**A practical treatise on diseases affecting the skin / by the late Anthony Todd Thomson ; completed and edited by Edmund A. Parkes.**

# WORKS IN GENERAL LITERATURE.



I.

COLONEL MURE's CRITICAL HISTORY of the LANGUAGE and LITERATURE of ANCIENT GREECE. 3 vols. 8vo. 36s.

II.

BISHOP THIRLWALL's HISTORY of GREECE. New Edition, revised; with Notes and Maps. 8 vols. 8vo. £4. 16s.

*[Vols. I. to V. already published.*

III.

THE Rev. CHAS. MERIVALE's HISTORY of the ROMANS under THE EMPIRE. Vols. I. and II. 8vo. 28s.

IV.

MR. MACAULAY's LAYS of ANCIENT ROME: with IVRY and THE ARMADA. 16mo. 4s. 6d. ... 10s. 6d.



With 21s.;

TIN the

IN-

AS- 9s.

IX.

MR. C. D. YONGE's NEW ENGLISH-GREEK LEXICON; containing all the Greek Words used by Writers of good Authority. 4to. 21s.



THE Rev. T. H. HORNE's INTRODUCTION to the CRITICAL STUDY and KNOWLEDGE of the SCRIPTURES. New Edition; with Maps, &c. 5 vols. 8vo. 63s.; calf, £5.



XI.

THE Rev. F. C. COOK's EDITION of the ACTS of the APOSTLES; with Commentary and Practical and Devotional Suggestions. Post 8vo. 8s. 6d.

XII.

MRS. JAMESON's SACRED and LEGENDARY ART: with Etchings by the Author, and Woodcuts. 2 vols. square crown 8vo. 42s.

---

LONDON: LONGMAN, BROWN, GREEN, AND LONGMANS.

A

# PRACTICAL TREATISE

ON

# DISEASES AFFECTING THE SKIN:


BY THE LATE

ANTHONY TODD THOMSON, M.D. F.L.S.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS;
PROFESSOR OF MATERIA MEDICA AND OF MEDICAL JURISPRUDENCE IN UNIVERSITY COLLEGE,
AND PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

COMPLETED AND EDITED

BY EDMUND A. PARKES, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS;
PROFESSOR OF CLINICAL MEDICINE IN UNIVERSITY COLLEGE, AND PHYSICIAN TO
UNIVERSITY COLLEGE HOSPITAL.



LONDON:

PRINTED FOR

LONGMAN BROWN, GREEN, AND LONGMANS,

PATERNOSTER-ROW.

1850.

LONDON:
SPOTTISWOODES and SHAW,
New-street-Square.

# EDITOR'S PREFACE.

For more than a year previous to his last fatal illness, Dr. Thomson was engaged in the preparation of a Treatise on Diseases affecting the Skin. At the time of his death, 300 pages had not only been written, but printed. Although the most important subjects were included in this portion of the work, so many diseases remained to be described, that it was impossible to put the work, as it stood, before the Profession. Unfortunately, however, according to his usual custom in such cases, Dr. Thomson had not finished the work before sending it to press, but had caused it to be printed as the MS. was prepared. It was necessary, then, to have the treatise completed by some other person; and the Editor, who was known to be familiar with Dr. Thomson's opinions and methods of treatment in cutaneous diseases, was requested to undertake this task. *

The Editor had less hesitation in complying with this request, because the diseases which are most commonly seen in this climate were included among those described by Dr. Thomson; and many of those remaining to be considered were unknown personally to Dr. Thomson, and their description must have been compiled, even had he lived to finish the work.

* Dr. Thomson had completed the work as far as the section on Pityriasis (p. 304), and also left in MS. the chapters on Acne and Sycosis. With the exception of these two chapters, the editor is responsible for the portion of the work from the commencement of the "Tubercular Eruptions."

The Editor was desirous, also, that the portion of the work written by Dr. Thomson should not be lost to the Profession. For more than thirty years Dr. Thomson had paid special attention to diseases of the skin; he had observed them with great care and accuracy; and had learned to treat them with singular success. He was well known to the Profession, in connexion with this subject, by his edition of Bateman, which he illustrated with a valuable atlas, and by his writings in the "Cyclopædia of Practical Medicine." At the close of his active and useful career, it was his greatest wish that his experience should be made useful in aiding his professional brethren in the great object of all practical men, viz. the safe and rapid cure of disease.

The Editor, firmly believing that the chapters on treatment will be found most useful to the Practitioner, has great satisfaction in carrying out, though in so humble a way, what he knows to have been the wishes of his late esteemed relative.

# CONTENTS.

## CHAPTER VI.

### DISEASES NOT INCLUDED IN THE FORMER DIVISIONS, OR OF DOUBTFUL POSITION.



## CHAPTER VII.

### SYPHILITIC ERUPTIONS. THE SYPHILIDES.



## CHAPTER VIII.

### NON-ERUPTIVE MORBID STATES OF THE SKIN.

## CHAPTER IX.

### NEW FORMATIONS ON THE SKIN.



## CHAPTER X.



## APPENDIX.

# MEMOIR

OF

# DR. ANTHONY TODD THOMSON.

---

It is presumed that some details respecting the long and active career of the author of this work will prove neither unacceptable to such of his contemporaries as survive him, nor uninstructive to those younger members of the medical profession who are beginning a similar course of life.

Anthony Todd Thomson was born in Edinburgh on the 7th of January, 1778.* His father, by birth a Scotchman, had settled in America, where he held two lucrative appointments under the British Government; being Postmaster-General for the province of Georgia, and Collector of Customs for the town of Savannah. His mother was the daughter of an American gentleman, named Spencer. Some obscurity rests upon the parentage of Dr. Thomson's grandfather, who held a high office in the Excise department of Government for Scotland, which was then conducted in Edinburgh. He was born in 1714, and the particular patronage extended to him in early life, coupled with family tradition and other evidence which long existed, connect him with the unfortunate family of Southesque, whose peerage is still attainted.

Dr. Thomson's father, Mr. Alexander Thomson, happened to be in Edinburgh, on a visit to his native country, when the subject

* The following details are supplied by Dr. Thomson's sister, the widow of the late William Stevenson, Esq., of the Record Office; his nephew, W. J. Thomson, Esq., of Edinburgh, and also from notes inserted by Dr. Thomson's father in the family Bible, with an injunction that the family "will never part with it, but hand the same down to posterity."

of this memoir was born. At that time, the well-known Anthony Todd was Postmaster-General in England. He was the intimate friend of Mr. Alexander Thomson, and, consequently, stood godfather to his son. To the good offices of this gentleman, whose personal influence was confirmed by the marriage of his daughter with the Earl of Lauderdale, Dr. Thomson afterwards owed his first step to independence.

Dr. Thomson's mother died when he was a year old, leaving him in so feeble and precarious a state of health that he was consigned to the care of a relative, a Mrs. Rainie, to whom his father was subsequently united in his second marriage. To this excellent individual, to her care, her precepts, her example, Dr. Thomson was accustomed to trace many of those habits of self-denial, and principles of integrity, from which he never departed, and the memory of which he has, in his turn, transmitted to his children.

His father's character was calculated to strengthen every good impression, and to raise the standard of truth and honour in the minds of his sons. He was, in every sense of the word, a gentleman; his manners were remarked for their urbanity; his conduct for its consistency. He was hospitable, sincere, religious; nor was it long after the birth of Dr. Thomson that the principles which he displayed in private life were put publicly to the test. Shortly before the war broke out in America, Mr. Thomson returned to that country, accompanied by some of his family. Of the voyage to the New Word, Dr. Thomson retained a distinct remembrance, as well as of what he saw on his arrival: he was accustomed to speak with much animation of the appearance of a tribe of Indians at Savannah, where his father resided. He recollected the departure of his family from that place, when, on refusing to take the oaths of allegiance to the American government, Mr. Thomson was summoned to New York; on the voyage whither the whole party were captured by a French frigate, but were afterwards exchanged. True to his allegiance, Mr. Thomson then gave up his appointments, amounting in value to more than two thousand pounds yearly, and returned, with other American loyalists, to England, to live upon the hopes of compensation.

After many delays, a small pension was granted to him: and upon this he maintained and educated his family, living in the immediate neighbourhood of Edinburgh, to borrow the expression of one of Dr. Thomson's earliest friends*, "in humble circum-

* The Honourable Lord Cockburn, Judge of the Court of Session.

stances, but with the respectability always conferred by good character."

To the period of his childhood Dr. Thomson often referred as one of great enjoyment, owing to the mingled liberty of action, restraint by precept, with which his good parents reared their children. By his step-mother he was fondly cherished. Dr. Thomson, although in after life peculiarly vigorous in constitution, continued through the greater part of his childhood to be unhealthy. To the care of his step-mother, and to the hardening process of a Scottish education, he owed, he believed, the blessing of a powerful frame, never entirely bowed down by any malady except the last.

His step-mother was, indeed, a strict disciplinarian, especially in the observance of the Sabbath; when a patient attention to long sermons, and a dutiful repetition of the elaborate composition denominated the "*Shorter Catechism*," could alone ensure a participation in the ample Scotch supper by which the day was closed. But with the rigidity of system was blended the kindness of a maternal heart. The home of the honest, impoverished American loyalist was a simple, but a happy one. Dr. Thomson's father retained many prosperous friends, who frequently enlivened the evening: Mr. Thomson had travelled much, and observed much. His conversation was instructive, and his cheerfulness in his adversity edifying; his children appreciated in him the disposition to be liberal and hospitable, which was only restrained by an honourable economy.

There was another source of innocent pleasure at hand. In the immediate neighbourhood of Mr. Thomson lived the late Baron Cockburn*, and with his family, Anthony Thomson and his elder brother William were in the habit of mingling continually. The advantage and happiness of this acquaintance were not confined alone to those early days. Between Anthony Thomson and Henry Cockburn, now Lord Cockburn, a friendship was formed which never ceased on either side until broken by death. The recollections of the survivor of those early playmates will furnish the best notion of that boyhood, to the sports of which Dr. Thomson was wont to ascribe the energies and vigour of his manhood.

Lord Cockburn thus describes their childhood:—

"I remember Anthony Thomson since we were six years old distinctly. There was some connection between our families, and

* One of the Barons of the Exchequer in Scotland.

we lived very near each other; he at the Sciennes, and we at Hope Park, towards the south of Edinburgh,—a district nearly the same now that it was then. My father's house had two fields of turf attached to it: one called the Fore, and the other the Back Park. These fields, particularly the back one, which was out of sight, were the scenes of most of the out-door mischief and happiness of us and our companions. Many a frolic did they see; many a shout did they hear. If these two fields could speak, many a queer thing could they tell, and of no boy more than of Anthony Thomson. He was familiar with all the hills round Edinburgh, especially our neighbours, Arthur's Seat, Black-ford, Craig-lock-hart, and Braid. As for the *burns*, he knew every minnow that was in them."*

Those who knew Dr. Thomson in after years, will remember with what delight he recurred to these free and happy days, and how continually he made them the basis of an observation upon the wisdom of permitting to boys that latitude which was, he thought, too much proscribed in modern education, and which, he conceived, benefited the human race both physically and morally. "Our boys," he often observed, "of the present day, are little gentlemen, not hardy, dauntless, manly boys, full of fun and energy." Another effect of his boyish enjoyments was to attach him most truly to the scene where those sports were enacted. It was one of those schemes which he most cherished, to return to live and die in Edinburgh.

"His father," continues Lord Cockburn, "induced, by his American connections, had a scheme of sending both him and his elder brother to that country, in some line connected with architecture. Both sons disappointed this plan by more liberal tastes, though it was by no means a bad one as to mere money."

When this scheme was relinquished, another was silently and perseveringly adopted by the energetic mind of Dr. Thomson. This was to become a student of medicine in the University,—a scheme which he concealed from his parents, from consideration for them, the requisite funds being wanting. These were only to be supplied at some sacrifice of time and inclination. Through the interest of his name-father, Anthony Todd, a clerkship in the Post-office of Edinburgh was obtained, at an increasing salary, gradually rising to seventy pounds. The work required little or no mental application, and very little time. "From this small seed," observes his early friend, "his whole fortunes grew. He instantly,"

* Communicated by Lord Cockburn to the family of Dr. Thomson.

as Lord Cockburn expresses it, "took to books; and he stuck to them," continues his friend, "with all the zeal of a thinking youth, who saw that he had every thing to acquire, and nothing to lose." Having been partly educated in the High School of Edinburgh, some foundation was laid for his future studies. But Dr. Thomson must have owed, in a great degree, all that he best knew to self-culture. To quote again from Lord Cockburn's recollections: —"Having soon grounded himself in the rudiments of knowledge, and his salary being raised to about seventy pounds a-year, he ceased to require paternal aid, and began regular and serious study in the College of Edinburgh, with a view to medicine. He adhered steadily and intelligently to this line, but including with it all medicine's kindred branches, to the resolute rejection of everything that could disturb its progress. Of his teachers, while he spoke respectfully of all, he felt then the peculiar gratitude which he never afterwards forgot, towards Munro, Gregory, Black, and Dugald Stewart. In November, 1799, he became a member of the Royal Medical Society, but seems to have only continued there for one season.

"Not confining his thoughts to merely professional pursuits, on the 27th of February, 1798, he entered on the literary, metaphysical, and political field of the Speculative Society, and continued to attend for about two years. This admirable institution was then in full activity: I cannot better describe its animation or its usefulness than by mentioning the fact that its discussions were assisted every Tuesday evening by Jeffrey, Horner, Brougham, Lord Lansdowne, and several others, obviously destined for great public distinction. Thomson spoke sometimes, but rarely; and he read two Essays, one on '*Instinct*,' and one on '*Tragedy*, and its utility to society.'

"Thus prepared, he left Edinburgh in about his twenty-first year, for the great market of London, and my daily intercourse with him ceased.

"Throughout all this dawn his character was the same. He was distinguished by no brilliancy of talent, but by the more sure, and, in a majority of instances, the more useful qualities connected with steady, patient progression. He was not one of those who feel a pride in boasting of excesses corrected, and even of vices supposed to be reformed. Knowing himself the son of a worthy father, who adhering to his principles had fallen from affluence to mere competency, he saw what his duty was, and where his interest

lay, and he devoted himself with calm intent to perform the one, and thereby to promote the other; in doing so he had only to yield to the impulses of his own excellent nature. For he was sensible, well-principled, and very affectionate; and in him that strong practical ambition, which has so meritoriously elevated so many of his countrymen, was never for a moment separated from the conviction that it was only by honour and by kindness that it could be gratified. Though always playful therefore, and even wild where that was the humour of the moment, he and idleness and despair were sworn foes. Thus inspired by undoubting hope, his taste for working was never dull, or abstracted, or sullen. On the contrary, he was always animated by the spirit of a person conscious that he was doing his best, and who, therefore, saw bright scenes in the distance. And he had a general kindliness of disposition that attached all who knew him, and made us like, even while we laughed at it, a certain gravity, if not formality of manner, which would have endangered the popularity of one less esteemed. Hence, when he left us, which I remember as if it had been last week, all the kindred houses were sad. The very servants used to ask long afterwards about him, and never failed to join us in our joy on hearing of him and his progress. There were many things we admired in him, but these were as nothing compared with all our love of his warm heart."

One circumstance of Dr. Thomson's life must here be dwelt upon. During his situation in the Post-office he was treated with great partiality and indulgence by the late William Kerr, Esq., Secretary to the Post-office in Edinburgh. No obligation was ever thrown away upon Dr. Thomson. Many years afterwards, when, in the vicissitudes of life, Mr. Kerr was impoverished, he found a home for nearly two years in the house of the man to whom he had been kind when kindness was so important.

Having graduated as an M.D. in 1799, Dr. Thomson next thought of endeavouring to obtain an appointment in the East India Company's Service; but he eventually resolved to settle in England. His own wishes would have led him to commence practice as a physician, but, in compliance with those of others, he began as a general practitioner. Such was the confidence of his relations in his exertions, that his two sisters lent him their little all to begin his career, without any security except their faith in his talents and honesty. This generous conduct was repaid by a

never-ceasing care of their comforts in after life, as well as by that of the loan thus generously proffered.

For a long time Dr. Thomson's success was doubtful. An accident contributed to bring him into notice. As he was walking one day very early, according to custom, he passed by the Serpentine river, from which the body of a man had just been extricated. Life was apparently extinct, but Dr. Thomson was so fortunate as to succeed in restoring the man. His name was inserted in the newspapers with praise. The Humane Society bestowed a medal on him, and the incident drew attention to his obscure exertions.

In Chelsea Dr. Thomson continued for twenty years: during this active period of his life, his aim was, by every honourable means, to acquire such an independence as should enable him to practise the higher branch of his profession. In pursuing this end he never lost sight of two great points — the welfare of his patients and the promotion of every circumstance which could elevate his profession, and advance the interests of science. As a practitioner he was considerate, attentive, honourable; almost invariably becoming the friend of his patients. His success was at first slow, but, when once commenced, it was never overclouded. His unblemished moral character, his dignified and gentlemanly deportment, served to aid him in his path to eminence. He began life with few friends, and — almost unknown in the metropolis as he at first was — he gradually increased the circle of those who esteemed him and confided in him.

To the highest interests of his profession his mind was earnestly devoted. By his own deportment, whilst he succeeded in forming a large and lucrative practice, he raised the character of the general practitioner so far as he was individually concerned; but he desired to raise it in the opinion of society. He was mainly instrumental, with his friend the late Dr. Burrowes, in advancing the progress of the Bill entitled the Apothecaries' Act, by which that branch of the profession was recognised and protected. The extension of medical education was the theme of many of his essays in medical periodicals, and the end of many of his earliest exertions.

His incessant aim was to place the practitioner on a different footing than that of a merely money-making business. In his own neighbourhood the variety of his acquirements, the benevolent tone of his sentiments, gained him a remarkable influence. In less than three or four years he became wholly independent of all aid

from relations and friends, and at the period of his leaving Chelsea, in order to commence as a physician, he had formed a practice of nearly three thousand a-year.

In the outset of his career Dr. Thomson married, selecting for his choice Miss Christiana Maxwell, a lady of a highly respectable family in Dumfriesshire; and this circumstance furnished a fresh claim upon his exertions.

During his residence in Chelsea, three of those works which have been highly prized by the profession were published. His first essay was the work entitled the *Conspectus Pharmacopœiæ*, published in 1810. He sold the copyright of this little book to the late Mr. Underwood for twenty pounds; upon that publisher retiring from business, in 1833, it was bought (such had been its remarkable success) by Messrs. Longman and Co. for the sum of two hundred pounds. It has gone through fourteen editions.

In 1811 he published the London Dispensatory,—a work which still holds a pre-eminence in its line. The labour requisite for this undertaking was of no ordinary kind. During its progress, an increasing practice obliged its author to snatch hours from rest,—to rise at five, in order to complete a certain portion before leaving home to his daily toils: the accuracy, the research, and judgment which it required, were almost inconceivable. Dr. Thomson was accustomed to say, that to the inquiries requisite for that book, and the knowledge which was the result, he owed much of that various information which he possessed in later life in so extraordinary a degree. This work he dedicated to a distinguished member of the profession, whom he both esteemed and admired, Sir James Mac-Grigor; who, in reply to the letter which accompanied that dedication, thus expressed himself: "The very flattering compliment you have paid me must be attributed to the partiality of your friendship. That friendship I shall ever prize." These words have been fully borne out by renewed acts of kindness and proofs of confidence from the distinguished individual who wrote them, during a period of thirty-two years which succeeded between the publication of the Dispensatory until Dr. Thomson's death; few are the friendships which remain thus unbroken or unchilled.

