

**Remarks on the climate and the principal diseases occurring in Belgium /
by James Milman Coley.**

Contributors

Coley, James Milman.
Royal College of Surgeons of England

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REMARKS ON THE CLIMATE

AND THE

PRINCIPAL DISEASES

OCCURRING IN BELGIUM.

Tr. A.
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REMARKS ON THE CLIMATE

AND THE

PRINCIPAL DISEASES

OCCURRING

IN BELGIUM.

By James Milman Coley,

Physician to the British Legation at Brussels; Member of the Royal Colleges of Physicians and Surgeons in London; formerly Physician to the Western Dispensary and senior Physician to the Royal Pimlico Dispensary and Lying-in-Institution; Fellow of the Royal medico-chirurgical, the pathological and the medical Societies in London; Author of a Treatise on Remittent fever; a Treatise on the Diseases of Children; an Essay on Phlegmonous Erysipelas; on Diseases resembling Cancer; on Diphtherite or putrid sore throat; on Malignant Scarlet fever; on Cholera; on Albuminuria and Diseases of the Kidneys, etc.



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by the
AUTHOR

BRUSSELS.

PUBLISHED FOR THE AUTHOR

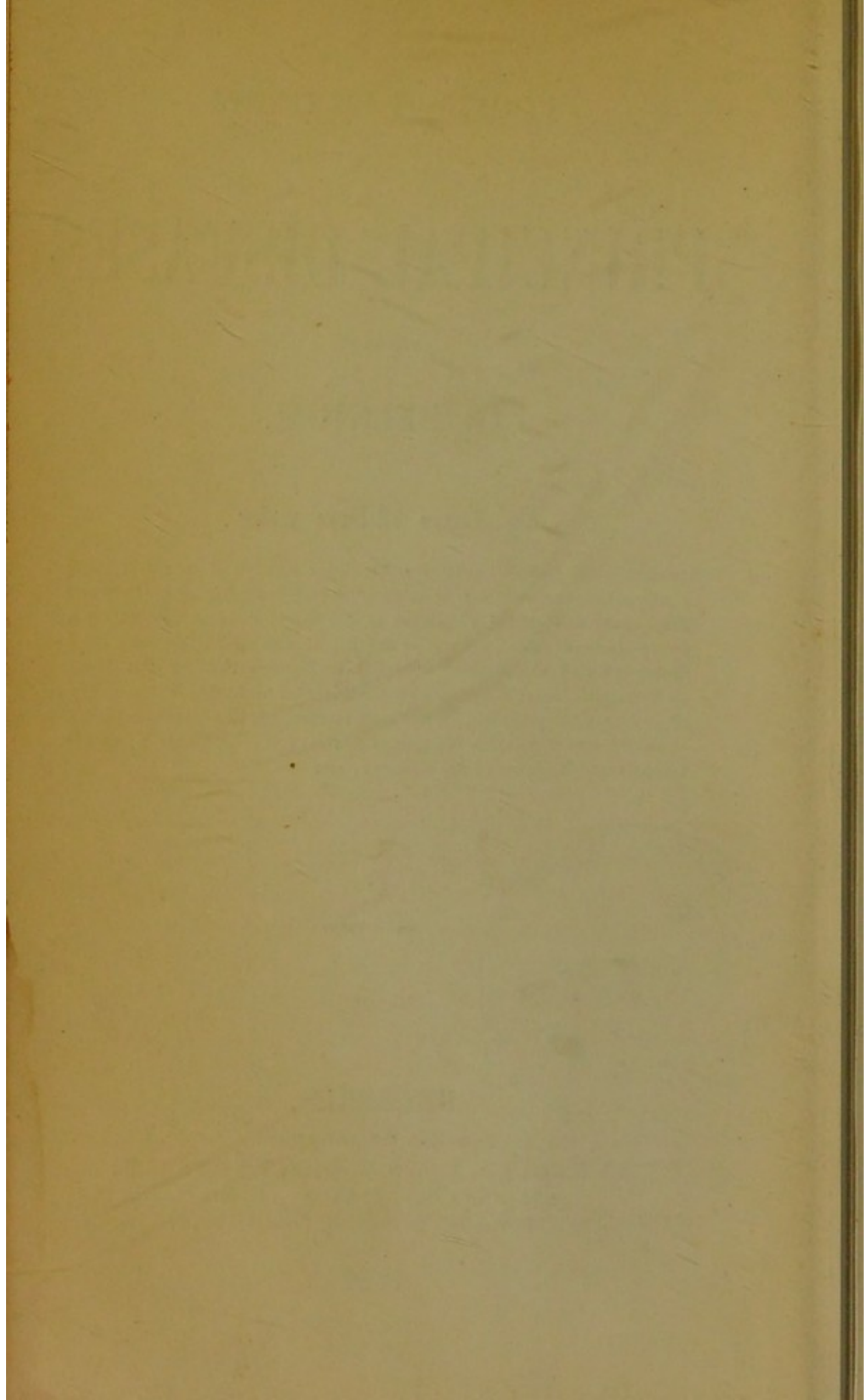
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TO HIS MAJESTY,

Leopold the first,

KING OF THE BELGIANS.

SIRE,

The gracious manner, in which you have been pleased to accept the dedication of the following pages, has conferred upon me a distinguished honor, and the deep interest, which you have always manifested in the welfare of the inhabitants of Belgium in general as well as of Your Majesty's subjects in particular, has encouraged me in prosecuting and presenting to the public a medical topography of some of the principal parts of Your Majesty's kingdom. Under Your Majesty's kind auspices I am induced to anticipate an indulgent reception of my endeavour to demonstrate the connexion existing between the condition of the atmosphere and the appearance of diseases indigenous in certain districts in Belgium and of my observations and sugges-

tions respecting the melioration of the former and the medical treatment of the latter.

Sincerely hoping that Your Majesty's health and mild and happy reign may be prolonged many years and that Your Majesty may continue to diffuse the blessings of peace by a wise and lively patronage of science and of liberal institutions which constitute the solid basis of national prosperity, I have the honor to be, Sire,

Your Majesty's most devoted,
very humble servant,

JAMES MILMAN COLEY.

BRUSSELS,
BOULEVARD DU RÉGENT, N° 4.

January 4, 1852.

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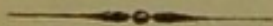
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ON THE CLIMATE
AND THE
PRINCIPAL DISEASES
OCCURRING IN BELGIUM.

CHAPTER I.

General Remarks.

Influence of soil and temperature. Paludal poison. Remittent and intermittent fever. Period of febrile incubation. Remittent fever of West-Flanders. Drainage. Summers and winters in Belgium. Objections to the use of closed stoves. Salutary and economical mode of warming rooms. Diet. Prevalence of scrophula and bodily infirmities among the natives of Belgium. Growth of infants artificially impeded. Difference between Belgian and English constitutions. Reasons why English patients should always be treated by English physicians. Caution respecting wet nurses. Hospitals in Belgium. Singular and improved manner of conducting Inquests on the dead.

The salubrity of every place is dependant on its temperature and the nature of its soil and atmosphere. Hence a dry soil and a temperate region are found in all parts of the world most conducive

to the healthy condition and perfect developement of the inhabitants, and a moist soil and an excessively cold or hot temperature of the air are observed to modify in various ways the growth of the human frame and to expose it to certain peculiar forms of disease. Nothing can afford a stronger proof of the influence of climate in generating particular diseases than the comparative or entire absence of bronchocele in the level or northern parts of Belgium and its frequent occurrence in all the mountainous districts of Europe, especially the Alps, where it is almost universal among the natives. Even in England this disease is most common in hilly counties, as Derbyshire and Shropshire; and in that country it frequently disappears spontaneously from a change of residence to a more low and sheltered situation. These facts are deserving of serious consideration in the choice of a residence both with respect to the prevention and removal of disease; an appropriate habitation being often of more importance than medical treatment.

The surface of the earth in Belgium is generally flat and sandy, excepting in the south, where it is hilly and affords a cool retreat during the hot season; but in many parts, especially in West Flanders, this advantage of a sandy or silicious soil is counterbalanced by its comparative lowness and by its impregnation with morbid elements arising from stagnant water containing animal and vegetable matter in a state of decomposition, like the

neighbouring paludal districts of France and Holland. Originating from this source we sometimes discover fevers subsequently unfolding themselves in dry and healthy situations in Belgium as well as in England, of the remitting and intermitting character, resembling those, which are indigenous also in France and Holland; and a similar occurrence is occasionally observable in persons, who have recently returned from India; but these exotic fevers may always be traced to a previous exposure to malaria; as the period of incubation, during which paludal poison remains dormant in some constitutions, extends to many months. While practising in London, I was requested to visit a young gentleman, who had been in the Indian army and had just returned to England round the cape. I found him suffering severely with a double tertian ague of the same character which a similar attack had presented in India. I also found the disease equally obstinate in Europe as in India; requiring for its cure the same powerful remedies, as were necessary for the removal of the former attack. While residing in London, I was also desired to prescribe for a young gentleman labouring under the same variety of imperfect and obscure intermittent, which had prevailed in the north of France, where he had been living exposed to its influence five months before he had removed to England. The similarity of the disease in England to that, which had existed in France, was remarkable; the

ague being of the tertian species, in which the entire absence of the perspiring stage constituted a well-marked variety peculiar to some parts of the latter country, but not indigenous in England. An English child, who had resided at Bruges some time, where intermittent and remittent fevers are common, was attacked with remittent fever at the end of six months after she had removed with her family to Brussels; and this fever persisted long after the exciting cause, which had unfolded it, had been removed, and required like the Walcheren fever a continued change of residence for its cure. I have been induced to make these remarks from observing that it is a common custom with English families on their first entrance into Belgium to take up their residence in the low districts adjoining the coast; and therefore it is necessary for them to be informed that, for some time after they may have removed to the more dry and healthy locality of the capital, they will be liable to the developement of the latent, endemical disease, which they may have unconsciously imported from their former residence. The Belgian government has lately devoted a sum of money for drainage. From this patriotic measure the public will derive important benefits with respect to their health by a corresponding absence of those elements of paludal poison, peculiar to marshy districts, of which farther notice will be taken in the course of this work.

The summers in Belgium are hotter and the win-

ters colder than in England, owing more to the continental situation of the former than to its geographical position with respect to the equator; and the vicissitudes during the day are more sudden. The variations of heat between the day and the night are however at no season greater than in England; although Fahrenheit's thermometer, exposed to the rays of the sun during the hottest part of the summer, generally rises as high as 96. The extreme coldness, which commonly prevails in this climate from the middle of December to the end of January, renders a comfortable degree of artificial heat necessary in sitting-rooms even for those who are in health; and those who are afflicted with disease especially in the air-passages require an elevated temperature in their bed-rooms. The old system of warming apartments consisted in the combustion of wood placed on dogs in open fireplaces. This salutary mode of diffusing heat has in consequence of the high price of wood been of late almost entirely superseded by the use of stoves, some of which are open in front and others closed. Both these latter modes of warming apartments are objectionable on account of the dry heat, which is produced, having the same injurious effect upon the cutaneous and pulmonary circulation, as it has upon the foliage of plants in a conservatory; and they are deleterious, when the carbonic acid, evolved during slow ignition, is permitted to escape into the room. The bad effects of stoves are not

always perceived at first, but sooner or later they become obvious by head-ache and by loss of the natural complexion of health, occasioned by the decarbonization of the blood being interrupted in the lungs by the want of that due proportion of oxygen and aqueous fluid, which are essential for the maintenance of a healthy condition of the animal and vital functions. When the open stoves are constructed so as to approach the fire-places, these objections are removed; but when they are placed at a distance and a communication with the chimney is effected by a long iron-pipe, they are nearly as mischievous as closed stoves. All the comforts of an English openfire may be obtained and these objections avoided by a simple contrivance, consisting of an iron-frame in the shape of a cradle with cross-bars attached to it, to prevent the coals from falling through, placed upon two dogs at an elevation of three or four inches from the hearth. The free current of air below the bars keeps up a constant ignition, and any degree of heat consistent with health may be produced by adapting the quantity of coals to the dimensions of the room. The English residents therefore, who wish to preserve their health and natural complexions and to prevent disease, should shun closed stoves and adhere, if practicable, to their native use of open fire-places.

The general custom, particularly among the poorer class in this country, of eating stale and

salted fish, large quantities of butter, oil and fatty substances and very little meat, owing to the duty, which artificially causes almost a prohibitory price, and drinking coffee without sugar, vegetable soups and weak, acid beer prepared from oats, deprives the blood of its due proportion of nutritive elements and predisposes to the production of scrophula in its various forms; as rickets, softness of the bones, curvatures of the spine, specific diseases of the joints, the absorbent glands and the kidneys, tubercular and adipose deposits and arrest of developement, especially in the lower extremities. This last defect appears to me to be promoted by the absurd custom prevailing in this and, I believe, in some other parts of the continent, of confining the legs and feet of infants so rigidly as to prevent their exercise and interrupt their growth. Hence it may be observed that, in consequence of these habitual errors with respect to diet and the management and exercise of the children, more disproportioned, deformed and crippled persons are to be seen in the streets in Brussels than in any place of its size in Europe; and hence the diseases arising among the natives of the continent from atmospheric vicissitudes or epidemic influence present a less febrile or inflammatory character than among the English population. From the same cause also the constitutions of the former are found to be more intolerant of the active remedies essential for the cure of the latter; and while the

continental physician is devoting his attention to the administration of ptisans and the rigid prohibition of all nourishment in compliance with an ancient doctrine, founded on a spurious pathology long since exploded in Great Britain, the life of an English patient may be irrecoverably lost. This prevalence of scrophula among the poor, originating in the acquired excess of fatty globules and deficiency of nucleated cells in the blood, is so evident that it may be recognized in the progress of almost every surgical case occurring in the hospitals and in nearly every examination of the internal organs after death; and it would be a subject of deep interest for the study of the philanthropist as well as the medical philosopher to ascertain by statistical experiments the comparative results of English and Belgian diet on the growth and healthy condition of that variety of the human race, which is indigenous in Belgium. This difference in constitution, mode of living, etc., also renders it necessary for the physician, who undertakes the treatment of the diseases of the resident English to have received his medical education and to have lived in England. The same remarks may not apply to other foreigners in Belgium, particularly natives of the continent; as the diet and habits of life prevailing in the adjoining nations approximate in a considerable degree to those observable in Belgium. Hence independently of medical treatment even the diet of an English patient in all ranks of society, when labouring under

accident or disease, requires an intimate knowledge of his national habits, which can only be familiar with the medical practitioner educated among his compatriots. Some persons pretend that English families by dwelling a long time on the continent gradually acquire the characteristic constitutions of the native race. This is physically impossible; and therefore the utmost circumspection should be exercised also in the choice of a wet nurse; for all animal poison remains latent and often unsuspected a considerable time in the blood of the nurse and is frequently developed in the infant, while the former escapes its manifestation. I may likewise add that attempts in any way to mix the breed of different varieties of animals is liable from the same cause to be followed by the generation or transmission of disease. From a neglect of this precaution I have repeatedly observed, in infants during the period of heterogeneous lactation, specific eruptions on the skin, ulcerations in the throat, abscesses in the absorbent glands and other constitutional diseases. As it may not be generally known, I may observe that one certain and uniform consequence of a continued adherence to a diet consisting of salted fish and meat, is such a manifest corruption of the blood, such a morbid change in its elements, especially its fibrine and coagulable lymph, and in the vitality of its red globules and the capillary vessels, that extravasation both of the serum and of portions of the mass of the blood is

found to occur in the skin and the internal, mucous surfaces, constituting the most severe and fatal forms of scurvy. The same result has been repeatedly ascertained to arise from a *deficient supply of animal food* among persons residing in a damp, unwholesome situation, particularly during the prevalence of dysentery or other epidemic affecting the mucous membrane of the alimentary tube and interrupting the process of nutrition.

The opportunities I have taken of making observations on such of the principal localities in Belgium, as I have had occasion to visit, enable me to form, I trust, a correct opinion respecting their comparative salubrity and to point out the peculiar and prominent diseases found in particular districts. These are indeed the chief objects I have had in view; and therefore if it should be supposed by the general English reader that I have not given sufficiently minute directions for medical treatment in every instance, he must give me credit for consulting his own interest; for, excepting when very trifling ailments occur, he will find it the most prudent and economical practice to have recourse to the advice of the best qualified and most experienced English physician in his locality. When the vast expense, long experience and familiar acquaintance with the recent discoveries in science, required to produce a properly educated English physician, are considered, it must be obvious that the responsible duties he is called upon to perform cannot be under-

taken by any non-medical person nor by any one ignorant of the English language, and consequently unconscious of the degree of perfection to which the knowledge and treatment of disease have been conducted in England, where the medical profession is less restrained by ancient prejudices and the dogmata of speculative philosophy than in any other country in the world. On this account it is much to be deplored that the medical students at the universities on the continent are not required to obtain an intimate acquaintance with the English language, which would unfold to their view the advantages resulting from the demonstrative system of medical science insisted upon in England, expose the baseless and exploded theories of Boerhaave and Broussais, still taught by continental, medical professors, and enable them to avoid the error, common with all who are ignorant of our best medical literature, of forming most incorrect and often ludicrous opinions respecting British medical writers and practitioners, whereby they frequently confound empirics and authors of no reputation with men of first rate talent.

My observations on the medical topography of Belgium would have been incomplete, had I omitted to notice the hospital accommodation provided throughout the kingdom for the relief of the sick and infirm poor. No country, compared with it in extent, can boast of a greater number of charities of this nature; as every city and every considerable

town in Belgium possesses a hospital for the poor citizens or burgesses, as well as a military hospital, wherever there is a military station. The advancement of medical science is however much retarded by the want of professional competition at these institutions, occasioned by the custom of limiting the number of medical officers to one physician and one surgeon to each. At the hôpital St.-Pierre in Brussels, containing about 160 beds, an additional surgeon has been lately appointed; while only one physician and one surgeon are attached to the large hôpital St.-Jean, which contains 450 beds.

The reason, which has been given to me for an adherence to this custom, is that every medical officer being paid a fixed salary for his services, it has been considered that a division of the stipends among additional physicians and surgeons would so far reduce the sum received by each, that there would not be a *sufficient inducement* for them to discharge their duties in an efficient manner. This inadequate number of physicians and surgeons and this want of stimulus to scientific exertion at the Belgian hospitals are not attributable to any deficiency of zeal or benevolent intention on the part of the government, the trustees or the municipal authorities, who are always ready to assist and contribute towards the support of every public charity; and if this limitation of medical appointments were effectually discouraged and resisted, there would always be found, as in other countries, a sufficient

number of candidates ready to enter into honorable competition.

The convalescents in the Belgian hospitals are permitted to amuse themselves with playing cards; and in general covered walks are provided for them for exercise in the quadrangles, which are rendered attractive by a flower-garden in the centre of each.

