and one of nitric acid, mixed with two or three ounces of warm water, which I used twice a day. Dr. G. Bird recommends these acids to be mixed in the above proportions, and allowed to stand for some time before being diluted with water, and swallowed. I found this medicine too disagreeable to my irritable stomach. It is very easy to prescribe disagreeable medicines, but it is quite a different thing to swallow them. When medicines are rejected

by the stomach, it is, always, in my opinion, much more judicious to change them, or to leave the stomach at rest for the irritability to subside, rather than to administer opium or some other narcotic to lull it into passiveness, and thereby frustrate rather than secure the benign influence of the intended remedy.

It is quite enough of misery to be ill, without any unnecessary infliction of nauseous remedies, however effective, if they can be avoided. To paralyse the stomach with one medicine to retain another, is always questionable, to say the least of it. It would be better to administer homœopathic globules, although they have not in the slightest degree any curative power over a single disease to which flesh is heir, merely because they are as inoffensive to the taste and stomach, as they are notoriously useless. The harm that is done to patients by this new fangled practice, the passing folly of the day, is, that it allows diseases to advance uncontrolled in the slightest degree, to a severe or fatal height; and harmless or imaginary cases the globules are swallowed only to amuse the patient, whilst Nature cures him, or his state of mind becomes changed, &c.

fixed alkaline, such as the carbonate of soda, the carbonate of potash,—but more commonly its alkaliescent quality depends upon the presence of ammonia, constituting what has been called ammoniacal urine, the ammonia being engendered by the decomposition of urea. In healthy urine the phosphate of magnesia is often present, and it is very soluble, but when ammonia is also engendered, then we have an insoluble formation—the triple phosphate of magnesia and ammonia, which is precipitated in the form of white crystals, or it may have an amorphous character. This is the result of deficiency of acid, or alkalescence of urine—the deposit being white, just the reverse to what takes place when acid is in excess ; then it is red, and popularly known as red and white gravel. Sometimes, but very rarely, phosphate of lime is deposited ; but, in my case, the deposit was that which is most common and most formidable,—namely, the triple phosphate of magnesia and ammonia.

I had pain in the back and loins on making slight exertion, and a feeling of weariness and sinking. Spinal irritation, injury of the spine, or diseased bladder, often cause the above symptoms, and alkaliescent urine ; but, in my case, debility

arising from hæmorrhoidal hæmorrhage, bronchial catarrh, and moral disquietude, were the most prominent and efficient causes. The treatment adopted was the same as recommended by the late Drs. Prout and Bird, except when I took opium three times a day, because it has the power to a certain extent, of converting alkaline into acid urine; besides it benefited me by allaying irritability of the nervous system, in which it was greatly aided by warm clothing, hot baths, friction, and a generous diet, with weak brandy and water to drink, when I had an appetite, which was seldom, for my meals were like angels' visits, few and far between. My emaciated frame bore ample evidence that assimilation of alimentary matters by the stomach, was not only very slow but imperfectly performed, and that the chylous principles were not raised to that standard of perfection by which they are fitted to become component parts of the blood. The powers of life being in this asthenic condition, it was necessary to take tonics, to overcome debility, and sedatives, to allay general irritability; and if our knowledge extended further, so as to enable us to administer some form of remedies that would remove, or even allay mental anxiety and other miserable feelings, it would indeed be a most

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welcome boon to persons suffering as I was, as well as in thousands of other cases. Unfortunately, however, for many of our fellow creatures, we cannot improve upon advice given nearly three hundred years ago to the mentally afflicted by the immortal Shakspeare.* Since those days, we have greatly advanced in chemical science, and we can now confidently advise, for reasons well known to those who are *at home* in that most interesting and useful branch of knowledge, which it is essentially necessary for every medical practitioner to be well versed in, if he wishes deservedly to command the confidence of his patients. As things to be eschewed according to the particular circumstances of individual cases, the following may be mentioned:—Saline draughts, alkaline medicines, saline or reducing purgatives, mercury, malt liquors, ascendent vegetables, hard water, and fruits.

The severe and frequent paroxysms, simulating hooping-cough, which caused all my meals to be rejected, frequently lasted from one to three hours; and under such circumstances I found nothing assuaged the cough but rest in a warm room, and refreshment, after which I could resume my duties in comparative freedom.

* “Therein the patient must minister to himself.”

During the summer, or in winter, whilst in a warm room, nothing allayed the cough if the stomach was empty, but a chop or a steak, and stout. When nourishment was not required, then none of these uniformly succeeded, though occasionally they did relieve me for a brief period. All external and internal, simple and compound, remedies usually administered, totally failed to give me a respite, except the following mixture, a tea or desert spoonful of which always succeeded, however severely affected, after one to three doses, at intervals of from five to fifteen minutes.

R. Spt. æther. sulp. comp., ℥iv.

Tinct. opii, ℥ii.

Syr. scill.

Syr. pap. alb., āā ℥ss.

Vin. ipecac., ℥ij.

Aq. puræ, ℥iij. ℥ ft. mistur.

When, however, the depurating organs are functionally deranged, as by congestion, torpidness, or the reverse, little benefit can be expected until these organs are normally restored, together with the functions of the skin;—the latter and the mucous covering of the air passages mere continuations of each other varying in function according to the part

they cover, and ever reciprocally sympathise with each other according to atmospherical changes. The epithelial covering of the respiratory mucous membrane is, like the external skin, constantly experiencing the effects of wear and tear, which causes a more or less rapid exfoliation of epithelial cells, and more particularly in catarrhal cough, when the condensed air ejects them with the expectoration, in which they may be observed with the microscope. This structure is sometimes partly broken up, so as to appear like patches of membrane-like mucus, and its cells are irregularly lacerated. Most generally, however, a certain number are entire, and can be readily recognised by their microscopic characters; when distended with fluid they are more or less flat, and when quite empty a central nucleus may be observed.

The mixture prescribed generally modifies or subdues catarrhal cough, and cuts short spasmodic paroxysms; in my own case it seldom failed to do one or the other. I have known some cases to have been permanently cured by it. When the urine is alkalescent, and the patient dyspeptic, weak, and nervously irritable, the opium in it, not only allays the latter condition, but renders the alkaline urine

acid, which is more favourable for the restoration of the digestive and nervous systems.

Attacks of bronchial catarrh accompanied by alkaline urine, may be caused by depressing passions, low diet, drain by expectoration, and leucorrhœa, abuse of mercury, purgatives, alkaline medicines, injuries, or disease of the spine, kidneys, bladder, and the prostate gland ; the treatment, of course, must be modified according to the particular circumstances of individual cases. The first causes were active in my own person, as I have already pointed out. Amongst the very numerous remedies anciently and modernly recommended, which I tried without any benefit, the following may be mentioned as exceptions, viz., benzoic acid, acetate of lead, tannic acid, and gallic acid. None, however, was so satisfactorily successful as the remedy I found out, and which I shall presently bring under notice.

The acetate of lead must be given in much larger doses than is usual. It may be safely administered for eight or ten times, in doses of four grains, combined with a quarter of a grain of opium, twice a day, provided the bowels are kept open, and the gums duly watched for the blue edge ; when the latter shows itself the medicine

must be at once left off to prevent poisonous effects. I observed that in my person it lessened the cough and mucous expectoration, but the permanent good was not a sufficient compensation for the nervous fear of its evil consequences. Although benzoic acid is free from the objections to the latter, still I did not find any good effect from it unless I took it in doses of ten to thirty grains, three times a day. I found, however, that the sulphate of zinc in the same doses is an efficient medicine, particularly for the nocturnal perspirations, as recommended by the late Dr. G. Bird.