The reception of the "Dispensatory" was such as to place Dr. Thomson's name on a high and permanent place in medical literature. Like the "Conspectus," it has been translated into most of the continental languages. It is used extensively in the great German universities, and continues to be highly prized by the pro-

fession there.* It has been circulated extensively in America: nor is it too much to say, that it is in the hands of almost every medical man in England. The "London Dispensatory," to quote from the pages of a well-known periodical, "may be said to be the first hand-book of every aspirant for the honours and profit of his profession, and his constant companion through his subsequent career."† Ten large editions of the "Dispensatory" have appeared; and have been successively, not only revised, but enlarged by its indefatigable author. In 1838, when the work was in its ninth edition, Dr. Thomson was gratified by receiving an acknowledgment that its utility had extended to St. Petersburgh, a diploma of the Imperial Academy of that city being transmitted to him, with a complimentary letter from the Russian ambassador, Count Strogonoff.

The study of botany was closely connected with the researches requisite for the "Dispensatory." Upon this science, which in those days was very little understood by medical men, Dr. Thomson lectured to a class of very distinguished professional men during his residence in Chelsea, engaging for the scene of his exertions the room formerly occupied by Mr. Joshua Brooks, in Blenheim Street, Oxford Street. He was the first lecturer on botany‡ that ever addressed a medical class in this country; his aim being to draw the attention to an important and, at that time, neglected acquirement. The facility with which he spoke, and the clearness of his illustrations, inspired him with confidence for his subsequent exertions as a professor in the University of London.

Meanwhile he was forming materials for one of the most scientific and original of his works, his "Lectures on Botany," of which the first volume was published by Messrs. Longman. But the whole, on account of its want of success, was never completed.

It was during the years 1820 and 1821 that this thoughtful and valuable treatise was composed. Dr. Thomson, having had the misfortune to become a widower, had, in 1820, married a second time; and it was the happiness of his now sorrowful widow, in those early days of their union, to contribute, in a humble manner, to the progress of his growing reputation, and to mingle herself in his pursuits, by making the drawings for the work. Many of these were not to be effected without the aid of a microscope, for they

* The learned Dr. Naumann, Professor of Medicine in the University of Bonn, ately passed a high eulogium on this work.

† Article in the "Lancet:" Memoir of Dr. A. T. Thomson.

‡ Such is the impression on the mind of the writer of this memoir.

were intended to depict the pores, the hairs, and cuticle of plants; the philosophy of which was the subject most largely treated in the "Lectures on Botany." But many of the drawings were also made by Dr. Thomson himself: and it was to be regretted that he thus applied himself so closely to the use of the microscope, for his eyesight never recovered entirely from the injury which it then received. It must, however, be admitted that botany was ever his favourite pursuit. He was a true lover of nature in its minute, as well as in its grandest forms. In all he saw the hand of God, and found the limit to human intellect in the mysterious organization of the simple field flower. For, however intense the microscopic power—however scrutinising human investigation may be—the principle of *life* remains a mystery.

The lectures on botany, however unsuccessful in point of sale in England, procured a place for their author among those who are eminent in the science. On the Continent, his name received new honours. Those who were celebrated in Germany and France obtained introductions to the author of the lectures. The celebrated Decandolle, Dr. Martins of Munich, and others, visited the author. Perhaps Dr. Thomson's happiest associations at this period of his life were connected with botany. There was, indeed, then but little opportunity of obtaining rare plants and flowers near London. The Horticultural Society was not in being until a later day. There was no Botanic Garden; there were but few private collections. The only garden of any scientific value was that of the Countess de Vannes, in the Bayswater Road, where, with the late Mr. Loudon, Dr. Thomson was in the habit of spending many hours.

His professional pursuits were at this time extremely arduous and fatiguing. Through his influence with his rich and benevolent patients in Chelsea, a Dispensary had been formed in that parish. To this he was appointed one of the medical attendants. He saw there a great variety of disease; and he found out, in some particulars, his own deficiencies; more particularly, as he was accustomed to say, in *diseases affecting the skin*. He was one who never evaded a difficulty, but met it face to face. He resolved to make himself fully acquainted with that class of diseases; and he succeeded, by close attention, in alleviating, if not curing, some of the most obstinate. The dispensary acquired a local reputation for complaints of that class; and Dr. Thomson made a large collection of notes and cases even while hurried from house to house, and

often not for days being able to sit down to a single repast. On resigning his post at the Dispensary, he had the gratification, not only of receiving from the committee a vote of thanks "for having, for more than twenty years, given the institution the advantages of his valuable time, his professional abilities, and his assiduous attentions, but also for having first called the attention of the neighbourhood to the numerous and important benefits of such an establishment."*

To Dr. Thomson's exertions, also, was owing the first establishment of an infant school in the parish of St. Luke's, Chelsea; and this good result was the object of his endeavours, in the autumn of the year 1826, after he had, for some time, finally resolved to leave that neighbourhood.

For many years, in the early part of his career, Dr. Thomson had been joint editor with the late Dr. Burrowes of the "Medical Repository;" and a great part of the management of that journal must be added to the list of works which he completed, and labours which he satisfactorily performed. With all these avocations he never forgot his duty either to God or man. In his busiest seasons the poverty-stricken sufferer was never turned from his door without advice, as earnestly and carefully given as if he had been prescribing for the rich, — perhaps often even more feelingly bestowed. The members of his family then living can remember his often rising in the night unrepiningly, to rush into some of the poor courts around Sloane Street — though he was apt to complain when the fancied ailments of the prosperous called him from repose. His mind was always religiously disposed; and on those few days of happiness and rest when he could steal into the country, his heart turned to its Maker in gratitude and thanksgiving.

In December, 1826, he left Chelsea, and commenced practice as a licentiate of the College of Physicians of London. That event was succeeded by his being elected to the Professorship of Materia Medica in the University of London, which was established in the same year.

From this time his life became even more laborious than before, although his exertions were differently directed. A considerable portion of his time was devoted to experiments in his laboratory at the college; and the result of those efforts is contained in the following sentence: — "Many of our newest and most useful medicines may be said to owe their existence to his researches,

* Letter from the Rev. George Clarke, V.P., dated December, 1826.

particularly amongst the alkaloids and iodides, into the composition and properties of which he made extended researches."* The compilation of his "Lectures on Materia Medica" employed nearly a year. They commenced with an almost unprecedented success in the new institution. It then became Dr. Thomson's earnest endeavour to raise that branch of medical education, by teaching it more thoroughly than it had ever been taught before. In the various branches of science which it embraces he was no mean proficient, being an excellent chemist as well as botanist. He resolved to make his class attractive as well as instructive; and by collecting a museum of Materia Medica, and classifying the objects and preparations, to supply his pupils with the means of even partially instructing themselves. With this idea was combined the expectation, which was unhappily disappointed, of leaving in the institution to which he belonged a memorial of his zeal, and a valuable addition to the collections in the medical department of the college.†

The liberality, care, and indefatigable attention, the skill and ingenuity with which he pursued this end, and succeeded in collecting one of the earliest, if not the earliest, of the museums of Materia Medica in this country, have been attested by his pupils, who in many instances witnessed his exertions, by many distinguished visitants to his museum, and by his colleagues successively. His esteemed friend, Mr. Horner, was, on its first opening, Warden of the London University Dispensary. That gentleman has given, both during his own connection with the Institution, and since the death of Dr. Thomson, a gratifying testimony to his energy, zeal, and disinterestedness. And, indeed, they could not be surpassed. Among Dr. Thomson's correspondence are to be found letters from the most eminent men in various countries, answering questions, and promising specimens for his museum. Dr. Wallich, Dr. Grahame, and Dr. Greville of Edinburgh, Dr. Christison, Dr. Royle, and Professor Martins of Munich, are amongst those who lent him their assistance. A valuable collection of Cinchonas enriched the museum; a large case of minerals, bought at considerable expense, and numerous drawings and diagrams, made it complete. Dr. Thomson was, however, continually adding to its extent. The expense was of course considerable, and at the least amounted to a thousand pounds. But he gladly contributed to it, always hoping

* Article in the "Lancet" for July, 1849.

† The late Lord Auckland took a great interest in the collection and arrangement of this museum.

that it would, upon his retirement from the chair of Materia Medica, be purchased by the Council.

Not very long after the commencement of his lectures on Materia Medica, a class of Medical Jurisprudence was formed, and he was, in 1832, made professor of that branch, in conjunction with Mr. Amos, the distinguished barrister and his own valued friend.

It would be impossible to enter fully into the history of Dr. Thomson's career as a Professor, which would embrace that of the Institution to which he was attached. From the year 1827 to 1849 he was never known to be absent from his classes for more than a single day or two, and those at rare intervals. It was his lot to see many of his colleagues retire,—to survive many. He deeply regretted the resignations of Mr. Horner as warden, and of Sir Charles Bell as Professor of Surgery. Whilst in its most flourishing state the Institution was suddenly injured by internal disagreements. The original medical professors, with the exception of the late Dr. Edward Turner and the late Dr. Davies, resigned. There appeared every reason to fear that the prosperity of the University of London (as it was then styled) would never revive, and that it did revive was owing mainly to the exertions of those who were left. It was Dr. Thomson's mournful task in 1837 to attend, during his long illness, his gifted friend, Dr. Edward Turner, who died, to the deep regret of his friends and of society, at an early age. In Dr. Turner's will, after speaking of those whom he much valued, "there was," said his sister, Miss Turner, in a letter to Dr. Thomson*, "this expression,—'To Thomson, an extra mark of my esteem:—we worked that University alone.'"

In 1832 Dr. Thomson published his "Elements of Materia Medica," a work which has gone into three editions. His "Lectures on Medical Jurisprudence" were bought by the proprietors of the "Lancet," and published in that Journal in 1836-7.

His next efforts were contributions to the "Cyclopædia of Medicine;" and in 1829 he undertook the charge of editing Dr. Bateman's work on "Cutaneous Diseases." To this he appended a valuable atlas of plates, some of the drawings for which were made by his son, Dr. Alexander Thomson.

These toils were spread over a considerable number of years, from the earliest to the latest days of his professional existence. "I never," observed his eldest daughter, "remember seeing my father, when not in society or professionally engaged, without a

* Dated May, 1837.

pen in his hand." When it is considered that he was first incessantly occupied by a laborious practice, and afterwards by his Professorships, in addition to practice; that he kept up every medical acquirement, even to the last publication; that he continued to experimentalise in his laboratory, where, amongst other things, he discovered a new and simple and inexpensive mode of producing corrosive sublimate; and when, to all these daily pursuits, are added those connected with his various publications, it must be admitted that few men have worked so hard, or achieved so much as the subject of this Memoir. That his merits were fully appreciated by his professional brethren was proved by his being made a Fellow of the College of Physicians shortly before the resignation of Sir Henry Halford, as President. This honour he felt very sensibly.

Dr. Thomson's practice as a physician was not very extensive; for some years it rarely varied, bringing him in a regular income; and it was sufficient, combined with his other exertions and pursuits, for his time and health. During the last five years of his life it increased considerably, though chiefly in one branch,—that on which the present treatise is written, on "Diseases affecting the Skin." As his patients came to him in the morning, and no very anxious attendance is implied by maladies distressing but seldom of urgent danger, he liked much a mode of practice which gave him less trouble and concern than that out-of-doors, and which was also, from his great success in curing that class of disorders, becoming very lucrative when he was attacked by fatal illness.

In the foregoing details, private occurrences of an uneventful, although most useful life, have been omitted, as of less importance to those connected with efforts by which the profession and the public may have benefited. Yet it is believed that some few remarks upon the well-being of one whose example and conduct did as much good to his contemporaries as his works, may not be without interest to his surviving friends, to his numerous pupils, scattered and busy as they are, and to those many members of his profession with whom he was on terms of general good-will.

There is no doubt but that the life thus meritoriously employed was a happy life, although it had its sorrows and its anxieties. One source of pride and hope in Dr. Thomson's mind arose from the great talents and excellent promise of Dr. Alexander Thomson, his eldest son by his first marriage. In 1838 he had the misfortune to lose him, after a few days' illness. It is remarkable that Dr.

Thomson never appeared to wish, after this bitter disappointment, to bring up any of his other sons to his own profession.

In 1835 his health broke down from continued mental exertion; and during that time a serious, and indeed, dangerous, attack of illness was produced by inhaling chlorine gas, whilst lecturing at the College: inflammation of the windpipe ensued, and he was eventually obliged to travel abroad for many weeks to recover his health. He joined a party of female relations and friends, and, passing through Belgium, visited Switzerland and part of Holland. Of this Tour he has left a valuable and interesting journal, containing not only a full detail of all that he had observed, but many remarks upon climate, localities, and diet. In regard to the effects of travelling in his own case, he makes the following observations, in a letter, dated in July 1835, from Thun.

"I am in every respect improved; so much so, that I inquire to what is it to be ascribed? Is it owing to the mind being fully occupied with the novelty of every thing around me, or is it to the change of climate? Much certainly is due to the first; for, unless an impression is produced on the mind as well as on the body, change of climate will effect little in the cure of dyspepsia. In this respect the rapid manner in which we travel is an advantage, as it produces a constant succession of new objects, and allows the mind no repose in which it might regain the old cause of contemplation which had originally proved detrimental; for few cases of real dyspepsia occur in which the mind is not, in a great degree, the origin of the deranged state of the digestive organs and the nervous system. It is the anxious, the sedentary, and the studious that are the martyrs of dyspepsia and hypochondriacism; whatever, therefore, tends to withdraw the mind from dwelling on corporeal feelings is desirable; and nothing, certainly, can effect this so completely as travelling." Much, however, he attributed also to climate. That of Switzerland Dr. Thomson considered to be, although "more humid than that of England," the most invigorating on the Continent, notwithstanding the chilliness of the evenings.

The recreations in which Dr. Thomson most delighted were those alone to be met with in a country life. His visits to Scotland, where, at Bonaly, the seat of Lord Cockburn, for many years an annual gathering of old friends was celebrated; his occasional migrations to Warwickshire; and, lastly, the peaceful days which he permitted himself to enjoy at a cottage, which he rented for ten years, in the

neighbourhood of Kingston-on-Thames, — these were his sources of innocent and social relaxation. Latterly he became so much attached to his garden at Long Ditton, to the walks and the neighbourhood of his friends there, that it became difficult to induce him to leave that much cherished spot.

Two years before his death it was deemed expedient to give up this country residence, owing to the repairs which were required in the house, in case of continuing there. The loss of this simple abode was a great deprivation to Dr. Thomson; the regret which he manifested when his decision became final, was painfully recalled by his family afterwards when they found the great difficulty of inducing him to leave London for any sufficient period.

Amongst the sources of interest which the practice of medicine opens, is the intercourse with persons of eminence, to whom introductions not unfrequently occur, and the physician is permanently converted into the friend. In 1823, and for some years afterwards, Dr. Thomson had the privilege of an intimate acquaintance with Sir James Mackintosh, commenced during the fatal illness of Sir James's youngest daughter, whose death that distinguished man felt with all the poignancy of a tender and affectionate nature. Sir James had been in early life a student of medicine; and it was at the Speculative Society, when speaking on some subject, that he was told that he had mistaken his profession: "You have chosen medicine," said the president, "you should have chosen the Bar." Similarity of pursuits in early life, and the never-ceasing interest which Sir James Mackintosh felt in science, conduced to draw the patient and the physician together. The conversations which passed between them, as they sometimes joined in an evening walk in the gardens of Cadogan Place, were most curious and instructive. In the course of a correspondence of some years, painfully interspersed in the letters of Sir James Mackintosh with details bespeaking much suffering, and auguring that there was little hope of returning health, are expressions which denote the friendship and respect with which the invalid regarded his physician.

After Dr. Thomson was appointed Physician to the North London Hospital, the necessity of addressing clinical lectures to his pupils was incurred. Henceforth he frequently gave three lectures in one day: one in the morning, before breakfast; another in the middle of the day; a third in the afternoon. His family in vain entreated him to relax in these exertions, by resigning the chair of

Medical Jurisprudence. He had great confidence in his own vigour of constitution; in particular in relation to the soundness of his lungs. He who was so clear-sighted in regard to others, was blind to the latent tendencies of his own constitution.

In the autumn of 1848, Dr. Thomson's family perceived in him a decline in health and spirits; more particularly a loss, or rather a fastidiousness, of appetite, unusual in one of simple habits and tastes. He resumed, however, his duties at the College, and gave the opening lecture with more than usual animation. On Christmas Day, when he, for the last time, assembled his relations, according to custom, around him, the first symptoms of illness appeared. About a week afterwards he dined with an excellent friend and old patient. He had sent home his carriage, and walked to the house of his friend, and had sat in damp boots. An attack of bronchitis ensued. It was checked by the united skill and attention of his old and valued friend, Dr. Watson, and of his nephew, Dr. Parkes. He appeared to revive for a time; and, perhaps, could he then have been persuaded to have quitted London, and to have repaired to a warmer climate, his life might have been, for a few years, prolonged. No persuasions could induce him, however, to try a more effectual change, at that season, than a temporary removal to Hampstead. During a second visit to that place, he was so far recovered as to be able to stroll upon the Heath—a favourite spot,—and to sit down for a few moments in the sunshine of a beautiful Spring day on a bench. He then stated to his sorrowing companion his conviction that he should not live six months.

He returned to London, and, to the distress of those who witnessed his feebleness, exerted himself to renew his usual occupations. He was again persuaded to leave home; and he paid a short visit to Rothamsted Park, the seat of Mr. Lawes, of whose high reputation as an agricultural chemist Dr. Thomson had witnessed the rise and progress. He greatly enjoyed this last visit, and again reached his home, full of hope, and apparently much benefited. For one day more he resumed his duties at the North London Hospital: he was signing certificates there for his pupils, when he was seized with a shivering fit: with his usual courage he disregarded it, and proceeded to visit a patient at Lambeth, in conjunction with his esteemed friend, Dr. James Young. Whilst writing a prescription, he fainted; he revived, and had even the calmness to finish and sign the prescription. But the last fatal

blow was given to his powerful frame. He was brought home; — inflammation of the lungs had then commenced.

The long illness which succeeded this attack, and during which his natural vigour still struggled with deep-seated and extending disease, was mitigated in its suffering by the unspeakable kindness of the three medical advisers who, in attending upon him, displayed the calm skill of experience with the earnest solicitude of friends. Dr. Bright, Dr. James Young, and Dr. Parkes, watched over him with an interest and a tenderness which proved invaluable to the poor sufferer. Often gleams of convalescence revived the spirits of these excellent friends, and gave a transient happiness to his family. When the most urgent danger had subsided, it was permitted, by the medical attendants, to speak to their patient of those consolations which Religion affords, and of those offices which she imposes. The communication was not injurious to the invalid in a physical sense, but, in its result, composing and salutary. He was allowed, by the blessing of God, twice to receive the Holy Communion from the revered Mr. Burrowes, then minister of Archbishop Tennyson's Chapel, where Dr. Thomson usually attended. The solemn, humbled manner of the sinking invalid can never be forgotten by those who stood round his bed on those occasions, — more especially on the first, which occurred on Easter Day last (1849).

As the spring advanced, the love of the country came strongly back to Dr. Thomson's mind, and he expressed an earnest wish to be removed into purer air, where he could look upon fields and budding trees. He was then every day becoming weaker, but no one could bear to repress his desire of removal. The peculiar severity of the weather during April retarded for some weeks any possibility of gratifying his yearning to leave London. At last it was permitted to do so. As he prepared to leave for ever his home, his fortitude gave way, and he expressed his conviction that he should return there no more. He walked down stairs, nevertheless, with a firm step, and bore tolerably the drive to Ealing, looking out, as he passed, upon the trees and flowering shrubs with the rapture, as he expressed it, of a "released prisoner."