At the metropolitan *military hospital*, where clinical instruction is given every morning, an excellent arrangement is observed respecting the army surgeons, by which they are all required to attend in rotation at the hospital, with the view of insuring to the army distributed in the different divisions of the kingdom the benefits arising from improvements communicated to, and practised at the central military establishment.

At the hôpital St.-Jean in Brussels pathological demonstrations, to which every qualified, medical gentleman may have access, are given every morning. The room, in which these demonstrations are conducted, is one of the most commodious I have anywhere seen. A short record is kept by the demonstrator of every investigation.

All the hospitals in Belgium were formerly erected, as in other parts of Europe, in the most convenient situations, without regard to the healthiness of their localities. In the founding of modern institutions attention has been paid to the soil and a proper elevation secured, to obviate the effects of damp and malaria.

The old bedsteads of the provincial hospitals are composed of wood, but the modern ones are made with iron, either with flat sides, or in the same manner as those in English hospitals. The patients repose on comfortable mattresses placed over straw-paillasses. In short every thing is observable in these establishments, which Christian charity can suggest, to relieve and benefit the patients; and in Brussels and other places these institutions are rendered partly self-supporting to aid and extend the funds, which principally arise from perpetual endowments and charitable bequests. The sum paid by each self-supporting patient at the hôpital St.-Pierre is from 1 franc 50 centimes to 2 francs a-day; and a private apartment in a pleasant part of the hospital may be obtained by the payment of 4 francs a-day. The payments required from this class of patients at the hôpital St.-Jean vary from 4 to 6 francs a-day; and the charge made for the support of each indigent foreigner admitted into either of these hospitals is one franc and a half a-day.

In some of the provincial hospitals I have found an intelligent, resident pharmacien or house-apothecary, and in others a house-surgeon; but in no instance have I observed more than one physician and one surgeon appointed to any of the Belgian hospitals, excepting that of *St.-Peter in Brussels*, before mentioned.

The wards in all the hospitals are heated by stoves, but they are in general too hot and badly ven-

tilated, excepting those in the new hospital at *Louvain*, which are better constructed in every respect than any I have seen in this or any other country.

In this admirable institution, which is designed for the benefit of medical science in connexion with the university, as well as for the dispensation of Christian charity to the sick and infirm poor, the two largest wards are warmed by a stove of a peculiar construction in the centre of each, the invention of the ingenious architect, M. van Arembergen. By means of these an agreeable warmth is diffused, and hot water constantly provided at a convenient elevation for the immediate preparation of warm baths and vapour-baths of every description. The large reservoirs containing the hot water are heated by fires placed at a distance below them and by four tubes, passing through the water and conducting hot air. These tubes are accompanied by 4 steam-pipes proceeding from each reservoir; which furnish the wards with aqueous vapour, when the warm air introduced into them is found too dry or in any manner unpleasant to the patients. The most perfect and imperceptible ventilation is also accomplished by apertures in the centre of the floor of each of the large wards and corresponding openings in the ceiling, which, communicating with the open air, carry away all unpleasant odour and render the atmosphere of the wards as pleasant as that of any private drawing-room. The ventilation is thus effected so perfectly that there is

never found any necessity for opening the windows; and hence phlegmonous erysipelas, resulting from the obnoxious practice of admitting currents of cold air by open windows in other hospitals British and foreign, is avoided (1). One of these large wards is appropriated to medical and the other to surgical cases; six of the smaller ones to cutaneous diseases; four to patients who have submitted to operations; twenty beds are reserved in other wards for fevers and twelve for the maladies of children. There are also four separate wards for sick prisoners removed from the prison and nursed by sisters of charity, specially devoted to that occupation. Cases of pulmonary consumption are inadmissible, and such as are found incurable are discharged. In one of the wards gratuitous advice is given to outpatients, who consist not only of the Belgian poor, but also of such indigent foreigners as are able to attend at the institution; and those, who wish to enter the hospital as self-supporting patients, are allowed that privilege on the payment of one franc twenty-five centimes a-day. An operating and a pathological theatre and two rooms for dissections are also provided as well as numerous drains, which latter are constructed in so excellent a manner that no annoyance ever proceeds from them and, when requisite, the smallest object, lost or

(1) For the etiology of this disease see an essay on *phlegmonous erysipelas* by the author. *Lancet*, n. 7 and 8, p. 44.

and almost immediately joins the small river, Dyle, whose water is continually and rapidly running to, or receiving a fresh supply from the Ocean. One large, lofty ward is on the ground-floor, which is constructed with small bricks. On the ground-floor also is a large room intended for the meetings and the use of the feoffees, corresponding with the board-room of our modern institutions. The floor is composed of bricks and the walls are hung with ancient and interesting pictures relating to works of Christian charity and beneficence. The other wards are smaller and on an upper story, and these are also floored with bricks; and all the wards are very lofty and ventilated by small windows placed at a great elevation. The number of beds is 100; a large quantity, considering the present population of Malines. One physician and one surgeon who constitute the medical staff, attend daily, and consultations, when required, are held by them with the medical officers of the military hospital. There is no house-surgeon nor apothecary; the sisters of charity, who are always in attendance, and three non-medical "aides" or assistants, who attend twice a-day, officiating instead of a resident, medical officer.

The hôpital bourgeois in the large city of *Ghent*, formerly the capital of East Flanders, is situated in the very worst part of the place; the ground adjoining it, as well as that on which it stands, being constantly saturated with water derived from the numerous, stagnant canals, which intersect the

streets in every direction. The building was originally intended and used for religious purposes and consequently every ward is on the ground-floor and paved with bricks. It contains 140 beds and has a resident and *well-informed* house apothecary, who appears to officiate also as house-surgeon. At this hospital I was gratified to find the practice adopted and in operation with success, which I had introduced and published, when resident in London, for the prevention of the marks left by confluent small pox; and the house-apothecary was no less pleased to discover that I was the author of the publication. Here, as may be expected, from the constant exposure of the inhabitants of Ghent to malaria and from the improper situation of the hospital, I found dysentery, intermitting fevers, inflammatory typhus, apoplectic fever and neuralgia constantly prevailing both in and out of the hospital; whenever a peculiar condition of the atmosphere favors the developement of the latent, indigenous pestilence.

At *Antwerp* the hôpital bourgeois, which is a large and very old building, contains 450 beds. The wards are most imperfectly ventilated and consequently too hot. The patients are not classified, but placed in the wards promiscuously, without reference to the diseases. I saw in the same wards cases of contagions, eruptive diseases and typhus interspersed with ordinary and non contagious complaints. Dysentery and inflammatory typhus are

purposely secreted in them, may be discovered and restored in a short space of time without any expense or difficulty. Every thing offensive is immediately removed by an aqueduct, which passes under the hospital and forms a communication between a branch of the river Dyle and the parent-stream, running near the back part and the front of the building. Beneath the large hall vegetables planted in October are preserved for the use of the establishment during the winter in a cellar constructed as a winter-garden. There is a resident apothecary besides a resident house-surgeon; and the pupils, each of whom has the care of some of the in-patients in rotation, are required to produce a daily account of the progress of the diseases and explain to the physician and surgeon any change of treatment, which new symptoms may indicate. Clinical lectures are delivered and pathological instructions given in the French language by the present physician and surgeon, Dr Craeninx and Dr Michaux, and Latin is taught to a certain extent in the University; but unfortunately for the cause of medical science, as I have remarked before, the English language is entirely neglected and the rich mines of knowledge connected with British medical literature of the last half century remain unexplored. The total number of beds, when the hospital is finished, is intended to be 250, when a small private ward and a separate nurse may be procured in the establishment by any one preferring the hos-

pital to an hotel during an illness and paying for such accommodation. The entire cost of this large and commodious hospital will not exceed £ 4,000 sterling, which sum is not more than one third of that commonly expended in the erection of a county-infirmary in England, adapted to contain only one half of the number of beds.

Having drawn attention to this new hospital at Louvain, I may add that partly in consequence of the success obtained in warming and ventilating the wards and partly from the natural dryness and salubrity of the city, typhus rarely occurs and is never found to be connected with ulceration in the intestines, the usual result of dysentery. The city is equally exempt from intermittent fevers.

The hôpital bourgeois at *Malines* is one of the oldest in Belgium, having been erected in the 15th century. It was built on purpose for the diseased and infirm poor of this ancient city and is deserving of inspection both on account of its antiquity and as affording a proof of the innocuous effects of a running stream in contradistinction to the pestiferous influence exercised on the human constitution by the proximity of stagnant water, which is always more or less a nucleus for the generation of carbureted hydrogen and other gases obnoxious to human life, resulting from the decomposition of vegetable or animo-vegetable matter, with which it becomes naturally saturated. This hospital stands on some of the lowest ground in Malines

frequent at this hospital, and ulceration in the ilium a general consequence of these diseases.

It would be useless for me to extend my observations to all the provincial hospitals, as the principles on which they are conducted prevail throughout Belgium; the primary object being to secure *paid medical officers* to attend the sick poor, and not as in England to provoke scientific researches and discoveries by the active competition of gratuitous and honorary, professional services.

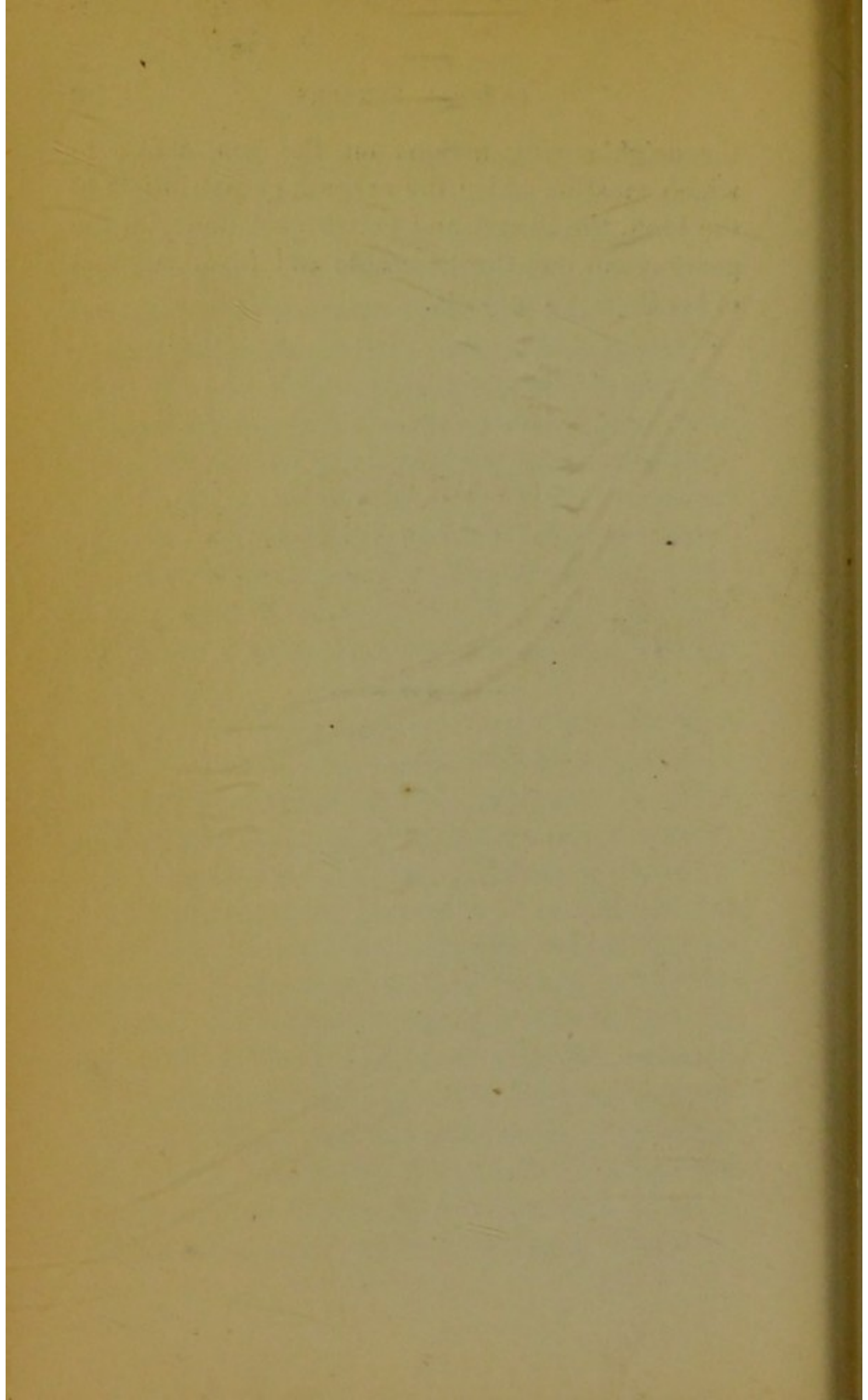
Although it may not be considered to be strictly within the limits of a work principally devoted to medical topography, I must not omit to mention a peculiar and admirable species of inquest which has been introduced with most satisfactory results in Belgium during the last eight or nine years. It has been the custom in this country, I believe from time immemorial, for the interment of the bodies of the dead to take place within twenty-four hours after death; in consequence of which some instances have formerly occurred of persons being interred or carried to the grave before life was extinct. To prevent such a shocking event in future, an excellent expedient has been adopted, namely the appointment of medical officers, whose duty consists in a careful examination of every body reported to them to be dead, before interment can legally be performed. This office has been discharged at Brussels ever since its institution in the most honorable, faithful and diligent manner by my worthy

friend, Dr. Verstraeten, who devotes four hours every day, Sunday excepted, at the hôtel de ville to receive and record reports of all the deaths and births within the city, and personally visits the habitations where these occurrences take place. When his examination of any dead body and his inquiries induce him to believe that a *coroner's inquest* is required, he transmits his report to the procureur du roi, who holds his inquisition either in person or by proxy in the same manner as the coroner in England. By this simple and satisfactory arrangement the public are assured that death has really taken place in every instance, before any funereal preparations are made, and unnecessary inquests are avoided.

In concluding these general remarks, I think it proper to observe that, notwithstanding the humidity and consequent malaria occurring in some districts of Belgium and the severity of the winter, together with the pernicious influence of the easterly wind prevailing generally at certain seasons as on other parts of the continent, health may be preserved by occasional change of abode and by the adoption of the same ordinary precautions with respect to dress, temperature and the selection of a residence, as are required in other parts in the north of Europe; and this country possesses peculiar advantages to the resident English arising from its proximity to England and its freedom from those political revolutions, which have lately convulsed

the neighbouring nations on the continent ; to which must be added the exemplary patriotism of the king, the liberal and enlightened policy of the government and the peaceable and loyal conduct of his Majesty's subjects.





CHAPTER II.

*Brussels. Laeken. Anderlecht. Malines. Antwerp.
Louvain. Ghent. Spa. Namur. Dinant. Liège.
Bruges. Ostend.*

BRUSSELS.

The soil on which Brussels stands, and which extends in all directions round the city, is a deep bed of whitish sand, especially in the most elevated parts, where the modern houses have chiefly been erected. On this account it may be considered one of the most eligible situations on the continent as a permanent residence; the porous quality of the earth, excepting in the lowest parts of the place,

rendering the atmosphere dry and free from those malarious exhalations, which vitiate the air in so remarkable a manner in the unwholesome districts before mentioned. The lower parts of the city are crowded with narrow streets, subject to frequent inundations of the turbid river, Senne, and are consequently damp and unhealthy; and these natural disadvantages are artificially increased by the fish-market, which extends its poisonous effluvia in all directions. This market is unfortunately so situated and constructed as to promote the premature death and decomposition of the fish and to insure a supply of pestilential emanations. Not only are the fish struck dead in the summer-season by the scorching rays of the sun in the exposed parts of the market and dried like mummies, but such as are quite unfit for human food, with gills and opaque eyes indicating dissolution, are exposed for sale, endangering the safety of all, who partake of or approach them. The former of these objections may be removed by the construction of a suitable covering, and the latter by the forfeiture of all offensive fish and by their removal to some safe, public depository, where they may be burnt or disposed of for manure by officers of health appointed for the purpose; and, if the trade in sea fish were thrown open, the city-duties removed and free competition permitted and encouraged, as it is in England, with respect to all the necessaries of life, Brussels may be abundantly supplied with whole-

some fish at a moderate price, and *a manifest melioration would soon be perceptible in the physical condition and mortality* of the labouring population, by the consequent decline of scrophula, typhus-fever and cholera. The developement of phosphorus and nitrogen from the decomposition of dead fish poisons the surrounding atmosphere by disturbing the due proportion of its pure and natural elements, especially in hot weather, and generates an aerial poison, which, entering the circulation through the lungs of those exposed to it, contaminates the blood and produces cholera, or typhus-fever of the worst description. From this and other sources of animal poison of a similar description most of the bad cases of fever arise, which are found in the large hospital of Saint-John in Brussels; the post mortem appearances in the intestinal canal in almost every instance indicating characteristic evidence of the malignancy of the disease. This is a subject deserving the serious consideration of the public authorities. The Belgian government has during the late session of parliament devoted a sum of money to be expended in drainage for the purpose of improving the public health, and is continually affording encouragement and support to measures intended for the benefit of the people; and therefore I am inclined to hope that the octroi or tax on the sale of fish, meat, coals, beer, wine, brandy and all other necessaries, *notoriously affecting the health, nutri-*

tion and physical developement of the inhabitants, will be removed.

Fogs seldom occur in this or any other part of Belgium, excepting in the marshy localities near the coast; and the atmosphere contains so little moisture that dews are scarcely if at all observable even during the hottest weather.

The easterly wind, as on other parts of the continent, prevails more or less during the latter end of winter and through the spring, generating inflammatory diseases, particularly in children and persons advanced in life. Hence among the former appear muguet, diphtherite or putrid sore throat, simple or specific inflammation in the bronchial glands, the bronchial mucous membrane, the lungs or the pleuræ, purulent or catarrhal ophthalmia and erysipelas; and among the latter as well as adults bronchial and pulmonary inflammation, rheumatism, gout, neuralgia, simple and phlegmonous erysipelas and various diseases of the eyes. The maladies peculiar to autumn are the same as those which are met with in other parts of Europe, vulgarly and erroneously denominated *bilious*; as diarrhœa, dysentery, European cholera and fevers symptomatic of different forms of inflammation in the mucous membrane of the stomach and intestines.