The tannic acid was taken to suppress the severe and obstinate attacks of diarrhœa and night sweats. It was generally serviceable in the former, yet it occasionally failed, when I was obliged to have recourse to some other astringent, as logwood, diluted sulphuric acid, and chalk mixture. All, however, sometimes failed. The tannic acid, only doubtfully suppressed the mucus at any time. I did expect that it might have modified the cough by lessening the secretion of saliva, which was unusually great. Stramonium in the form of tincture I tried, and smoked it also, without deriving the slightest advantage, but much disgust at its taste and effects upon me. Gallic acid, in doses

of three to eight grains, three times a day, I found to act as an excellent astringent ; most decidedly it lessened the expectoration, and suppressed the night perspiration for a time, but it did not prevent their recurrence. I consider it far superior to sulphuric acid, and about equal to sulphate of zinc, taken in full doses. I derived some transient advantage from these remedies, but nothing can prevent nocturnal perspiration until the irritating cause is removed. The cause is not what John Hunter assumed it to be, consciousness of Nature's inability to overcome the cause, because it frequently subsides spontaneously, or gives way to appropriate remedies, even when the disease, its cause, continues, which was my case during the muco-purulent expectoration from the bronchial tubes ; nor does it depend upon debility, for I was much stronger and stouter at one time by two stone in weight, when it distressed me, than I was at another time, when free from it.

To the hectic patient it is an inexpressible comfort to suppress night sweats, because of the offensive odour of the lactic acid,—like sour dough.

No remedy has proved itself to me of such extraordinary value in the treatment of bronchial

catarrh in every stage of it, as *alum*, which I had the good fortune to try from analogy of its use in other diseases of the mucous membranes. It arrested my most violent spasmodic attacks of cough generally in half an hour, and in many instances, in a few minutes. It should be administered by allowing a scruple or half a drachm lump of it to dissolve gradually in the mouth and swallowed ; occasionally I applied it to the throat in the strongest form of solution, by means of a probang, in the manner that solution of nitrate of silver is applied for the same complaint. Effective in any commendable degree, I never found its base, sulphuric acid, when taken in more potent doses to overcome either diarrhœa, or nocturnal perspirations, or of any use in suppressing the cough. Alum, when held in the mouth to dissolve, gradually decomposes the abnormal and abundant mucous secretions, that ever are occurring when the throat is irritable or inflamed, and which exert an alkaline action upon litmus, more or less strong ; alum also acts upon the blood vessels and mucous membrane as a direct astringent, and its action is extended considerably beyond the parts to which it is applied, by continuity of membrane and sympathy.

In corroboration of my own case, I will give, to illustrate, under different conditions of the liver, stomach, and kidneys, the varied collateral remedial means sometimes essentially required to command success more or less perfect. I have already mentioned that my digestive organs were greatly deranged for a long time in spite of all means resorted to. Particular cases, however, will more concisely point out the general principles of their management. It is now too long past, since my perfect restoration to health and freedom from bronchial catarrh, to stretch my memory to give accurately and consecutively the symptoms of a complex case, and the treatment in detail; it will be sufficient to give the outline of the practice I adopted and have now tested extensively in other cases, which alone can determine the value of any class of remedies. I therefore trust I shall be absolved from the charge of being too abrupt or premature in issuing forth new remedies. I assure my professional brethren that I know full well how deceptive are often the results of experience, unless largely extended; and therefore I confidently believe they will find the same results that I have done, by a trial of the same remedies in their own hands, and will freely accord to me the discovery of a new, safe,

and powerful addition to our therapeutic weapons in combating diseases of the respiratory organs, which destroy the pleasurable sense of health, and serenity of the mind, and shorten and destroy annually the lives of thousands in the British Isles.

CHAPTER IV.

ON ALUM.

RESPECTING the vulgar prejudice against alum, it may be well to make a few observations based upon facts within the grasp of most people to make their own dispassionate deductions from. After much experience of its use personally and in my practice, I am fully convinced that it is not only harmless, but highly conducive to the health of the inhabitants of large towns, who consume baker's bread, in which a small quantity of alum is intermixed when the flour is old, to cause the bread to adhere more satisfactorily, and not to make it look whiter, as commonly supposed. The prejudice against alum originated, I believe, with country people, who make their own bread, and never forget to praise it for its nutritiousness, sweetness,

lightness, and for keeping moist. When their bread is moister than well-manufactured bread, it may be so from some of the following causes,—under-baked, a very frequent cause in the country,—prepared with weather injured corn,—containing flour of rye, barley, or legumen, or the dough having been exposed to frost, or undue cold. Under any of these circumstances it must always be close, or heavy, and soon become sour if perchance it was sweet, even when taken out of the oven. But it is often sour, in consequence of the dough being put into the oven after the formation and evolution of carbonic acid gas has partially ceased, and the acetous fermentation has commenced and possibly continued in an insufficiently heated oven. Thus the bread is at once rendered heavy, sour, and indigestible, except to the stomachs of those accustomed to live upon it. Such is the force of habit, and thus we see the lower classes on the continent eat, digest, and enjoy their black bread, that the most abject beggar of our land would not touch. Country visitors to London generally attribute their headaches, constipated or relaxed bowels, &c., alone to the alum in the bread, instead of to the impure air and water, unusual habits, and excitements,

which, however, only produce these effects for a few days after their arrival.

To the delicate enervated portions of the inhabitants of large manufacturing towns alum is the best tonic, and in every way least objectionable of all the tonics. To them the want of opportunities to inhale the pure air of the country, and to bask in the rays of the sun, and so stimulate the cutaneous circulation, and eliminate the blood of its noxious materials,—conditions so essential to health, and buoyancy of spirits,—are the chief causes of their blanched and weakened frames, greater susceptibility to ordinary sickness, and fatal diseases, as compared with country people, who enjoy these essentials for health and longevity. I have administered alum as a general tonic for many forms of disease, to a vast number of patients, without ever finding it injurious, or I may say inefficient in the cases I selected for its use.

CASE I.

Lady J. W.'s servant, a well-conducted cheerful young man, of the nervous sanguinous temperament, twenty-nine years of age, had thirteen years before the meazles, and ever since has had con-

stantly a cough, with considerable expectoration ; in every other respect he has considered himself very well. He had tried a vast number of remedies suggested by different medical men, who were attendants of the families with whom he had lived, and at some public institutions in town and country, without any benefit, and he did not like trying anything more, such as having *his throat probanged with caustic, and being made sick with physic.*

I examined his chest, regions of his liver and stomach, and found no signs of disease ; his pulse was small and quicker than natural ; he looked pale, and said that he felt weak, particularly in running up-stairs, which rather surprised him, as his appetite was always good and his bowels regular. These circumstances will not be found in ordinary cases. He had a copious discharge of pale urine, clammy skin, his tongue too red and lax, with the marks of the teeth strongly indented upon it. On looking into the mouth I found it filled with glary mucus in sheaths, and after it was discharged by my direction, as well as he was able, I could perceive that the velum pendulum palati, the fauces, the isthmus faucium, and the tonsils were thickened. The uvula was much elongated,

resting on the tongue, with its base enlarged, the whole presenting the appearance of a semi-transparent gelatinous-like substance. The peculiar alkaline secretions of this organ is considerable, like the other organs about the mouth, in this irritable, not to say, inflammatory condition; there was much cough and nausea, in consequence of the elongated uvula coming in contact with the epiglottis and pharynx.