After this change his mind became so tranquil, his spirits were so even, that the decline which ensued seemed but a period of holy preparation for that better world where it is humbly hoped that he is received. At times his sufferings were great; but his intellect was never obscured, his patience never exhausted. There were

moments when he hoped to recover, and talked cheerfully of the future; but when convinced, by unerring symptoms, that all hope was delusive, he made up his mind, with a manly fortitude, to the will of God.

He died at Ealing on the third of July, 1849, in the seventy-second year of his age. In compliance with the wish he had often expressed, his remains were interred in a rural churchyard — that of Perrivale, near Ealing, and were followed to the grave only by the immediate members of his own family and one or two friends. Among the latter, his friend, Dr. Young, who had so long known, so affectionately attended him, and who was with him at the moment of his death. Four Professors of University College, the esteemed colleagues of Dr. Thomson, also attended. An application was made on the part of the students to be permitted to follow, but was declined. A few of those best known and most attached to Dr. Thomson found their way to his burial place, and stood as mourners by his grave.

So calm — so blessed were the last hours of one who may truly be called a Christian Physician. A few words more may, perhaps, be permitted upon a character so exemplary. It was strengthened and guided by a sincere belief in Divine Revelation. His researches and attainments had confirmed his faith. It was his greatest pleasure to refer to *design* as exhibited in the great system of nature. It was this pervading sentiment which ever accompanied him into the business of life, and which gave such mental dignity, and maintained such integrity and purity of conduct. The fear of God was ever before his eyes. The principles of his life were truth, charity, reverence; and from these he departed as rarely as human frailty permitted. His nature was all nobleness and kindness; he could not retain a resentment nor cherish a meanness. It was this high moral tone which made him so valuable a model for the young practitioner, and so invaluable a friend, as well as instructor, to his pupils. It was this which procured him their respect, and brought them, unbidden, mourning to his grave. It was this which made him the friend of his patients; it was this that bound his family to him, and which has left in their hearts a life-long sorrow for their loss. It was ever his opinion that the study of medicine was one of the finest and most comprehensive of studies, and that it neither implies nor conduces to scepticism, but the reverse: and his life, his death, proved the sincerity of this conviction. When, a week before his death, an alarm-

ing paroxysm of suffering occurred, he summoned to his bedside his youngest son, a youth of seventeen. He solemnly addressed him thus: — "Above all, keep the purity of your mind and heart. Be religious: receive the sacrament frequently; let your conduct be pure; your conscience unstained;" he repeated earnestly, "And remember, without religious faith this cannot be!"

The charitable acts of Dr. Thomson's life were continual, and the liberality of his impulses was only checked by what he considered due to his family. And this is the characteristic of his noble profession. He was especially useful and benevolent towards those medical men who were struggling for independence; those who had once composed his class at University College, more especially. "His pupils," writes one of them, "looked up to him with nearly the affection of sons; and on many occasions the parting from his class, at the close of the session, resembled more the separation of a family, than the temporary suspension of a course of academical lectures." "He presented an elevation of character which gained for him their affection, respect, and esteem."* With those members of his profession with whom he came in contact, he was on terms of good-will. His early friends forget him not: and his death was lamented by as numerous a circle of friends as, perhaps, it ever fell to the lot of a private individual to possess. The grave, when it received him, "closed over as upright, as honourable, and as truly kind-hearted a man as ever belonged to his profession, and who will, in all ages, be considered one of its bright ornaments and great benefactors."†

Some references have been made in the foregoing pages to Dr. Thomson's literary productions; but too briefly, in order not to interrupt the narrative of his professional career, to give any adequate idea of his merits and industry. The following list is therefore added: —

1. "The Conspectus Pharmacopœiæ;" published first by Underwood in 1810, — purchased by Messrs. Longman & Co. in 1831. According to the statements taken from the books of that firm, fourteen thousand copies of this work have been published since 1831; of those previously sold there is no account. It is now in the fourteenth edition.

2. "The London Dispensatory," of which twenty thousand five hundred copies were published between the years 1811 and 1843; this work is now in its eleventh edition.

* Article on Dr. Thomson in the "Lancet:" August, 1849. † Ibid.

3. The first volume of the "Lectures on Botany." Not completed.

4. "Elements of Materia Medica." Three editions of this work have been published, comprising altogether four thousand five hundred copies.

5. Edition of Bateman's work on Cutaneous Diseases, with an Atlas of Plates. Published in 1829.

6. "Domestic Management of the Sick-room;" published in 1841. Two editions of this work, comprising two thousand five hundred copies, have been published.

Many anonymous Articles and Reviews in the Medical Repository: and several Articles in the Cyclopædia of Medicine; to these Dr. Thomson's name is attached.

He published a pamphlet on the Iodide of Iron, a preparation of which he was the originator in his laboratory, and the first to introduce into practice.

Such were his labours as peculiarly connected with his profession,—but his exertions were not confined to that only. The utility of science generally, and its application to many of the purposes of life, was one of his favourite themes. In accordance with these views he became, about the year 1828, a member of the Society for the Diffusion of Useful Knowledge, and entered with deep interest into its proceedings. He published one part of a work of Vegetable Physiology, for that society, and the rapid sale showed how greatly the public appreciated that effort. During the continuance of that society, several plans are to be found among his papers, suggested by Lord Brougham, for the benefit of the middle classes; amongst these, a hint for a work on Domestic Animals, which one would still rejoice to see carried out; a similar one was upon Common Plants: "Whoever," observes his Lordship, "succeeded in drawing up this work, would have the satisfaction of knowing that he had done a service hardly to be calculated, and to a most meritorious as well as important class of the community," (the peasantry, and people occupied in country pursuits). But the scheme was not carried out, as far as the author of this memoir can recollect,—and certainly not with the co-operation of Dr. Thomson.

Another suggestion from Lord Brougham to Dr. Thomson was, that he should assist in the notes appended to Lord Brougham's edition of "Paley's Natural Philosophy," Dr. Thomson supplying the illustrations from Natural History. This most interesting

task was, however, abandoned at the time when Dr. Thomson's health obliged him to travel abroad, in 1835.

A very few years before his death, Dr. Thomson translated from the French and edited a work of Mons. Salvarte, entitled "The Philosophy of Magic, Omens, and Apparent Miracles." The notes to this translation are full of curious and valuable matter, whilst from the text were weeded out those indications of an unsound philosophy which Dr. Thomson deemed deleterious to society.

Many years before this period he had affixed to an old copy of "Thomson's Seasons" some explanatory notes. Finding that these added an interest to the perusal of that poem by his children, Dr. Thomson completed and published an edition of "The Seasons," with a short life of Thomson.

This was his last work, with the exception of that to which this Memoir is prefixed. These are the memorials of his high reputation, and his bequests to society. The Museum of Materia Medica, which he hoped would have perpetuated his remembrance in University College, was unfortunately not appropriated by that institution, on account of want of funds. It was therefore sold, in compliance with the terms of Dr. Thomson's will, in case of its being rejected by University College, and was purchased by Government for Queen's College, at Cork, where it is preserved under the care of the Professor of Materia Medica; the name of the collector being retained.

Dr. Thomson left, by his first marriage, two daughters, the eldest of whom is married to John Morin, Esq. Jun., of Allanton, Dumfriesshire. Three sons and five daughters by his second marriage survive him. For the reasons before stated, he never urged any of his sons to embrace his own profession: the eldest entered into holy orders, about a year before his father's death; the second was called to the Bar, in April, 1849, just after his father's illness had assumed a dangerous character; the third is still pursuing his education.

A

# PRACTICAL TREATISE

ON

# DISEASES AFFECTING THE SKIN.

## PART I.

### CONTAGIOUS DISEASES.

## CHAPTER I.

### EXANTHEMATA: — THEIR NATURE, DISTINCTION, CAUSES, AND TREATMENT.

EXANTHEMATA* are contagious, idiopathic fevers attended by eruptions on the skin, and attacking a person once only during his life.† The external affection must be regarded as a symptom of the fever not invariably present; hence, the fever truly constitutes the disease.

The Exanthemata are consequences of animal poisons received into the system, which, by propagating themselves there, increase until the whole body becomes infected; and, as there is a natural tendency in the habit to eliminate the poisons which produce such fevers, the eruptions are, most probably, the results of these efforts at elimination, the skin being the special organ for this purpose. There is, indeed, as has been justly remarked, an

* The term Exanthema is derived from ἐξανθέω, effloresco, to bud forth.

† Cullen's definition is — "Morbi contagiosi, semel tantum in decursu vitæ aliquem afficientes; cum febre incipientes, definito tempore apparent phlogosis, sæpe plures exiguæ, per cutem sparsæ." — *Ord.* iii. *Synopsis*, vol. ii. p. 130. ed. iii. 1785.

Sagar divides the class into contagious and noncontagious; Sauvages places it as the first order of Phlegmasiæ. Macbride defines it — "Eruptiones cutaneæ cum pyrexia sæpe maligna, quandoque lenta."

affinity in the skin for morbid matters circulating in the fluids of the body; hence it becomes the seat of Exanthematous inflammation. That part of the definition, which states that these diseases attack the same individual once only during his life, is not to be regarded as devoid of exceptions. Many instances are recorded in which both small-pox and scarlatina have attacked the same person a second time; and the latter even a third time. But, notwithstanding these exceptions, we may receive as a general truth, that the Exanthemata afford a great degree of future protection against themselves; or, in other words, that the change produced on the constitution, which renders it insusceptible of the influence of the contagion, is in general so great as to continue during the remainder of the life of the individual, and thus prevent subsequent attacks of the disease. There is, however, in some persons, more than in others, a greater predisposition, or propensity to be affected by certain contagions; and to this circumstance may be attributed the occasional reappearance of the Exanthemata. On the same principle, we may explain the more frequent reappearance of these diseases in persons who have suffered severely in the first instance. We are ignorant of the nature of such differences of constitution; but every day's experience displays their existence.

The Exanthemata are diseases of very frequent occurrence; they are the causes of one in nine of the annual deaths in England and Wales. Their origin is unknown; for there is no proof of the opinion advanced by Navier and Layard that they originated from cattle. They seem to have migrated into Europe from Asia, as the earliest descriptions of them are contained in the writings of the Saracenic authors.

The fever, which constitutes the principal feature in the character of the Exanthemata, is commonly inflammatory in the commencement; but it may change into one of a low, nervous, or typhoid type. Every Exanthem may be regarded as comprehending two fevers,—a *primary* and a *secondary* fever. The primary fever appears as soon as the contagion begins to propagate itself in the system, and accompanies the eruption and its maturation; the secondary is a renewal of the febrile symptoms, when the specific fever might be expected naturally to terminate; but both are occasionally so slight and so little obvious, that their existence in such cases might almost be denied. The more moderate the initiatory fever, the more favourably the eruption is developed; for, as I have already said, the fever constitutes the disease. The skin is the usual site of the eruptions, but not exclusively: they attack the mucous membrane, wherever it is exposed to the action of the air; for instance, the nose, mouth, fauces, larynx, or trachea; and during the presence of an exanthem, any of the organs or tissues of the body may be affected and become the site of morbid changes.

We observe pleurisy sometimes supervening in small-pox, pneumonia in the decline of measles, and meningitis in the height of malignant scarlatina.

We know nothing of the nature of the predisposition requisite for receiving the contagion of the exanthemata: some individuals resist it, even when the virus is introduced by inoculation; but the susceptibility appears, nevertheless, almost universal, the diseases being communicated to the apparently most healthy. That the exanthems are contagious is undoubted; and I am of opinion that Dr. Cullen is correct in stating that, "eruptions destitute of such contagion, and depending on a particular state of fever alone, certainly cannot be ranked among the genuine exanthemata."* It is in this point of view that I employ the term.†

The contagion of two distinct exanthemata may be received into the system at the same time, and run their course simultaneously, but in general the one is suspended until the other terminates. But although the attack may be at the same time, yet it seldom happens that exanthemata are epidemic at the same time in the same place. There are, however, exceptions to this rule, as in 1839 both small-pox and measles prevailed as epidemics, at the same time, in England and Wales.

The exanthemata will run their course whatever plan of treatment may be adopted; but their violence may be abated, and their complications removed by judicious management. In mild cases the nimis diligentia Medici may do much harm: in severe cases every change or increase of symptoms should be closely watched, plethora subdued, every inordinate congestion checked, supervening complications removed, or at least their severity and consequent hazard combated, and, in a few words, nothing should be neglected that can aid the natural restorative efforts of the constitution.

The class Exanthemata comprehends the following genera: —

1. Scarlatina — Scarlet Fever,
2. Rubeola — Measles,
3. Variola — Small-pox,
4. Frambœsia — Yaws,
5. Varicella — Chicken-pox,
6. Vaccinia — Cow-pox.

* Synopsis Nosologiæ Method. 4th edit. vol. ii. p. 130.

† Mr. Farr has proposed to discard the term exanthemata, and to class the diseases usually arranged under it, as well as all other diseases which have the property of communicating their own action, under the name *Zymotic*, derived from ζυμόω, to ferment.

## SCARLATINA * — (*Scarlet Fever*).

Scarlatina is a contagious fever, characterized by the eruption of a scarlet-coloured rash, which appears on the second day of the fever, on the face and neck, spreading progressively to the trunk of the body and the extremities, and terminating on the seventh day of the fever. Sore throat generally accompanies the eruption, which affects more or less the mucous membrane both of the alimentary canal and the urinary organs, as well as the skin.

This fever does not appear to have been known to the Greek or Roman physicians. It was first described by Ludovicus Mercatus, in 1612, and Michael Heredia, in 1626, both Spaniards; and also by Syambutus †, Ætius Clerus, and Prosper Martianus, Italian physicians. It appeared at Rome, about the middle of the 17th century; but the disease had previously raged as an epidemic in Spain and Naples. Sennertus has recorded its appearance in Germany in 1625; and towards the conclusion of the same century it was also described, as it appeared in London, by Sydenham and Morton, but the latter seems to have regarded it as a modified species of measles. It soon spread and reached Scotland in 1689. It was, however, according to De Haen, little known in the 16th and 17th centuries; but since that period it has frequently appeared as an epidemic in this country, and is now scarcely ever absent.‡ It may appear at any season of the year, but the period when it is most frequent is about the end of summer and the early part of autumn. As an epidemic it is checked by cold weather; indeed Dr. Sims states that he has observed it wholly at a stand during some days of severe frost, after which it again spread. In some years, however, it has continued throughout the year, altogether independent of the influence of the seasons. It seems to prevail most in hot, moist weather. It may be said to attack the same individual once only during life; although, as in

* This appellation, according to Dr. Good, is Italian, and was long in use as a vernacular name on the shores of the Levant, before it was imported into our own country —*Study of Medicine*, vol. ii. *Syn.* Rosalia (*Auct. Hispan.*); rossalia (*Ingrass et Auct. Neap.*); scarlatina (*Auct. Var.*); febris miliaris rubra (*Huxham*); scarlatina febris (*Sydenh.*); mal de rosa (*Thiery*); febris scarlatinosa (*With.*); scarlatæ (*Vogel*); purpura (*Junck, Schulz*); purpura scarlatina (*Burser.*); morbilli confluentes (*Morton et Auct. Var.*); porphyrisma (*Ploucq.*); exanthesis rosalia (*Good*); febris rubra (*Heberden*); typhus scarlatina (*Chrichton, Young*); febris scarlatino-miliaris anginosa (*Brunning*). Fièvre rouge, scarlatine (*F.*); scarlattina, febre rossa (*Ital.*); scharlachfieber, scharlachaufschlag (*G.*); szkarlat (*Pol.*); purpurkoorts, scharlaakekoorts (*Dutch*); skarlagensfeber (*Dan. and Swed.*); escarlatina, escarlata (*Span.*); hemak? (*Arab.*).

† De Pestilenti Faucium Affectu Neapoli sævienti. Neap. 4to. 1620.

‡ It is only necessary to examine the reports of the Register-General to be convinced of the increase of the disease. In the epidemic of 1847 the deaths from scarlatina throughout England and Wales were 19,816. In the metropolis, in 1848, the total mortality was 57,628, that by scarlatina 4756. The violence of the disease falls chiefly upon children.

other exanthematous fevers, exceptions to this rule have occasionally appeared.*

Scarlatina displays itself under three forms; depending, in a considerable degree, on the constitution of the individual affected: hence the disease in its mildest form in one person may produce either of the more malignant forms in another person; the plethoric and the debilitated suffer most severely.

Females are more liable to the disease than males. In order to determine its relative frequency in the two sexes, and at different ages, Dr. Tweedie has published the following table of two hundred cases, from the register of the London Fever Hospital: —

| Ages. | Males. | Females. | Totals. |
|---|---|---|---|
| From 6 to 10 | 7 | 8 | 15 |
| „ 10 — 15 | 8 | 15 | 23 |
| „ 15 — 20 | 17 | 40 | 57 |
| „ 20 — 25 | 14 | 39 | 53 |
| „ 25 — 30 | 8 | 21 | 29 |
| „ 30 — 35 | 6 | 10 | 16 |
| „ 35 — 40 | 1 | 2 | 3 |
| 40 | 1 | 0 | 1 |
| 42 | 0 | 1 | 1 |
| 48 | 0 | 1 | 1 |
| 57 | 0 | 1 | 1 |
| | 62 | 138 | 200† |

As the treatment somewhat differs in the three varieties, although they all arise from the same contagion, yet I think there is good

* In the autumn of 1826 I attended a gentleman who was labouring under scarlatina *anginosa*, and who informed me that he had suffered twice before an attack of the same disease. He gave an accurate account of the attack, including the fever, the rash, ulceration of the throat, and the desquamation of the cuticle. The second attack was three years after the first; the third, five years after the second.

Various means of protecting persons from taking the disease during its prevalence as an epidemic, have been proposed. Among others, Hahnemann, on the faith of the homœopathic doctrine, "similia similibus," proposed extract of belladonna, which produces a red rash on the skin, to be given in minute doses (*Heelung und Verhütung des Scarlachfieber*, Gotha, 1801). Dr. Randhahn, physician to the Orphan Hospital of Lagendorf, in Prussia, gave it to 160 children exposed to the contagion in that hospital, and, he says, all escaped the disease. It was also successfully employed at Custrin by M. Berndt; who states that in an epidemic that prevailed there in 1818-19, out of 195 persons under 15 years of age, to whom belladonna was administered, only 14 took the disease: and many other continental physicians have recorded as striking instances of its efficacy. Hahnemann directs three grains of the extract of belladonna to be dissolved in one ounce of water; and of this solution one drop to be given twice a day to a child under one year, and three drops to a child under twelve years of age. Belladonna has, however, too often failed in this country to permit any confidence being placed upon its prophylactic influence in scarlatina. I have found the best prophylactic measures to consist in regularly opening the bowels and keeping up the tone of the habit by generous diet and confidence.