The heat, which usually occurs in Belgium at mid-day during July and August, is particularly oppressive in Brussels, where in addition to a

cloudless, blue sky the burning rays of the sun are reflected so powerfully from the white houses in the squares and most of the spacious, modern streets, that all, who have not been accustomed to it, experience great inconvenience and sometimes injury in the organs of sight. The rue Royale, the place des Palais and the rue Ducale are from their position especially remarkable for this annoyance. On the contrary, the shady walks on the boulevards de Waterloo, du Régent and de l'Observatoire, and the beautiful park near the royal palace present a constant protection against the sun's rays and a cool retreat at all times, even during the hottest part of a summer's day. At this season it is customary for the fashionable world to resort to the sea-coast or the hilly parts in the south of Belgium, as Spa, Dinant, etc. Those however, who cannot conveniently leave the capital, may render a residence in it perfectly comfortable by excluding the hot air from their apartments by Venetian blinds placed outside their windows and by establishing judicious ventilation on the shaded sides of their residences. Although I recommend ventilation during the hot weather at Brussels, I am decidedly opposed to it in the winter-season, or whenever the temperature of the external air is much below sixty degrees of Fahrenheit's thermometer, particularly when the apartment is artificially heated.

The spring-water, with which Brussels is boun-

tifully supplied, is very pure; being free from all injurious, saline ingredients, and holding in solution principally carbonate of lime, commonly found in most of the springs of England.

With respect to Brussels as a residence for invalids, I may say that those, who are labouring under pulmonary consumption or any specific disease in the air-passages, or who are subject to bronchitis or catarrhal or rheumatic ophthalmia, or to other inflammatory diseases of the eyes or to enlargement of the tonsils or lymphatic glands, the capital of Belgium will not be found a favourable residence during the cold season; particularly if their physical education has been conducted on the erroneous opinion that exposure to currents of cold air has the effect of invigorating a delicate constitution. The physician therefore, who is acquainted with the invincible prejudices and habits of the patient in favour of heated rooms, open windows and thin evening dresses, should not advise for such an invalid an abode in Brussels during the cold season. On the other hand, the dry air of this place will enable the invalid, who in England is a constant sufferer with humoral asthma, to enjoy comparative comfort and freedom from his customary attacks; and those afflicted with bronchocele would derive important benefit and probably a cure by a residence at all seasons in Brussels or any part of the north of Belgium, where the soil and the surface are equally dry and level.

As to the *villages* in the immediate neighbourhood of Brussels, those of *Laeken*, the residence of His Majesty, and *Anderlecht*, are remarkably healthy on account of their elevation, the absence of stagnant water and the dryness of the soil. The latter place, which it is said derived its name from a compound Flemish word, signifying "another change," has always been distinguished for its salubrity and from time immemorial frequented by invalids requiring "change of air" from the lower and unhealthy part of Brussels. According to tradition it consisted originally of a few scattered cottages, until it acquired celebrity by an immense influx of inhabitants from Brussels, seeking a refuge from an epidemic pestilence raging in that capital. The good effects experienced by the removal of the sick from the poisoned to a pure, dry atmosphere soon became manifest; and many of those, who thus escaped the fury of the epidemy, erected houses and established themselves in their new locality, founding a large village on the site of an insignificant hamlet.

MALINES.

This place is situated in a flat part of the country and is surrounded on all sides by land rendered constantly moist by an under-stratum of water, presenting itself in every direction in small pools and watery ditches. Nevertheless the city, which is

very clean and dry, is healthy and, on account of its proximity to Brussels and the cheapness of the necessaries of life, is a resort for several English families, who appear to enjoy good health. The salubrity of Malines under the circumstances just mentioned may be attributable to the afflux and reflux of the tide, which rises as high as from eight to twelve feet and keeps up a regular intermittent current of fresh air; to which may be added the remarkable effect produced by the tower of the cathedral, the loftiest in Europe, which my friend, M. Daveney, who has resided at Malines many years, assures me occasions a continual circulation of fresh, cool air even in the hottest days of summer. I have myself in company with M. Daveney several times during the hot season perceived this extraordinary current of air on approaching this elevated structure, which, rearing its summit 500 feet above the surface of the adjoining land, receives and transmits through its hollow sides immense volumes of rarefied air from the upper stratum of the superincumbent atmosphere. The same effect in a minor degree is produced by the towers of St.-Gudule in Brussels and St.-Paul in London. It is probable that the unceasing supply of pure, fresh air from these sources preserves Malines in a healthy state by so diluting the miasmata arising from the adjoining land as to render them innocuous. Hence the quotidian and tertian agues, which are so common in West Flanders, are never

found to originate at Malines. The numerous, large, private gardens, the immense squares or places and the extensive, botanic garden, which is laid out with great taste and accessible to every inhabitant by the annual payment of a very small sum, contribute much to assist the purification of the atmosphere by their central position and by the alternate, nocturnal inhalation and diurnal evolution of oxygene, effected by the foliage of the garden-plants and trees; a property inherent in the vegetable creation and designed by nature to promote the repose and save the expenditure of animal life, during the abstraction of the sun's rays, and by the light of that luminary on each succeeding day to renovate the surrounding atmosphere, by restoring its due supply of vital air for the support of the various animal functions of mankind and all other beings, possessing a pulmonary circulation.

ANTWERP.

The vicinity of this place to Holland and the stagnant water in the docks and moats combine to render it often the seat of intermittent fevers and of the varieties of inflammatory typhus, which prevail in West Flanders. Dysentery is less frequent than at Ghent and Bruges and consequently ulceration in the glands of the ilium is a rare occurrence at the large hôpital bourgeois, where it would be found among the poor citizens, if

it existed at Antwerp. The atmosphere is subject to sudden changes of temperature produced by the strong currents, proceeding from the river Scheldt; and fogs are frequent during the latter end of autumn and the winter-season. These sudden changes and strong currents in the atmosphere are obnoxious to all, who are subject to diseases in the lungs or to acute or chronic, bronchial inflammation; and Antwerp would not be a proper residence for those, who are liable to enlargement of the tonsils, ulceration in the throat or fever connected with muco-gastric inflammation.

LOUVAIN.

This ancient city, formerly celebrated for its University, is exceedingly healthy; the soil, on which it is built, as well as that of the surrounding country being dry and sandy. The rue Flemincks, which is the principal resort of the English, is particularly, quiet and retired as well as salubrious. In front of this street is a neat avenue affording a pleasant shady walk for the exercise or amusement of the inhabitants. The beer, for which Louvain is famous, is a very wholesome beverage; being free from the acidity, which is always found in the beer at Brussels and other parts of Belgium, and being replete with carbonic acid, which renders it peculiarly cool and refreshing. In proof of the healthiness of this place, I found that inflammatory

typhus is exceedingly uncommon at the hospital for the poor citizens, and I believe ulceration of the intestines has seldom if ever been discoverable in connexion with that disease, as I have before stated, when speaking of the new hospital and the advantages resulting from the improvements introduced in the system of warming and ventilating that establishment.

GHENT.

I can by no means recommend Ghent as a healthy place of abode; the numerous canals with their still water everywhere intersecting the city and producing a constant supply of malaria, which engenders intermittent fevers, neuralgia, dysentery and inflammatory typhus. Agues here observe almost invariably their regular stages and the tertian form; and the intermittent, apoplectic fever is not so common as in West Flanders. A variety of this apoplectic fever is found here, denoted by *continued stupor*, alternating with quotidian, evening delirium, and terminating in cerebral inflammation, abscess and softening of the brain or cerebellum. This was the fever, which proved so fatal to the British army stationed at Ghent more than a hundred years ago, when it acquired the name of the malignant or putrid fever, on account of the eruption of petechiæ and the ulcerations in the bowels discovered after death and then supposed to have been produced by worms, which happened

accidentally to be found on dissection. This and the other variety of apoplectic typhus commence with a depressed pulse, denoting congestion of the cerebral vessels, which speedily terminates in decided inflammation of the brain or cerebellum; when the intermitting character in the one and the evening exacerbation, or obscure intermission in the other form of the disease are subdued and superseded by the unresisted developement of the inflammatory process. In all fatal cases of inflammatory typhus the same pathological appearances are observed in the lower end of the small intestines at the hôpital bourgeois as are found in all parts of West Flanders, where paludal poison contaminates the district and generates dysentery succeeded by typhus. The uncomplicated, intermittent fevers and all cases of periodical neuralgia are cured by full and frequent doses of disulphate of quina, and the intermittent, apoplectic fever submits to the same treatment, when commenced immediately after the termination of the first paroxysm. All these fevers are apt to attack strangers in preference to the native inhabitants, who by constant residence and the habitual inhalation of the aerial poison are less prone to manifest its sensible, morbid effects. The upper part of Ghent, especially Saint Peter's hill, is situated on higher ground than the lower and it is consequently much more healthy: indeed the difference is so great that, when that part of the British army, which had been located in the lower,

was removed to the upper portion of the city, the troops recovered from, and escaped future attacks of the epidemic, while they remained in this more dry and healthy quarter. It must be observed that both varieties of apoplectic typhus commence with fever of an intermitting character, which in one of them declares itself by obvious and in the other by obscure symptoms of intermission, which are overlooked, until the cerebral disease has acquired such an ascendancy and become so established as to resist the specific operation of anti-periodical remedies and to hurry the patient prematurely to his grave.

SPA.

This place, so much frequented formerly on account of its springs, which during the infancy of science were believed to possess the miraculous power of removing all kinds of ailments, to which human nature from the king to the peasant is liable, and of late resorted to by the votaries of fashion and of the gambling table, or by those, who require a continual change of scene to render life tolerable, affords a very agreeable, temporary retreat during the summer-season; the romantic scenery in the neighbourhood, the habit of early rising, the morning excursions and the regular and rational periods observed for taking food concurring to improve the physical vigour and animal spirits of all, who are not insensible to the charms of na-

ture. The comparative altitude of this part of Belgium insures a pure state of the atmosphere and presents a contrast with the more low and flat portions of the country, which is not only pleasurable to the sight, but conducive to the restoration of health, especially to those, who labour under obstinate remittent fever generated in the paludal districts, and enlargement of the spleen, resulting from repeated attacks of ague. Other diseases also, which are relieved by a change from a malarious to a dry and more healthy locality, manifest an improvement or a cure during a sojourn at Spa in the summer-season; particularly remittent neuralgia, muscular rheumatism, chronic bronchitis and functional derangements of the nervous system.

With respect to the mineral springs, which are found in the town and neighbourhood, according to the analysis of Struve, Dardonville and Manheim, the principal, active ingredient is iron held in a state of solution by an excess of carbonic acid, the largest proportion of which is met with at the Pouhon. The carbonates of lime, soda, magnesia and alumina and other ingredients are unimportant, and the sulphates are in proportions too minute to have any sensible operation. The chief recommendation therefore, which the Spa-waters possess, is the carbonic acid found in combination with the iron, which, rendering the latter soluble and more agreeable to the stomach, may be taken with less reluctance and for a longer period than any other

chalybeate. These waters may on this account be had recourse to with advantage *after a regular perseverance* in the use of the more active and certain preparations of *sesquioxide, citrate or sulphate of iron*; but it would be absurd to expect anæmia, neuralgia, chorea or any other disease, requiring full and proper doses of steel, to be completely removed by the inefficient quantity of that mineral contained in a state of solution in any spring. Although the quantity of iron found in the Spa-waters is too insignificant to be relied upon alone for the cure of any disease, for which the exhibition of steel is indispensable; yet it will be found sufficiently active to do mischief, when taken indiscriminately by those, who are afflicted with inflammatory diseases or organic affections of the heart or arteries or the brain; and therefore great circumspection will be required in its use, which should never be commenced without the advice of an experienced physician. The encomia, which are usually published by interested persons to invite the public to partake of the amusements of a watering place, are always more or less empirical and unscientific; and it would be a waste of time for me to expose, except in a general way, the dangers incurred by the credulous, attracted solely by what they read or hear respecting places of this description. I have already explained that the diseases, for which the Spa-waters are specially adapted, are such as proceed from a deficiency of

red globules and fibrine in the blood. These are always relieved by the stimulating effects of chalybeate waters. On the contrary, for hemiplegia, epilepsy and other convulsive affections, arising from organic disease in the nervous centres, these waters should be strictly forbidden as well as for all organic diseases in the heart and arteries, and for cerebral congestion and what is commonly called determination of blood to the brain or cerebellum. When proper caution is not observed in the treatment of this class of diseases, sudden death from pulmonary or cerebral apoplexy or from the bursting of an aneurism may be expected to result. There is only one species of paralysis, for which it is safe and proper to employ these waters, which is rheumatic palsy, unconnected with enlargement of the heart and structural derangement in the valves of that organ. Pulmonary consumption and other forms of tuberculization will be aggravated by their use; and it will be hazardous to employ them during or immediately after an attack of gout or acute rheumatism; as will be obvious to every physician conversant with the pathology of the heart and brain in connexion with those disorders. The infirmities in the joints, left by repeated attacks of arthritic inflammation, will be greatly relieved by the artificial warm baths at Spa; but it must be observed that the natural hot baths at Aix-la-Chapelle are much more efficacious.

The springs at the Old and New Tonnelets differ from the others found in the neighbourhood of Spa by the presence in the two former of sulphureted hydrogen gas. This is however in so minute a quantity as to be scarcely discoverable and therefore the waters possess no curative property with respect to the cutaneous diseases, for the relief or removal of which the baths at Aix-la-chapelle are so famous.

BRUGES.

The situation of this place is so low that the soil is in a constant state of saturation with stagnant water. Hence, although the current of the water in the canals is less stagnant than at Ghent, the decomposition of animo-vegetable matter going on beneath the surface of the sandy, porous earth, is a continual source of malaria, which produces an endless succession of fevers of the intermittent or remittent character, that peculiar disease called apoplectic fever, dysentery and inflammatory typhus. Diphtherite and inflammation in the mucous membrane of the stomach and bowels are also frequent, and European cholera is prevalent in the autumnal season, when the variation of temperature is remarkable. The humid and malarious condition of the atmosphere thus renders Bruges one of the most unhealthy places in Belgium, and therefore it is not adapted for the residence of those who are subject to intermitting diseases, to neu-

ralgia, gout, rheumatism, bowel-complaints or humoral asthma. The unhealthiness of Bruges, like that of Ostend, is much increased by the offensive effluvia arising from the contents of the night-carts, which, diffusing a periodical supply of pestiferous elements, is a principal cause of the typhoid character presented by inflammatory diseases, especially in the alimentary canal.

OSTEND.

This town is much frequented during the summer-months by invalids and others, who desire to enjoy the breezes from the open sea and the bathing, which is very convenient. The natural healthiness of the place is however greatly deteriorated by the pest-carts, which circulate through the town every night, and by the morbidic emanations proceeding from the fortification-ditch, which is permitted during the hot weather to generate such an excess of carbureted hydrogen as occasions it to be most offensive to those, who take exercise on the digue, especially when the wind blows in a certain direction. By proper precaution and management this latter nuisance may be entirely or in a great degree obviated; and, if these objections, which I have mentioned, were removed, Ostend would become a very desirable and salutiferous place of resort for those, who are induced to seek the coast for the benefit of their health. Like all other sea-

coasts, it is not a safe locality for the residence of invalids afflicted with incipient pulmonary consumption or with any other form of internal, chronic inflammation, simple or specific, nor for those, who are labouring under active gout or rheumatism; and the same objection is applicable to sea-bathing for all such patients. Convalescents, seeking a restoration of health after the termination of a debilitating disease, and all, who possess a constitutional susceptibility with respect to malaria, should strictly avoid exposure to the current of the poisonous air, when the wind blows from the town; as temporary feebleness and congenital aptitude expose such persons to the danger of inhaling the elements of future disease, which may sooner or later unfold its paludal origin.

NAMUR.

This large manufacturing town holds out no attraction even for a temporary abode, excepting for such invalids as are labouring under that variety of spasmodic asthma, which is found most tolerable, where an excess of carbon is found constantly floating in the atmosphere.

DINANT.

This beautiful village affords a healthy and quiet retreat during the summer, when it is much frequented by the admirers of the bold, natural sce-

nery almost every where abounding in the course of the river Meuse.

LIEGE.

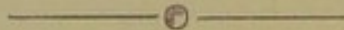
The large city of Liege, which is seated on the banks of the Meuse in the form of a basin, is desirable as a residence during the summer on account of the beauty of the adjacent scenery and the current of fresh air constantly kept up by the river. Hence it may be resorted to with advantage by those, who can appreciate the attracting scenery in the neighbourhood and desire to renovate their health by exchanging the monotonous and exhausting routine of fashionable life in the metropolis for the cheerful and invigorating amusements and pursuits, to the enjoyment of which this charming part of Belgium invites the visitor.

During rainy seasons the low parts of Liege adjoining the Meuse are subject to frequent and extensive inundations, which produce malaria and periodical visitations of inflammatory typhus. The large squares and streets situated on the more elevated portions of the place are in a great measure exempt from the influence of these local epidemics, which always establish themselves most evidently, where the atmospherical poison is most concentrated.

CHAPTER III.

Diseases of the Eyes.

Catarrhal and purulent ophthalmy. Ectropium. Opaque cornea. Pustular ophthalmy. Cod-liver-oil. Chronic inflammation of the retina. Amaurosis.



1. CATARRHAL OPHTHALMY.

Persons at all ages here as in England are subject to this affection, which consists of inflammation of the mucous coat of the eye, denoted when severe by swelling and deep, red colour of the upper lids and discharge of thick, yellow purulent matter, terminating in ulceration and sometimes sloughing of the cornea, which becomes opaque and is often ultimately disfigured also by proptosis or staphyloma.

Purulent ophthalmomy of infants.

This is a modification of the above disease arising from imprudent exposure to a cold or easterly wind or to some carelessness of the nurse. It was formerly attributed invariably to inoculation of morbid matter. Its primary symptoms however, its frequent association with muguet or some other form of inflammation in the mucous membrane of the mouth or throat, and its occurrence being confined almost invariably to particular periods, when the atmosphere is found to be in an unhealthy condition, are sufficient proofs of its spontaneous or epidemical origin. When neglected or improperly treated, it is liable to terminate in the same deplorable results as the most severe form of the purulent ophthalmomy of eastern countries. A melancholy case of opaque cornea in a young woman from Prussia came under my notice. It was the result of ill-heated, infantile, purulent ophthalmomy. The opacity extended over both corneæ, except at one minute portion near the margin in one of the eyes. Before I was consulted, the patient had taken the opinion of the most distinguished oculists at Vienna, who recommended no manual operation. I advised the formation of an artificial pupil at the small transparent spot, to which proposal she readily submitted, and I had the satisfaction of thus affording her a lateral view of objects; and she was

afterwards enabled to educate this partial vision so as to distinguish different colours.

Treatment. In the commencement of the disease both in infants and adults, when the discharge consists only of an increased secretion of mucus, a solution of alum or sulphate of zinc, introduced between the eye-lids by means of a small syringe twice or three times a-day, will speedily effect a cure. When the inflammation has so far advanced that the lids become swollen and appear red externally and the discharge has begun to present the purulent character, no time must be lost in treating an English patient, who if an adult must be bled from the arm until he faints or till a manifest improvement appears in the circulating vessels of the conjunctiva. If the patient be an infant, with the disease in this stage, a few leeches must be applied to the upper eye-lids. After the bleeding an injection composed of nitrate of silver and distilled water should be employed; and in the more advanced stage of the disease a stronger solution of the nitrate will be required, which should be instilled between the lids twice a-day with a quill or camelhair-pencil. It is seldom necessary to bleed a second time; for if the force of the circulation has been properly reduced by the first venesection, the capillary vessels of the mucous membrane will gradually resume their contractile function and the inflammation will speedily disappear.