By pressing down the tongue with the bent spatula to see down the throat, and at the same time drawing the base of the tongue forward, the epiglottis was brought into view, which I found was also thickened; after withdrawing the spatula, and introducing my finger, I could feel it to be hard and rough. As his voice was hoarse, I have no doubt that the adjacent organs, the larynx, trachea, the rima glottidis, and the chordæ vocales, were in the same irritable condition, causing rapid dislodgement of the epithelia and cells, exposing the mucous membrane and chordæ, under which a network of blood-vessels are ramified, and by which the mucous membrane is connected to the adjacent parts and muscles.

The numerous mucous follicles and secretory glands in a normal condition secrete bland trans-

parent fluid just sufficient to lubricate the air passages, but under the influence of catarrh this is marvellously increased in quantity and altered in character—vitiating, viscid, and highly irritating to all parts it comes in contact with.

I ordered only a piece of alum to be kept in the mouth for three or four hours daily,—the saliva, with the dissolved alum, to be swallowed. Four days afterwards, I saw him again, when he expressed himself highly pleased with the benefit he had derived from the alum. I examined his mouth and throat; all the parts were much less distended, particularly the uvula, which had contracted nearly to its natural size; in a week after, he was almost well, and quite so in three weeks from the time he first saw me.

In July, 1854, I saw this young man, and he said he had continued quite free from cough, and that he was much better and stronger than he recollected ever to have been in his life. Ever since his cure, two years ago, he has always found, when he had a cold, that alum quickly suppressed the accompanying cough and hoarseness; and it still has the same effect. The above case will illustrate a very efficient treatment of chronic catarrh.

We shall now proceed to consider catarrh with its immediate and remote consequences and sequelæ, varied according to temperament, age, habits, strength, and existing diseases of the patient requiring further remedial means.

These circumstances, and the seat of catarrh, whether in the active or chronic form, are the only characteristic differences that are of any cognizable practical value in suggesting the most efficient treatment.

In all cases it is of the utmost importance, especially in a weak or aged patient, to suppress the cough, not only for immediate comfort, but for final success, because the rapid and condensed current of air effects a mechanical separation of the epithelium, denuding the mucous membrane, and exposing the underneath blood-vessels, and hence causing an effusion of an irritable mucus which excites cough and further deposition under the adjacent epithelium. This work of destruction going on in patches at the same time in several places, gives under the microscope a worm-eaten appearance to the mucous membrane, which if not cured, will extend down the bronchial tubes, and continue for an indefinite period, or until the sufferer sinks under the exhausting discharge

of muco-purulent matter, and nocturnal perspirations.

The peculiarity of the sounds of cough, from whatever cause, in young and old of both sexes, are familiar to all. The affected cough is soft, low, and husky, and the nervous cough is quick and sharp. The cough attending ordinary cold during the first and last stages is very characteristic, and so is hooping-cough, as well as that attending croup in its spasmodic and inflammatory forms. The consumptive cough is generally easily detected; but it is readily recognized when the seat of it is in the larynx, epiglottis, or trachea. The stomach or indigestion cough is as characteristic as the cough of the excessive drinker of spirits and wine. The cough depending upon teething, and some fevers, and other causes, is known to most practitioners after some years experience.

It is, however, necessary to use our eyes in examining the throat, and our ears in examining the lungs and heart, and also our hands in examining the regions of the liver and stomach. The aids of the microscope and chemistry must be in constant requisition also, to enable us to comprehend the contents of the urine and sputa, as the following case will illustrate.

CASE II.

A retired merchant, past sixty years old, consulted me last November respecting a severe cough which had tormented him for many years, especially during the winters, and last winter had nearly killed him ; he therefore greatly dreaded the coming one.

This gentleman had always been surrounded with the luxuries and conveniences of life, kept much company, and lived freely ; he was formerly, he says, a firm, lusty man ; he is now weak and quaggy, and of the phlegmatic and bilious temperaments, not however of the asthenic division, easily exhausted, as its name implies. The phlegmatic and bilious temperaments are susceptible of much endurance, otherwise he would have been altogether, long since, a matter of history, for he had been under the care of hydropathic, homœopathic, and mesmeric practitioners, and had swallowed advertised and *certified infallibles for cough*, and domestic palliatives without number. Latterly he became a patient of a hybrid practitioner of homœopathy and allopathy, by whom he was bled by pints, leeches by the dozens, burnt by mustard

poultices, flayed by blisters, bumped and pustuled by tartar emetic and croton-oil rubbings, narcotised by opium, starved by low diet, and hipped for want of good food, wine, and society, and finally disgusted by Dr. Jonghs' cod liver oil, used internally and externally : he consequently placed himself under my care. I trust many will emancipate themselves from the charlatanery of the Germans—such as mesmerism, homœopathy, hydropathy, mud baths, drinking stinking waters, and cod liver oil—the last *new* dodge.* The patient's skin was dusky and greasy, his expression dull and cheerless, and visceral congestion, especially of the liver, was strongly indicated. He was also a sufferer from inflamed and painful hæmorrhoids, with hæmorrhage and prolapsus of the rectum, whenever the bowels were relieved. The functions of the digestive organs were greatly deranged, the bowels were irregular, constipated, or irritably relaxed. The bile was generally very deficient, but at times very abundant, and the dejections contained much mucus. The urine

* Dr. Jonghs has found out that the oil from the ordinary cod fish is of no use ; he has therefore sought, and has, of course, found out the *real fish*. His former discovery was simply a *mistake*.

varied in quantity, gravity, color, and odour, according to its constituents; sp. gr. 1.027, acid and turbid from urate of ammonia. When heat was applied it showed copious deposits of microscopic octahedra of oxalate of lime, and moving scales of nucleate epithelium. The morning urine—sp. gr. 1.012, pale and transparent, contained considerably less of the above salts. The mucous membrane of the throat was lax, with profuse secretion of viscid mucus, and, in consequence of persistence of morbid influences, and a low degree of the recuperative powers, the disease had descended to the bronchial tubes, detaching therefrom false membrane and epithelium, which under the microscope could be observed in large patches in opaque sputa, intermixed with pus globules; some of the mucus was less viscid and turbid, indicating fresh parts falling into diseased action.

On looking into the mouth I found a large quantity of mucus; the uvula and the tonsils enlarged, and covered with a dirty-white film of mucus, as likewise the fauces, pharynx and adjoining parts. After the patient had cleared his mouth and throat as well as he could, I then passed the spatula upon the tongue to the epiglottis, and at the same time drawing its base

forward, the laryngeal surface of the epiglottis, and the superior part of the larynx, were readily and without pain brought into view. The surface of all these parts was studded with dirty-white spots, the usual appearance when the epithelial covering is being removed: consequently these patches freely discharge true pus.

I at once applied, by means of a probang, whilst the tongue was held as above described, the weakest form of solution of nitrate of silver that I ever use—seventy to a hundred grains to an ounce of distilled water—to the pharyngo-glottidean mucous membrane, and afterwards to the mouth and fauces, which I repeated daily for five or six days. At this period the cough was much better, and particularly at night. In consequence of the voice continuing hoarse, I commenced by the same means to apply the solution to the cavity of the larynx every other day. I also directed the patient to suck about half a drachm or more of alum daily, and to live upon meat, in small quantity, bread, rice pudding, and weak brandy and water for drink, but no beer, sugar, fruits, vegetables, or hard water to be taken. I ordered a full dose of twenty grains of hyd. chlorid. to relieve the congestion of the liver, and which was repeated

on the tenth day afterwards ; in the meantime, the following medicine was prescribed :—*R* Acidi nitrici \mathfrak{m} iij., Acidi hydrochloric \mathfrak{m} vi. ter in die, ex cyatho inf. scopar. sumend. In three weeks the oxalate of lime ceased to be deposited. The urine, however, was too high in specific gravity, being 1.025, and depositing uric acid. These conditions, soon gave way to the remedies, and the functions of his digestive organs were satisfactorily restored, together with his respiratory organs, for he lost the pains, hoarseness, and cough.