† Encyclopædia of Pract. Med., vol. iii. art. Scarlatina.

reason for describing each of them distinct from the other. They are —

1. Scarlatina *simplex.*
2. Scarlatina *anginosa.*
3. Scarlatina *maligna.*

*Var.* 1. In the first variety, Scarlatina *simplex**, the fever preceding the eruption is slight; it is ushered in, as fevers usually are, by rigors, languor, lassitude, headache, and some confusion of thought; but these symptoms, although slight, yet are frequently accompanied with nausea and vomiting; and with an uneasy feeling in the throat, but not sufficient to affect deglutition. On examination the fauces are found to be red, and the tonsils somewhat swelled. The skin is hot; the pulse quick, but neither full nor strong; although, occasionally, there is considerable restlessness, and sometimes slight delirium. The tongue is either clean and red, or coated with a white fur, through which, frequently, appear elongated scarlet papillæ. In forty-eight hours after the appearance of these symptoms, which, however, are in some instances scarcely obvious, the eyes become suffused; the face swollen; and an efflorescence, consisting of minute red points, which coalesce in irregular patches of various sizes, appear upon the face and the neck; but occasionally few appear on the face. In some instances the fever is so slight that the eruption is the first apparent symptom of the disease. The eruption, also, varies in the time of its appearance; in a few severe instances, it has appeared on the third and even the fourth day, but in general it comes out on the second day. In some cases the rash is almost uniform and smooth; in others it is slightly elevated above the skin, so as to feel rough to the finger passed over it; and in a few instances it is mingled with minute vesicles, which are sometimes filled with a pellucid fluid; more frequently empty, as if a portion of the fluid had been absorbed; or, in other words, small sudamina are mingled with the eruption. The eruption rapidly extends; and, in twenty-four hours, is spread over the greater part of the body, passing successively to the trunk and the extremities, on the former of which it forms a continuous scarlet redness, whilst it is more papular on the extremities, especially on the hands. It is seldom so uniformly diffused on the trunk as on the extremities, but consists of irregular patches. Like the rash of erysipelas, that of scarlatina disappears on pressure, and returns again when the pressure is taken off. On the chest, and sometimes on the extremities, when the surface feels rougher than usual, we find the papillæ are mingled with the minute vesicles already mentioned, either empty, or containing a pellucid serum. The colour of the eruption varies in different instances, from a pale to a deep scarlet; and, when it is closely inspected, it is found to consist of minute papules running together. It is at

* *Syn.* Scarlatina febris (*Sydenham*); rosalia simplex (*Good*); roseole (*F.*) — See Illustrations, pl. 1.

its height on the fourth day, after which it assumes a brownish hue; and begins to decline. The decline, however, is not uniform; but at first is in interstices: it commences on the face and neck, and passes off in the same successive manner as it appeared. It sometimes reappears in patches *: but it is usually entirely gone before the end of the seventh day; after which the cuticle desquamates either as a scaly or mealy powder, or in lamina; the latter being especially the case on the hands and feet. This desquamation is sometimes not completely over for eight or ten days; during which the disease is still contagious.

The rash is not confined to the skin, but spreads into the mouth, the fauces, the nostrils, and sometimes even over the tunica albuginea of the eye; but in many instances, in this variety, the throat is not affected. The tongue displays an aspect pathognomonic of the disease; it is slightly swollen, and the papillæ, preternaturally red and elongated, are projected through a whitish fur, so as to produce a strawberry appearance. During the eruption, the skin is dry, hot, itchy, and sensitive to the touch. The pulse is usually full and quick. The fever does not always subside when the eruption displays itself, but continues and declines with it; although it sometimes declines the moment the rash appears.

As in all fevers, the blood and the secretions suffer a change in scarlatina. Lecanu † has recorded two analyses of the blood during its progress; one of them in the blood of a man of thirty years of age, which gave the following results in 1000 parts:— water 776·55, blood corpuscles 144·55, residue of serum 78·90: the other, in that of a lad of eighteen, gave water 770·41, blood corpuscles 146 80, residue of serum 82·79; the water in both being rather less, and the blood corpuscles more, than in the average of healthy blood. Andral and Gavarret analysed the blood on the second day of the eruption, and obtained 776·3 of water, 3·5 fibrin, 136·1 blood corpuscles, and 84·1 residue of serum.‡

In this variety of scarlatina the urine is high coloured in the commencement, and, if the fever be greater than usual, it is of a deep-red colour: it has generally an acid reaction, and any sediment it may deposit consists of "urate of ammonia and uric acid mixed with a greater or less quantity of mucus." "Albumen is frequently, but not always, found in the urine during the period of desquamation.§ Dr. Begbie detected it in nineteen cases a few days after the commencement of desquamation.‖ The duration of the albumen in these cases was from forty-eight hours to ten days; but whenever it was not detected after it was first seen, its dis-

* See Sennertus de Febribus, l. iv. c. 4. &c. Etmuller, Opera, tom. ii. p. 416.
† Etudes Chimiques, p. 97.
‡ Simon's Animal Chemistry, Day's Trans., vol. i. p. 300.
§ Simon's Animal Chemistry, Day's Trans., vol. ii. p. 279.
‖ Monthly Journal and Retrospect of Medical Sciences, January 1849, p. 443.

appearance was final. I have never detected it in urine of patients labouring under simple scarlatina at the periods mentioned by Dr. Begbie, but it is always found when dropsical symptoms appear. It sometimes contains blood corpuscles and epithelium.

*Diagnosis.*—In the commencement of simple scarlatina, the disease may be readily mistaken for measles by the careless observer; but in scarlatina the precursory fever is of only one day's duration instead of three days, as in measles. It is not accompanied with sneezing and lacrymation, but with the affection of the throat and the appearance of the tongue already described. The eruption of scarlatina does not assume the crescentic form of that of measles; it is also of a different colour, namely, a bright scarlet, whilst that of measles is a dull red; and, lastly, the desquamation is more lamellar in scarlatina than in measles. Mild cases of the disease resemble roseola; but in scarlatina the eruption is not so continuous, nor of the deep rose hue of roseola. It appears first on the face and neck, extending gradually to the trunk, and passing off by the extremities; whereas in roseola the extremities are the parts first affected. The affection of the throat is not present in roseola, nor is the disease contagious.

*Prognosis.*—Scarlatina *simplex* scarcely ever proves fatal, unless from mismanagement, or some local inflammation supervening during the progress of the attack.

*Causes.*—Whatever form scarlatina assumes, it originates from a specific poison or infectious matter taken into the habit. Its influence is exerted both on the nervous and vascular system, changing the character of the blood and secretions. The fever which it sets up may be either mild, or severe, or malignant; differences depending, obviously, on the condition of the habit of the individual at the time he receives the infection. It is stated by Dr. Gregory* that the period during which the miasm lies dormant, or, as the phrase is, the period of incubation, is six or seven days; but I have known instances in which it could not have exceeded two, or three, or, at the most, five days; and Dr. Withering†, also, has mentioned this fact as having come under his observation. In a few instances, some weeks have elapsed between the period of exposure to the infection and the appearance of the disease. During the prevalence of scarlatina as an epidemic, persons may be affected with sore throat without any eruption; but even in such cases, desquamation of the cuticle takes place. When it rages as an epidemic, it exhibits, in different persons, different forms of the disease.

*Treatment.*—In simple scarlatina the domestic management of the sick room and the dieting of the patient are of more importance

* Lectures on the Eruptive Fevers, 8vo. 1843, p. 123.
† An Account of Scarlet Fevers, &c., 8vo. 1819.

than medical treatment.* As Dr. Bateman remarks, "the principal business of the practitioner is to prevent the useless and pernicious expedients of nurses." But however mild the attack may be, it should be watched, and the patient confined to one apartment, which should be kept cool; his bedclothes should be light; the sheets frequently changed; and his diet farinaceous and diluent. Water or slightly acidulated drinks are proper, but they should not be taken cold. The bowels should be kept soluble with mild aperients; and, if the fever demands the use of saline medicines, the common effervescing draught, containing from ten to fifteen grains of nitre, is the best. As soon as the desquamation has fairly taken place, a tepid bath will be found useful.

### Variety 2.—Scarlatina Anginosa—*Scarlet fever with sore throat.*

This is a more severe form of scarlatina than the foregoing, and the most frequent form of the disease. The fever is higher, and attended with more confusion of mind, and more dejection of spirits, than in simple scarlatina. The affection of the throat is not unfrequently the first symptom, or it occurs with the fever; but in most instances, however, it does not appear until the eruption is at its height. It is attended with stiffness and pain of the neck on turning the head. When the affection of the throat commences with the fever, as soon as the eruption appears deglutition becomes painful and difficult, and the voice hoarse. As the fever proceeds, the heat of the skin is intense: it has risen, as indicated by the thermometer, as high as 112°! Along with this insupportable heat there is sickness, headache, restlessness, with oppressed breathing and delirium. The pulse is small, feeble, and frequent, seldom under 120; the tongue covered with a white fur, through which protrude elongated deep-red papillæ; and the whole of the interior of the mouth and fauces is of a high-red colour. The tonsils are swollen, and, occasionally, of a dark-red colour, with a few whitish spots or crusts appearing on them.

The eruption is not so generally diffused, nor does it appear and run its course in the same regular manner as in simple scarlatina. It is less vivid, and comes out in scattered patches, and these are most developed around the joints. Miliary vesicles also frequently appear among the patches. The eruption is irregular, also, with respect to the time of its appearance; sometimes showing itself on the first day; sometimes not until the third or the fourth day of the fever. Occasionally it disappears soon after it has come out for a few hours and then reappears; or it partially reappears at uncertain times, whilst the attack, in other respects, is running

* Æger non raro nulla alia de causa, quam nimia diligentia medici ad plures migrat. *Sydenham*, § iv. c. 2.

its usual course. This lengthens the duration of the disease, and renders the period of desquamation uncertain. The patchy state of the eruption, and its disappearance and reappearance, are attended with a more severe affection of the throat than when it is generally diffused; and frequently coryza occurs: but the discharge is less acrid and less fœtid than in the malignant variety of the disease. Inflammation sometimes attacks the cellular membrane of the neck, which swells: the parotids enlarge, and the jaws are opened with difficulty.

With regard to the state of the tonsils, in many instances no ulceration occurs, but deglutition is accompanied with excessive pain. In this condition of the throat it is difficult to ascertain, by inspection, its real state; but the tonsils, the uvula, and palate are always intensely red; coagulable lymph is effused in small masses on their surfaces; and the inflammation sometimes extends to the pharynx and the œsophagus. The masses of lymph display either a white, grey, or blackish colour; but when they are removed by syringing the tonsils, no ulceration is apparent. The swelling and inflammation subside as the eruption declines on the fifth or sixth day of the fever. When ulceration occurs, which is rare in this variety of scarlatina, it is usually superficial; it appears in spots on the veil of the palate and the back of the pharynx; and, in such cases, deglutition is most painful. These ulcerations remain after the desquamation has commenced; but, if this be accompanied with a moist skin, they soon heal: if the skin remain dry, and the fever returns, the affection of the throat becomes worse. When it extends to the nostrils, the secretion of the mucous membrane becomes acrid, the sense of smelling ceases, and the discharge excoriates the upper lip. The inflammation may extend to the neighbouring parts; to the larynx, the parotid glands, and the ears. Abscess of one or both ears may form; incurable deafness be the result: and a fœtid discharge from the meatus externus continue for life. When the parotid glands are affected, the cellular tissue of the neck swells, enlarges, and becomes extremely hard; and the patient, being thus compelled to breathe with his mouth open, the tongue becomes dry and glassed, of a dirty brown colour, and red at the tip. The eyes, also, may be involved in the inflammation, and the sight lost. In this form of scarlatina, the desquamation commences as soon as the eruption disappears on one part, whilst it still continues on other parts. It is longer of taking place when the rash is slight. It continues often until the end of the second or third week, or even longer.

In even mild cases of scarlatina *anginosa*, much debility remains. When the symptoms have been more severe, inflammation of the joints resembling acute rheumatism, or that of the serous membrane resembling peritonitis, may occur; or, independent of inflammation, the desquamation may be incomplete, and so suppress

the healthy action of the skin that the kidneys may become overloaded and their secreting power arrested, in which case effusion may rapidly take place into the serous and the cellular membranes; hence dropsy is not an unusual sequel of the disease, especially in children. It sometimes assumes the form of anasarca, and affects chiefly the face and the extremities; but occasionally it appears, also, as ascites; and, now and then, effusion takes place into the pleural sac, or into the ventricles of the brain, and proves suddenly fatal. When dropsy, after this form of scarlatina, occurs, it generally takes place about the second week after the decline of the eruption. The patient appears progressing towards recovery, when, without any obvious cause, he complains of languor, stiffness of the limbs, and great debility; the appetite fails, the pulse is accelerated, the sleep disturbed, the skin parched, the urinary secretions become deficient, and the dropsical effusion takes place. If the swelling of the parotids have not previously appeared, it frequently appears along with the anasarca, and occasionally runs on to suppuration. In a few instances, epileptic fits have preceded the dropsical swellings; but they have generally been traced to some error in diet, or to improper exposure to cold. Indeed, the dropsical affection may often be traced to indiscreet exposure to cold and damp during convalescence. Cases sometimes occur in which serous effusions take place into the joints; or ophthalmia is set up and becomes chronic. The urine, in this variety of the disease, displays a greater amount of albumen than in simple scarlatina, before any dropsical symptoms appear; and the quantity of albumen increases when dropsy takes place. In some instances, however, no albumen has been observed, even where dropsy could not be warded off: in general, however, no albumen appears, even during the desquamation, when no dropsy is threatened. The urine, in a boy, contained large opaque globules, which Simon considered urate of soda. In this case, the disease displayed septic symptoms. The sp. gr. of the urine was 1022; and the contents in 1000 parts were 943·60 of water, 56·40 solid constituents, 19·30 of urea, and 1·69 uric acid. In this case, during desquamation, the urine contained numerous mucous corpuscles and epithelium, yet it contained no albumen.*

*Post-mortem appearances.* — When cases of scarlatina anginosa prove fatal, the dissection of the body sometimes displays no appearances that can account for the death. In general, however, when symptoms of cerebral excitement have prevailed, the arachnoid is found congested, occasionally opaque, and a milky-looking serum effused under it. The mucous membrane of the mouth, pharynx, nostrils, trachea, and bronchi are highly injected, and there is effused lymph in the tonsils; but sometimes there are no

* Simon's Animal Chemistry, Day's Trans., vol. ii. pp. 281-2.

traces in the throat of the inflammatory affection under which it was suffering. The lungs are frequently gorged.

*Diagnosis.*—In this variety of scarlatina, the diagnosis is extremely obvious, as the symptoms differ essentially from those of roseola and measles, as noticed under the former variety. The appearance of minute vesicles with the eruption in this form of scarlatina might lead the disease to be mistaken for miliary fever; but in scarlatina they are few in number, and not diffused over the whole surface as in miliary fever.

*Prognosis.*—When the precursory fever is moderate, and the pulse full and firm; when the mental functions remain undisturbed, and the patient bears the complaint well; when the tonsils are merely swelled and florid, and any specks that appear upon them are white, and do not rapidly ulcerate; when coryza is absent, or, if present, the discharge causes no excoriation; when the eruption appears on the third day, and does not recede; is universal over the body, and its appearance is followed by a mitigation of the sore throat; and when the skin becomes moist, and the tongue cleans as the desquamation proceeds, the prognosis is favourable. On the contrary, when a weak, irregular pulse attends the precursory fever; with restlessness, anxiety, with an anticipation of danger in the mind of the patient, and delirium; when the specks on the tonsils are of an ash or brown colour, or their swelling suddenly subsides, and coryza, with a thin, acrid, and fœtid discharge supervenes, it is always more or less unfavourable. The appearance of the eruption on the first day of the fever, or its delay beyond the fourth day; its appearance only in patches here and there; its sudden disappearance and reappearance; its position being confined to the trunk of the body and around the joints; glandular swellings, and swelling of the neck, hands, and feet; much dyspnœa, especially if there is no swelling about the throat; and hæmorrhages, or even the sputa being merely tinged with blood, are unfavourable. A pale eruption, especially if it be partial or evanescent, is also unfavourable. The appearance or non-appearance of local inflammation influences greatly the danger or the safety of the patient. Sudden effusion either into the chest or the ventricles generally proves rapidly fatal.

*Treatment.*—In the commencement of the attack of this variety of scarlatina, as the fever assumes the inflammatory type, and also during its progress, unless inordinate symptoms occur, the strict antiphlogistic treatment is required. The excitement, however, is seldom so high as to demand blood-letting. At the same time, when the temperament of the patient is the sanguine, and the febrile symptoms run high, the use of the lancet is indicated, and, indeed, absolutely requisite; but much also depends on the character of the prevailing epidemic. As a general rule, bleeding certainly is not demanded in scarlatina

anginosa; the nature of the prevailing epidemic, the state of the pulse, the type of the fever, and the severity of the general symptoms, must determine the propriety of employing it. I have had seldom occasion to direct general bleeding, but I have seen much advantage from cupping behind the ears, or the application of leeches to the neck. When leeches are applied, the bleeding should be kept up with warm, dry towels, not by poultices or fomentations. All stimulants, either in the form of food or medicine, must be avoided; and either cold sponging, cool air, cold drinks, and mild purgatives prescribed. When the eruption is well out, the heat of surface great, and the fever high, the cold effusion proves useful.

It is customary to commence the treatment with an emetic, and some physicians recommend it to be repeated at intervals of twenty-four or forty-eight hours*; but, except in young children, who swallow the morbid secretion of the fauces, a repetition of emetics is unnecessary; and when purgatives, such as a combination of calomel, sulphate of potassa, and jalap, are prescribed, emetics are seldom required. In the early stage of the disease, a combination of three grains of calomel, and the same quantity of antimonial (rather true James') powder, as recommended by Willan†, operates as a beneficial stimulus to the congested capillaries. The dread of purgatives at one time prevailed; but their judicious employment tends to prevent diarrhœa, which is always hazardous. Dr. Hamilton, however, has pointed out the advantages which may result from their employment: he has demonstrated that almost all the symptoms which warrant the employment of the lancet may be subdued by one or two brisk purgatives, given early in the disease, and the beneficial effects maintained by the subsequent administration of those of a milder description, to insure the daily regular evacuation of the bowels. He adds—"In scarlatina, as in typhus, we should keep in view the procuring the effects of purgatives during the day, and the avoiding, in this manner, the disturbance of the sick in the night-time;" a rule which should always be recollected in prescribing them. I have had ample experience of their value, when administered early in the disease; and I can conscientiously affirm that I have never witnessed any evil to follow their employment. For children, the best purgative is a combination of calomel and jalap, with sulphate of potassa. Drastic purgatives, whether for children or adults, should be avoided. When diarrhœa spontaneously occurs, it should be moderated by the chalk mixture and aromatics; and to sheath the intestines from the acrimony of their contents, arrow-

* Withering on Scarlet Fever and Sore Throat, pp. 78—81.

† Treatise on Scarlatina, 1815, p. 357.

‡ Observations on the Utility and Administration of Purgative Medicines, 2nd edit. p. 34.

root mucilage, and similar demulcents, with a moderate quantity of wine, should be administered. If there is any suspicion of subacute inflammation, leeches may be applied to the abdomen, and followed by fomentations.

During the existence of the eruption, diaphoretics are worse than useless; they quicken the pulse, augment the dryness and heat of the skin, and cause restlessness. The best method of diminishing the heat, and inducing the natural action of the skin, is the application of cold water, either in the form of cold sponging or the cold affusion. I believe that Dr. Currie of Liverpool was the first person who employed the cold affusion in this country in the height of the eruption. I began to employ it soon afterwards, in 1804. In a family in which five out of six children fell victims to scarlatina anginosa, and who were attended by Dr. Mathew Baillie and myself, I proposed to use it to the last little patient. It succeeded in saving the child; and I have, since that time, employed it in many cases with the most decided advantage. It abates the morbid heat of the surface, lessens the force and frequency of the pulse, allays the thirst, and, when reaction is promoted by the administration of a little warm wine on putting the patient into bed, it brings out a gentle breathing perspiration, and induces sleep of a calm and refreshing description. If the morbid heat returns, the affusion should be repeated. It should be administered, however, only under the eye of the practitioner, whose presence gives confidence, and calms the dread which mothers and nurses have of it as a formidable and apparently dangerous remedy. The patient should be taken out of bed, undressed, and placed in an empty tub; after which two or three buckets of cold water should be poured over him. He should be then quickly dried with warm towels, and when he is replaced in bed, if the chilliness remain, a glassful of warm wine and water should be administered. In a short time sleep supervenes, and he awakes with feelings and an expression of countenance which indicate relief and comfort, rendered more delightful by the contrast of his feelings with what he previously experienced. The hotter the skin, and the higher the colour of the eruption, the more likely is the cold affusion to prove beneficial. I owe much of my success in the treatment of scarlatina anginosa to the affusion, whenever I could persuade parents or friends to permit its employment. When this cannot be effected, sponging with cold water may be substituted for the cold affusion. In using it, the patient should be stripped naked and placed in a tub, as already described, and large sponges, dipped in cold water or vinegar and water, passed rapidly over the whole of the body. Neither the cold affusion nor cold sponging, however, should be employed if the patient have a great dread of them; if the heat of the body be not above the natural temperature, and not dry.