The practice adopted on the continent is principally the use of acetate of lead, which in England has long time been discarded from use; because it is apt to leave permanent stains on the cornea, which disfigure the eye and obstruct vision.

Much unnecessary disputation has arisen between ophthalmic surgeons respecting the treatment of purulent ophthalmia: some contending that it should be principally antiphlogistic and others entirely stimulant. This discrepancy can only be explained by the fact that bleeding and stimulants operate in the same manner, namely, by relieving the congested and obstructed condition of the blood-vessels; the former accomplishing this object by immediate depletion and the latter by exciting vascular contractions, whereby the natural circulation is restored.

2. ECTROPIUM.

This disease appears on the continent in a very exaggerated form as a result of the purulent ophthalmia of infants, in consequence, I believe, of the mode of treating the latter being less active at the commencement than in England. It appears in the character of a granular, hypertrophied condition of the inner surface of the eye-lid, generally the upper, which, projecting from beneath the lid and concealing the cornea, presents the appearance of a vascular tumour.

Treatment. The ordinary manner of curing this chronic infirmity in England is the daily application of solid nitrate of silver or sulphate of copper, and in obstinate cases excising the superfluous membrane.

The plan of treatment I have witnessed on the continent consists in the compression of the upper eye-lids by thick pads of linen, which is continued two hours by means of a firm bandage, after the tumour has been forcibly replaced beneath the lids. At the end of this time, nitrate of silver is applied in a solid state. Severe pain continues as long as the pressure, and the patient, if an infant, is sometimes in a state of convulsion more or less during the process.

3. PUSTULAR OPHTHALMY.

Inflammation in the mucous membrane of the eye in children of a lymphatic or cachectic constitution, is liable soon to be followed by small pustules. When these appear over the cornea and are allowed to continue, a deposit of lymph ensues, which sometimes becomes a permanent obstruction to perfect vision. One of the principal characteristics of this form of ophthalmia is extreme intolerance of light; the edges of the lids are also generally in a state of chronic inflammation. This disease is occasioned by exposure to currents of cold air.

Treatment. The best mode of attacking this malady is to instill between the lids daily a few drops of a solution of nitrate of silver in distilled water and to apply every night to the inner surface of the lower lids the diluted ointment of nitric oxyde of mercury. The bowels should be acted upon freely every third morning with jalap and chloride of mercury or with castor-oil.

The continental mode of treatment, which has come under my notice, is in conformity with the old humoral pathology. It consists in the application of a leech to one of the feet with the intention of drawing the peccant blood from the eye to the lower extremity. Cod-liver-oil is also a favorite, internal remedy; but upon what principle this is given to remove inflammation and ulceration on the eye I am at a loss to understand. If the object is to produce that fatty degeneration of the liver, spleen and other internal organs, which we find in scrophulous subjects after death, a more suitable article could not be used for the purpose; for at every post-mortem-examination I have made after the exhibition of this or any other fish-oil, I have found all the solid viscera of the abdomen replete with fatty globules distinctly visible under the microscope.

4. CHRONIC INFLAMMATION OF THE RETINA.

This is a common disease in Brussels and parti-

cularly apt to attack visitors during the summer, in consequence of the strong reflexion of the rays of the sun from the white buildings and pavement in the streets. The symptoms are pain in the forehead, sudden flashings of light perceived in the deep-seated parts of the eye, partially obscure vision and more or less intolerance of vivid, artificial light. If no relief is afforded, the disease is liable to terminate in amaurosis accompanied with blindness more or less complete.

Treatment. Leeches to the temples and, if the patient is plethoric, blood should be taken from the arm. A small dose of chloride of mercury three times a-day, until some sensible effect is produced. The rays of the sun should be excluded during the day from the room occupied by the patient and the diet must be unstimulating and the bowels kept open. After the inflammatory symptoms or those of congestion have been removed, smoked or green glasses should be used by the patient, when exposed to a strong light and, if necessary, a green shade may be worn in the day-time.

It must be observed that some females occasionally present the symptoms of amaurosis from congestion in the vessels of the retina produced by a morbid condition of the blood, usually called *anæmia*, in which we find there is a deficiency of red globules and fibrine. As this condition is generally accompanied with neuralgia or some other nervous affections, it may be denominated *neu-*

ræmia. Bleeding and other anti-inflammatory remedies would increase this peculiar condition of the blood and aggravate the disease of the eyes. The treatment therefore must consist in the internal use of sulphate or citrate of iron and generous diet, and the patient should enjoy regular exercise daily in the open air. This anæmic state of the system is immediately discoverable by a peculiar action in the heart and the pulse at the wrist, by a venous murmur and by other well-known, characteristic symptoms.

CHAPTER IV.

Diseases of the alimentary canal.

Muguet. Diphtherite. Enlarged and ulcerated tonsils. Indigestion. Inflammation of the stomach. Diarrhœa. Dysentery. Cholera.



1. MUGUET.

Inflammation in the mucous membrane of the mouth and throat, producing a deposit of thick, white, opaque, adherent mucus on the free surface of the epidermis, is a common occurrence at Brussels during the cold season, particularly among infants. When the disease extends to the stomach and bowels, it is accompanied with vomiting and purging and is one of the most dangerous diseases of infancy; on account of the exhaustion and emaciation, which immediately commence

and the inflammation of the membranes of the brain and consequent effusion on that vital organ, with which in its progress, unless carefully treated, it is apt to become complicated. It is attended throughout by fever at first continued and afterwards remittent.

Treatment. The morbid, mucous deposit to be removed by the daily application of a weak solution of bichloride of mercury, and the bowels, when confined, to be kept open by rhubarb and magnesia every second day. When vomiting and purging are present, a mustard-poultice to be laid on the pit of the stomach during half an hour to excite slight, external inflammation. After the sickness has abated, the patient, if an infant, to be suckled, and, if an adult or in a state of childhood, to take barley-water freely to relieve the urgent thirst and to dilute the acrid secretion discharged from the mucous surface of the stomach and bowels. Citrate of potash to be given also once in four hours. Opium to be studiously avoided; as its exhibition, by suddenly arresting the diarrhœa, will to a certainty transfer the inflammation to the cerebral membranes, when stupor will commence and speedily be followed by convulsions, paralysis and death. This I have found here is the most common cause of acute hydrocephalus or water in the brain, so fatal to infants and children, which unfortunately is always considered the primary and not a translated or secondary disease. As soon as the

fever has become remittent, a suitable dose of chloride of mercury and jalap or of castor-oil must be administered every second morning to dislodge the morbid, mucous deposit, which will be found to prolong the intestinal irritation and prevent the process of nutrition, on which the recovery of the patient will depend.

2. DIPHtherite OR PUTRID SORE THROAT.

This is another disease of frequent occurrence in Belgium during a cold and moist state of the atmosphere, requiring an accurate diagnosis and active and speedy remedies to prevent a rapidly fatal collapse. Persons of all ages are subject to its attack, and when it occurs simultaneously to several members of a family, previously unacquainted with the disease, they are snatched off by death before its real character is understood. There is therefore no malady, to which the mouth and throat are subject, which demands such early and judicious attention as this. When it is discovered and properly treated at the very commencement, every patient may be saved. For a history of diphtherite from the period, when it was first noticed in Europe, the reader is referred to my treatise on the diseases of children; and from the same publication the following characteristic description of the symptoms is transcribed together with the treatment.

“ The attack begins with a little fever, at-

tended with a slight difficulty in swallowing. On inspecting the throat, the tonsils are perceived to be swollen, and small portions of white or yellowish lymph may be seen, resembling muguet, on different parts of the soft palate and pharynx. After a short time these deposits of lymph assume a grey colour and acquire an offensive odour; and a copious discharge of saliva flows from the corners of the mouth. At this period the cervical glands become inflamed and swollen. At length the grey lymph, constituting the false membrane, either falls off in a mass or is ejected through the mouth, or it is separated in fragments and discharged by degrees, and is often reproduced. The appetite is little affected and neither vomiting nor diarrhœa is present, unless the mucous coats of the stomach and bowels are the seats of the diphtheritic production. When recovery commences, the false membranes cease to be reproduced, and the surface of the mucous membrane, by which they had been secreted, presents a red, excoriated aspect, without any degree of actual ulceration; the swelling in the cervical glands subsides; and at the end of eight or ten days recovery follows. In the more malignant cases the disease extends into the air-passages, producing symptoms of laryngeal and tracheal inflammation. First hoarseness is observed; then a harsh, suffocating cough, accompanied with a croupy sound and an anxious expression, followed by a pale, cadaverous countenance, with

the eyes sunk in their sockets, hurried and feeble pulse, cold skin; and terminating, when unrelieved, in irresistible stupor, a purple colour of the lips, face and extremities, and speedy death. When the bronchial tubes are visited by this disease, the cough becomes more frequent, the breathing more rapid and accompanied with a mucous or rattling sound, and the patient sometimes expectorates shreds or tubular portions of lymph, presenting a membranous appearance. This is frequently the sequel of laryngeal inflammation and, after the latter has been relieved, disappoints our hopes by a rapidly fatal termination. Sometimes also the Schneiderian membrane becomes the seat of the membraniform secretion, when a most fetid discharge takes place through the nostrils; and in this variety of the disease symptoms of typhus present themselves. The morbid appearances observed after death are not confined to the pharynx, larynx and trachea; but false membranes are often discovered in the œsophagus, stomach and intestines. ” (P. 155.)

Treatment. “ As the danger of this disease is in proportion to the nature and extent of the false membrane, our principal reliance must be placed on local remedies. Of these the most effectual are hydrochloric and nitric acids, either of which may be conveyed to the diseased parts by means of sponge or linen rag, fastened to a piece of cane or whalebone. The acid should be rubbed or pressed

firmly on the surface of the parts affected, so as to insure its contact with the inflamed membrane and the detachment of the lymph. In very slight cases resembling muguet, a lotion, composed of two grains of bichloride of mercury or ten to twenty of nitrate of silver to an ounce of distilled water, will be found sufficient to separate the excretion and remove the subjacent inflammation, the progress of which must be carefully watched and promptly arrested. The operation of these powerful stimuli on the congested and inflamed surface is that of producing contraction and restoring the natural action of the minute vessels. The physician therefore must not suppose that the object for applying hydrochloric acid is merely to destroy the texture and to disinfect the false membrane, but to excite activity in the torpid vessels, on the same principle that nitrate of silver and other stimulants remove chronic inflammation and ulceration in the cornea, when its vitality has been diminished. When the larynx becomes the seat of diphtherite, it must be treated in the same active manner as primary croup by leeches and chloride of mercury given in frequent, repeated doses, till the gums become affected or the laryngeal inflammation has subsided. The chloride may be given for this purpose in doses of two grains once in two hours; and the same practice should be adopted in the treatment of severe cases, when the tonsils and pharynx only are affected; experience having

proved its utility in arresting the progress of inflammation and preventing its extension to the respiratory organs, which it is of the utmost importance to protect from its destructive invasion. The peculiar and curative action of mercury on the capillary circulation will be found to co-operate with the external stimuli, and I believe it acts on the same principle, namely, that of exciting an artificial activity in the general circulation, by means of which the small arteries are enabled to propel their lingering contents through the inflamed and congested membrane. During the whole illness the apartment should be carefully ventilated to dilute the putrid effluvia. When gangrene occurs, the hydrochloric or nitric acid will be found the best application. It may be used daily, and in the intermediate time a gargle, composed of two drachms of the acid to half a pint of water, may be applied by the patient or carefully injected with a syringe. In this condition of the patient sesquicarbonate of ammonia may be exhibited frequently with advantage in a dose of three or four grains. After the inflammatory stage of the disease has terminated, the strength of the patient may be supported by broth and other nutritious aliment, and by disulphate of quina as soon as the vessels of the skin become relaxed. During the earlier periods of the malady, milk will be found the most appropriate and grateful food for the patient." (P. 156.)

When all hope of recovery from other means is at an end and the propriety of making an artificial opening into the larynx or trachea should be brought into consideration, I must again refer the reader to a long article on that subject in my publication before noticed, where the *only condition of the patient*, in which such a proceeding would be justifiable and a minute description of the best modes of operating will be found fully detailed.

3. ENLARGED AND ULCERATED TONSILS.

During the severe frosts, which occur at Brussels and other parts of Belgium, the tonsils are frequently and repeatedly affected with such a degree of enlargement as interferes with respiration and distinct articulation. In some cases these enlargements are accompanied with ragged ulcerations more or less deep, producing a disagreeable discharge. It rarely happens that the swelling and inflammation extend to the adjoining cellular membrane, and hence the suppuration, commonly known by the name of quinsy, is not a common occurrence.

Treatment. A gargle prepared with alum or hydrochloric acid properly diluted to be used frequently every day; but when the ulcers are deep and ragged, a solution of nitrate of silver will be found the best local remedy. Chlorate or iodide of potash with or without decoction of sarsaparilla, according to the state of the general health, to be

taken twice or three times a-day, until the tonsils become so much reduced as not to interfere with sleep or the customary distinctness of articulation. Should the winter be very severe and the wind continue in the east or north-east during the succeeding spring, the enlargement of the tonsils may continue stationary or increase from time to time from repeated exposure to cold; but a perseverance in this treatment, with occasional intermissions of a week, will ultimately remove all inconvenience, as soon as the hot season has become established, and it will rarely happen that permanent enlargement will be left.

4. INDIGESTION.

Dyspepsia or indigestion is almost exclusively confined to the upper and middle classes of society, being the result of habits of indolence and errors in diet. I have observed it much less frequently here than in London or other parts of England, which I attribute to the greater amount of exercise on foot and horseback taken here and to the enjoyment of amusements, which divert the fashionable world from long sittings at the dinner-table. When the English first arrive on the continent, they are frequently attacked with a relaxed state of the bowels, which is erroneously supposed to be indigestion and to arise from change of diet, while it really proceeds from change of climate. Either the claret

or some innocent article of food is abused, and this prejudice is unfortunately too often confirmed by the medical attendant. The true symptoms of indigestion are nausea or loss of appetite, sense of fulness and uneasiness in the stomach after every meal, disposition to sleep in the day-time and dreaming or restlessness during the night, flatulence, occasionally acid eructations, a furred tongue and a *constipated state of the bowels*. This disease must also be distinguished from chronic inflammation in the upper portion of the recti abdominis muscles, a complaint of frequent occurrence in this country and invariably overlooked. This latter disease being of climatorial origin is not confined to the affluent and luxurious and is not accompanied by the ordinary symptoms of indigestion; and it is migratory in its nature, sometimes moving to the right hypochondriac region, when the liver is supposed to be diseased; at other times shifting its residence to the muscles about the left hypochondrium, when the stomach or spleen is sure to be reported the seat of the mischief and attacked forthwith without any proper diagnostic consideration.

Treatment. The treatment of indigestion is partly medicinal and partly dietetic. Its prevention depends entirely on diet in conjunction with regular exercise. A small dose of rhubarb to be taken twice a-day with compound infusion of gentian, to which may be added sesquicarbonate of soda, when flatulence and acidity are present.

When the tongue is covered with a white, thick fur, a few grains of blue pill should be taken every second night. The bowels to be kept afterwards in a regular state by an occasional dose of rhubarb or compound rhubarb-pill.

After recovery strict rules must be observed with respect to diet. Breakfast may consist of bread and butter, or dry toast with tea or coffee. If the patient is of spare habit and feeble constitution, he may take a little cold meat or an egg boiled not more than three minutes. The dinner should consist if possible of one plain dish, as roasted or boiled mutton or beef, both of which are excellent in Belgium, especially the small mutton from the Ardennes. Veal is not so easy of digestion, but may be taken occasionally as well as all kinds of game when in season.

A moderate quantity of fish, as sole, codfish, trout or tench, may be eaten before the meat. Mealy potatoes and stale bread are the best vegetables. All pastry and fermenting wines, as Champagne, must be avoided. Those, who are feeble and take much exercise, should drink claret or sherry-wine and water, and those of a robust and full habit ought to take water with dinner. No soup except bouillon should be taken, and that in moderate quantity; because there will be danger of the gastric juice, on which digestion depends, being too much diluted. If the valetudinarian can be sufficiently stoical, it will be prudent for him to

leave off eating at dinner before his appetite is quite satiated. By extreme temperance and regular, daily exercise on foot, Cornaro, a Venetian nobleman, who when 40 years old had been given up as incurable by his physicians, continued to prolong his life to the patriarchal age of 116 years; his only diet of animal food daily during the last 76 years being the yelk of an egg and his only drink a little new wine. Before he took his case into his own hands, he had been constantly indulging in all the luxuries of the table, until the natural action of the stomach was suspended. Late dinners must be shunned with the same fortitude as too much and indigestible food; and if the patient desires to enjoy quiet, refreshing sleep without nightmare, he must abstain from loading the stomach before he retires to bed; a little tea with dry toast or stale bread and butter being sufficient.

The chronic inflammation in the muscles must be treated by such remedies as are calculated to divert the circulation from the inflamed parts, which will be obvious to the experienced physician, without whose aid it will not be safe to proceed; a correct diagnosis by the patient himself being impossible. In general the best effects will be found to result from the exhibition of sulphate and carbonate of magnesia in connexion with some appropriate external counter-irritation.

5. INFLAMMATION OF THE STOMACH, ERRONEOUSLY CALLED BILIOUS FEVER.

Erythematous inflammation seated in the mucous membrane of the stomach, now technically denominated *mucogastritis*, commences with chilliness, contracted countenance, head-ache, constant thirst and vomiting, which last symptom continues about thirty hours, unless sooner relieved. This congestive stage is then succeeded by fever symptomatic of gastric inflammation. In consequence of vomiting of bile being generally one of the symptoms, this disease has been vulgarly called *bilious fever*, from the supposition that it is occasioned by a redundant secretion of that fluid. The same unfortunate mistake is committed both in theory and practice with respect to European cholera, which will be noticed in my explanation of the phenomena of that disease. I may just observe here that the secretion of bile is diminished rather than increased during gastritis in conformity with a law in the animal economy, which produces comparative inactivity in all the natural function of organic life, while a part of such vital importance as the stomach is engaged with inflammation. The accidental appearance of bile therefore in the discharges from the stomach is not dependant on augmented secretion, but on a regurgitation of that fluid, occasioned by the mechanical pressure of the abdominal muscles on the gall-bladder and the passive, retro-

grade action of the duodenum during the act of vomiting. The symptoms of fever, the consequence of re-action in the circulation and excitability, now become manifest by increased heat in the skin; while the inflamed condition of the stomach is denoted by a thick, white fur on the tongue, continual thirst and tenderness in the epigastric region. In the course of three or four days these symptoms subside and are succeeded by general perspiration and by convalescence; unless transition of inflammation to the brain should occur, when phrenitis or inflammatory typhus may supervene. When the membranes of the brain are the primary seat of disease, the stomach is liable to be passively affected in a secondary manner, in consequence of the nervous communication existing between these two organs; in the same manner as the stomach is affected by sea-sickness. In such a case as this the vomiting is always preceded and accompanied by stupor, constipation of the bowels and the usual symptoms of cerebral congestion. It is a matter of the utmost importance for the physician to distinguish whether the stomach is only sympathetically disordered or not; otherwise he may lose most valuable time as well as the life of his patient, if he should unfortunately commence his treatment upon a mistaken diagnosis. These are cases, when in the least degree complicated or obscure, which require the greatest discernment, skill and experience in continental practice; and they too fre-

quently terminate in death in consequence of their true nature being discovered only after fatal, cerebral disease has become established.