The treatment of his hemorrhoids and prolapsus of the rectum proved equally successful by means that are pointed out in my work on those subjects. Suffice it to say, that my patient returned home, in about six weeks from the commencement of treatment, to join his family, without the least fear of a return of his bronchitis. This gentleman continues nearly free from the rectum complaints. He comes occasionally to consult me about something or the other that he may be troubled with. He says that now when he takes a cold, which is rare compared to his former susceptibility, it never makes him feel ill for three weeks, or longer, as formerly, with annoying cough which disturbed his sleep and teased him pretty well all day, as alum always cures

him, with an occasional dose of the cough mixture, I ordered for him, and which I have already favourably commended, having derived personally so much benefit from it.

The above case of complex sufferings from functional derangement of the liver, stomach, and kidneys, in conjunction with chronic catarrh, and hemorrhoids of long standing, prove the importance of taking the whole range of the case into consideration, and simultaneously treating the various affections constitutionally and locally, so as to annul their mutual tendency to keep up their respective diseased action. I believe that neither the constitutional nor the topical treatment which I adopted, would have been attended singly with the same satisfactory result.

The simple chronic catarrh, or winter cough as it is popularly called, that distresses and shortens the lives of thousands upon thousands, annually, in this country, together with bronchitis, shortness of breath, hoarseness, sore throat, and loss of voice, may generally be cured quickly by alum or nitrate of silver, topically applied. If, however, recent or chronic catarrhal cough is accompanied by disease of some one or more organs, the latter must be removed or modified by appropriate treatment of

the morbid action, as illustrated in the above case, ere it is probable the cough can be suppressed by alumen. sulph., argent. nitrat., pot. nitrat., zinc sulph., plumb. superacet., tinct. ferri mur., or any other known remedial means. The prior case of simple chronic cough will suffice for the efficiency of alum, although I could transcribe from my case-book some scores of others equally successfully treated by alum alone.

The following case will prove the necessity of removing functional derangements of the pelvic organs in a case of chronic catarrh, and the futility of the ordinary mode of treating it, or by topical applications to the throat.

CASE III.

The Hon. Mrs. H., of the nervous temperament, delicate, thin, palid, and sallow, and very sensitive, is the mother of a family whom she did not suckle, and who has also had miscarriages. At my first visit I perceived that she had a slight hectic flush over each cheek bone ; she had been ill all last winter, and her cough ever since has been very troublesome, especially at night ; when she slept, she perspired over the chest, head, and

face very copiously, but particularly the night before my visit, having travelled to town in the morning, which in her weak state had greatly exhausted her, as the day was very cold for May. She complained of moving pains in the neck, chest, back, and loins, with bearing down dragging pains of the uterus. Every three weeks the catamenia returned unduly copious of thin fluid, and in the interval she was deluged with leucorrhœal discharge pressed from her, as well as urine, during paroxysms of cough; the parts were very sore and swollen; she had cramp of the legs frequently at night, and in the calves; the latter were so sore that walking was painful for the first ten or twenty minutes; the appetite was moderate, pulse 92 and small, tongue moist at the edges with white fur in the centre. The throat was covered with viscid mucus, and the glottis when felt with my finger was rough and irregular, and I have no doubt was ulcerated like the surrounding parts, which were covered with oval dirty white indentations of the size of a split pea, as already described, and throwing out pus globules, with which the expectoration was charged, and which were developed under the microscope. On treating the expectoration in the usual manner,

by acetic acid being mixed with it, two or three nuclei became visible of a uniform size and semi-opaque granular appearance. I examined the lungs, but detected no tuberculous signs ; the heart was irritable. She said that her medical attendants in the country had tried various medicines to suppress the cough, had recourse to the probang charged with solution of nitrate of silver every other day for a long time, and finally, had used cod-liver oil, with quinine and iron, but all, however, without effecting a cure. She also said that she was determined not to take cod-liver oil, or have the caustic used any more, because they had proved of no use, but she was ready to adopt any other means I might recommend. I told her I did not think that anything would mitigate her cough whilst her general health was so unsatisfactory.

The uterus and bladder I found were highly irritable, the kidneys secreting unhealthy urine, and the functions of the skin equally deranged, hot and dry. The morning urine was of a pale colour and abundant, of low sp. gr. 1.010 ; on applying heat, it became turbid from deposit of the phosphates, and in consequence of the irritable state of the bladder it contained mucus, and nu-

merous scales of nucleate epithelium. Its alkalescent condition and mucus admixture caused it to become quickly putrid, as is usual under such circumstances.

I directed the patient to keep in bed, to live generously upon animal food, to avoid wine, beer, acescent vegetables, and all fruits ; to take chocolate and milk for breakfast, and a little brandy and water after dinner, and to have the body well sponged night and morning with water as hot as she could bear it, with nitro-muriatic acids mixed in it. In consequence of the urine being alkalescent, I ordered tincture of opium to restore its acidity, which it has the power to do in a greater degree than any other medicine, and taken at meals headache is prevented ; both these facts were first noticed by the late Dr. G. Bird. I also combined with it Tinct. Ferri Acet. Etherial., which, like all other preparations of iron, should be taken at meals ; these medicines thus administered did not constipate the bowels.

Twice a day Inf. Cydon. and Mucil. Acac. were injected.

My patient kept to her bed for a week, and for another fortnight to her bed-room, lying on the sofa nearly constantly. In cases of uterine irrita-

tion, I have always enforced perfect rest of the body; and when the kidneys are affected, I enforce it also as far as possible, because no satisfactory progress towards health is ever made without rest in the former case, and in the latter it greatly promotes success, particularly when combined with mental quietude. At the end of a fortnight the hectic flush and nocturnal perspirations were gone, and the leucorrhœal drain was very considerably diminished, as well as the pains in the back, chest and loins. At this stage of the disease I directed her to allow half a drachm of alum to dissolve gradually in the mouth daily, and to swallow the saliva.

In three weeks the vague pains that had troubled her ceased entirely, also the drain upon her strength was greatly mitigated. Her catamenia returned four days later than formerly, was more satisfactory in colour and duration, being reduced to eight days, unlike former periods, and only followed by a slight drain. The urine was higher in Sp. gr. 1.019, and not turbid on the application of heat; litmus paper proved it to be acid, and on adding excess of an alkaline no earthy phosphates became visible. The desire to micturate frequently, as formerly, was now nearly rectified, and the urine

ceased to be forced. The hacking cough during the night and day was much mitigated, and her paroxysms were reduced in number to about three or four in the twenty-four hours. Suffice to say, that with little variation in remedies, the patient was perfectly restored to health, and left town in August.

I have already pointed out that certain causes, as temperaments, physical debility, exposure to cold, damp air, ill ventilated rooms, moral depressing circumstances, sedentary habits, &c., render people peculiarly prone to attacks of catarrh. In the first instance, when the disease attacks the mucous membrane it amounts to irritation only, and quickly subsides, but the system is rendered more susceptible for renewed attacks at shorter intervals and from slighter causes in consequence of the increase of general debility and less power in the mucous membranes to resist morbid influence; and then the submucous tissues, follicles of the uvula, posterior fauces, and pharyngeal membrane, take on acute inflammation with plastic exudation, ending in chronic catarrh and suppuration. We cannot, however, precisely determine the period of transition from simple irritation into

acute inflammation, and the latter into the chronic or suppurative stage.