Either may be employed at any period of the fever, provided the skin be hot and dry. It must be acknowledged, however, that the cold affusion is seldom applicable when the disease occurs in adults; it is in the young and sanguine that it proves truly serviceable.

The beneficial influence of the topical application of cold water does not set aside the necessity for cool air and proper ventilation of the sick-room, and the use of cool acidulated beverage. Diluted acetic acid, slightly sweetened, or in the form of raspberry vinegar, proves both grateful and useful to the patient; and, if the alvine evacuations be fœtid, and tympanitis is threatened, an equally agreeable and more useful refrigerant is made by adding 1 drachm of concentrated solution of chlorine to half a pint of water, moderately sweetened with syrup of capillaire or syrup of lemons, and taken in the course of the day. This is the proportion of the solution of the chlorine for an adult; from ten to fifteen minims is sufficient for children. The solution of chlorine should be kept secluded from the light; and the beverage containing it made on the morning of the day in which it is to be used. Dr. Watson, on the suggestion of Dr. Hunt, has found the chlorate of potassa equally useful. He remarks: "Of late I have been in the habit of directing a solution of the chlorate of potash in water (a drachm to a pint) as a drink for patients in scarlet fever and in the typhoid forms of continued fever. Under the use of a pint and a half of this solution daily, I have remarked in many instances a speedy improvement of the tongue, which, from being furred or brown and dry, has become cleaner and moist."* Cordials and tonics, such as wine and the salts of quina, or decoction of cinchona bark, prove injurious whilst the eruption and the febrile symptoms are present. Those symptoms of depression that induce a tendency to malignancy, and for which wine and other cordials and bark were formerly so freely administered, are best obviated by purgatives and refrigerants, as already noticed.

With respect to the state of the throat, when the inflammation of the tonsils is considerable, and deglutition impeded, blisters have been recommended; but I have observed more advantage to be derived from rubifacients, such as the linimentum ammoniæ, containing one-half only of the liq. ammoniæ ordered in the Pharmacopœia. The use of gargles is not always necessary; but when they are required, the best is the following: —

℞ Infusi Rosæ f ℥vj.
Acidi Hydrochlorici dil. f ℥j.
Tinct. Capsici f ℥j.
Mellis ℥ij. — M. Ft. Gargar.

I have found much benefit from touching the tonsils with a solution of one drachm of nitrate of silver in a fluid ounce of

* Lectures, 2nd edit., vol. ii. p. 763.

distilled water, acidulated with eight or ten minims of diluted nitric acid. A camel's hair pencil should be used for the purpose. Gargles should not be too frequently used: their chief utility seems to be the clearing away the acrid mucus, which is apt, when swallowed, to cause diarrhœa and augment debility.

In the convalescence from scarlatina anginosa, the strength should be brought up by tonics, such as the solution of disulphate of quina in infusion of gentian, acidulated with nitric acid; and a moderate quantity of wine. With regard to the sequela of this form of scarlatina, the tendency to dropsy especially requires watching. It commonly appears in the form of anasarca; but occasionally, also ascites supervenes. Children are more commonly the subjects of it than adults. It generally appears ten or twelve days after the period of desquamation, although it has, in some instances, not appeared for several weeks. It is preceded by languor and lassitude, loss of appetite, and disturbed nights; the pulse quickens, the bowels become costive, and the urine scanty and albuminous: sometimes there is considerable gastric irritation, causing nausea, vomiting, and purging. The anasarcous swelling appears first in the face and upper extremities, whence it gradually extends over the whole of the body. In more severe cases, the serum is effused into the serous cavities, producing at the same time, general anasarca, hydrocephalus, hydrothorax, and ascites. This dropsical state is accurately referred to subacute inflammation of the affected tissues, and as soon as it shows itself recourse should be had to blood-letting if the state of the pulse demands it, but at all events to purgatives; I have found nothing so beneficial as a combination of calomel and compound powder of jalap, and in severe cases calomel and elaterium, in doses suited to the age of the patient. This last combination should be repeated every sixth hour till relief is obtained. My experience does not permit me to place confidence on the employment of diuretics alone. Whilst employing means to remove this dropsical state, the tone of the habit must be supported and augmented. The stimulant tonics, such as infusion of cascarilla or of chimaphylla, are well adapted to answer this intention; or, better than either, the tincture of the sesquichloride of iron.

The diet during the convalescence should be nutritive, but more of a farinaceous and vegetable than an animal nature. The quantity, also, should be restricted. The use of the tepid bath not only hastens the desquamation, but, in doing so, lessens the chance of the disease being communicated from the patient to other persons who have not had scarlatina.

## Variety 3. — Scarlatina Maligna * — *Malignant Scarlet Fever.* †

This form of the disease differs in many respects from the last variety. The fever ushering in the eruption is sometimes of the inflammatory, sometimes of the typhoid type; and the eruption itself, whether it appears in a few irregular patches distant from one another, or more equally diffused, is usually at first faint and indistinct, but speedily assumes a dark-red, almost livid hue, and occasionally is mingled with petechiæ and vibices. It is late in appearing, and sometimes suddenly disappears a few hours after it has come out, and does not again appear until the end of the week, and then remains for two or three days. In some instances it never appears, and in a few cases it has appeared a third time.‡ A fœtid odour is exhaled from the skin.

As might be expected from the type of the fever, the pulse is small, rapid, feeble, often fluttering, and irregular; there is great irritability of the stomach and intestinal canal, so that there is generally much flatulence, and both vomiting and diarrhœa are not uncommon; the tongue is less red at the tip and edges than in the two former varieties; the breathing is either quick, or it is slow and impeded; and the sensorial functions are much disordered, displayed by great restlessness, headache, vertigo, deafness, delirium, and sometimes coma, alternating with violence so great as to require restraint. The eyes are suffused and heavy, the cheeks puffy and deeply flushed, and an acrid, generally fœtid discharge distils from the nostrils, and excoriates the upper lip. The mouth and teeth are covered with a brown or blackish sordes, the interior of the cheeks are often aphthous, and the tongue is swollen, dry, and displays a brownish-black streak in the centre. The tonsils are not much swollen; but they are studded with ulcers covered with dark ash-coloured sloughs, and surrounded with a dark-red livid base; a large quantity of viscid phlegm clogs up the fauces, increasing the difficulty of deglutition, and causing a rattling noise in breathing, which is quick and laboured. There are often retro-pharyngeal abscesses. The breath is sometimes as fœtid as the discharge from the nose. Severe diarrhœa not unfrequently supervenes, accompanied with hæmorrhages, which sometimes also proceed from the mouth and throat. These symptoms prognosticate a fatal termination. Death usually occurs on the second or the third week;

* *Syn.* Cynanche maligna (*Cullen*, who considered it a distinct disease); Scarlatina *gravior* (*R. Williams*); Empresma *paristhmitis* (*Good*).

† This form was most accurately described by Dr. Fothergill, as it appeared as an epidemic in the metropolis in 1747-8. (*An Account of the Sore Throat, attended with Ulcers*, by T. Fothergill, M. D.: London, 1754.) It was long afterwards called Dr. Fothergill's sore throat.

‡ Sims, Mem. of the Medical Society of London, vol. i.

but patients have died suddenly as early as the second, third, or fourth day of the disease, from the powerful sedative influence of the virus, and the rapid supervention of gangrene in the fauces and the œsophagus, or in some part of the intestinal canal. Indeed, the state of the throat regulates greatly the degree of some of the most formidable symptoms. Dr. Watson mentions a case in which the structure of the internal ear was so completely destroyed that "every time the child swallowed, a part of the fluid ran out immediately at one of its ears."* In some instances, when the symptoms have been moderate in the early period of the attack, malignant symptoms have suddenly appeared, and rapidly proved fatal. Cases of this variety of the disease occur in which no eruption appears †; and in such, the depression is often so extreme that the most powerful excitants produce no effect in rousing the energy of the system; and a fatal issue is certain. This has been considered as a distinct disease; but there can be no doubt that it arises from the same poison as that which produces the more common forms of the disease, although its occurrence is rare, and only when the malignant scarlatina is raging as an epidemic. It may occur in one or more of a family, and infect others, who nevertheless shall pass through the milder forms of the disease. It demands the same treatment as common Scarlatina *maligna*. I have seen in the same family, some of its members suffering under this, and others under the other forms of the disease at the same time. In severe cases of Scarlatina *maligna*, the nails are sometimes thrown off along with the cuticle, which occasionally desquamates in large lamellar pieces.

When the patients pass through the disease and survive, the convalescence is tedious and often accompanied with many threatening symptoms, such as ulcerations, which spread from the throat to the adjoining parts, suppuration of glands, abscess in the ears causing necrosis of the bones and permanent deafness, dyspnœa and cough, protracted excoriation and sloughing of the nates and other external parts, hectic fever, and diarrhœa, which wear down the strength and ultimately prove fatal.

In this form of the disease, the urine is sometimes of a dark-yellow colour, has an alkaline reaction, an ammoniacal odour, and deposits earthy phosphates, urate of ammonia and urate of soda. In a case in which the urine was analysed by Simon, 1021 parts yielded 943·60 of water, 56·40 of solid constituents, 10·35 of urea, and 1·69 of uric acid.‡ When it remains turbid, this may arise from its holding, in suspension, epithelium from desquamation of the mucous membrane, mucous corpuscles, and fibrinous cylinders: when it contains blood, the danger is always great.

* Lectures, 2nd edit., vol. ii. p. 758.
† Scarlatina faucium (*Tweedie*); scarlatina sine exanthemata (*Wilson*).
‡ Animal Chemistry, vol. ii. p. 301.

When dropsy supervenes, the urine is always albuminous; but the albumen disappears when the dropsy is subdued.

Along with other anomalous symptoms, inflammation of the internal ear occurs as a sequel of this form of the disease: suppuration follows; the abscess discharges its pus; and, when the bones of the ear have been destroyed, the discharge is fœtid and may continue for months, and even for the life time of the sufferer who is rendered at the same time deaf. Many die from this affection extending to the brain, causing furious delirium, followed by fatal coma.

*Diagnosis.* — The resemblance between this variety of Scarlatina and the disease formerly named Cynanche *maligna* is so close, that there can be no doubt that the latter is merely a variety of this malignant form of Scarlatina. When the eruption appears in patches, the disease might be at first mistaken for erythema; but the type of the attending fever, and the condition of the throat, are too characteristic to admit of a mistake in the diagnosis.

*Post-mortem appearances.* — When Scarlatina *maligna* proves fatal, the post-mortem examination of the body displays little swelling but deep ulceration of the tonsils. The mucous membrane of the pharynx is usually livid, and sometimes in a sloughing state. There is, occasionally, purulent fluid in the sacculi of the larynx; and Dr. Tweedie mentions that, in a few instances, he has observed ulceration of the larynx.* Purulent deposits are, occasionally, seen in the joints †

*Prognosis.* — It is scarcely necessary to say that a disease of so severe a nature is always attended with extreme danger; it is peculiarly so when the delirium commences a few hours after the seizure, accompanied with a small, rapid, fluttering pulse. The sudden retrocession of the eruption is always a dangerous symptom; especially when that is attended with lividity of the fauces; an acrid discharge from the nostrils; acrid diarrhœa; the swelling of the parotid and submaxillary glands; and the formation of abscesses in the neck; with the appearance of gangrene in any part. Hæmorrhage, in the form of epistaxis, in the early stage of the disease, is usually regarded as favourable; but hæmorrhage from any part at an advanced period generally leads to a fatal termination. The danger of Scarlatina in general, but more especially of this variety of the disease, is increased when it occurs during dentition, or during pregnancy; and still more when it appears soon after parturition. This is also the case when it occurs soon after any disease that has lowered the vital energy. The symptoms that indicate a favourable result are, the fever setting in mild, with a firm, equable pulse; an early and copious eruption, succeeded on the fourth day by a moist skin, and general de-

* Cyclopedia of Practical Medicine, vol. iii. p. 650.
† Ibid. p. 652.

squamation of the cuticle; the ulceration of the tonsils clean; the breathing becoming free; and the countenance acquiring its natural expression.

*Treatment.*—In a disease of debility almost from its commencement, in which the acute stage is short, and rapidly followed by symptoms of a typhoid character, the best treatment will too often fail. The chief indication to be fulfilled is to obviate the overwhelming depression of the nervous system, and to sustain the powers of life; hence blood-letting, the cold affusion, cold sponging, and even the employment of purgatives beyond mild aperients, ought to be cautiously prescribed: much comfort, however, results to the patient from sponging with warm vinegar moderately diluted. The cold and the tepid affusion are both inadmissible. With respect to purgatives, I have seen considerable benefit result from the early administration of eight or ten grains of calomel at bed-time, permitting it to pass off without the aid of a cathartic on the following morning; it allays the irritability of the stomach, unloads the liver, and a portion of it being undoubtedly taken into the system, an impulse is given to the capillaries, and the general secreting function is improved. The purgatives should be such as to procure four or five evacuations daily, and they should be continued until the temperature of the skin is more equable, and the alvine evacuations are more natural. The common practice, and it is a judicious one, is to administer an emetic at the commencement of the disease; to follow this by a large dose of calomel, as already mentioned, or a gentle aperient; and as soon as the dry heat of the skin and the flushing of the face subside, and the tongue cleans, under the influence of gentle aperients and tepid sponging, to uphold then the powers of the habit by a course of tonics and cordials. The best emetic is the hot infusion of chamomile flowers, which, at the same time that it evacuates, maintains the tone of the stomach. For rousing the system, various stimulants have been proposed, namely, the sesquicarbonate of ammonia, and the infusion, or the tincture of capsicum acidulated with vinegar. Dr. Peart regarded the sesquicarbonate of ammonia almost as a specific; he gave it in doses of two tea-spoonfuls of a solution of two drachms of the salt in five fluid ounces of water, every two, three, or four hours: it rouses the nervous energy, and certainly proves useful. I have given the tincture of capsicum in doses of twenty minims, in two drachms of vinegar diluted with an ounce of water, every three or four hours, with decided advantage. As a tonic, I have found the following answer admirably, only modifying the dose to the age of the patient:—

℞ Quinæ disulphatis gr. iij.
Infusi Rosæ f℥ jss.
Tincturæ Ruæ f℥ss.
Acidi Nitrici diluti ♏xvj.
Syr. Aurantii f℥.
Ft. Haustus, 4tâ quâque horâ sumendus.

Instead of the infusion of roses, that of cusparia, cascarilla, or canella alba may be employed, substituting the tincture of serpentaria for the tincture of roses; and either the dilute nitro-hydrochloric acid, or dilute sulphuric acid, for the dilute nitric acid.

With regard to the management of the throat, stimulant gargles are indicated in the early period of the disease: they tend to remove the viscid, offensive mucous that accumulates in the fauces, and which, when it is swallowed, causes diarrhœa, and operates as a hurtful sedative to the nervous system. I have seen much benefit from the following: —

℞ Solutionis Chloridi Sodæ f℥xij.
Tincturæ Capsici f℥j.
Mellis Opt. ℥iv.
Aquæ destillatæ f℥vj. — M.
Ft. Gargarysma subinde utendum.

The solution of chloride of lime may be substituted for that of the chloride of soda. The infusion of roses, acidulated with the addition of tincture of myrrh, or the compound tincture of bark, or tincture of capsicum, are also employed as gargles, but they are inferior to that with the chloride of soda. Dr. Watson recommends a solution of common salt (*chloride of sodium*), both as a gargle and for syringing the fauces and nostrils of young children who cannot gargle. He adds, "A quantity of sloughy matter is brought away, the discharge is rendered harmless, the running at the nose and diarrhœa cease." For abating the latter, and the acrid and offensive coryza which is frequently the cause of the diarrhœa, I have found nothing so beneficial as the simple solution of the chloride of soda in the proportion of an ounce to five ounces of water; when injected into the nostrils, it arrests the fœtor of the discharge, stimulates the mucous membrane, and aids in reducing the attack nearly to one of Scarlatina *anginosa*. The extrication, however, of chlorine from half an ounce of dried sea-salt, and a drachm and a half of binoxide of manganese rubbed together and put into a porcelain cup, with a fluid ounce of sulphuric acid and an equal quantity of water poured over the mixture, not only supersedes the necessity of the frequent use of gargles, but tends to diminish the risk of infection. The cup should be carried round the bed; and, when the extrication of the gas lessens, the cup placed in a little warm sand in an earthen pipkin, may be set in the corner of the sick-room, and a basin of boiling water on a table near it. Metallic furniture should be removed from the room, as it is rapidly attacked by the gaseous chlorine.

Although wine and cordials should be sparingly administered in the commencement of the disease, yet, in its advanced stage, when the vital powers are depressed, and the symptoms of malignancy increase, they are absolutely necessary. A hot and dry skin and delirium do not contraindicate the administration of wine, more

especially if the pulse be rapid and feeble, and the extremities cold. The wine is more relished by the little patients when it is mulled; the influence it displays in filling the pulse, in allaying subsultus tendinum, and subduing delirium, affords the only means of determining the quantity that may be given. When the pecuniary circumstances of the patient stand in the way of the practitioner ordering wine, bottled porter or good sound beer are excellent substitutes for wine.

As convalescence advances, the tonic plan should be continued, and the quantity of wine gradually diminished: the best wine at this period is good sound claret. It is of great importance not to allow the free use of animal food, even after the appetite demands it. When the disease occurs in a town, the sooner the patient is removed into the country, after convalescence is established, the better. But previous to such a removal, as the contagion is propagated whilst any portion of the diseased cuticle remains, the desquamation should be aided by the repeated use of the tepid bath.

As a sequel of Scarlatina *maligna*, anasarca is not uncommon; and it is sometimes accompanied with dropsy of all the serous cavities. It follows not only the more severe forms of the disease, but the milder forms also, when the patients have been indiscreetly exposed to cold or damp air during the period of desquamation and early convalescence. Indeed, as a general rule, except in very mild summer weather, patients recovering from Scarlatina should not venture out of doors until the new cuticle is completely formed. Such a precaution is also necessary for the sake of others, as the disease propagates itself by infection as long as any of the old cuticle remains. In those cases in which the desquamation occurs in large flakes, still greater caution is requisite to prevent dropsy from supervening.

Dropsical symptoms, after scarlet fever, generally show themselves from the fifteenth to the twenty-fifth day: they never appear after the fourth week.* Usually the dropsy attacks children, but I have seen it in a man of nineteen years of age†; and I completely accord with the opinion of Dr. Watson‡, that the few cases of it seen in adult age are to be ascribed rather to the unusual occurrence of scarlet fever at that period of life, than to any direct relation which it has to age as a predisposing cause. Ascites is more uncommon than anasarca.

The earliest indication of the presence of dropsy after Scarlatina *maligna* should not be neglected. It is usually preceded by a recurrence of febrile symptoms, confined bowels, occasionally nausea and vomiting; and when the patient is young, languor and

* Dr. Wells, quoted by Dr. Watson. There is, however, one case recorded in which it appeared in the fifth week. Hamilton on Scarlatina, p. 160.