Treatment. Slight, uncomplicated cases of mucogastritis will only require a mustard-poultice during an hour over the pit of the stomach and citrate of potash in a state of effervescence once in 3 or 4 hours, followed by a gentle aperient. At first cold water or soda-water and afterwards rice or barley-water will be the best and most grateful beverage; and after the vomiting and fever have ceased, broth or beef-tea or some farinaceous jelly will afford sufficient nutriment, until the appetite has returned. The more severe and obstinate attacks may demand the application of leeches to the epigastrium before the use of the mustard-poultice.

In the complicated or cerebral affection, remedial efforts must be confined almost exclusively to the brain. Not a moment must be lost in arriving at a correct diagnosis and in properly adapting the remedies to the disease. One of our first proceedings must be to relieve the congested vessels of the cerebral membranes by a copious application of leeches to the temples, and the next step must be to unload the bowels by a large dose of chloride of mercury followed by salts and senna; and, as soon as reaction occurs, cold, evaporating lotions should be applied over the head, or, if the external heat should be great, pounded ice may be laid upon it confined by a bladder. While then remedies are being ad-

ministered, relief to the vomiting may often be procured by citrate of ammonia or potash in a state of effervescence or by soda-water alone or mixed with milk. If the stupor should become complete and any symptoms of paralysis or convulsion supervene, we may conclude that effusion of serum has taken place on the brain and the case will become hopeless. This termination will rarely if ever occur, when appropriate remedies have been administered immediately after the attack has commenced.

6. DIARRHOEA.

The purging arising from erythematous inflammation within the larger intestine and that, which accompanies muguet, are the most common forms of bowel-complaint at Brussels and other equally dry situations in Belgium. The discharges from the bowels are not as in dysentery accompanied with pain, but a little fever is always present even in the simple diarrhœa.

The purging, which arises from muguet, is a very dangerous disease and always attended with great prostration of strength. Its presence may be known by the characteristic evidence of this peculiar inflammation in the mucous membrane of the fauces, which should always be examined.

Both varieties are liable by bad treatment to be succeeded by inflammatory typhus, and in scrophulous persons and natives of hot climates to end in

the deposit of tubercular matter on the adherent surface of the intestinal, mucous membrane, when the fever will be found invariably to assume the hectic character. I attended in consultation with a Belgian physician a fatal case of diarrhœa in a native of Africa, in which case tuberculization in the bowels had taken place, and in which the hectic fever returned regularly every afternoon exactly resembling a quotidian ague.

Treatment. Common diarrhœa often appears at first so unimportant as not to require much attention, and in some instances it gradually and spontaneously subsides. When the purging accompanying either variety suddenly ceases or is imprudently removed by art, most dangerous and often fatal inflammation is transferred to the brain. As secondary, cerebral disease is unfortunately of frequent occurrence here, particularly with those, who have previously enjoyed good health and been remarkably free from organic disease, common prudence suggests the necessity of obtaining good medical advice in the first instance; and therefore I abstain from stating any particular rules for interference with the bowel-complaint, which is always more safe and salutary than its suppression, unless there may be impending and positive danger of fatal exhaustion from its violence or long continuance.

7. **DYSENTERY.**

This is distinguished from the preceding disease by the presence of pain in the bowels and by an urgent and irresistible discharge of mucus with or without blood, accompanied with tenesmus. The evacuation of blood, although considered so, is by no means an essential symptom. It only indicates an acute and severe form of the complaint, which is seldom met with unless it appears as an epidemic. The chronic species is that, which generally occurs in Belgium in the autumnal months and during rainy seasons; and, as it seldom confines the patient to bed and is one of the most frequent precursors of inflammatory typhus in consequence of neglect or improper treatment, it should be regarded with early and judicious attention. Although some of our best writers consider dysentery as inflammatory in some cases and not so in others, yet every case is in its nature inflammatory, even that complicated variety, which arises from a deficiency of fibrine in the blood produced by imperfect nutrition in combination with a residence in a low, damp situation. Hence the chronic is more properly speaking the sub-acute species, which commences in a more gradual and obscure manner and continues many weeks sometimes without very sensibly impairing the strength or appetite. The symptoms are pain and distension in the

course of the colon, preceded by audible rumbling and followed by a sudden discharge from the bowels accompanied by straining. During the pain the circular fibres of the intestine, morbidly excited by the presence of acrid secretions, the result of inflammatory action, contract the passage, producing numerous, temporary, spasmodic strictures; and when the over-distended vessels of the villous coat become ruptured, bleeding and ulceration follow. The ulceration thus produced adjoining the solitary or aggregate glands of the ilium near the cæcum is that, which has been observed in certain fatal cases of paludal typhus, to which I shall allude again, when speaking of that disease. Although dysentery is usually confined to the large intestines, I have often traced its pathological appearances after death extending along the greater portion of the ilium. This ordinary or sub-acute species recurs in a remarkable manner after every meal and is not unfrequently periodical, appearing, for instance, every morning soon after breakfast.

Treatment. The only safe and proper mode of curing the sub-acute dysentery is by the administration of gentle aperients, studiously avoiding opium; for when the peristaltic action of the bowels and the separation of serum from the inflamed mucous membrane and the increased mucous secretion from the follicles are interrupted by opium or any other cause, the cerebral membranes, as in

improperly treated diarrhœa, become inflamed, and phrenzy or inflammatory typhus is the result. The aperient should be continued, until the *pain in the bowels has ceased*; after which the simple relaxation will disappear without any farther medicine. The diet to consist of such articles of food as are soft, nutritious and easily digestible.

8. CHOLERA.

Vomiting, purging and severe pain in the bowels and cramp in some of the muscles, generally those of the legs, preceded by abdominal distension, constitute the characteristic marks of cholera. The discharge from the bowels is at first of the natural appearance; but it soon presents a green or dark colour or that, which resembles whey or very thin gruel, consisting of serum, which is separated from the blood and poured out in great abundance from the villous coat of the uppermost portion of the intestinal canal near the stomach. This description of autumnal, European cholera corresponds with that, which Celsus wrote 2,000 years ago in reference to the disease as it appeared at ancient Rome.

“ Primoque facienda mentio est cholera; quia
 “ commune id *stomachi* atque *intestinorum* vitium
 “ videri potest. Nam simul et *dejectio* et *vomitus*
 “ est : præterque hæc *inflatio* est, intestina tor-
 “ quentur, bilis supra infraque erumpit, primum

“ aquæ similis , deinde ut in ea recens caro lota
“ esse videatur, interdum alba , nonnunquàm ni-
“ gra, vel varia. ”

(A. C. CELSUS, *de re medicâ*, cap. XI.)

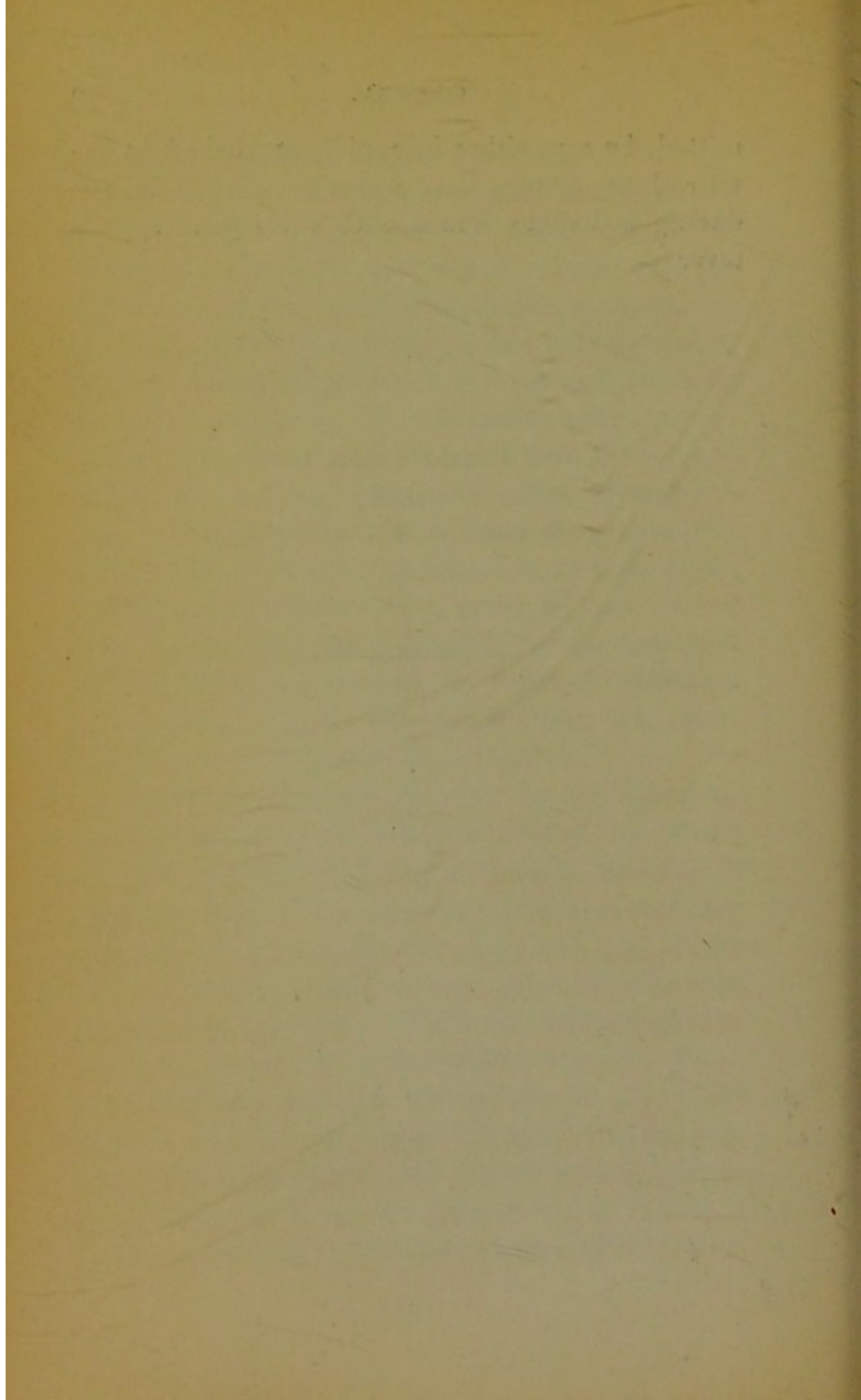
I have introduced this extract from Celsus in support of the view I have always taken and successfully acted upon, namely, that this disease is produced by an affection of the mucous membrane of the duodenum and the upper portion of the ilium, terminating when fatal in a destructive softening of that membrane; as repeated post mortem-examinations have convinced me. Instead of a redundant secretion and flow of bile, as the term cholera, introduced in ignorance of pathology from Greece to Rome, would imply, there is always either a diminution or total suppression of it; the biliary discharge, which Celsus describes as passing upwards and downwards, being expelled from the gall-bladder by the mechanical force and compression of the abdominal muscles during the act of severe vomiting. Cholera is therefore not owing to errors in diet or an overflowing of the bile, but to the extreme vicissitudes of temperature prevailing in the autumnal season; and it is the irritation of the acrid fluid suddenly poured out by the congested, capillary vessels and mucous follicles of the duodenum, which produces the pain and spasms by exciting the sentient and motor extremities of the spinal nerves distributed over the inner sur-

face of the intestines. The exhaustion of the excitability from the same cause operating upon the nervous centres, destined to support the vital functions, is often so sudden and severe, that the skin is found to present a death-like coldness, the secretions in the liver, kidneys, etc., are suspended, and the action of the heart and arteries becomes scarcely perceptible. As autumnal cholera has appeared to me to be more frequent here than in England, owing to the greater variation of temperature, I have been induced to enter more minutely on the subject than I otherwise should have done; and I hope the hints I have given will not be lost upon those, who desire to avoid the consequences of thoughtless exposure to the night-air with thin dresses after experiencing the burning heat of the mid-day and afternoon-sun at Brussels.

Treatment. Immediately after the attack begins, always the sooner the better, if medical aid cannot be had, the patient should take 40 or 50 drops of tincture of opium in one large spoonful of water or two grains of solid opium made into one or two pills. This dose must be repeated every hour, till the pain has subsided. While the opium is producing its salutary effect, the patient must be covered with blankets and his extremities in particular kept as warm as possible. When relief is thus attempted immediately, the disease speedily passes off, and the next day the patient will be found in a state of recovery. When too long a delay is per-

mitted, he may either be rapidly carried off by fatal collapse or may have a narrow escape after enduring a tedious illness with subsequent typhus fever.





CHAPTER V.

Diseases of the respiratory organs.

Grippe or epidemic catarrh. Inflammation of the lungs. Pulmonary consumption.

1. GRIPPE.

As I have not met with any diseases in the organs of respiration on the continent, which are not also common in England, I shall confine my attention to those of most frequent occurrence here. The influenza or epidemic catarrh occurs here every year towards the end of winter or during the spring, when the easterly wind more or less prevails. The disease also appears at those seasons, but with much less severity, when the atmosphere is moist and the wind remains in other points. From the sudden manner, in which this

epidemic commences, it has acquired on the continent the absurd name of the *grippe*, which might with as much propriety be given to cholera or any other sudden illness. This catarrh is an epidemic inflammation of the mucous membrane of the eyes, nose and air-passages, attended with fever and usually terminating in acute bronchitis. It is so well known as not to require any farther general description; but it may be observed that its progress and termination vary in different individuals according to their ages and constitutions; being principally fatal to very old people and infants and in the scrophulous developing fatal tuberculization in the bronchial glands, the lungs or some portion of the air-passages. One of its most frequent consequences in England is chronic bronchitis or humoral asthma. Here, on the contrary, that result is not common, which I attribute to the atmosphere on the continent being less humid than in England; and during the last winter, which was remarkably mild, although a large quantity of rain fell almost every day, all the patients I had from England on account of humoral asthma suffered no inconvenience from this disease, while they remained at Brussels.

Treatment. At the commencement of the epidemic the patient should be kept warm and take frequently warm, diluting liquids, as tea, barley-water, linseed-tea, etc., and once in four hours a dose of citrate of potash. As the remedies re-

quired for the various diseases consequent on the progress of the inflammation along the air-passages must necessarily vary according to their situations, it will be superfluous for me in a work like the present to give any particular directions. I must however remark that I believe the comparatively greater fatality of this epidemic on the continent than in England is owing more to the treatment pursued than to any difference in the nature of the disease. In England it is notorious that death very rarely occurs except to very old persons or infants. On the contrary, we find on the continent, especially at Paris, vigorous adolescents and others in the prime of life falling victims to the disease every year in great numbers and without any manifestation of previous organic or other latent disease. May not this disparity be accounted for by the very opposite modes of treatment adopted? In England the lancet has for some time past been seldom or very sparingly employed in epidemic, bronchial catarrh, while on the continent bleeding is carried to such an extent as often to produce irrecoverable and fatal collapse. Again in England the proper period for bleeding in all inflammatory diseases, that is before the strength of the patient is exhausted, and the decided as well as prompt manner, in which it is effected with the intention of ultimately saving needless loss of blood, afford a striking contrast with the dilatory and expectant practice pursued on the continent.

2. ACUTE INFLAMMATION IN THE LUNGS.

As this is one of the most dangerous diseases occurring in Belgium during the prevalence of the easterly wind, it requires the most accurate diagnosis and prompt and vigorous treatment. The lungs may become the primary seat of inflammation or be attacked in conjunction with the bronchial mucous membrane. Thus a sudden transition from a very high to a very low degree of temperature, while the wind is in the east, as by passing from a hot drawing room or public place of amusement through the open air, will immediately induce pulmonary inflammation without the previous intervention of the usual epidemic catarrh. In this case the circulation in some of the capillary vessels of the lungs is instantly arrested, and congestion, inflammation, lymphatic effusion, suppuration or gangrene progressively ensues; unless the labouring blood-vessels are relieved by speedy and appropriate means; as will presently be explained by a short description of the pathological condition of the morbid process. This fact cannot be too forcibly impressed upon the attention of those, who frequent evening amusements in Brussels during the winter-season. In adults and persons advanced in life, I have found inflammation in the lungs more frequently solitary and in children almost always combined with bronchitis or pleurisy. In its un-

complicated form it commences with rigors, hurried respiration, fever and pain in some part of the chest. In some instances the pain is so slight as not to attract attention; the cellular membrane, which is the seat of the inflamed or congested vessels, possessing comparatively little sensibility. On this account the danger is more real than apparent. A short cough succeeds, denoting a partial extension of the disease to the adjoining, bronchial membrane; and, as the original malady increases, the patient becomes unable to lie down or to sleep, excepting at intervals; although drowsiness occurs at the commencement and is afterwards more obvious. At length the respiration is distressing as well as hurried, and the patient is anxious and restless, frequently changing his position and uttering a moaning sound at every expiration. At the end of two or three days a bloody or yellowish, glutinous mucus, characteristic of the disease, is expectorated. The pulse now becomes more rapid and the secretion from the kidneys is defective and high-coloured, and deposits an amorphous sediment. When this sediment presents the purple colour peculiar to purpurine, congestion in the liver and the portal system will be found to co-exist.