The effects upon the parts will enable us to judge sufficiently accurately for remediable purposes, since the topical treatment is so much alike under the different circumstances. The constitutional remedies and diet must be determined by the stages of the disease and temperament of the patient; stimulating and supporting measures in the cachectic and scrofulous constitutions to prevent the disease terminating in phthisis pulmonalis, and lowering measures for the inflammatory stage in the sanguineous and bilious temperaments to prevent it attacking the glottis, larynx, or trachea.

If patients are left to nature or anodyne treatment, it is most certain that by far the greater number sink emaciated and prostrated from the profuse mucous secretion which prevents oxygenation of the blood in the mucous vessels of the bronchial tubes, &c. In my own case, the bronchitis engendered emphysema of the lungs, just as occurs not unfrequently in hooping-cough; indeed, during the severe convulsive paroxysms of cough, I very frequently hooped and generally ejected the contents of my stomach. The only difference

I experienced during the attacks of bronchitis and hooping-cough, and I can well make comparison, for having had the latter late in life, I can recollect my feelings just as perfectly as I can my late sufferings from bronchitis, was, that I had much more mucous secretion in the latter than in the former. I fully agree with Professor Hasse, that both complaints are simply chronic catarrh of the same organs, only slightly varying, attributable to the differences of age, habits, sex, and adventitious circumstances. I say late bronchitis, for I am now perfectly cured, after twenty years' sufferings without any mitigation even during the summer, a respite that most sufferers are permitted to enjoy ; indeed, I think I was, if possible, worse during the summer than the winter.

CASE IV.

J. W., Esq., requested my immediate attendance by the telegraph on a Sunday in November, at Cheltenham ; I arrived at his residence in Lansdowne Terrace, a little after 12 o'clock that night. I found him, as I was given to understand, suffering intensely from very incessant harsh cough, scarcely able to speak, or to allow me to examine

his throat, or to feel with my finger the state of the epiglottis. I determined to apply Sir Charles Bell's remedy, the nitrate of silver. I had provided myself with it, a probang, and the curved spatula, as is my custom when requested to visit patients with cough. I requested him to make a determined effort to sit up in bed, and to open his mouth and suppress his cough for a quarter of a minute: the latter he was unable to do, but whilst he was coughing with his mouth open, I passed the spatula over the root of the tongue, and immediately after, the probang, fully saturated with the solution, and as freely as I was able, applied it to the epiglottis, pharynx, and the upper part of the larynx. The cough was mitigated after the operation, although not so satisfactorily performed as I wished, owing to the causes just stated, and also to his timidity; but taking advantage of the absence of the cough, and his confidence in the remedy from some relief he so quickly derived, I renewed the application an hour after more effectually. By placing the end of the spatula upon the base of the epiglottis, pressing down the tongue, and at the same time drawing it forward, the laryngeal surface of the epiglottis was exposed; I then passed the probang into the open-

ing, and pressing it upon the glottis, withdrew the spatula, and allowed the sponge to be pressed into the pharynx. The relief from this application was most marked: his cough, speech, and breathing were composed, and he soon fell into a long sound sleep which he had not enjoyed for some time, except by unrefreshing snatches. I watched him in his sleep for an hour, and perceived that he occasionally coughed without interrupting it. He slept for several hours, and felt much stronger, but awoke with a head-ache, which I attributed partly to the large quantity of opium he had taken before, with a view to assuage the cough, and partly to his debility, the consequence of his illness, and the treatment by depletion. On Monday before I left him to return home, I applied the probang twice, more effectually than before, the probang being introduced to the posterior aspect of the epiglottis, when I pushed it downward and forward into the larynx. No practitioner who recollects the relative situation of the organs of the throat, can be foiled in effecting the latter or the former operation, particularly if he bends the whalebone of his probang to the necessary curve, which he can readily effect by placing it in hot water for awhile; when cold it will retain the

desired curve. Indeed, the curved spatula should be made of horn, because it can be altered in its curve by the same means, and it is much lighter to carry. On Monday I directed the cough mixture to be taken occasionally, and the alum three or four times a day. The patient was able soon to come to town to perfect his cure by the same means, but which it is not necessary to give in detail.

It will be observed that this patient was quickly relieved of his severe cough simply by the nitrate of silver, and without introducing it into the larynx; nor is it always necessary to introduce it into the trachea either. I am perfectly satisfied, after ample experience, that it acts efficiently by sympathy, when only applied to the upper part of the throat even in the very worst cases. In recent cases of catarrh, spasmodic croup, and in cases of hooping-cough, chronic catarrh or bronchitis, it will be found applied in this simple manner quite efficient, but never when applied, as it is often done, by a camel-hair pencil fixed upon a stick the length of a finger.

I have found alum an efficient remedy for the above complaints, and I have treated hooping-

cough with it long before I ever heard of its being used or recommended by any other practitioner, but to whom the merit of priority belongs I neither know nor care ; suffice it for me that I can, after ample experience, attest it to be the best remedy of all that have hitherto been administered for its treatment. I can also strongly commend it as an efficient remedy for spasmodic croup. I had lately a boy, of five years old, placed under my care, who was frequently subject to its severe and prolonged attacks. When I first saw him he was suffering from an attack. I gave some alum dissolved in hot water, with five drops of tincture of opium, and I ordered his hands and feet to be put into water as hot as he could bear it. This decidedly modified the attack, which soon subsided. The next day I passed the probang, with its sponge soaked in strong solution of alum. I introduced it as well as I could, which was very inefficient as I thought, from the child's resistance to the operation. I continued to introduce the probang every other day for a fortnight ; after this treatment was commenced he had only two attacks, but before, he had from one to three weekly, and he has continued about five months' since quite well.

CHAPTER V.

GENERAL PRACTICAL OBSERVATIONS ON ACUTE AND CHRONIC CATARRHAL AFFECTION OF THE THROAT.

WHILST it is confessedly a fact that in these affections a course of medication without any reference being had to local treatment will be found utterly futile, yet it must not be understood that topical applications alone will suffice in all cases. I have illustrated, on the contrary, the necessity of examining the lungs, liver, kidneys, skin, and the digestive organs, and of removing, as far as possible, any abnormal functions of those organs which may co-exist, since they generally act as a proximate or remote cause, in aggravating the catarrhal affection. I also suggested that all special and sympathising diseases are more successfully treated when the remedies are suggested by the existing circumstances in reference to tem-

perament, age, habits, season, and locality. My personal experience has too often proved that very remote parts of the mucous membrane will immediately sympathize with each other ; for whenever the much thickened mucous membrane of the rectum was irritable, and the hæmorrhoidal vessels bled more than usual, my cough was invariably aggravated, so that it was necessary to assuage the irritation simultaneously by local and constitutional means fitted to relieve all.

Lately, a lady of the bilious temperament, consulted me respecting a severe cough which had entirely resisted the usual remedial means, including the nitrate of silver to the throat. Her voice was weak and hoarse, the cough exceedingly troublesome, especially at night, and particularly so whilst lying in bed ; upon examining her throat I discovered that the mucous membrane was covered with dirty white patches, throwing out muco-purulent matter, the usual result when the epithelial covering is removed from the true membrane. Her appetite was very indifferent—living upon tea and coffee principally, bowels irregular, urine pale, copious, and charged with phosphates. Catamenia returning every three weeks, and never free from copious leucorrhœal drain, which was

prostrating both her mind and body. By the use of two or three free doses of calomel, to purge the liver, followed up by acetate of potassa, decoction of cydonia as an injection, generous diet, brandy and water, and half a drachm of alum, swallowed daily as it dissolves slowly in the mouth, she was soon perfectly restored to health.