† Dr. Blackall saw it in one patient at thirty; and in another at forty-two years old.

‡ Lectures, 2nd edit., vol. ii. p. 760.

fretfulness. The pulse is at first slow, but it becomes frequent, sharp, and resisting; and the face pallid and swollen. When there is much headache, with dilated pupils, confusion of intellect, convulsions, or partial paralysis, we may suspect effusion within the head. The urine generally, when submitted to the action of heat and nitric acid, is found to contain much albumen, which I am of opinion is to be regarded rather as the consequence of a general inflammatory condition, than any special state of the kidneys. Blood globules are also frequently present, and occasionally in so large a quantity as to produce a brown sediment. The specific gravity of the urine seldom exceeds 1·017.

This form of dropsy is sometimes difficult to remove. When the pulse is quick and sharp, and dyspnœa present, blood may be abstracted, and the bleeding followed by purgatives. The efficacy of diuretics has been doubted; but I have found them useful, more especially acetate of potassa and digitalis. As a purgative, I have found nothing answer better than a full dose of calomel at bed-time, followed, in the morning, by ten grains of jalap, and a drachm of bitartrate of potassa. The following is a good form of diuretic for a boy of twelve or fourteen years of age:—

℞ Tinct. Digitalis ♏xxxij.
Spiritus Etheris Nitrici f℥j.
Potassæ Acetatis ℥ij.
Aquæ Destil. f℥iv.—M.
Sum. cochleare amplum 4tâ q. q. horâ.

In severe cases, the bloodletting may be repeated, and the action of the capillaries improved by the administration of hydrargyrum e creta, until the mouth is slightly affected; it is seldom necessary to carry the use of the mercurial to salivation. The daily use of the tepid bath will be found useful as soon as the dropsical symptoms appear on the decline.

Nothing is more requisite on the part of every medical practitioner, than to explain to the friends of patients recovering from Scarlet fever, the very permanent nature of the contagion of the disease. It will lurk about furniture and clothes for a very long time, even years. The room in which the patient has resided during the disease should be cleared from all the furniture, and well fumigated with chlorine gas, and the furniture washed with a solution of chlorine, before the apartment can be occupied by any one who has not had the fever. No definite period can be fixed upon as that terminating the hazard of imparting the disease, when the foregoing measures are not taken.

## Case 1.

*Mild Scarlatina Anginosa.*

Emma S——, æt. 21, a servant. On the 6th of November, 1835, she slept with a child who had scarlet fever. Five days afterwards she was attacked with sore throat, headache, vomiting, and purging, and was admitted on the 12th into University College Hospital. The two last-mentioned symptoms became worse on the following day, and a diffused, mottled, scarlet rash made its appearance in the face, neck, and chest: the skin was hot and dry. On examining the throat, the tonsils were swollen, and of a bright-red colour, and the tongue was covered with a white fur and elongated red papillæ. Her countenance was anxious; she complained of headache, pain in the chest, and an aching pain in the limbs. The pulse was 110, the urine scanty and high-coloured, but the bowels were regular: she had had no sleep for two nights. (*Admoveantur hirud.* xij *cervici.* ℞ *Mist. Salin.* f℥j; *Potassæ Nitratis* gr. vj; *Acidi Hydrocyan. diluti* ♏iv: *fiat Haust.*, *4tâ q. q. horâ sumend. Low diet.*) *Nov.* 15*th.* The eruption has extended; pulse 120. 16*th.* The eruption is nearly gone, the headache has abated, and she had some sleep last night. 18*th.* The throat is much better, the skin is cool, the pulse natural but feeble: she did not sleep last night. (*Pergat in usu Haust.* ℞ *Pulv. Ipecac. comp.* gr. viij; *h. s. sumend. Middle diet.*) 20*th.* She is nearly convalescent. (*Omitt. medicamenta. Full diet.*) 25*th.* Discharged cured.

## Case 2.

*Scarlatina Anginosa.*

Mary N——, æt. 14, a nursemaid, was admitted as a patient into University College Hospital, December 29th, 1835, under Dr. Elliotson. She caught the disease from a person affected with it in her master's house. For several days she had felt lassitude and general indisposition, and the day before her admission she was attacked with sore throat, difficulty of deglutition; and, nearly at the same time, a diffuse scarlet eruption appeared on the chest, back, abdomen, legs, and arms. It was most vivid at the flexures of the fingers and on the wrists: she had no headache, nor pain of the loins, but she experienced a slight intolerance of light.

When she entered the hospital, her skin was dry, hot, and rough; her tongue moist, but covered with a dark fur; the fauces and tonsils were ulcerated, the lips parched, thirst urgent, pulse 120 and tense. The bowels had been previously opened by medicine, but they were again opened by a five-grain calomel pill and castor

oil, and the body sponged with tepid water. 30*th.* No improvement. (*Admoveantur hirud.* vj. *collo. Infusum Rosæ Acid. pro gargarysmate.*) *Jan.* 1*st.* Eruption nearly gone (*Haust. Sennæ, mane quotidie.*) 4*th.* The desquamation has commenced; let her have full diet. 12*th.* She was discharged cured.

This girl, after leaving the hospital, went to the house of two of her aunts. In a few days, two children in the family of one of the aunts, and three in the family of the other, were attacked with Scarlatina *anginosa:* four out of the five thus attacked, died. Nothing can demonstrate more strikingly the necessity of not permitting patients who have just recovered from Scarlatina to mingle with those who have never had the disease, especially young persons, who are always very susceptible of the influence of the infection. Tepid baths should be repeatedly employed to favour the completion of the desquamation; for until that is completed, the disease is still capable of being communicated to other persons who have not had it.

## Case 3.

### *Scarlatina Anginosa.*

James G——, æt. 28, a mechanic, was admitted 23d April, 1839. He was a man of sanguine temperament, and, before he married, lived a loose intemperate life. About a fortnight ago, he was with some children who had just recovered from scarlet fever. On the same day, he felt ill, as if he had caught a cold; and he suffered from headache. Four days afterwards, his throat became sore, and a vivid red rash appeared on the following day on the chest and rapidly spread over the whole body. On his admission into the hospital, the third day after the rash appeared, it was diffused over the whole body, and was desquamating in some parts. The eyes were suffused, the face flushed, the pulse 120 and resisting, the breath fœtid, and the lips parched. He complained of headache, pains in the shoulders, and general feverishness. The throat was so much inflamed that he could scarcely speak, and was unable to swallow. He had cough, with copious expectoration, and sonorous and sibilant breathing. (*V. S. ad* ℥x. ℞ *Ant. Potassio-tart.* gr. ¼. *Magnes Sulph.* ʒj. *Aquæ* f℥x.: *fiat Haust.,* 4*tâ q. q. horâ sumendus.*) 24*th.* The eruption is on the decline; the throat less sore; the bowels confined. (℞ *Ol. Ricini* f℥iv. *Aq. Menthæ p. p.* f℥viij. *Haust., statim sumendus. Perg. in usu Misturæ.*) 26*th.* The desquamation is proceeding rapidly. The throat is also better. The bowels are confined. (*Om. Haust. purg. Pergat. in usu Mist.; addendo Ant. Pot. Tart.* gr. ¼.) 30*th.* Improved in every respect, but restless. (℞ *Sol.*

*Morphiæ bimeconatis* ♏xx. *Vini Ipecacuanhæ* f℥ss. *Aquæ* f℥j. *Haust.; h. s. sumendus. Haust. purg. mane.* ℞ *Aceti destillati* f℥j. *Aquæ* f℥xij, *pro potu. Omittatur Mist.*) May 4*th*. Nearly convalescent. Bowels confined. (℞ *Calomelanos* gr. v. *h. s. sumend. Haust. purg. mane.*) 12*th*. He was discharged cured.

## Case. 4.

### *Scarlatina Maligna.*

Mast. Henry B——, a young gentleman twelve years of age, at a boarding-school near Hampstead, was attacked with Scarlatina in its severest form. The disease had run on in its usual course for seven days, when, along with the most severe ulceration of the tonsils, aphthous cheeks, and a dry, harsh, brown tongue, the discharge from the nostrils was so acrid as to excoriate deeply the upper lip, and around the mouth; it was also extremely fœtid. He was in this condition when I was called to see him. The tongue was so swollen that I could not see the tonsils, but the medical gentleman who had attended the patient from the commencement of the attack, described the extent and nature of the ulceration. The breath was as fœtid as the discharge from the nostrils; the pulse was 120, and the prostration of strength extreme. The nostrils were ordered to be syringed with the following solution thrice a day; and the tonsils, also, syringed with the same solution:—

℞ Sol. Sodæ Chloridi f℥ij.
Aquæ Rosæ f℥vi.—M.
Fiat lotio more dictu utenda.

The following mixture was, also, ordered to be administered once in four hours:—

℞ Aquæ Chlorinii f℥ij.
Decocti Cinchonæ flavæ f℥vss.
Tinct. Cinnam. f℥iij.
Syr. Aurantii f℥j.—M.
Ft. Mistura.—Sum. cochl. ij. majora 4tâ q. q. horâ.

The bowels were directed to be kept open with an enema of warm water administered every morning, and three glasses of good claret to be taken in the course of the day. In twenty-four hours the coryza abated; and the fœtor of the breath disappeared. In three days the ulcers of the tonsils were nearly well; and, without any alteration in the plan of treatment, every unfavourable symptom disappeared; and the health was completely restored at the end of six weeks.

## Case 5.

*Scarlatina Anginosa, terminating in Anasarca.*

Clement D——, a weak strumous boy, æt. 4, was admitted into University College Hospital, March 20th, 1843, on the third day of the eruption, which had receded and appeared twice. The throat was very slightly affected; the heat of skin moderate; and the pulse 90. The bowels were confined. (℞ *Hydrarg. c. Creta* gr. iv. *Sacch. puris.* gr. iv. *Fiat Pulvis; h. s. sumend.* ℞ *Ol. Ricini* f℥ij. *Acaciæ pulv.* gr. x. *Aq. dest.* f℥vj. *Haust. cras primo mane sumend.* ℞ *Liq. Ammon. Ac.* f℥ij. *Pot. Nit.* gr. iij. *Aquæ dest.* f℥vj. *Haust. 6tâ q. q. horâ sumend. Low diet.*) 21*st.* The eruption is passing from the trunk to the extremities. (*Pergat in usu Med.*) 28*th.* The child has been improving up to this time, and the desquamation is becoming general; but dropsy has made its appearance. The urine is scanty, high-coloured, acid, and albuminous; sp. gr. 1012. (℞ *Hydrarg. c. Creta* gr. ij. *Pulv. Scillæ* gr. j. *Pulv. Digit.* gr. $\frac{1}{6}$. *Fiat Pulvis; 8vâ. q. q. horâ sumend.* ℞ *Magnesiæ Sulph.* ℥ss. *Tinct. Calumbæ* ♏ xx. *Infusi Calumbæ* f℥vj. *Haust. inter pil. sing. doses. Beef tea.*) *April* 6*th.* The bowels have been freely opened, but the dropsical symptoms are unabated. (*Pergat in usu Pulv. Omit. Mist.* ℞ *Potassæ Nit.* gr. iij. *Decocti Chimaphilæ* f℥vj. *Haust., 6tâ q. q. horâ sumendus.*) 9*th.* He passes little urine, which is still albuminous; the tongue is furred; and the stools are bilious and offensive. (℞ *Ol. Ricini* f℥ij. *Acaciæ pulv.* gr. x. *T. Camph. C.* ♏xx. *Aq. Menth. p. p.* f℥vss. *Fiat Haust., statim sumendus. Pergat in usu pulv. bis quotidie, et Haust. 6tâ q. q. horâ.*) 13*th.* Urine increased in quantity; the albumen is diminished. (*Pergat in usu pulv. h. s. quotidie, et Haust. bis quotidie.*) 20*th.* The dropsical symptoms are abated; but the urine is still scanty, albuminous, and of sp. gr. 1014. (*Omit. Medicam.* ℞ *Hyd. c. Creta* gr. ij. *Sacch. pur.* gr. ij. *Pulv. bis quotidie.* ℞ *Tinct. Digitalis* ♏ v. *Spir. Etheris Nit.* m̄ viij. *Mist. Camph.* f℥j. *Haust., ter quotidie sumendus. Apply friction on the abdomen.*) 21*st.* The draught caused sickness and vomiting. (℞ *Potassæ Bitart.* gr. x. *Scillæ pulv.* gr. j. *Fiat Pulvis, 6tâ q. q. horâ sumendus. Pergat in usu Haust. sine T. Digitalis.*) 25*th.* Greatly improved: the swelling of the scrotum and penis is gone; the urine is increased in quantity, and contains no albumen. (*Pergat in usu Pulv. et Haust.*) *May* 2*d.* Nearly convalescent. (*Let him have a small portion of mutton. Pergat in usu Pulv. et Haust.*) 5*th.* Continues to improve. (*Omit. Med.*) 8*th.* Discharged cured.

## RUBEOLA * — (*Measles*).

Measles is a contagious disease, preceded and accompanied by catarrhal fever, and characterized by an eruption of small crimson spots of confluent papulæ, arranged in irregular circles or crescents, which continue for three or four days, then decline and disappear entirely after six or seven days. It attacks all ages, but chiefly children; and usually occurs only once during life.

There is no reason for thinking that such a complaint as Measles was known to the Greeks and Romans. It seems to have been first observed in A.D. 569, during the siege of Mecca, nearly about the same time that small-pox made its appearance. Indeed, until the 12th century, some of the Arabian physicians regarded Measles as a mild variety of small-pox; although Abn Dschafer had pointed out the distinction between these two diseases. Haly Abbas and Avicenna described Measles accurately under the name Hasba; but the latter still considered the disease a bilious small-pox. It is a curious fact that whilst the Arabian physicians were thus confounding the two diseases, their mode of treating Measles was more rational than that of their successors, until the eighteenth century. But four centuries afterwards, after the time alluded to, in 1640, we find Sennertus discussing the question, why the disease in some constitutions assumes the form of small-pox, and in others that of Measles.† In the posthumous work of Diemerbroeck, published in 1687, we find the two diseases still confounded, as stated in the following sentence: "Differunt (scilicet morbilli) a variolis accidentaliter, vel quoad magis et minus."‡ He also considers Measles to be generated by a drier and more choleric humour than small-pox. This opinion of the bilious nature of Measles, however, was not confined to Diemerbroeck, for in the works of George Bachtishua, who was physician to the Caliph Almansor, it is stated that measles proceeds from blood mixed with a great proportion of bile.§ About the same period also as Diemerbroeck, Lange, a professor at Leipsic, says, "Præterea tam morbilli quam variolæ sunt eruptiones in eo duntaxat discrepantes, quod vel minus vel magis appareant."‖ If we approach a little nearer to our own time, we shall find that Sydenham first permanently separated the two diseases. Morton maintained the identity of Measles

* *Syn.* Morbilli, the diminutive of *il morbo*, a name applied to the plague. Blacteæ (*Auct. Variæ*); Febris morbillosa (*Hoffman*); Phœnisismus (*Plouquet*); Typhus morbillosus (*Chrichton*); Enanthesis rubeola (*Good*); Rougeoles, Roseola (*F.*); die Kindspecken (*G.*); Rosolia, Rossole (*Ital.*); Hasba, al hasbet (*Arab.*); Hæcem (*Moug.*); Hyzamak (*Turkish*); Serukje (*Pers.*); Chin ummay (*Tam.*); Chin umma (*Tel*); Gabrie (*Duk.*); Khrusvāmasacrkâle (*Sans.*); Chumpak (*Malay*).

† *Med. Pract.* lib. iv. c. 12.

‡ *Tractatus de Variolis et Morbillis*, cap. 14.

§ *Contin. Rhasis*, lib. xviii. c. 8.

‖ *Miscell. Med. Curiosor.* § xxxiv.

and scarlatina, and regarded their relative connection the same as that of distinct and confluent small-pox*; a similar opinion was held by Sir William Watson, in 1769†; and ten years afterwards Dr. Withering regarded the two diseases as intimately allied; but these opinions have been refuted, and Measles is now justly regarded a disease *sui generis*, perfectly distinct from either small-pox or scarlatina, and arising from a different poison.

Cullen divided Rubeola into two species, Rubeola *vulgaris*, and Rubeola *varioloides*‡, Willan and Bateman consider it as comprehending three species, namely R. *vulgaris*, R. *sine catarrho, seu spuria*, and R. *nigra*§; Mr. Erasmus Wilson adds‖ another species, R. *sine exanthemate*. But these distinctions are unnecessary refinements; the assumed species all run imperceptibly into one another; the symptoms and the treatment do not materially differ; the distinctions, therefore, are unnecessary, and we may correctly regard them as mere incidental varieties of the same complaint. If any division is admissible, it is that which views them as *regular* and *irregular* or *malignant*.

### 1. Rubeola vulgaris vel mitior. — *Common or Regular Measles.*¶

When the infection of Measles has been taken, a period of from ten to sixteen days elapses before the eruption appears**: during the first six or eight days the child scarcely droops, or at most is merely languid, out of spirits, and occasionally coughs and sneezes. After this time the approach of the disease is indicated by alternate rigors and heats, thirst, lassitude, pains in the back, sometimes nausea, occasionally vomiting, and other symptoms common to the first stage of all febrile diseases, differing only by being attended with inflammation of the mucous membrane of the bronchial tubes, the nostrils, fauces, and trachea. When these catarrhal symptoms are absent, the disease has been regarded as a distinct variety, and named *rubeola sine catarrho;* but it is a mere incidental peculiarity in the initiatory fever, as the disease afterwards runs its regular and complete course. On the second day afterwards, in some instances delirium and more commonly coma supervene. Adults suffer from headache or pains in the head, flushed face, and hurried respiration; and children become unusually irritable. The febrile symptoms increase on the third day, with considerable inquietude and disturbed sleep. At this time,

* *De Morbillis et Scarlatina*, exercit. iii.
† Med. Observ. and Inquiries, vol. iv. p. 132.
‡ Synopsis, tomus II. G. xxviii.
§ Synopsis, 7th ed. p. 91.
‖ On diseases of the Skin, p. 51.
¶ Morbilli *regulares* (*Sydenham*).
** Willan says it may extend to 16 days; and Dr. George Gregory mentions a case in which it extended to 18 days. Lectures, p. 100.

when vomiting supervenes, the rejected matter is bilious; and the stools are of the same character when diarrhœa, which is not an unfrequent symptom, occurs. Along with these symptoms the patient is attacked with a dry, harsh, teazing cough, hoarseness, and inflammation with watering of the eyes, which are red, swelled, itchy, and extremely sensitive to light. There is, also, generally from the nostrils a thin, copious, acrid discharge, which excites frequent sneezing, and occasionally this is attended with epistaxis. When the cough, which is dry and hollow, supervenes, there is hoarseness, the fauces become more or less inflamed, often so much so, in some instances, as to impede deglutition. In some cases, also, ptyalism supervenes; and in young children, especially during dentition, fits resembling those of epilepsy are not uncommon.

Although these are the usual febrile symptoms of the initiatory fever in Measles, a period which extends to three entire days, yet they necessarily vary. The cough, for example, is often the first symptom of the disease, and continues for eight or ten days, with little fever except pain of the back and occasional headache before the eruption appears, which usually takes place about the commencement of the fourth day; or, now and then, on the fifth. It shows itself first on the forehead, temples, and below the chin; but occasionally on the neck and shoulders, in distinct, dull red, minute, papular points, which, increasing, form small clusters of various shapes; but most commonly of a crescentic or horse-shoe form; whilst the intervening skin remains of its natural colour. The points are not visibly raised above the skin; but, on the forehead, they afford the sensation of roughness when the finger is passed over them. The eruption begins on and soon covers the face, spreading successively to the neck, chest, trunk, and extremities; and it disappears in the same order, gradually assuming a brownish colour, and terminating in minute furfuraceous scales. In some instances it never appears on the extremities. It is sometimes seen affecting the tongue, the fauces, and the pharynx. During the first day of the eruption the fever is increased, and the patient is extremely restless; but the eyes are less impatient of light.