The diagnosis of pulmonary inflammation may be confirmed by the physical signs derivable from the use of the stethoscope, which at the commencement of the disease, applied low down in the

axilla or beneath the pectoral muscle, will convey a crepitous sound over a space more or less limited. When both lungs are inflamed, this crepitus or crackling may be heard on both sides. This respiratory sound will be more obscure or totally subside in the more advanced stage of the disease; when hepatization may be discovered by the dulness perceptible from percussion. I need not extend the description of the fearful progress and fatal termination of a disease, which at this advanced stage will be sufficiently evident; but in order to show the absolute necessity for timely and effectual remedies, more especially when pulmonary inflammation occurs in this part of the continent, I shall proceed to explain the pathological condition of the parts engaged in the morbid process. The first effect is a congested state of the blood-vessels, which proceeds, when unrelieved, to an entire stagnation in the circulation of the affected part. This condition of the lung is called a state of hepatization from its resemblance in feel and appearance to that of a portion of liver. Transmission of the air is obstructed, the cells being loaded with mucus and the hepatized part becoming progressively a black, solid, inorganic mass. The grumous contents of this mass at length escape from the lifeless and unresisting vessels into the adjacent cellular membrane of the lungs and undergo decomposition, whereby the blood-globules are converted into pus or mortification supervenes. The fever accompanying

the diffused suppuration is of the inflammatory kind and not subject to intermission; and the inflammation usually runs through its fatal course in six or eight days. It would be useless in a work like the present to enter into an explanation of all the various modifications, which the pathological appearances resulting from acute inflammation present; but I must not omit to observe that when pulmonary inflammation attacks those, who are predisposed to consumption of the lungs, tuberculation becomes established and the patient sooner or later presents the usual symptoms of that destructive malady. In the former instance death marches with bold and rapid strides; in the latter insidiously and by slow degrees, but with more uniform fatality. In this latter case the state of the constitution not admitting of the same degree of inflammatory action as the former, the obstruction in the capillary vessels of the lungs is less intense and the nodules less extensive; but instead of globules of healthy pus being the result, we find crude, tubercular matter separated from the blood and hectic fever the uniform accompaniment of the process; or lymph effused, which, becoming vascular, more slowly develops the same specific and fatal malady; as will be further explained in the section on pulmonary consumption.

Treatment. Finding that acute inflammation in the lungs commences with congestion of the vessels and an interruption in the sanguineous circulation

of the parts affected, and that it terminates in an entire cessation in the motion and vitality of the blood and in gangrene or in a conversion of the red globules into globules of pus; it is obvious that the first and principal remedy will consist in the reduction as speedily and effectually as possible of the force and frequency of the action of the heart and arteries, which, in their attempt to remove the capillary obstruction, are continually increasing and extending it. This endeavour to overcome obstruction in the minute arteries is a vital property inherent in the vessels themselves, whereby in a state of health they are enabled to force even the colourless portions of the blood freely through the most delicate structures. When this natural current is from any cause interrupted, an increased excitement in their fibrous coats, in which this property resides, commences in the vessels conveying blood to the obstructed part; and, when this restorative attempt is ineffectual, the propelling force of the excited arteries continues, until those adjoining the original obstruction become themselves overloaded and progressively strangled by the compression of their own effusions in the surrounding cellular membrane. Thus the process, which in a state of health is designed by nature for the nutrition, is by disease converted into an engine of progressive destruction of the various textures, in which the circulation of the blood happens to be interrupted. Whether the inflamma-

tion be sub-acute and exhaust itself by the deposit of a portion of superabundant lymph generated in the blood for the plastic purposes of nature, or the work of destruction should be approaching in the more active form of the disease, it will be the duty of the physician to modify the former and to obviate, if possible, the latter result; for although the original disorder may terminate in an effusion of the redundant lymph and this may be afterwards diminished or removed by absorption in a healthy constitution, it may in a scrophulous patient become the nidus for subsequent, morbid vascularity and the establishment of incurable tuberculization. The objects therefore, which we should have in view in the treatment, can only be accomplished by promptly and judiciously reducing the volume of the blood and the propelling force of the heart and arteries, and thus withdrawing from the inflamed and turgid vessels their undue supply of blood and affording them the opportunity of recovering and exerting their natural, contractile faculty. To obtain these results, bleeding general or local will be found the most direct and effectual agent, which must be practised to such extent as to induce a temporary suspension of the action of the heart or reduce the strength and rapidity of its impulse. When had recourse to at the beginning of the disease, one full venesection will often arrest the progress of the inflammation; but after much delay it will be found necessary to re-

peat the operation several times, before a favorable impression can be made on the circulation. In these cases a free opening should be made into the vein to enable the blood to flow in the shortest space of time; for it is of the utmost importance to avoid unnecessary loss of blood and needless expenditure of the strength of the patient. With the same intention the patient should be placed in the sitting posture, until he becomes faint; after which the equilibrium of the circulation may be readily restored by reposing him in the horizontal position. Much circumspection will be required to prevent too long a continuance of syncope, to which some persons are constitutionally liable; because in such cases after a long-protracted vascular repose there may be danger of a restoration of the circulation being followed by an increase of dyspnæa and an irritable condition of the heart and arteries, which would greatly add to the distress of the patient. After every bleeding, excepting probably the first, the coagulum will present a buffed and contracted surface; but the physician must not be induced on this account to drain the system of its blood after the inflammation has been overcome; as the crassamentum may continue to exhibit this appearance a considerable time after the necessity for farther abstraction of blood may have ceased; or circumstances may occur, which may render reiterated venesection unsafe or imprudent. In some instances during the primary or

congestive stage the heart and brain undergo such a degree of oppression, as to excite a state of alarm, which may continue twenty-four or thirty-six hours, before the pulmonary inflammation evidently unfolds itself. In these cases the face presents an anxious, dangerous appearance, and the temperature of the skin is below the natural standard. Difficulty of breathing occurs and the patient is incapable of supporting any other than the horizontal posture, apprehending immediate death, when the least attempt is made by his attendants to raise him up in bed. The pulsation at the wrist is at one time scarcely perceptible and at another striking the finger with a peculiar jerk and hesitation, produced by the cerebral congestion, which is manifested also by drowsiness alternating with temporary delirium. This oppressed condition of the circulation and this disturbance in the functions of the brain and nervous system, resembling the state of a dying person, continue sometimes, as I have before stated, during many hours, the patient and his attendants apprehending approaching death. The physician may however convince himself respecting the actual condition of his patient by a careful examination of his pulse during the systolic action of the left ventricle of the heart, when he will discover by the sensation conveyed to his finger that the diameter of the artery and the firmness and density of its muscular coat are undiminished and that the obscure and undulating impulse

only indicates a struggle in the central organ of the circulation and not any deficiency in the quantity of the blood. When the heart thus suffers a temporary suspension of its motion and the patient entertains the most frightful apprehension of impending death, the best practice is to stimulate it indirectly by repeated doses of sesquicarbonate of ammonia, until the interruption in the cardiac and arterial action has been removed and then to bleed; for although the heart may be embarrassed by the state of the nervous centres, this must only be regarded as a modification of the disease and not be permitted to divert attention from the latent, pulmonary congestion : as when the current of the blood has been equalised by a subsequent, judicious venesection, the nascent inflammation will expose itself and remain no longer in concealment.

Another modification of inflammation in the lungs will occasionally be found in those, who are labouring under a deficiency of red globules and fibrine in the blood. Such cases should be treated by very moderate or by local bleeding; because the re-action following loss of blood in those, who are anæmic, has the effect of increasing the albumen and exciting inflammation, which may translate disease to the heart or brain and endanger the life of the patient.

In every individual case the physician must therefore take a comprehensive view of the constitution and consider every possible variety, which

the disease may present, as well as the age of the patient and his tolerance of loss of blood ; as it may be advisable to have an early recourse to such auxiliary means as may to a certain extent diminish the necessity for full bleeding. Of these the exhibition of potassio-tartrate of antimony is the most efficacious. It should be administered in all cases after the first bleeding, and especially in the variety last mentioned, to supersede as much as possible the necessity for vascular depletion. This medicine acts beneficially in relieving pulmonary inflammation as well as active hemorrhage in the air-passages by diverting the current of blood towards the stomach and exciting nausea, during which the impetuosity of the arterial system is modified and the obstructed capillaries are enabled to resume their contractile function. It may be given in the dose of half a grain or a grain once in four hours in combination with citrate of potash ; and the quantity may be gradually increased, until sickness supervenes. In some parts of Europe this medicine is prescribed in immense doses, as twenty or thirty grains ; but there can be no necessity for endangering the mucous membrane of the alimentary canal by such a monstrous practice.

The application of leeches, when required, may be greatly facilitated by a simple expedient in common use in Belgium, which consists in circumscribing the part, to which it is intended to confine these animals, by means of a large apple, instead

of a glass, which being first divided is scooped like a cup for the purpose of holding them. The leeches appear to have such an aversion to the apple, that they attach themselves to the patient and almost immediately begin to absorb his blood. I may add that I have never found this expedient unsuccessful.

When there is evidence of the existence of hepatisation, two grains of chloride of mercury should be administered with every dose of the antimony and citrate of potash, until its sensible operation is perceived in the gums. This remedy possesses the special property of exciting the dormant capillaries into activity, forcing the stagnant blood through their obstructed tubes and obviating the production of pus-globules.

When symptoms of typhus supervene, the patient must be supported by quinine and suitable, nutritious diet; but during the inflammatory stage total abstinence from animal food and fermented liquors must be observed, and the diet of the patient must be confined to barley-water, rice-water, lemonade, imperial, soda-water and toast and water. The temperature of the patient's apartment must also be maintained at sixty or sixty-five degrees of Fahrenheit's thermometer, and the bowels must be kept in a relaxed state by some saline aperient.

I have been induced to extend my remarks on this disease and its various modifications, because it is one of the most frequent causes of rapid and

unexpected death in Belgium during the annual visitation of the grippe.

3. PULMONARY CONSUMPTION.

One of the most common consequences of epidemic catarrh in young patients in Belgium, as I have before observed, is consumption of the lungs or of some part of the air-passages. The disease is so insidious at the commencement as often to escape the observation even of the medical attendant. When it has been overlooked or neglected, until hectic fever and other unequivocal symptoms of phthisis are established, it will be found too late to apply those resources of medicine, which at an earlier period would have restored the patient to health. Young ladies at a certain age are the most frequent victims of this ignorance or neglect, particularly when the pulmonary, cellular membrane is the seat of chronic inflammation, which frequently unobserved prevents or interrupts the periodical function of another organ of great importance to the healthy condition of the female economy. The very measures vainly employed to restore this function, while disease is lurking in the lungs, confirm the latter and hasten its fatal developement. To expose the spurious pathology, which attributes the production of pulmonary phthisis to debility, would occupy more space and require more extended demonstrations than would

have been consistent with the nature and limits of the present manual. Nevertheless I may observe that the regulations with respect to diet, temperature and clothing, suggested by the false theory in question and copied without reflexion by routine practitioners, are constantly promoting the morbid process, which it should be their endeavour to prevent.

The tubercular predisposition may be induced by various causes, as want of proper clothing and of regular ventilation, a continued residence in a damp and crowded habitation and defective assimilation of food. To those, who have acquired this predisposition, an epidemic catarrh or a sudden transition from a warm to a cold atmosphere may produce tracheal, bronchial or pulmonary inflammation, which will unfold sooner or later the specific disease. To whatever remote cause this constitutional propensity to tuberculization may be traced, the elements of the disease will be found to exist in the circulating fluid ready to form the morbid product, as soon as inflammatory action is excited in the capillary vessels of any organ. The blood is undergoing continual changes and is constantly influenced by the vital and chemical forces, to which it is exposed. Thus, when the vital principle is defective, the chemical affinities of the food obtain a comparative ascendancy, and the elements of the blood and of nutrition and decomposition are disturbed. For instance, during the existence of

disease in the mucous membrane of the alimentary canal which has the effect of impairing the function of the abdominal, ganglionic system of nerves and degrading the vital principle of that vast surface intended to supply the body with nutrition, the faculty of decomposing those substances containing silica is suspended, and we consequently find the blood deprived of its proper portion of that element; as may be observed by the absence of enamel on the primary teeth in a state of formation at the time. Hence also when the blood is found deficient in phosphate and carbonate of lime and soda and phosphate of magnesia, the bones lose their firmness, so as to admit of being bent in any direction. Hence also when these phosphates are in excess in the blood, we find them deposited in various parts, as the muscles, tendons, capsules of the joints or in the lungs. The scrophulous or tubercular predisposition may be hereditary as well as acquired. In the former case it manifests itself often in early infancy in the lymphatic system, but more particularly and primarily in the organs designed for the digestion and assimilation of the food. The predominance of lymph and deficiency of hæmatosine and fibrine, remarkable in the blood of scrophulous children, are probably the result of interrupted assimilation and determine the vicious character of the secretions. Hence the globules of chyle, imperfectly converted into blood during their transit through the lungs, in consequence of this disturbance of their original elements

and their defective animalization, appear to be ready to be deposited in the crude state, in which we find what is called tubercular matter. As one of the results of pulmonary inflammation in healthy subjects, we find nodules consisting of unadulterated blood, extravasated in the lungs, which are ultimately converted into pus. In those, on the contrary, whose blood is vitiated, we find tubercular nodules as the result of inflammation in the cellular structure, which by interrupting the circulation in the capillary arteries determines an effusion of morbid globules to a greater or less extent, according to the degree of vascular obstruction. When the free surfaces of mucous membranes are the seats of inflammation in scrophulous patients, we find tubercular deposits corresponding with the muguet observable on the mucous surfaces of healthy persons. These tubercular products are not exfoliated, as in persons possessing a sound constitution, but are succeeded by specific ulceration of a destructive character in consequence of the decay, or want of vitality, in the nutrient vessels of the membrane and the peculiar property of the morbid secretion; and whenever inflammation exists, the process of tuberculization extends itself. The constant exposure of the mucous membrane lining the larynx, trachea, bronchi and pulmonary cells to the vicissitudes of the atmosphere explains the reason why inflammation and the consequent deposit of tubercular matter should occur more fre-

quently in the respiratory than in any other organs, and the comparative prevalence of phthisis in mountainous districts admits of explanation from the same cause.

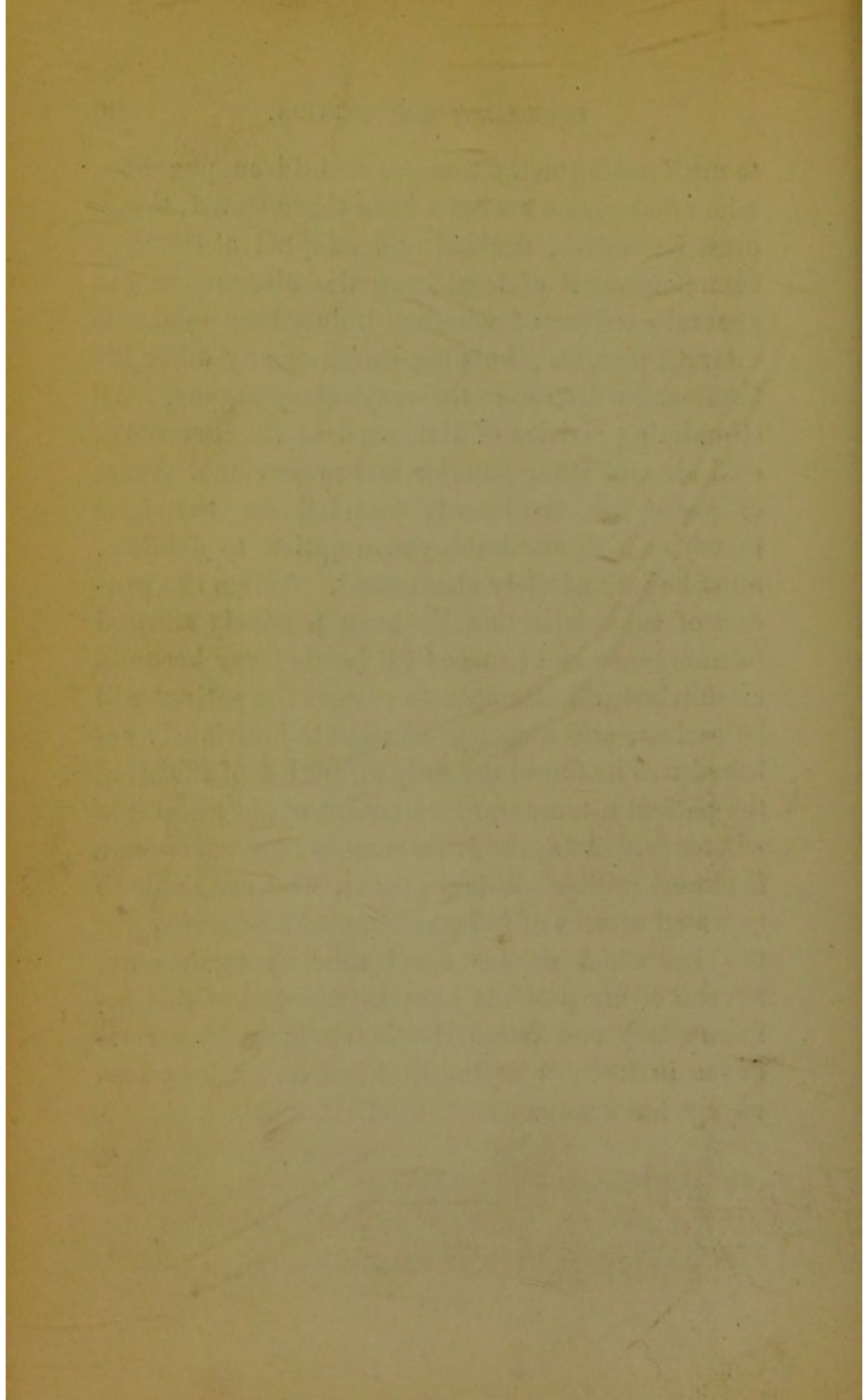
The same deterioration in the vitality of the blood as in scrophulous persons is acquired by those, whose occupations expose them to the inhalation of particles of glass, iron and coal, which mechanically obstruct the combination of the oxygen of the air with the superfluous carbon of the blood. To these may be added the insalubrious effects produced by the inhalation of lactate and phosphate of ammonia, generated by the decomposition of animal matter in the lungs in the last stage of consumption, which has been supposed by the vulgar to be the medium, by which pulmonary phthisis is sometimes communicated. Many instances, I must admit, have occurred under my own observation of persons previously healthy having fallen a prey to pulmonary consumption, after having been in close confinement with those, who have died from the disease. This may be accounted for by the loss of rest, the confinement to a heated and unwholesome atmosphere, and the offensive, animal effluvia before alluded to, occasioning, as they almost always do, nausea, loss of appetite and feeble digestive powers. To the morbid condition of the blood resulting from this unnatural mode of existence, and the consequent, imperfect assimilation of the food, may be added exposure to the frequent

and extreme changes of temperature required by the patient, to which his attendants are obliged to submit. A catarrh supervening under these circumstances frequently terminates in phthisis; so also when the mucous membranes of the stomach and bowels have become enervated by the pernicious habit of drinking spirits, and pulmonary, bronchial or tracheal inflammation occurs from exposure to cold, tubercular disease commonly unfolds itself even at an advanced period of life. This latter is not so common an occurrence in Belgium as in England, and it is not so frequent in the latter country of late as formerly, in consequence of an improvement in the habits of the people.