CASE V.

The following case of protracted catarrh very satisfactorily elucidates the importance of treating simultaneously diseases of the mucous membrane in remote parts.

My patient is an eminent barrister, speaking much in public courts, consequently his cough and hoarseness, the latter amounting occasionally after an energetic address almost to complete aphonia, not only greatly distressed him, but also alarmed himself and friends, lest it depended upon consumption. When he consulted me, I found him irritable, desponding, and generally debilitated. After I examined his throat, which was in much the same condition as the last case, I then inquired if he had hæmorrhoids or stricture of the urethra. He said he had not been troubled with

the former, but with the latter he had, accompanied with a gleety discharge, spermatorrhœa, and much from indigestion. On further examination with a bougie, I found he had stricture with an irritable bladder. Now it is well known that a stricture of the urethra occasionally depends upon deranged digestive organs, and often is continued by that adventitious condition of the stomach, particularly that form of stricture known as spasmodic, which generally occurs in persons of the nervous and serous temperaments.

On the following visit, finding that the introduction of the bougie had produced much local and general irritation, I determined to confine my remedial means solely to medicines, diet, and warm baths, to assuage constitutional irritability, and thereby give tone to the whole system. On the tenth day I directed the patient to take fifty drops of laudanum, and to be in a warm bath a quarter of an hour before I saw him. By this means I was enabled to pass the bougie, and ascertain the exact part, and degree of contraction without consecutive constitutional disturbance ; but after a few trials I succeeded in passing the bougie through two strictures, without the aid of opium and a warm bath, and overcame the strictures in

a few weeks by enlarging the size of the bougie each time I passed it.

In the mean time the patient sucked alum ; but I was obliged to pass the probang into the larynx a few times, saturated with nitrate of silver, ere he was quite cured of his ailments, which took place at the end of ten weeks ; and he has remained well now more than a year.

I am convinced that catarrhal cases resist remedial means only when collateral diseases are unremoved or incurable.

It is not improbable that now, as formerly, some cases of supposed phthisis are set aside as incurable, or allowed to sink under the fallacious constitutional treatment, by citrate of iron, quinine, with pale, brown, black, inodorous, or nauseous cod liver oil. It is certain that the sequelæ of acute and chronic catarrh when neglected altogether, or treated solely by constitutional or palliative measures will progress down to the lungs ; and if they do not terminate in tubercular development or phthisis, which they may do in either young or old, and particularly in predisposed persons, they will often prove equally fatal by exhaustive defluxion, hectic fever, and other constitutional disturbances.

Persons of the nervous and of the serous temperaments are more prone to catarrhal irritation, than persons of other constitutions, and after repeated attacks, become more liable to augmented secretion, to various changes of structure, both of the mucous membranes, and of the muciperous glands, and to various deranged functions. The disease overcoming the resisting tone of the system ends finally in continued cough, expectoration, and nocturnal perspirations. In these cases we have established hypertrophy of the fauces, uvula, tonsils, pharynx, larynx, trachea, bronchial tubes ; also enlarged mucous follicles, and ulcers of the trachea, larynx, or of the rimaglotidis and suffocative spasms and cough. Cases in the latter conditions frequently prove fatal. Yet, for the most part, they may be prevented and cured, by topical application, aided by judicious constitutional treatment, or rather by the removal of collateral diseases, particularly of the stomach, liver, kidneys, uterus, urethra, or rectum. Abstractedly diseases of the respiratory passage will be found perfectly amenable to the topical use of alum and nitrate of silver solution, in a strong form ; a weak form is more likely to irritate than overcome irritation of the throat, and alum should be used more or less

continuously, and held with a pair of forceps to the enlarged uvula and tonsils daily, particularly in strumous cases. This plan of treatment of the latter I have found efficient in reducing them to their normal size and healthy functions, without ever having occasion to excise them partially or wholly, a very questionable operation, to say the least of it, and certainly never requisite when the parts are manipulated in the above simple manner.

According to my experience upon an extended scale, the topical application of these salts overcomes in catarrhal and strumous subjects their usual great susceptibility to renewed attacks of morbid action, an advantage of no less importance to them than the cure of the primary disease. I must not be understood to say that patients are no longer liable to take cold occasionally as usual, but only that they are less susceptible to repeated unnatural attacks, accompanying and depending upon catarrhal and strumous thickening of the glands and mucous membrane of the throat.

Hypertrophied and relaxed conditions of the organs of the throat occur in young and old, but more especially in delicate persons of the nervous and serous temperament, in whom a certain embarrassed state of the mind as to how they should

acquit themselves before strangers, or any mental anxiety, will often produce hoarseness, or loss of voice, cough, spasm of the glottis, or copious flow of mucus and saliva, which greatly interferes with the articulation. Clerical throat, as it is called, is frequently nothing more than sympathy with a moral condition of the mind, and may be readily removed simply by putting a piece of alum into the mouth to be gradually dissolved and the saliva swallowed. Singers, particularly young ladies, will also find that alum not only prevents the undue secretion of saliva, but removes it, and gives immediate tone to the voice, and thereby they are enabled to command confidence, to their utmost power. I have frequently suggested alum to clergymen and to other persons, who have to address an audience. We must, however, always combine and administer constitutional remedies for the removal of collateral exciting causes, in either the inflammatory or chronic forms, already pointed out, before success can be secured simply by topical applications.

It is not possible to determine when catarrhal irritation terminates in inflammation, and the latter in suppuration, without the aid of the microscope, and acetic acid to mix with the sputa. It is diffi-

cult to ascertain in scrofulous patients when the inflammation has terminated in suppuration, whether the pus is thrown off from simple ulcers of the mucous membrane or from tuberculous ulcers of it, and of its muciperous glands, which may exist with or without the same condition in the lungs; however, the microscope and auscultation will enable us to make a correct diagnosis. Acute inflammation of the tonsils renders the act of deglutition painful, but a chronic inflammation renders the tonsils callous.

On pressing the larynx a soreness is often felt extending down the sternum, intercostal and pectoral muscles. The patient often and very confidently attributes his cough to the presence of a hair adhering to the upper part of his windpipe. On examining the throat it will be found that the mucous membrane and the adjoining glands are all in a state of much congestion; indeed, this state and chronic bronchitis are frequently confounded; and the congestion is kept up by involuntary and voluntary cough, but principally by the latter, in futile attempts to expel the imaginary cause, *the hair*; all, however, will readily give way to the nitrate of silver or alum, when

applied to the epiglottis, which is often swollen, rough, and deprived of its natural covering, and throwing off irritable matter or pus.

When the uvula is enlarged and elongated from inflammation, it frequently causes cough, sickness, and indigestion, from coming in contact with the epiglottis and pharyngo-laryngeal membrane, a frequent consequence of acute and chronic catarrh. In whatever condition the mucous membrane and muciperous glands may be, arising from catarrhal or tuberculous irritation, it will be found that topical means will be the most advantageous mode of treating the latter, and a cure for the former. Asthma frequently depends upon the condition of the mucous membrane of the glottis, as œdema glottidis, which may be treated in a like manner by sponging the parts affected with the nitrate of silver, and even if the whole of the parts are not touched, it may still be cured, in consequence of the continuity of the membrane and of sympathy, as proved by alum relieving cases in a similar manner when dissolved in the mouth and the saliva swallowed. I have, also, used the latter in solution by means of a probang, with the utmost satisfaction, and especially in female patients who

are generally alarmed at even the name of caustic. It must be dissolved in warm water to saturation, and applied warm.