The eruption is less prominent on the trunk and extremities than on the face, but the clusters are broader. It is accompanied with heat and itching of the skin. The redness increases and deepens for two days, after which it changes to a brownish hue. The eruption having reached its acme declines and disappears; first on the face, from the sixth to the ninth day; then gradually from the trunk of the body, the extremities, and lastly from the backs of the hands; but traces of it may be perceived for four or five days longer. As it disappears the cuticle sometimes desquamates in the slight mealy or furfuraceous powder already mentioned, but as frequently there is no desquamation. Intermingled with the erup-

tion we, occasionally, perceive miliary vesicles on the trunk and arms (Rubeola *varioloides* of Cullen). The decline of the eruption is attended with more itching than is previously experienced. During the eruption, the face swells, sometimes so much as to close the eyes.

The fever does not generally subside on the appearance of the eruption; but the vomiting, if it previously existed, ceases and some other of the symptoms are mitigated. The cough, the dyspnœa, and affection of the eyes, however, remain; they are generally less urgent, but occasionally they are more severe than before. When the furfuraceous desquamation takes place, and a copious flow of sweat, or of urine, or a diarrhœa, supervenes, all the symptoms suffer a remission, and the fever disappears. Sometimes the febrile symptoms, also, are augmented, attended with coma; and the disease has even, at this period, proved fatal. Throughout the whole course of the disease the catarrhal symptoms particularly, as these affect the lungs, are the most to be dreaded, especially when they become more severe on the decline of the eruption. The diarrhœa, also, may be so profuse as to endanger life: and when it does not prove so threatening, it often remains in a chronic form; and ultimately proves fatal. The affection of the eyes, also, occasionally passes into chronic opthalmia; and, ulceration of the cornea supervening, the sight may be lost.

The sequelæ of Measles are often more dangerous than the disease itself. Often, after the termination of the disease, the catarrh is aggravated to pneumonia; pleurisy also may supervene; and there are occasionally attacks of severe earache, with deafness; unmanageable chronic inflammation of the eyelids; and many of the evils that attend the strumous diathesis are then developed; such as indurations and enlargement of the mesenteric glands; discharges behind the ears, and tedious abscesses; besides ecthyma, and impetiginous eruptions. In strumous individuals, dropsy is not an unfrequent sequel of Measles. Measles attack all ages, but infants and old people are less susceptible of the infection.

*Pathology.* — In fatal cases of Measles occurring during the existence of the eruption, the rash has been found covering the tracheal and bronchial mucous membranes. Indeed the site of the disease is decidedly the mucous membrane, the pulmonary tissue *, and the reticular tissue of the skin. In severe cases the same appearances of the lungs as occur in acute bronchitis and pneumonia are present; but these are not truly the consequence of Measles, but of those diseases incidentally supervening measles. With respect to alterations in the blood and secretions in Measles; "Andral and Gavaret

* To this extension of the inflammatory action into the substance of the lungs, giving a venous character to the blood, the dingy red of the eruption has been attributed (see Gregory's Lectures, p. 103.); but this colour is that of the eruption when the pulmonary affection is trifling.

found that the fibrin never exceeded, nor did it ever fall much below Lecanu's average" (which is three, in healthy blood). In most cases the corpuscles were above the normal average. Simon quotes the following analyses of their researches: —

| | Venæsection. | Day of Eruption. | Water. | Fibrin. | Blood corpuscles. | Residue of Serum. |
|---|---|---|---|---|---|---|
| 1st case | 1 | 3 | 760·2 | 2·6 | 146·6 | 90·6 |
| 2nd — | 1 | 2 | 766·9 | 3·0 | 140·9 | 89·2 |
| 3rd — | 1 | 3 | 781·6 | 2·6 | 137·1 | 78·7 |
| 4th — | 1 | 2 | 786·7 | 2·5 | 137·5 | 73·4 |
| | 2 | 0 | 795·8 | 2.7 | 131·6 | 70·1 |
| 5th — | 1 | 2 | 792·1 | 2·4 | 118·6 | 86·9 |
| | 2 | 0 | 823·2 | 2·4 | 93·3 | 80·1 |

The residue of the serum contained an average of 8·4, of organic constituents, which is a high amount. The patient, in Case 3, had been previously bled on the first day of the eruption; and the second bleeding, in Case 4, was performed on the second day after the disappearance of the eruption.*

The urine is red, acid, sometimes turbid, or deposits a mucous sediment in the morning. "Becquerel states as the result of his observations, that the urine is generally inflammatory at the commencement of the febrile period. It becomes very dark, and of high specific gravity, and frequently deposits a sediment of uric acid; a small quantity of albumen was found in a few of the cases." "If the eruption is slight, and there is not much fever, it resumes the normal type; if the contrary is the case, it retains the inflammatory appearance. Becquerel did not meet with any case in which the urine was turbid or sedimentary, towards the close of the eruptive stage."

"In three cases anasarca came on during convalescence, but the urine did not contain albumen."†

*Causes.* — The contagious and infectious nature of Measles is undoubted; and the disease is thus propagated. It may even be communicated from the mother to the fœtus. It is, also, epidemic; and it has frequently appeared in this manner in Great Britain. The most remarkable of these epidemics were those that afflicted London in 1671, 1674, 1763, and 1768, described by Sydenham‡; and that which ravaged Plymouth in 1741, described by Morton. Measles

* Simon's Animal Chemistry, Day's Trans., vol. i. p. 300.

† Simon's Animal Chemistry, Day's Trans., vol. ii. p. 269.

‡ Sydenham places measles among these inflammatory fevers that depend on certain constitutions of the atmosphere. "Siquidem, *Anginæ*, *Pleuritides*, *Ophthalmiæ*, *Variolæ*, *Morbilli*, *Febres Scarlatina*, ceteraque id genus Febres inflammateriæ a particulis deleteriis cum ambiente aëre commistis sæpenumerò epidemiæ evadunt." — *De Febribus Inflamm.* Opera, tom. iii. p. 5.

usually appears once only in the same individual; but there are accounts of the disease having appeared twice, and even three times; and some of these admit of no doubt.*

Dr. Home, of Edinburgh, in 1758, first attempted to transmit Measles by inoculating with the blood of those in the disease when the eruption is on the decline, and taken from the superficial veins when the eruption was greatest. An incision was made in the arm of the person to be inoculated, allowed to bleed for a short time, and then cotton soaked in the blood of the person in Measles bound over the incision. The cotton was left on the part for three days: it succeeded in producing the disease, which commenced on the sixth day after this inoculation. The disease was much milder than in casual Measles; and the pulmonary affection, in particular, was extremely mild. Willan inoculated a child with the lymph of the miliary vesicles, and produced a perfect attack of the disease, which infected several other children.

A series of experiments to ascertain the advantage of inoculation of the disease was also performed by Professor Speranza of Mantua, in 1822, on himself and six boys, in the manner followed by Professor Home. The success was complete. And, lastly, in 1842, Dr. Katona, in Hungary, inoculated 1112 persons for Measles, and failed in producing the disease only in 78 cases; and in all the disorder was comparatively mild. It is unnecessary to say that these experiments have not attracted the attention of the profession in this country, indeed it might have been reasonably supposed that the success of Dr. Home's experiments should have induced the practice to be adopted, but it is to be regretted that such a desirable event did not result from their publication. The inoculation ought still to be tried, as there is no doubt that the disease is increasing in severity.

*Diagnosis.*—The diseases with which Measles are most likely to be confounded are scarlatina and roseola, after the eruption appears, and when severe catarrh previous to the eruption is not present. In the former case, the crescentic or irregular circular form of the clusters intermixed with distinct dots, which appear hard under the finger with intermediate unaffected portions of skin, are sufficiently diagnostic; and although there are also red points in scarlatina, yet

* Morton states that he saw it once in a boy who had previously gone through the disease, "Nunquam enim, in tota mea praxi novi quemquam, præter unum puerum, secunda vice hoc morbo correptum." Burserius, also, says, "Quod secundo et tertio eundem hominem in eos incidisse ex fidis observatis constet." Inst. Med. Pract. Bateman in a note (Synopsis, art. *Rubeola*) quotes Rozetti, a Florence physician — Schacht (Inst. Med., lib. i. cap. 12.)—Meza (Compend. Med. fascic. i. cap. 20)—and De Haen (de Diver. Febrium, cap. vi. § vi. p. 106.)—as affirming that they had seen measles more than once in the same individual. He adds, that in two papers by Dr. Baillie, in the second vol. of the Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, decisive proofs are given that the disease may appear a second time in the same individual. In a practice of forty-five years, I have not seen an instance of its appearing a second time.

Clausel has pointed out the distinction between these and those of Measles. In scarlatina they are equal, uniform, and symmetrical; their colour is everywhere the same, as is also the size and form of the minute vesicles; but in Measles the red points exhibit great diversity in their size and colour*, and the crescentic forms of the patches at once distinguish Measles from both scarlatina and roseola. With respect to catarrh, for which before the eruption Measles may be mistaken, the excess of the febrile symptoms, the state of the eyes, and the comatose condition, are sufficient to distinguish the cough of Measles from catarrh; it is true that a cough sometimes precedes scarlatina; and Measles might be anticipated; but the appearance of the eruption at once settles the question. The watery state of the eyes, also, and the sneezing are among the best diagnostic features of Measles. But a mistake in this respect is of little consequence as the treatment is the same whether the catarrh be independent of Measles, or its accompaniment. Rayer has pointed out a number of differences in the appearance of the sputa, at different stages of the disease, but these do not assist the diagnosis in reference to catarrh.

*Prognosis.* — Measles, when the pulmonary affection is moderate, involves little danger. The more hurried and difficult the breathing, the harder and drier the cough, the quicker and more resisting the pulse, accompanied with flushing of the face, and the greater the delirium and coma, the more unfavourable is the prognosis. The eruption remaining red longer than usual; or its becoming livid; and coma returning after the disappearance of the eruption, also indicate danger. Nothing is so much to be dreaded as the supervening of pneumonia, which indeed is the most common cause of death in Measles. Profuse hæmorrhage after the eruption has disappeared is always to be dreaded; and so is the receding and returning of the eruption. It is scarcely necessary to remark, that the existence of scrophula in those suffering under Measles always augments the danger. It also renders the sequelæ of the disease to be dreaded; causing swellings of the glands of the neck, which slowly suppurate; and sometimes giving a tendency to phthisis; indeed, if the phthisical diathesis already exist, tubercles are rapidly developed, and phthisis soon terminates life. I have seen many cases also of eczema behind the ears, and extending to the side of the face and the hairy scalp, as a sequel of Measles.† A gentle, breathing perspiration attending the coming out of the eruption, is a favourable symptom, indicating a mild disease. The danger is always inconsiderable when the febrile symptoms are moderate, and the rash runs a steady course. Diarrhœa towards the termination of the disease, unless profuse, is not unfavourable.

* *Gazette Medicale*, 7th March, 1846.

† As I was writing this sentence, I was called to give my advice on a case of this kind.

*Treatment.* — In the management of Measles, the indications to be fulfilled are, 1. to abate fever; 2. to combat the tendency to inflammation.

For abating fever in mild cases, repose and confinement to bed, with a low diluent, farinaceous diet are all that is essential. The apartment should be kept moderately cool, regulating the temperature by the feelings of the patient; and avoiding, by every possible means, his exposure to currents of air. In severe cases, the cold affusion has been employed in Measles, and successfully practised by some physicians. It may prove useful when the skin is hot, dry and pungent; but in general it is a hazardous remedy.* A frequent change of linen is beneficial. With respect to medicine, an emetic generally proves beneficial at the commencement of the disease; and, if the bowels be not naturally open, the administration of gentle purgatives, such as neutral salts, which by removing irritating matters from the bowels, tend to diminish excitement; but purgatives of an active kind are hurtful. Unless the inflammatory symptoms run very high, and pneumonia supervenes, blood-letting is not required; the more especially as the majority of our patients, in Measles, are children. Drs. Cullen and Heberden, however, are high authorities in support of the necessity of blood-letting in Measles; they even consider that it cannot be dispensed with in females during the flow of the menses †; but unless there is hard cough, dyspnœa, and other symptoms of severe pulmonic inflammation, it is not requisite. Diarrhœa at this time should not be hastily checked. The object is to reserve the strength, whilst we are endeavouring to keep down fever and catarrh, in order the better to be able to combat inflammatory action, should it afterwards be necessary. On the other hand, when the excitement is considerable, and threatens immediate danger, either the lancet or leeches, or cupping, must be resorted to in any period of the disease. Sydenham even employed bleeding, and successfully, to mitigate the diarrhœa that remains after Measles. "Quin et diarrhœa," he remarks, "quam morbillos excipere diximus, pariter venæsectione sanatur."

To allay the cough in children, nothing answers better than a teaspoonful of syrup of poppies and a fluid ounce of *bitter almond* emulsion, at bed time. If it remains troublesome after the eruption is fully out, and pneumonic inflammation is threatened, much benefit may be anticipated from the following mixture for a boy of

* Justice, however, obliges us to state that sponging the body with cold salt water was successfully employed by Dr. Magrath in the hospital for prisoners of war at Plymouth, in 1808. His patients were all adults. They were very lightly covered, and kept on low diet.

† Cullen says that in all cases where there is no putrescency, and none to be apprehended, "bleeding is the remedy to be depended upon."—*First Lines of the Practice of Physics*, 2d ed. vol. ii. p. 24.

twelve years old, apportioning the dose of tartar emetic to the age of the patient: —

℞ Antimonii Potassio-tartratis gr. viij.
Mixturæ Amygdalæ amaræ f℥viij. M.
Sum. cochl. ij. majora 4tâ q. q. horâ.

If after the eruption has disappeared, severe cough and dyspnœa remain, one bleeding may be resorted to before commencing the mixture with tartar emetic. Should the eruption retrocede suddenly, bleeding, followed by the tepid bath and sinapisms to the chest will be required.

After the inflammatory symptoms are subdued, the debility which is the necessary consequence of antiphlogistic measures, or of diarrhœa, must be combated by a nutritious but unstimulating diet, and a cautious employment of tonics; the best of which is the decoction of bark, acidulated with the dilute nitro-hydrochloric acid. It is, also, of great importance not to expose the patient too soon to cold air after Measles, as there always remains some tendency to pneumonic inflammation.

### 2. RUBEOLA ABNORMIS SEU MALIGNA.*—*Irregular Measles.*

This is a more dangerous disease than regular Measles. It has occasionally appeared as an epidemic, and as such was described by Morton†, Huxham‡, Burserius §, Vogel ‖, Sir William Watson¶ and others. The initiatory fever sometimes appears sooner, although not more severe, than in the regular form of the disease, but it generally assumes the type of typhus about the seventh day. It is attended with cough and watery eyes from its commencement; the eyelids are sometimes so much swoln that they cannot be separated; and the eye itself is often swelled and protruded; the pulse also is quicker, but less resisting than in regular Measles. There is great restlessness, a parched tongue, a sense of tightness and oppression about the præcordia; and the cough is unattended with expectoration. The fauces often assume the aspect of Cynanche maligna, accompanied either with coma, or a sensation of weight in the head, delirium, a foul tongue, and unusually offensive alvine evacuations.

The appearance of the eruption is sometimes earlier, sometimes

* Rubeola *Nigra*, Willan; Morbilli *graviores*, R. Williams.

† He states that in 1670, in London, the epidemic destroyed nearly 300 weekly. *Opera Med.* tom. iii. p. 25.

‡ *De Aere et Morbis epidemicis.* — Huxham describes it as it appeared at Plymouth in 1745.

§ *Institut. Med. Pract.*

‖ *De Cog. et Cur. Morborum.*

¶ Sir W. Watson described the celebrated epidemic of 1763, in which almost every case assumed the malignant form.

later than in regular Measles. Thus it has appeared on the second, and sometimes not until the eighth day*; and its duration is equally variable. When it appears on the second day, it disappears on the fourth or sixth day; when on the fifth it is protracted until the twelfth; and when later it may continue until the twentieth day. It often recedes and partially reappears. It is of a more obscure red than in regular Measles, sometimes paler, at other times it suddenly becomes livid and even black, and attended with petechiæ and hæmorrhages. Bateman says, "it is generally devoid of inconvenience or danger†," but I have seen it display the most alarming symptoms. I attended a case of this description, in which the cuticle separated from the skin, like a moist cobweb under the pressure of the finger in feeling the pulse. (See case 7.) Nausea and vomiting often supervene after the eruption has come out; the affection of the throat increases, the fauces appearing of a dusky red hue; the delirium and coma also increase: the pulse is small, wavering and augmented in quickness; the cough becomes more severe, the hoarseness great, and the breathing so much embarrassed that the dyspnœa threatens suffocation. Dropsical effusions, hæmorrhages, tremors, subsultus tendinum, petechiæ, and other symptoms denoting the most depressed state of the vital energy, and sometimes convulsions, appear as the forerunners of death. In some cases dysenteric diarrhœa rapidly wears down the strength of the patient and, if attended with delirium, rarely fails to prove fatal. In this malignant form of the disease cancrum oris is not an uncommon symptom; it commences in the inside of the cheeks, and extends not only to the whole of the mouth, but even to the outer cheek, and usually proves fatal.

In this form of the disease, the fever is said sometimes to appear without the eruption. Morton relates a case of it in the son of a merchant of the name of Barren. He says‡, "Febre corripiebatur, cum palpebrarum gravitate, capitis stupore, tussi ferinâ, diarrhœa, rubedine oculorum, et reliquis febris morbillosæ symptomatis sociata;" but no eruption appeared.

The Measles are sometimes irregularly recurring, the fever returning, attended with the eruption at variable periods.

Irregular Measles calls into activity any scrophulous tendency lurking in the constitution. Glandular tumors, marasmus from mesenteric disease, abscesses, obstinate sores, and indeed every symptom of scrophula, may appear as a sequel of this form of the disease.

*Pathology.*—Inflammation of the viscera is more frequent than in regular measles, and gangrene is not an unusual result of it. The bronchial membrane is spongy although not much loaded with

* Burserius. † Synopsis, 7th ed. p. 100.
‡ *De Febribus inflam. Universal Hist. Septima*, p. 50.

mucus, but there is much serous effusion in the lungs, with congestion; the pulmonary tissue is tender, and sphacelus is found in parts; especially when death has been the result of sudden, profuse hæmoptysis. Water is occasionally found in the ventricles of the brain.

*Prognosis.*—In this form of Measles the prognosis is always unfavourable. All symptoms indicating pulmonic congestion are to be dreaded, and all symptoms developing scrophulous and phthisical affections; but it is especially when Measles rages as an epidemic, and assumes the malignant character, that it can be regarded as an almost certainly fatal disease.

*Diagnosis.*—This form of Measles might be mistaken for Scarlatina *maligna;* but the character and the duration of the eruptive fever, and the character of the eruption, readily distinguish these two diseases. The affection of the throat, also, differs in Scarlatina *maligna* from that in the worst cases of irregular Measles. In the former disease on inspecting the throat it appears swollen and livid, ash-coloured sloughs are seen on the tonsils, the breath is fœtid, and the fauces clogged with viscid mucus; in this form of Measles, although the colour of the fauces is a dusky red and sometimes livid, yet it does not display the appearances in the above description. In malignant Measles, also, there is none of the coryzal discharge which is so distressing in malignant scarlatina.