From these remarks it will appear obvious that a certain cachectic condition of the blood is essential to the generation of pulmonary consumption, and that the tubercular deposit in its various forms is the result of inflammation. This analogy between the primary elements of pus and tubercle receives additional confirmation by the hectic fever, which under certain circumstances is common to them both, not only with respect to its character but its periodicity. This fever is characteristic of the production of pus from sub-acute inflammation and of tubercle in every form, and its regular, nocturnal return appears to be an effort of nature to force the circulation from the inflamed organ to the periphery of the body.

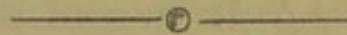
As to *medical treatment*, I must refer the reader

to my Treatise on the diseases of children, pag. 532, who must observe what I have there stated, that it must be active, decided and adopted at the very commencement of local, vascular obstruction and general excitement whether induced by epidemic catarrh, measles, hooping cough or any other inflammatory disease in the respiratory organs. All stimulating articles of diet, exposure to currents of cold air and other popular and professional errors of preventive treatment, founded on the false theory, which attributes consumption to debility, must be immediately abandoned. When the process of tuberculization has been passively allowed to commence and proceed till hectic fever becomes established, all attempts to restore the patient will be useless, and a change of climate judiciously selected will be found the only means left of affording the patient a temporary extension of his miserable existence. As a *preventive* remedy, a warm climate is almost indispensable to those, who are liable to repeated attacks of inflammation or hemorrhage in the bronchial or laryngeal mucous membrane. Several of my patients have been cured of this inflammatory and hemorrhagic tendency by a residence in Jamaica or the East Indies. A long sea-voyage has also an excellent effect.



CHAPTER VI.

Diseases of the fibrous structure.



GOUT. RHEUMATISM.

The pathology, external appearance and migratory character of gout and acute rheumatism are so similar, that I am inclined to believe they are only varieties of the same species. The disordered functions of the digestive organs and the morbid secretion in the kidneys are the same in both; and although we find the urate of soda in gout almost invariably coloured by the mixture of purpurine, denoting disordered function in the liver, yet precisely the same deposit is often found in cases of acute rheumatism. Writers and practitioners even of the present day concur in consi-

dering the pink-coloured patch of inflammation on the skin covering the small joints, as of the fingers and toes, a diagnostic mark of gout; yet when the disease moves from these smaller to the larger articulations, this characteristic discoloration is never observable, except on the patella, the ankle or the point of the elbow. Hence it is not owing to any peculiar or special property of gout but to the proximity of its seat to the integument and the comparative absence of intervening cellular membrane. The same individual too, who is subject to gout, is also liable to acute and chronic rheumatism, which I have repeatedly noticed in three successive generations. In one of these families, the grand father who died, as I found on examination after death, from inflammation of the heart and pericardium, proceeding from rheumatic metastasis, had been all his life subject to gout and rheumatism; his son has attacks of both every spring, and two of his grand sons, one 15 and the other 10 years old have also had severe illnesses with both diseases. An old gentleman had chronic rheumatism in the form of sciatica many years, during which he also frequently suffered severely with attacks of gout in the feet and ankles; and the lithic acid diathesis was so constant that at length a stone formed in the bladder. Gout also like rheumatism manifests itself at all ages. I have seen it commence in an infant two months old at the elbow-joints and afterwards extend to all the arti-

culations of the extremities, and I have witnessed a primary attack in the foot of a gentleman 72 years of age, whose manner of living had always been remarkably temperate.

The same natural conformation, which seems to predispose to gout, as a capacious chest, strong muscular developement and vigorous action of the heart and arteries, exists also in rheumatic patients; and the same exciting cause, as sudden change of temperature, over-exertion of the muscles or ligaments or local injury, is found to produce the attack both of gout and rheumatism. With respect to temperature, both diseases are most prevalent during an easterly wind and cold seasons; but excessive heat will also induce them. Two of my patients had severe attacks of gout and rheumatism from exposure in open carriages to the burning heat of the sun.

The deposit of urate of soda on the joints and tendons appears to be confined to gout, yet it is really not a special property of that disease; for I have discovered what are called gout-stones deposited even in the muscles by *rheumatic inflammation*.


Gout is not so prevalent in the dry and healthy parts of Belgium as in England. I am inclined to attribute this circumstance to the comparative dryness of the continental atmosphere, and possibly in some degree to the difference in the mode of living. In the Channel-islands, where the air is remarkably

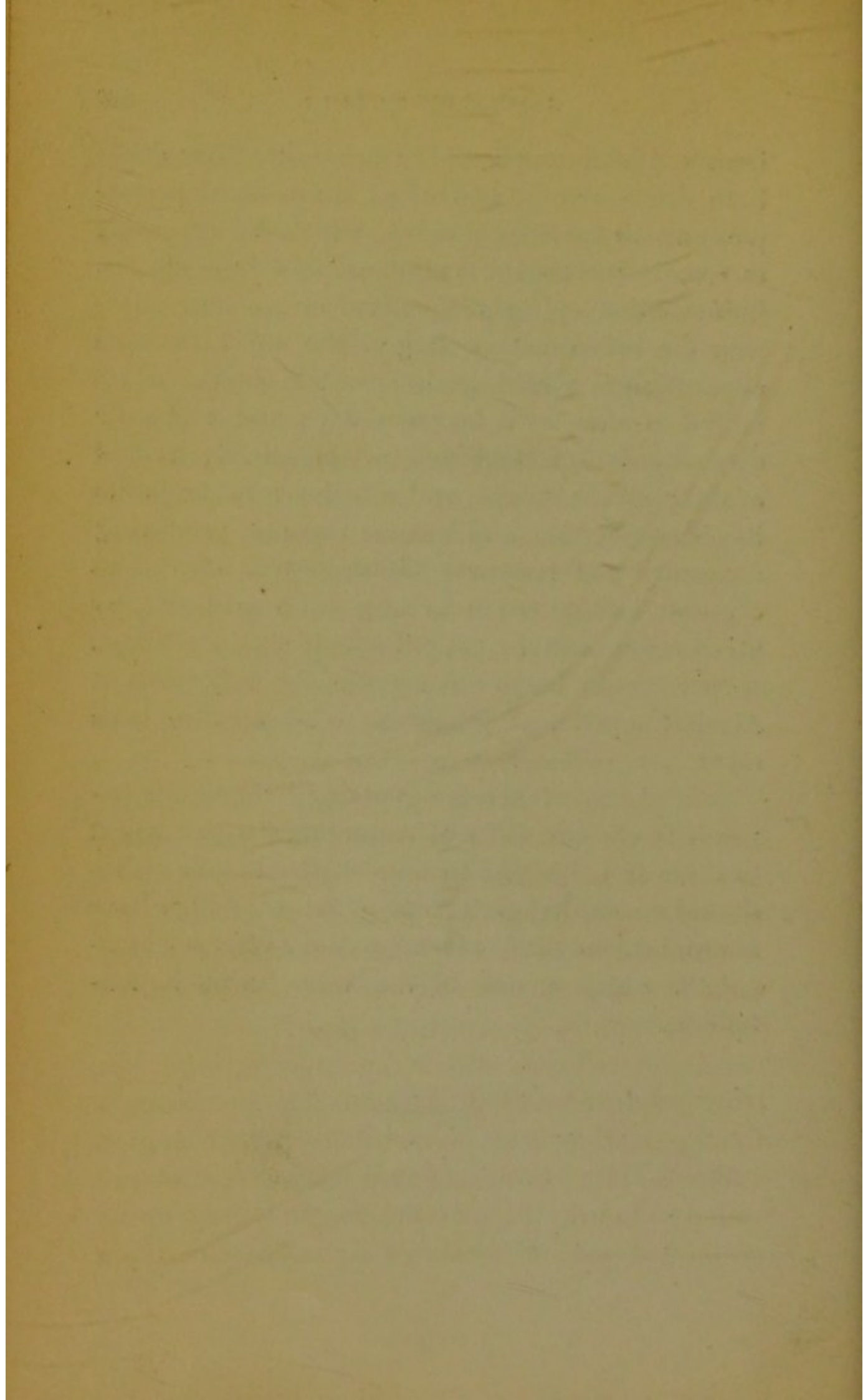
moist, rheumatism is the most prevailing disease. Although the attacks of gout and rheumatism are not so frequent, they are equally severe among the English in Belgium as in England; and acute rheumatism in particular is more apt here to terminate in effusion from the free surface of the capsules of the large joints, requiring local remedies for its perfect removal.

Treatment. The natural affinity between gout and rheumatism is manifested also by the effects of internal remedies, which are exactly alike, when the white, fibrous structure of the articulations is the seat of either of these diseases. In the cure of these most painful ailments, our first duty is to remove the pain and to modify the inflammation as rapidly as possible. All flannel and hot coverings, employed with the view of encouraging the local inflammation, ought to be laid aside and such medicines immediately prescribed as will speedily act upon the secretions of the kidneys, the liver and the intestinal canal. By this active treatment, relief to the urgent symptoms may always be procured in a few days, and transition of inflammation to the internal organs entirely prevented. Diseases of so active and restless a character as acute gout and rheumatism must not be trifled with by the dilatory, alterative measures in common use, which too frequently allow the enemy to attack the heart and lay the foundation of lasting misery or sudden death, or provoke effusion into the synovial mem-

branes, which cripple and disfigure the extremities. Both diseases must be treated on rational principles and all specifics avoided, which by appearing to remove the urgent symptoms, as if by a charm, induce either epilepsy, apoplexy or madness. During the inflammatory stage, the safest external application is a cabbage-leaf, which should be renewed as often as it becomes dry; and when the disease has been neglected or imperfectly treated at the commencement, and effusion into the joints has been permitted to become chronic, producing deformity and lameness, it should be treated as capsular inflammation arising from cold or any other cause, and the patient should at the earliest, proper season have recourse to the hot baths at Aix-la-Chapelle, so deservedly celebrated in such cases.

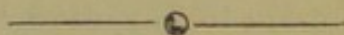
It is of importance for gouty and rheumatic invalids to observe rules of temperance with respect to their diet, bearing in mind that all made dishes should be avoided, as well as all wines, which have not undergone perfect fermentation. Hence champagne, which is one of the worst, must be forbidden.





CHAPTER VII.

Intermitting fever. Intermitting neuralgia. Intermitting apoplexy
or fièvre apoplectique. Remittent fever. Typhus.



1. INTERMITTENT FEVER OR AGUE.

This fever, when occurring in its regular form, presents three stages, namely a cold, hot and perspiring stage; and it may return every day or every second or third day, etc.; always observing the same period of the twenty-four hours for its return. In some countries, as in the north of France in particular, there exists at times an imperfect intermit- tent, consisting only of the cold and hot stages and thus presenting itself in so obscure and uncommon a form as often to escape even professional obser- vation. In this part of France the small farms are intersected and separated by canals containing

water perfectly stagnant, by means of which manure and the produce of the land are conveyed in small boats. The fields being low and flat and scarcely rising above the level of these rustic moats, the surface-water is never drained off and is consequently exposed to a continual infusion of dead animal and vegetable matter, the elementary parts of which are diffused in the surrounding air by evaporation in the day-time and again condensed by the comparative coldness of the evening and succeeding night; when they descend, probably by the force of attraction, to the marshy locality, in which they were generated. Those morbid elements, principally composed of carbureted hydrogen, containing one atom of carbon in proportion to two of hydrogen, exercise a most injurious influence on the animal economy and interfere with the decarbonization of the blood in the pulmonary and cutaneous circulation; but I have not been able to discover any special condition of the miasm, capable of producing this particular variety of intermittent, which I think depends, as well as remittent fever, on the dose of paludal poison being less concentrated than that, which occasions the more regular form of ague.

Intermittent fevers are uncommon at Brussels, Spa, Malines, Louvain and all other dry and salubrious parts of Belgium; but they are of frequent occurrence at Ghent, Bruges, Ostend, Antwerp and most parts of West Flanders, where the atmo-

sphere is vitiated by the malaria arising from the decomposition of animo-vegetable matter in the stagnant water always existing near the surface of the soil. These fevers are sometimes accompanied with a periodical pain felt in certain nerves or tendinous expansions, which is known by the name of neuralgia.

There is also found in the same paludal districts a variety of intermittent, to which the continental physicians have given the name of *fièvre apoplectique* or apoplectic fever. This is distinguished by a periodical attack resembling apoplexy, during which the patient continues in a state of stupor without any consciousness. During the intervals, that is after the periodical, cerebral congestion has become suspended, the pulse continues frequent, indicating the mixed character of the disease; and generally after the third paroxysm of stupor or sooner the malady loses its intermittent type and terminates rapidly in continued apoplexy and death. In this variety, as in that which has been described as occurring at Ghent, the internal, vascular congestion and subsequent inflammation and its consequences are confined to the brain. In regular, simple intermittent on the contrary, in which the paludal poison operates on the ganglionic, nervous centres during the cold or congestive stage, a natural and safe reservoir appears to be provided in the spleen for the temporary reception of the venous blood, with which the other less spongy and

elastic abdominal viscera are oppressed; and thus their integrity is preserved, until the heart and arteries have recovered from the primary shock of each recurring paroxysm and have acquired sufficient vital energy to re-animate the circulation and to develop the fever.

Treatment. The proper remedy for every variety, whether regular, obscure, irregular or complicated with periodical apoplexy or pain, is disulphate of quina, which must be administered in a full dose every four hours. When the disease is unusually obstinate, ten grains of this medicine are often given with the best effect one hour before every periodical attack, the ordinary dose being repeated in the intervals. In such cases the cure may also be promoted by adding a small dose of the solution of arsenite of potash to the quinine during the absence of the paroxysm. These medicines should not be discontinued, until the patient has passed free from disease through one or two of the days, on which he was accustomed to have the intermittent fever, neuralgia or stupor, and copious, universal perspiration is established.

2. REMITTENT FEVER.

In this disease the febrile paroxysm returns frequently in the course of every 24 hours. It consists of short, slight fits of shivering, succeeded by heat and perspiration, and is generally found in

rainy seasons and in situations, which require draining. Hence the same malaria, consisting principally of carbureted hydrogen gas resulting from the decomposition of vegetable matter in paludal districts, saturated with stagnant water reposing on or just beneath the surface, which generates intermittents, in Holland and some parts of Belgium, is also the cause of remittent fever; the difference being probably due to the difference of quantity imbibed by the system. When slight and of short duration, this fever is apparently uncomplicated; but when it succeeds dysentery, it is so intimately associated with the morbid condition of the mucous membrane of the bowels, that it becomes chronic and symptomatic of intestinal inflammation or irritation.

Treatment. When the fever is unattended with disease in the bowels, it may be speedily cured by citrate of potash or acetate of ammonia given once in four hours, which should be continued until perspiration commences; the patient drinking freely from time to time either warm barley-water or mint or peppermint-tea.

When this fever is complicated with, or preceded by dysentery, it will not give way, as long as any symptoms of the latter remain. The treatment recommended for the chronic variety of dysentery will be generally found sufficient; but when the tongue is coated with a brown fur and the discharges from the bowels have a very offensive smell

and are found to be of a dark, green or black colour, and not resembling natural stools, the only treatment which will be found to succeed, will be the exhibition of a dose of chloride of mercury every second night and a purging draught of salts and senna the following morning after each dose. In the intermediate time one grain of disulphate of quina and ten drops of diluted sulphuric acid properly diluted should be given three times a-day. Should the fever continue, after the discharges from the bowels have become perfectly natural, nothing except change of residence to a very dry and hilly situation can be relied upon to restore the health of the invalid.

3. TYPHUS.

This is called continued fever by nosologists to distinguish it from remittents and intermittents. This artificial distinction is calculated to mislead the superficial observer; because in fact, although there is a continual febrile state, a striking increase, or what is styled an exacerbation of the fever, occurs every evening throughout the disease, which is particularly obvious when it has been of paludal origin and is modified by the co-existence of sub-acute inflammation. The symptoms are pain in the forehead, stupor or delirium, great prostration of strength, a dry, dark brown, almost black fur on the tongue, and a slightly increased

heat upon the skin ; to which may be added loss of sleep during the first five or six nights. This disease is frequently the consequence of neglected or improperly treated dysentery, which often continues after the fever has unfolded itself. When the dysentery has been neglected, it proceeds, until the cerebral disease, on which the delirium and stupor are dependant, has so far advanced as to produce effusion on the brain, when a paralysis of the intestines and bladder ensues and the patient generally dies. The most common form of typhus in this country is that, which is induced by the sudden suppression of dysentery or diarrhœa by the ignorant and officious exhibition of opium, which practice has the effect of producing a transition of inflammation from the mucous membrane of the bowels, where it would be comparatively harmless, to the delicate membranes of the brain, where it speedily excites the phenomena of typhus or brain-fever.

Typhus is met with, in this country as in England, in three forms, viz, *simple, inflammatory* and *congestive*.

1. *Simple typhus* is a low fever without any manifest symptoms of inflammation in any internal organ. The heat of the skin is scarcely raised above the natural standard ; the tongue is dry and covered with a thick, dark coloured fur, resembling the colour of coffee or Spanish juice ; the pulse varies from 100 to 120 and is irregular, not

intermitting, but unequal in its pulsation; sometimes observing one rate, sometimes another. The patient lies prostrate, generally dosing with his mouth open, and when he is roused, his eyes have a giddy expression. This species of typhus usually arises from the morbid effluvia of animal matters in a state of decomposition, as from drains or from the bodies of persons dying with typhus, in whom a peculiar animal poison is generated during fatal collapse. When this disease is severe, the blood soon becomes vitiated, losing a large proportion of its fibrine and being unfit for the proper purposes of the circulation; whence portions of it are extravasated under the cuticle, producing the eruptions called petechiæ, or the serous part only is effused in patches elevating the epidermis into vesicles of a small or larger size.

2. The *inflammatory* is by far the most common form of typhus in this country. It is distinguished by being connected with some obvious inflammation as in the bowels, the peritoneum, the membranes covering the lungs and lining the chest, those enveloping the brain, etc. At the hôpital Saint-Jean, the largest hospital in this city, containing about 450 beds, we find that every fatal case of typhus presents after death appearances of an inflammatory character, and scarcely one in a thousand is exempt from ulceration in the solitary or aggregate glands of the ilium. This latter fact may be accounted for by the previous diarrhœa or

dysentery existing before admission into the hospital and produced by the paludal miasm constantly generated in the lower part of Brussels, whence the principal supply of patients at this hospital is derived. The same kind of ulcerations are observed at the hôpital bourgeois at Ghent, which contains 140 beds and is situated in the lower part of the town, which is intersected every where by water and consequently always damp; also at Antwerp, Bruges and Ostend.