I am fully satisfied that if topical agents were used at the earliest stages of catarrhal irritation, indurated, and hypertrophied conditions, and ulcers of the mucous membrane would rarely, comparatively speaking, be met with ; and croup, whooping-cough, and some forms of asthma, would either generally be prevented, modified, or cured, if treated early in this way.

The nitrate of silver and alum may be used with effect in those cases of phlegmatous or diffusive or œdematous inflammation of the throat tending to disorganization of the sub-cutaneous tissues, by an acrid secretion irritating them into ulcers, which may even go on to a gangrenous state, and extend downwards in some cases from the mouth, fauces, pharynx, larynx, trachea, causing by constriction suffocation in a few hours.

Erysipelatous inflammation frequently attacks these parts, extending rapidly to adjoining parts, as usual. Erysipelas of the throat is occasionally epidemic and very fatal. *Cynanche maligna* or *cynanche tonsillaris vel trachealis*, &c., are nothing more or less than erysipelas, varying in

degree according to the constitution, habits, age, and seasons. Nitrate of silver is too well known to require one word of commendation for its power in arresting the progress of erysipelas, destroying its virulence, and curing it on external parts; it is no less efficient when applied to internal parts, and it can be used to some parts of the throat very successfully by the aid of a probang.

CONCLUSION.

I TRUST the importance of the results of local treatment of cough and bronchitis which I have dwelt upon will justify their publication in the opinion of my professional brethren, and more particularly since the old plan by depletion, painful counter-irritants to external parts, and narcotics so generally depended upon, have proved very unsatisfactory to medical practitioners who, therefore, are doubtless well prepared to receive new theories and remedies to test in their practice. It must, however, be admitted that the success of the enthusiastic founders of new theories and remedies, is rarely confirmed to its fullest extent by subsequent trial in the hands of others. No writer can convey to his readers the genius and tact to select aptly cases suited for his peculiar views of treatment so as to ensure his usual success. This desirable result must depend upon the

reader's power of rightly conceiving the author's views of the diseases he treats upon, not only in respect to the individual case, but in respect also to the temperament, age, and habits of the patient, the climates in which he has resided, and the one he is residing in ; the influence of these upon the liver, functions of the skin, and digestive organs, with many other circumstances, that will readily suggest themselves to the intelligent medical reader. Another cause why the conceiver of an original theory and practice in respect to particular diseases is generally more successful in the management of his cases, according to the rules he has laid down in his writings, than others are, is the fame of his success, which induces confidence and a favourable impression of his skill, and this, undoubtedly, tends, more or less, to insure a favourable issue to his treatment. This award of fame, as well as of skill, is the portion of every practitioner, now and then, however humble. I shall select out of my case book one instance in illustration of this fact.

Some time ago a very eminent operative chemist in Southampton Row recommended a patient to consult me for tertian ague, which had afflicted him for three years without mitigation, in spite of every remedy that had been suggested for him

by some of the most eminent consulting men of the day whom he had consulted one after the other, without, however, being particularly, or strongly recommended to any of them as he was to me. His confidence and respect for the chemist was in a somewhat less degree conveyed to me, for he said he was well assured that I should cure him at last, since I was strongly recommended to him by a very clever man. Suffice it to say that I ordered for him a calomel purge to be taken that night, and a scruple of quinine, with forty drops of laudanum, two or three times a day. The next fit was very modified, and an hour later in the day than usual—the second fit only occurred in smothered sensation, after which he did not have a recurrence of a single symptom. The patient, however, was under my care for some time after, to have the normal condition of his discerning organs restored, and the dusky, greasy state of the skin, general debility, and lowness of spirits removed.

These favourable occurrences appertaining to the position of consulting men are much over-balanced by irregular attendance, casual consultation, and unreasonable expectation of an immediate cure,

or at least mitigation of sufferings, and inconveniences arising from their complaints.

In these days, the public are too apt select their medical advisers more for their fame, either in pathology, morbid anatomy, or microscopic or chemical analytical researches, which are the means only by which a correct diagnosis may be arrived at, and the nature of some diseases elucidated, rather than practitioners who make the treatment of diseases their peculiar study, but who are confessedly comparatively few, and hence the curative has not kept pace with the other scientific branches of our knowledge. The treatment of some diseases has, however, been much improved. Still the removal of most diseases and the mitigation of physical sufferings are open to great improvements, and must remain so whilst the present system of teaching is pursued at our medical schools, to the exclusion of therapeutics.

Had the investigation of the special effects of minerals and plants upon the body in health and disease, been equally bestowed upon the treatment and pathology of diseases, no doubt specifics would have been discovered for a greater or less number of diseases, and more methods of cure and greater success in treating certain forms of diseases ascer-

tained, than we now have generally recognised. Thus our unwieldy nominal list of remedies would be reduced in number, making them better fitted for practical utility, rather than as they are now, for empty show, and deservedly regarded in the mass as useless. The qualities of many of them have never been fully tested for any disease ; in short, the appended qualities of thousands of the so called remedies originated, probably, in the mere fancies of some enthusiastic pharmacologist, and by reprints have been continued by others.

It has been the fashion to ridicule the idea of specifics, and unhesitatingly to deny that they exist, but whether they do or not, it cannot be refuted that some drugs are so uniform in their curative effects in some diseases, that they are associated in the mind of the prescriber as something very nearly allied to if not specifics. Admitting this to be the case, it necessarily follows that the selection of remedies by most practitioners is governed, or at least influenced, by the doctrine of specifics.

All practitioners have their favourite mode of treating some diseases, either by a series of medicines, or by a single remedy, they having ascertained in their practice that certain commended plans of treatment are worthy of dependence ; hence

the most successful practitioners are those who select the best medicines, and best modes of treating diseases.

Chemistry, now so generally studied by medical men, will necessarily increase our number of sound plans of treating diseases, and probably our knowledge of undoubted specifics. It is the right way to find them both, and more rapidly than hitherto, because we have been more indebted to accidents, and to savages, for our knowledge of particular qualities of plants, than to scientific deduction by analysis, &c. If these are facts, which I believe they are, and cannot be gainsayed, we need not contemptuously sneer at specifics, or at the possibility of their existence in every country, provided by our merciful Creator, and at His appointed time to be developed to his creatures, for the alleviation of their ailments.

Much has been done by experimental inquirers into specific treatment, and much more may confidently be expected when diseases are better defined as to their seats, and those that are purely local, distinguished from those that more generally depend upon constitutional causes. The seat of cough

being primarily confined to the laryngeal region, is, of course, within the reach of local applications, and therefore may readily be overcome at this early stage. If, however, catarrhal cough is not overcome, or left to nature, it generally extends downwards into the bronchial tubes during a severe attack, or by repeated renewals. At all stages of catarrh we confound simple irritation and congestion of the parts with inflammation, and treat the latter imaginary disease by active constitutional and local depleting means, thereby seriously protracting rather than expediting the cure. The immediate cure of catarrh has never been effected by bleeding, leeches, blisters, purgatives, tartar emetic, &c., but I have known catarrhal cough cured or relieved by local treatment in less time than these means could be expected to operate; that is by the probang, charged with some of the stimulants already pointed out. I have known children, and adults also, labouring under whooping-cough, not to have even a single hoop after one application of the probang so charged. Lately I have treated spasmodic attacks of asthma with the like success.