In this form of typhus the evening exacerbation is decidedly marked; there being in all cases an evident tendency to manifest the intermittent character, which tendency is modified by the concomitant, inflammatory condition of the circulation. In addition therefore to the ordinary symptoms of typhus, we find in this inflammatory species pain in the region of some internal organ, denoting the existence of inflammation, or we observe it externally as in bad cases of simple or phlegmonous erysipelas, etc. When there is no pain indicating internal, membranous inflammation and no external evidence of it, we find it sufficiently well-marked in the cerebral membranes by delirium. As mistakes are constantly made in the diagnosis of delirium in these cases, which from their violence and duration present much resemblance to madness, I may observe that it may always be discovered by the patient being found quite unconscious of the presence of others; while those, who are suf-

fering with a paroxysm of insanity, have a knowledge of every person about them. The former is a temporary derangement of the perceptive faculties and the latter of the reason or judgment. During the first 6 or 7 days of this species of typhus, the patient enjoys no sleep, being in a state of almost constant delirium, during which it may be remarked that all the ideas presented to the imagination arise from the excited state of the sensorial functions and not from the exercise of the external senses. Sooner or later in favorable cases sleep supervenes and the patient awakes unconscious of all that has passed, and at the end of a period varying from two to three weeks or more the perspiration from the skin and all the other natural functions are restored and the patient becomes convalescent. This event may be foreseen a day or two before by the deposit of mucus, forming a thick cloud in the urine.

The bowels, which during the delirium are more or less confined, resume their office and the intestinal discharges present a healthy appearance, even after an abstinence of three weeks duration from solid food.

5. The *congestive typhus* is a most serious and deceptive disease; as the phenomena, by which it is recognized, proceed from an oppressed condition of vital organs, during which no symptoms of fever unfold themselves. When the brain is the seat of congestion, as in the intermitting apoplexy men-

tioned before, the first symptom is a sudden apoplectic stupor accompanied with a characteristic, cadaverous expression in the face; when the heart is the primary organ oppressed, the patient is found in a state of *apparent* syncope, lasting from 24 to 36 hours sometimes, during which even the stoutest man believes he is dying every moment. In both cases the pulse presents to the practised finger a sensation indicating oppression in the organ affected, not as in real syncope a suspension of the circulation. The heart does not stop but struggles to unload its cavities, and when the patient has any organic disease in the valves of the heart, the capillary arteries in one or more of the extremities sometimes effuse suddenly serum into the cellular membrane, producing temporary, dropsical tumours. As soon as this congested state disappears, the latent typhus, which is *always of the inflammatory kind*, gradually discovers itself and runs through its course afterwards in the same manner as if no preceding congestion had occurred. When the congestive stage continues unmitigated more than 36 hours, the patient dies either by effusion into the pericardium or on the membranes of the brain.

Treatment. — 1. Simple typhus requires only the exhibition of disulphate of quina with diluted sulphuric acid about once in 4 hours, to which may occasionally, when required, be added one drachm of sulphate of magnesia. Barley-water, new

milk and beef-tea may be given according to the taste of the patient, and, as soon as the skin becomes moist, I always prescribe to English patients with the best success fresh beer or portwine and water.

2. The inflammatory form of typhus must be promptly treated by the application of leeches to the region of the inflamed part. The effects of this local bleeding must be carefully watched; because in this disease the inflammation is always modified by the co-existing typhus and consequently the patient is unable to bear with impunity much loss of blood; as it is liable to be followed by fatal collapse of the circulation and excitability. If the inflammation is seated in the mucous membrane of the bowels, this must be removed by the treatment already mentioned for that disease; but opium in every form must be strictly forbidden, as a single dose will almost infallibly transfer the inflammation to the membranes of the brain, where secondary inflammation is almost always fatal. It would therefore be inexcusable to exchange a curable for a fatal malady. Subacute, peritoneal inflammation, which is often complicated with typhus and sometimes the result of the indiscreet exhibition of opium in the treatment of dysentery, is readily discoverable by fulness, tension, pain and tenderness of the abdomen accompanied with *constipation*. This must be combated by leeches and chloride of mercury at its commencement; but

very little time will be allowed for vascular depletion, because in all cases of a typhoid nature the elements of the blood are so changed as not to admit of the production of healthy, adhesive lymph nor pus-globules which terminate inflammation in a healthy constitution; but on the contrary a morbid product of a peculiar kind, having but slight resemblance to pus and containing no coagulable lymph, is rapidly deposited on various parts of the peritoneal surface. After this result has taken place, bleeding is injurious by hastening collapse. Prompt and judicious, local bleeding and small doses of chloride of mercury will generally remove the pain and equalize the circulation by imparting a temporary stimulus to the minute vessels occupied with ineffectual struggles to overcome the inflammatory obstruction in their tubes. Should delirium ultimately supervene, it will be found by an accurate observer not to result from translated inflammation, but from that exhaustion of the nervous excitability, which occurs in every instance towards the fatal termination of all inflammatory and febrile diseases. Neither wine nor bark should be given, until all inflammation has been subdued and a kind and general relaxation of the vessels of the skin, manifested by free perspiration and the separation of the fur on the tongue, may have taken place.

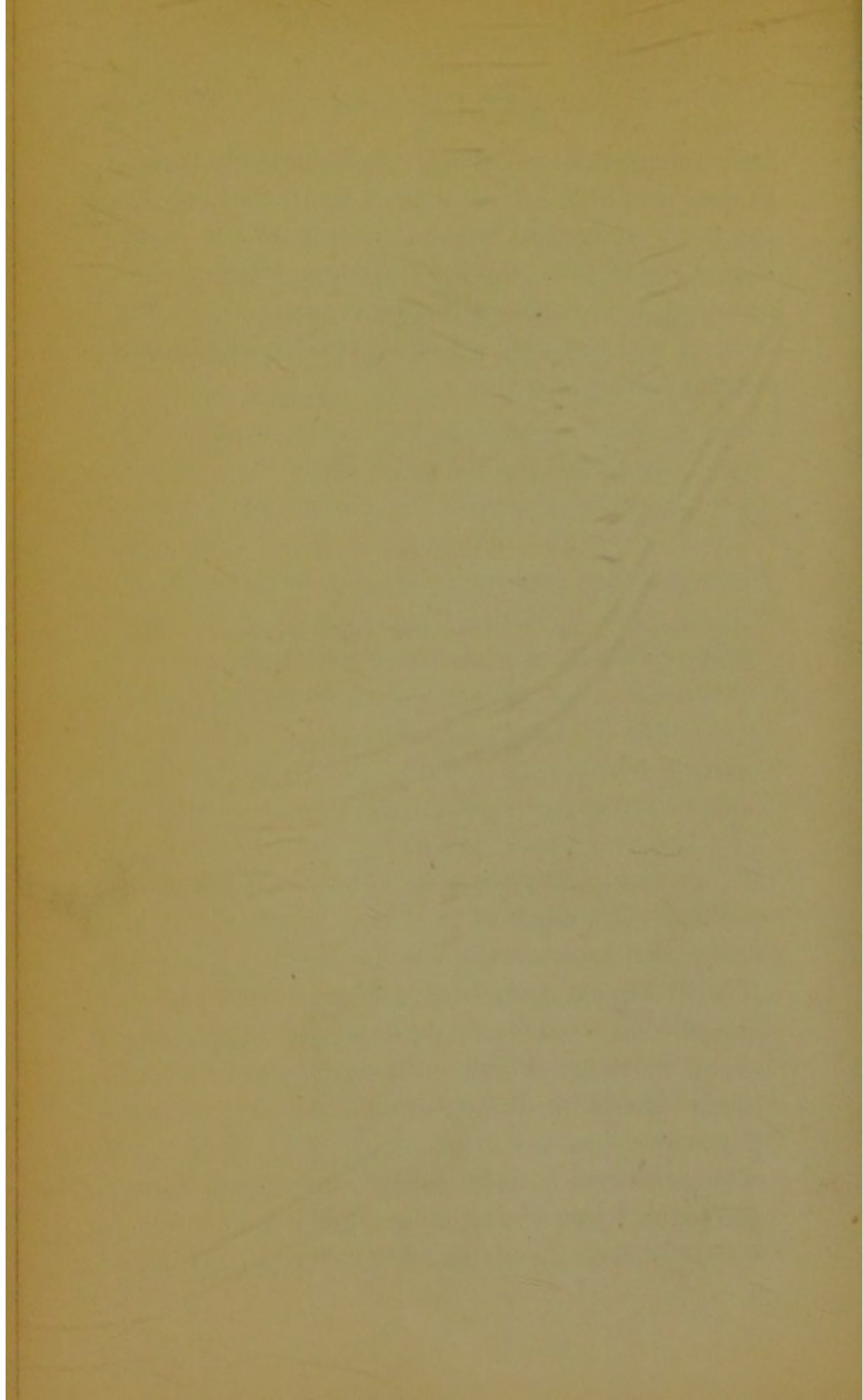
5. The congestive species of typhus is full of apparent and real danger. The danger is in ap-

pearance only when the skin retains its temperature and the arteries at the wrists remain full but unable to contract as usual, at the same time affording to the finger the perception of a current more or less obstructed. The cases of real danger are those, in which the surface of the body presents a death-like coldness, the face is contracted and the arteries at the wrist feel like empty tubes, inanimate and with little or no obvious pulsation. In cases like the latter, death sometimes occurs in a few hours.

Treatment. The organs principally suffering congestion in the cases of apparent danger first described being either the heart or brain, bleeding from the arm must be immediately adopted. The other variety is produced by a congestion in some part of the abdominal viscera and a consequent positive *collapse* of the heart and arteries, which are dependant for their vitality on the healthy function of the abdominal, ganglionic, nervous centres. In this variety bleeding must be carefully avoided. The patient should be placed in a warm bath and take frequently a small dose of sesquicarbonate of ammonia in an ounce of cold water. Brandy and water may also be given. After the use of the bath, friction of the body and extremities should be had recourse to and hot flannel should be repeatedly applied to the pit of the stomach. By these active means we are often able to rescue the patient from impending death. After this congestive stage has

been removed, it is usual for inflammatory typhus to develop itself, when it must be treated according to the symptoms without regard to the antecedent congestion; the inflammatory action, when unfolded, being generally in proportion with the severity and duration of the previous oppression of the vital organs.





CHAPTER VIII.

Diseases of the skin.

Lichen. Scarlet fever. Common and intermittent nettle-rash. Rose-rash. Purples. Erythema. Intertrigo and Eczema. Erysipelas.

1. *Lichen*. This eruption appears in Belgium principally in four forms, viz. The *L. circumscriptus*, *agrius*, *urticatus* and *lividus*.

The first or circumscribed species presents itself in large clusters, having defined and irregularly circular borders, which either remain stationary or coalesce and gradually disappear at the end of a few weeks.

The second is a more severe and troublesome species, sometimes in Belgium during the hot season resembling the tropical variety, called the

“ prickly heat. ” These eruptions are of a deep, red colour and are surrounded by a diffused inflammation to a great extent accompanied by itching and a burning and tingling sensation, which is increased by a hot bed, by strong exercise and by stimulating food and wine. This disease is preceded and accompanied by more evident symptoms of fever than are observable in connexion with the other species.

The third or that, which resembles nettle-rash, shews itself by inflamed wheals, like those produced by the bites of gnats or bugs, which are particularly troublesome during the night. The inflammation speedily subsides and leaves raised, itching pimples, which are succeeded by similar eruptions.

The livid lichen is found principally on the extremities, where it presents the appearance of purple wheals and patches, sometimes interspersed with purple spots. It is unaccompanied with fever.

These diseases are almost invariably produced in the summer-season from sudden vicissitudes of temperature and exposure to currents of air, when the surface of the body is heated and relaxed by perspiration or unduly excited by the burning, solar rays. The *treatment* of the first, second and third species is most safely and successfully conducted by the exhibition of citrate of potash once in four hours, an occasional, saline aperient and

the frequent use of warm water externally or of a tepid bath. The diet should be unstimulating; and diluting liquids, as barley-water, tea, etc., should be taken freely to restore and support a continued, gentle perspiration.

The fourth species owes the livid appearance of the eruptions to a morbid condition of the blood, in consequence of which it becomes stagnant in or is effused from the capillary vessels in the skin. This condition of the blood consists of a deficiency of fibrine and healthy, red globules, as in purpura and scurvy, and requires the same special remedies, namely a free exhibition of acids with quina or citrate or sulphate of iron, followed by the use of the chalybeate waters of Spa or Germany.

2. *Scarlet fever* is almost invariably met with in the mildest form in Belgium, particularly in Brussels. I visited at one time about fifteen patients in the military hospital, in every one of whom the disease was so incomplete that the physician was obliged to apply the pressure of his finger to ascertain the existence of the rash; and in no case could I discover the smallest ulceration in the tonsils. This is an important fact for the consideration of English families, whose children have not undergone scarlet-fever; as it frequently appears in England in the most malignant form, when it spares no class of society and becomes highly contagious as well as epidemical. Secondary diseases, particularly dropsy, are as common here as in England;

the imperfect developement of the rash and of the inflammation in the throat being no security against their invasion. I saw in a boy in the new hospital at Louvain an example of the most severe and general dropsy I ever witnessed resulting from a remarkably slight attack of scarlatina.

3. *Nettle-rash* is distinguished by white, prominent elevations of the skin, surrounded by a diffused redness, resembling the appearance produced by the sting of a nettle. The febrile nettle-rash is the species most frequent in this climate. It is remittent and is accompanied by an obscure fever of the same character. It is speedily removed by acetate of ammonia or citrate of potash repeated once in four hours.

I have observed in this country an *intermittent nettle-rash*, returning exactly at the same hour every day, accompanied with facial or frontal neuralgia. This is a formidable disease, with which the rash is an accidental accompaniment; as, if not promptly treated by anti-periodical remedies, it speedily terminates in fatal inflammation of the brain or its membranes. It is in short a variety of the apoplectic fever peculiar to the malarious districts, masked and modified by the cutaneous eruption, which has the effect during the first few days of obviating and retarding the cerebral congestion, which is one of its primary, characteristic symptoms, when the disease is uncomplicated.

4. *Rose-rash*. The summer-roseola is the species

of this rash most commonly observed in Belgium. It is a rose-coloured efflorescence generally appearing on the face, particularly of ladies, from exposure to the rays of the sun, succeeded by some imprudent and sudden alteration of temperature, produced by a current of air or the sudden application of cold water, while the surface of the body is overheated or in a state of copious perspiration. The usual duration of the rash is about a week. It should be treated by gentle, saline aperients and the application of tepid water.

5. *Purples*. I intend to confine my remarks to the nettle-rash-purpura, which is a disease almost entirely confined to the middle and upper classes of society. The other species, which are the result of deficient or improper food or of old age, are common in all parts of Europe. The nettle-rash-form of the disease is met with principally in this country in young females having delicate constitutions or presenting symptoms denoting a disturbance in the elements of the blood. It is generally developed by fatigue, especially by long walks or long standing during the hot weather. It appears commonly on the extremities with bright, red elevations in the skin, which become of a dark, purple colour and afterwards brown, greenish and yellow; when they subside and disappear and are succeeded by similar disfigurations. In this disease the blood is so deficient in fibrine and the red globules are so imperfect that the small blood-vessels of the

skin, partaking of the general debility, lose their contractile property and allow their contents to be extravasated; and the successive discolorations I have described are the natural results of chemical decomposition and absorption. In these cases local remedies will be of no avail : we must vigorously commence a mode of treatment calculated to restore the blood to its healthy condition. This may be accomplished by generous diet, the free use of lemonade and the exhibition of some suitable, chalybeate medicine, assisted by passive exercise in the open air either early in the morning or after the excessive heat of the sun has subsided.

6. *Erythema* is introduced here in consequence of its being sometimes mistaken for erysipelas by those, who are ignorant of the characteristic marks of the latter. In its ordinary form it is symptomatic of muco-intestinal or some other internal inflammation or of hysteria, and requires no interference. It consists of a continuous redness of some portion of the skin without swelling or vesication.

7, 8. *Intertrigo* and *eczema* are noticed for the same reason as the preceding. They consist of a diffused inflammation on the skin produced by some external irritation. In *eczema solare* there are present both swelling and vesication. This disease is commonly known by the name of *heat-lumps* or *heat spots*, and is occasioned by exposure to the direct rays of the sun or the heated air.

9. *Erysipelas* is a common disease in Belgium. It appears in two principal forms, the simple and phlegmonous. Its characters are heat, redness, swelling and vesications. In the former the inflammation is confined to the skin; in the latter it extends also to the cellular and adipose membranes beneath it. The ordinary cause of simple erysipelas is exposure to an easterly wind. It is therefore almost invariably confined to the winter and spring-months.

The phlegmonous species may be produced by the same cause, or by damp or moisture or by external wounds or injuries.

The simple erysipelas, after extending itself from the part originally attacked, completes its course at the end of about ten days; unless its progress is interrupted by imprudent exposure to a current of cold air; when the external disease suddenly disappears and inflammation in the membranes of the brain or in some other internal organ supervenes.

Phlegmonous erysipelas is distinguishable soon after its commencement by a stone-like induration in the principal seat of the inflammation, in addition to the above mentioned, characteristic marks of erysipelas. This is a highly dangerous disease; for unless it is treated judiciously immediately after its commencement, it is liable to terminate in suppuration and destruction of the skin and the subjacent parts, attended with typhoid fever, and ultimately to produce the death of the patient. Having

in my Treatise on the diseases of children, p. 77, fully explained the origin and the pathology of this disease, I need only in this place observe that the general belief that phlegmonous erysipelas arises only from external injuries or from the infectious atmosphere of crowded ships or hospitals is entirely without foundation; most if not all cases being traceable to damp or cold or to the morbid influence of an easterly wind, so prevalent on the continent and to a less remarkable extent in England also during the seasons of winter and of spring, which are the principal periods of its occurrence.

The treatment of simple erysipelas requires in this country the same caution as in other variable climates, viz. for the patient to avoid the exposure of the inflamed parts to currents of air or to sudden changes of temperature. It is therefore most prudent for him to confine himself to his bed-room, the windows of which should not be opened, until the inflammation has disappeared and the outer skin has begun to exfoliate. When much fever is present, citrate of potash with the potassio-tartrate of antimony must be given once in four hours; and the bowels should be well purged with sulphate of magnesia and senna every third morning. The inflamed parts may be frequently dusted with fine flour or starch-powder; but the most comfortable application is a tepid spirit-lotion.

The best remedy for the phlegmonous species is the prompt application of nitrate of silver; a practice

introduced by M. Higginbotham of Nottingham, who confines its use to the traumatic variety. Having had an extensive practice both public and private in the treatment of phlegmonous erysipelas, I can recommend with confidence the adoption of this active agent in the treatment of every variety, whether traumatic or arising from damp or from atmospherical influence; provided it is had recourse to in a proper manner and at a proper period. When the inflammation is allowed to advance, until suppuration is approaching or has commenced, the only means of saving the patient's life in most cases will be found to consist in the free incision of the skin and cellular and adipose membranes. As soon as the local disease has been arrested, the fever and other symptoms speedily subside.

THE END.