A gentleman, subject to sudden attacks of asthma, after labouring in one for about four

hours, sent for me in great haste. I applied the probang, charged with solution of sulphate of zinc and copper made as hot as it could be borne, with almost instantaneous relief; in half an hour I applied it again, and left him breathing with his accustomed freedom. This patient was recommended to consult me in consequence of my successful treatment of a like case, that of an asthmatic lady, a friend and neighbour of his, but in which I applied a hot solution of nitrate of silver. In all spasmodic cases of the organs of the throat the remedial appliances—the solutions, should be made hot, and used as warm as they can be borne. I have often used the probang with much advantage dipped in hot water; besides, when patients are timid, they are rendered less so by this means, so that the instrument may be afterwards more effectually applied charged with stimulants, &c.

No practitioner accustomed to pass the probang into the larynx and trachea, can have failed to observe the freedom of breathing which so invariably follows the withdrawal of the instrument, whether the sponge is saturated with stimulating solutions or hot water. There can be no stronger evidence required than these facts, to prove that

the mucous membrane in catarrhal cough, whooping-cough, asthma, &c. is only in a congested, not an inflammatory state: the copious secretion of mucus is simply the result of the congested blood-vessels in the glands of the fauces, epiglottis, larynx, and trachea, relieving themselves by throwing off mucus, and not the result of inflammatory action going on in these parts. I have already noticed that when an undue quantity of mucus is secreted, and forms a layer upon the blood vessels, it seriously impedes the process of decarbonisation of the blood, which is continually going on, in healthy respiration.

It is difficult to decide, when immediate freedom of breathing is obtained after the use of the probang, whether it is the result of pressing away the blood, or the removal of the mucus by the instrument; as both, however, may have an equal share in the good effected, it in some measure proves that these diseases so relieved are very limited in their seat: hence constitutional remedies must continue to be unsatisfactory. I must not be understood to imply that diseases of the mucous membrane of the throat are abstractedly invariably confined to the parts locally affected. At their commencement there is sufficient evidence to conclude that they may be as

purely local as a tooth-ache, but it is well known also that they may, like the latter, depend upon functional or organic derangements of remote organs, or may implicate these as well as adjacent organs, during their progress, when constitutional and local treatment becomes necessary and must be combined.

Many new specific agents have been strongly recommended of late to the profession for whooping-cough and for bronchial cough, both as local and constitutional remedies. I have for some time past tested in my practice some of them in the above diseases. I have reason to think favourably of nitric acid, chloride of strontian, sulphate of strontian, and oxalic acid, but I have not succeeded in curing whooping-cough in a few days with any of them, as their respective proposers appear to have done, nor in bronchial and chronic catarrhal cases have they proved to me more than occasionally useful remedies worthy of the practitioner's attention and an occasional trial, in these diseases, as also in spasmodic affections of the bowels, rectum, and other parts.

There have been numerous other reported tested remedies for the cure of whooping-cough urged upon the attention of the profession—much too nume-

rous and doubtful for special notice ; indeed it would only be a work of supererogation in me to notice them at all, if the chloride, and the sulphate of strontian, and oxalic acid have, in the hands of their proposers been so extraordinarily and uniformly successful as to cure this disease in a few days. I selected some few out of the long list of remedies for trial in hooping-cough, and found them utterly wanting in their ascribed good qualities, but this, however, may have depended upon want of tact in the humble imitator.

The practical rules, and means of treating catarrhal and bronchial cough, which I found personally and in practice most efficient, are, I trust, sufficiently elucidated in the aggregate of this little work, to enable my junior fellow practitioners to test them in their practice. The narrative of my own case is written somewhat diffusively for the purpose of including observations deemed of practical utility.

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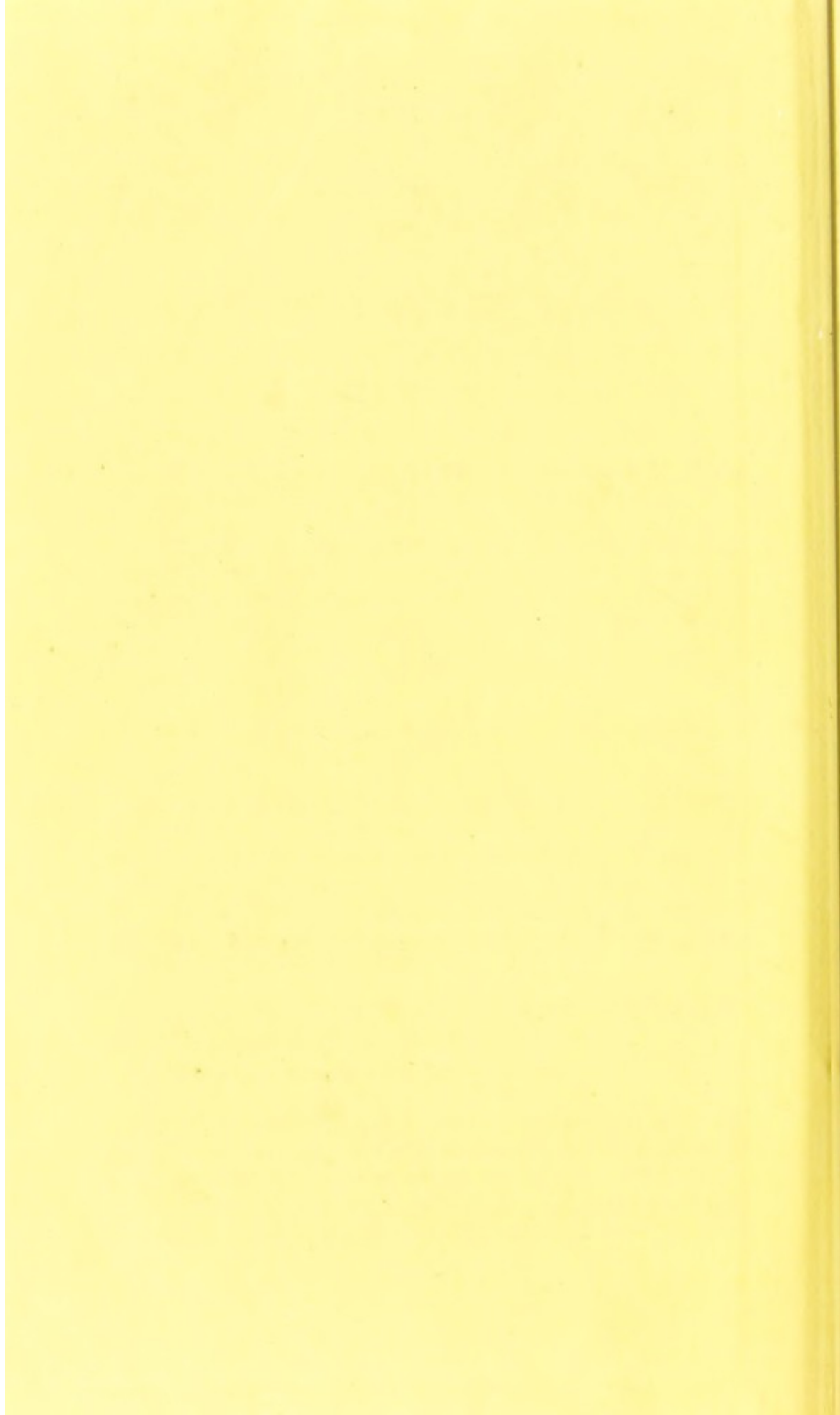
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