*Treatment.* — No plan of treatment in irregular measles can be pursued with a confident anticipation of success. The powers of life must be sustained; and wine administered, in conjunction with cinchona bark, in decoction and tincture, acidulated with diluted sulphuric acid. In a case of a most malignant form, to which I have already referred, in which the pulse could scarcely be felt, and the cuticle separated under the pressure of the finger, life was preserved, and the disease brought to a favourable termination, by administering a teaspoonful of mulled port wine, warm, every ten minutes, for twelve successive hours; whilst, at the same time, a draught consisting of an ounce of decoction of yellow cinchona, forty minims of compound tincture of bark, twelve minims of diluted sulphuric acid, and two minims of tincture of opium, was given every third hour. If diarrhœa supervene, it should be restrained by half a grain of calomel and three or four grains of compound powder of ipecacuanha, every four hours. If the lower extremities be cold, they should be put into a warm foot bath, with sea salt and mustard. Should cancrum oris occur, the ulcers should be touched with a solution of nitrate of silver, in the proportion of one drachm of the nitrate to six drachms of water and twenty drops of nitric acid; and the sesquicarbonate of ammonia, in decoction of cinchona, internally administered. The dose of the sesquicarbonate must be regulated by the age of the patient, and the degree of prostration. The strength of the patient should be

supported by beef tea, chicken panada, custard puddings, wine and the mistura spiritus vini Gallici, P. L., when the sinking is considerable. In the administration of these stimulants their effects must be closely watched.

---

The sequelæ of Measles must be treated according to the character which they assume. If pneumonia should supervene, a single moderate bleeding, followed by the mixture with tartar emetic, already mentioned, will generally be sufficient to cure it. When diarrhœa becomes chronic after measles, and weakens the system, it should be met with alteratives and sedatives. Three or more grains of hydrargyrum c. creta, with the same quantity of Dover's powder, and chalk mixture given after each fluid dijection prove beneficial. When the diarrhœa is, however, attended with tenesmus, and the evacuations assume the character of those of dysentery, nothing relieves these distressing symptoms so effectually and rapidly, as large doses of calomel and ipecacuanha, combined with double the quantity of extract of gentian and half a grain of acetate of morphia. I have been in the habit of ordering it in the following form, for adults: —

℞ Calomelanos gr. iij.
Pulv. Ipecacuanhæ gr. v.
Ext. Gentianæ gr. x.
Acetatis Morphiæ gr. ss.

Fiant pilulæ iij.—6tâ quâque horâ urgente tenesmo sumendæ.

When the pain and tenesmus are abated, tormentilla, with an aromatic, is well suited to check the purging.

Affections of the larynx and trachea; chronic ophthalmia with ulceration of the cornea; ulcerations around the mouth; and enlargement and induration of the glands, are frequent sequelæ of measles; but these and other affections following the disease require to be treated in the same manner as if they were not sequels of Measles. During convalescence the utmost caution is requisite to secure the invalid from cold, and damp, and night air.

### Case 6.

*Regular Measles.*

Robert C——, æt. 25, a servant, was admitted into University College Hospital, 25th February, 1839. A few days before his admission he was exposed to cold, to which he attributed some febrile symptoms that came on two days afterwards, and which were followed by an eruption on the skin, accompanied with an uneasy state of the fauces. On the day of his admission, the eruption was nearly general over the body: it consisted in some places

of circular dots, which, in other places, coalesced, but displayed little of the crescentic form of Measles, which, however, without doubt, was the disease. There was the watery eye, the catarrhal discharge from the nostrils, headache, hoarseness, and cough; the thirst was urgent; the tongue loaded; the urine scanty, and high-coloured; the pulse quick and full. The bowels were open. He was ordered the following draught, with low diet: —(℞ *Liq. Ammoniæ Acet.* ℥iij., *Vini Antim. Potassio-tart.* ♏ xx., *Potassæ Nit.* gr. viij., *Aquæ* ℥j.: *ft. Haust. ter quotidie sumend.*) 28*th.* The catarrhal symptoms have much abated: the eruption is paler; and in every respect he is going on well. (*Haust. purg.*— *Pergat in usu med.*)

March 2. The eruption is nearly gone; and also the catarrhal symptoms. 4th. He was discharged cured.

This case is given merely to show the anomalous character which the eruption sometimes displays.

## Case 7.

### *Malignant Measles.*

Miss M. R——, between eight and nine years of age, was labouring under Measles of a malignant character, at a time (1804) when the disease was raging as an epidemic in the metropolis and its vicinity. There was little cough; but considerable dyspnœa, with great depression and severe diarrhœa, threatening extreme danger. The eruption was imperfectly developed; and in parts of a livid colour: it had appeared on the second day. The tongue was furred, with a harsh, brown streak in the centre: the pulse 120, small and irregular. There was considerable coma and delirium of a low, muttering description. On feeling the pulse the cuticle separated, and slid under the finger like a moist cobweb. She had, previously, taken a dose of calomel, followed by a mild aperient; and a mixture, consisting of an ounce of liquor ammoniæ acetatis, three drachms of tincture of serpentaria, and three ounces of camphor mixture, of which she was ordered to take a table-spoonful every third hour. As the debility, however, increased, and threatened almost immediate dissolution, this medicine was changed for an ounce of decoction of yellow cinchona, forty minims of compound tincture of cinchona, twelve minims of diluted sulphuric acid, and two minims of tincture of opium, forming a draught which was ordered to be given every third hour. Port wine, mulled, with cinnamon, was also given warm, as already stated, in teaspoonfuls every ten minutes, for twelve successive hours. On the following day, the coma and delirium were greatly abated, the pulse had filled and fallen to 105, and the diarrhœa was completely checked. The quantity of wine was now gradually diminished; but the

ame medicine was continued. At the end of three days, the tincture of opium was left out of the draught; and, instead of the mulled port wine, three glasses of good sound claret were given in the twenty-four hours. No other change was made except giving only three draughts, during the day, instead of a draught every third hour, until convalescence was fully established. None of the common sequelæ of Measles followed; and the patient was completely restored to health.

## VARIOLA* — *Small-pox.*

Although the introduction of vaccination, as a preventive of Small-pox in the human subject, has greatly diminished the virulence, and in a great measure checked the ravages of this scourge of the human race, yet it occasionally prevails as an epidemic. In 1838 the deaths from it in England and Wales were 16,268, and in the metropolis they amounted to 3,817, in a mortality of 52,698. In 1847, when the disease did not prevail as an epidemic, the deaths by small-pox, in a mortality of 60,442, were 955; and in 1848 they were 1617 in a mortality of 57,628. Such being the case, notwithstanding the influence of vaccination, and the almost impossibility of eradicating the disease, I am induced, before describing Small-pox, to present to the student a brief history of its rise and progress.

Small-pox appears to have been known in China, about 1122 years before Christ†; and something like inoculation, namely, the application of the crusts of the pustules up the nostrils, was practised. The Chinese also worshipped a goddess who had a superintending power over Small-pox‡; in Hindostan, likewise, where it is said to be of great antiquity, a goddess presided over it. The disease, however, did not extend beyond these countries until about the middle of the sixth century; when by a series of circumstances which do not require to be mentioned here, the infection reached the southern coast of Arabia, whence it was soon afterwards passed into Persia. Some of the Arabian physicians wrote upon the disease. The most distinguished of these was

* From Varus, a *pimple*.—*Syn.* Variola (*Auct. Var.*); Euphlogia (*Rhazes*); Febris variolosa (*Hoff. Vog.*); Empyesis variola (*Good*); Synochus variola (*Young*); Synochus variolosus (*Chrichton*); kinelspocken (*German*); Petite verole (*F.*); Pokken (*D.*); viruelas (*Span.*); Il viruola (*Ital.*); Galva breac (*Irish*); The pock (*Scotch*); Jadari (*Arabic*); Perse ummay (*Tam.*); Buriscotte (*Duk.*); Pedumma (*Tel.*); Kruevan (*Bali*); Masoorikeh (*Sans.*); Kelumbuan-Chushur (*Malay*); Gootry (*Beng.*); Tai-Ton (*Chinese*).

† Mémoires concernant l'Histoire, le Science, &c., des Chinoises par les Missionaires de Pekin, tom. iv. p. 392. quoted by Mr. Moore, in his History of the Smallpox, p. 22.

‡ Ibid. p. 25.

Rhazes, whose work has lately been presented to the profession in an English dress.* In the eighth century, it first appeared in Europe; where it was carried by the Moors, who invaded Spain, and established themselves and their religion there, after defeating the Goths.† The disease gradually extended over Europe, and we are led to believe that Elfreda, the daughter of our king Alfred, who married Baldwin the Bald, Earl of Flanders, was attacked with it in 907, and recovered.‡ Its presence in great Britain was felt in the ninth century; and the terror excited by it, in the tenth century, is evident from an exorcism against it, preserved in the Harleian collection, in the British Museum, and quoted by Mr. Moore, in his History of Small-pox§ (p. 94.). It is unnecessary for our purpose to trace the disease to Cuba, Hispaniola, and Mexico, by the followers of Columbus; wherever it appeared it swept away thousands of the human race; and so late as 1707 it destroyed in Ireland 16,000 persons, more than a fourth part of the population of the island.‖

It might have been reasonably presumed, that the introduction of inoculation, and the great improvement of medical science, would have lessened the virulence of Small-pox; but towards the end of the eighteenth century the mortality from the disease, in the city of London, was still very great; and even now, when vaccination is daily becoming more generally practised, Small-pox occasionally appears as an epidemic, and makes lamentable ravages.¶ The prejudices of the lower orders are so difficult to be overcome, that it is almost impossible that vaccination shall ever be so universally adopted, as to eradicate Small-pox; and, although it is criminal, and subjects the offenders to severe punishment, to carry a child covered with Small-pox through the streets, or, by its exposure, to endanger the lives of others, yet the offence is frequently committed, whilst the prosecutions of the offenders are

* Treatise on the Smallpox and Measles, by Abu Beer Mohammed ibn Zacariyá Ar-Razi. Translated by W. A. Greenhill, M.D. Syden. Society, 1848.

† The Greek physicians most probably were unacquainted with the disease, for although Rhazes mentions Galen as having prescribed certain remedies for small-pox, yet it appears that some other disease was implied, as there is not an ancient Greek word for small-pox. (Greenhill's trans. of Rhazes, p. 141. note D.)

‡ Short's Chronological History of the Air, Weather, Seasons, Meteors, &c. vol. ii. p. 208.

§ It is thus translated from the Latin original,— "In the name of the Father, the Son, and of the Holy Ghost, amen. (No.) May our Saviour help us. (No.) O Lord of Heaven, — hear the prayers of thy man servants, and of thy maid servants; O Lord Jesus Christ, I beseech thousands of angels that they may save and defend me from the fire and the power of the small-pox (variola) (No.); and protect me from the danger of death, &c." The marks No. denote where the exorcist made the sign of the cross.

‖ Travels in Ireland, in 1810, by George S. Mackenzie, Bart.

¶ In the autumn of 1812, the deaths by small-pox, within the bills of mortality in the metropolis, were upwards of 60 in the week.

rare. * The necessity, therefore, of keeping up the knowledge of the nature of the disease and its treatment is obvious.

Small-pox is a disease to which every person who has not been vaccinated is susceptible at one or other period of his life; and before the introduction of vaccination very few individuals attained the ordinary term of life without suffering an attack of it.† It is a contagious fever, accompanied, on the third, fourth, or fifth day, with an eruption of pustules, which suppurate from the eighth to the tenth day, after which they ooze out pus, which concretes to a crust; and, desquamating, leaves the skin reddish, and either entire or pitted. The disease has been generally treated as constituting two varieties, namely, *distinct Small-pox*, VARIOLA DISCRETA, and *confluent Small-pox*, VARIOLA CONFLUENS; but these insensibly run into one another, and are merely the same disease in a *mild* and a *severe* form.‡ When inoculation was practised, it was also distinguished as *casual small-pox*, when the disease originated from infection; and *inoculated small-pox* when it was produced-by virus introduced into the system by a wound of the skin.

Small-pox attacks both sexes, and individuals in every rank of life, and of every age. It is sometimes congenital; many instances of which are recorded by Sydenham, Mauriceau, Jenner, and others §; but I have not met with a case of it. Sydenham and Huxham observed that small-pox prevailed epidemically in this country generally about the vernal equinox; an observation which time has verified.

As the disease does not display itself immediately after the infection has been communicated, the interval is termed the period of *incubation:* it includes the entire period between the reception of the variolous matter and the appearance of the eruption. In some instances a peculiar uneasy sensation, a vertiginous feeling, or an indescribable feeling of alarm is experienced almost immediately after the infection has been received; but in many cases, the infected individual experiences no alteration in his usual health, and is insensible to any morbid change taking place until the eruptive fever developes itself. The period of incubation, according to the ample experience of Dr. George Gregory, in the Small-pox Hospital, and "a large accumulation of facts," has enabled him to assign to

* In April, 1815, the Board of the National Vaccine Establishment prosecuted a woman who carried out a child after inoculation when the eruption was out, and had infected eleven persons, eight of whom died. She suffered three months' imprisonment.

† Diemerbroeck had not experienced an attack of the disease when he reached the age of 70, although he had attended many patients suffering under it; and was necessarily exposed to the contagion.

‡ The numerous varieties mentioned by Dr. Gregory (*Lectures on Eruptive Fevers*, p. 40.), namely, *semiconfluent, corymbose, superficial, cellular, tracheal, petechial* and *complicated Small-pox* — may be regarded rather as referring to peculiar, accidental symptoms supervening on either of the two varieties I have named, than as distinct varieties.

§ In the Museum of Guy's Hospital is the body of a new-born infant, covered with the small-pox.

it "twelve days of apyrexia and two of fever — fourteen in all;" * but circumstances may vary the time. Cazenave and Schedel state it to be from ten to twenty days †; but my experience accords with that of Dr. Gregory. Some writers assert that the disease is always most severe when the period of incubation is short; but this may be ascribed rather to the habit and temperament of the patient than to a change of the time.

1. In *distinct* Small-pox, at whatever time the fever which precedes the eruption appears, it is usually prefaced for several days by feelings of general uneasiness, even when the rest of the incubative period passes without any morbid feelings. It generally first displays itself at mid-day, with languor, lassitude, rigors, and not unfrequently with a considerable degree of drowsiness, heat, thirst, and the other symptoms which characterise fevers. In some instances, there are pains in the loins, the sides, and the limbs, sometimes so severe as to simulate nephritis, rheumatism, pleurisy; or the approach of herpes. The skin is either dry or bedewed with moisture: both the pulse and the respiration are quickened; and, in youthful persons, epistaxis is not uncommon; the tongue is white, coated, and often red at its apex; the bowels are torpid; the urine, pale at first, and scanty, but becoming high coloured, acrid, and depositing lithates. The pains of the limbs, back, and loins, when not so severe as already stated, are usually more so than in other fevers; pain and nausea, and sometimes vomiting are caused by pressure on the epigastrium; the vomiting is usually bilious; and not unfrequently bilious diarrhœa supervenes. In some instances syncope and prostration occur to a degree bordering on collapse. In children, convulsions resembling epilepsy sometimes take place at the time the eruption appears.

The fever is sometimes extremely severe; the eyes are suffused and cannot bear the light, the face is flushed; the tongue, at first white, becomes red and adhesive, the fauces parched, and the skin dry, and the distressing pains in the loins are often accompanied with cramps in the legs, which frequently foretell a copious eruption. This fever of *invasion*, as it is termed, in mild cases, is usually either terminated or much lessened towards the close of the third day, or the beginning of the fourth day, when the eruption appears; but it may be protracted to the morning of the fifth day.

In *distinct* Small-pox the pustules at first appear as small red points or pimples, which feel hard under the pressure of the finger. They display themselves on the face and scalp, but occasionally on the hands; and extending to the neck, gradually spread over the arms and whole body in twenty-four hours. They are sometimes preceded or occasionally accompanied with roseola (Roseola *vario-*

* Lectures on Eruptive Fevers, — delivered at St. Thomas's Hospital, in Jan. 1843, p. 41.

† Abrégé Pratique des Maladies de la Peau, 1828, p. 152.

*losa*, Bateman). In the inoculated disease roseola usually appears on the second or third day of the eruptive fever on the arms, breast, and face, whence it extends to the trunk and lower limbs. It appears either in distinct, irregular red patches, or as a continuous redness over the whole body. It usually continues until the pustules appear and then declines. Sneezing frequently accompanies the coming out of the eruption. On the close of the second, or on the third day after the eruption appears, the papular bases of the future pustules appear topped with a small vesicle, scarcely depressed in the centre, containing a nearly colourless or whey-like fluid. This flattened and indented aspect of the pustules becomes more striking as these augment in size; they are surrounded with a red areola. As the pustules gradually increase in size, their contents assume the form of pus; they lose the central depression, and acquire a spherical form and a yellowish colour. This generally occurs about the fifth day of the eruption. Gruby found the fluid of the pustules, "twenty or thirty hours after the commencement of the eruption, had an alkaline reaction; it contained some white transparent molecules, and round caudate infusoria;" pus corpuscles were not apparent until the third day, but they continued to increase till the ninth day.* The fewer the pustules are, the larger, more spherical, prominent and firm they become; they are from the first surrounded with the red areola, and when they are crowded together this redness extends over the intervening skin. The pustules in their first or papular state appear in groups of four or five together. They are always most abundant on the face and the hands. In mild cases the coming out of the eruption is confined to the first day of its appearance; but in severe cases the pustules appear successively for two or more days. As the tumefaction of the face subsides, which occurs about the tenth day of the disease, the hands and feet swell.

During the maturation of the pustules, which usually commences on the sixth day of the eruption, the face swells, is painful; and this swelling sometimes extends to the whole head, salivation supervenes, whilst the eyelids become œdematous and close the eyes. Some writers state that pustules have risen on the cornea, threatening permanent loss of sight; but Dr. Gregory says this is erroneous†, and that they do not occur even on the sclerotica; I have never seen them on the eye. But ophthalmia may set in, and the eye be irretrievably injured, if not wholly destroyed, or specks form on the cornea, and blindness result.‡

It is supposed that the pustules appear, also, on the mucous mem-

* *Simon's Animal Chemistry*, vol. ii. p. 93. Trans.

† *Lectures on the Eruptive Fevers*, p. 53.

‡ Rhazes particularly mentions the eye as being frequently affected; and points out the greater danger when the pustules appear on the cornea, than on the sclerotic coat. See *Greenhill's Trans. of Rhazes on Small-pox and Measles*, pp. 51-52.

brane of the intestinal canal; but this is problematical, although they undoubtedly have been seen in the mouth, the nose, and the fauces. It is, indeed, owing to their presence in the fauces that the voice becomes hoarse, and the patient complains of sore throat; and when they attack the larynx and trachea a short, dry cough supervenes, and after some days a viscid secretion is formed, which is with great difficulty expectorated. M. Serres considers with much probability, that the influence of the air has a decided effect on the development of pustules; and that it is on those mucous membranes only which are exposed to the air that pustules appear.*

On the eleventh or twelfth day a dark spot appears on the top of each pustule; it enlarges and the pustules ooze out a yellow fluid, which, as they shrink, forms a crust over each pustule moderately hard if only a portion, or harder if the whole of the pus is exuded. Sometimes the fluid is not exuded, especially on the extremities, but thickens, dries under the epidermis, and forms a kind of shrivelled, tubercular crust more or less thick. In a few days, usually from the eighth to the eleventh day, these crusts fall off, and leave a brownish spot which gradually fades and disappears. The desiccation and desquamation occur first on the face, where the eruption generally first appears; and is longest of appearing on the hands. After desquamation the skin retains for some time a reddish-brown stain where the pustule was seated; but when the suppuration has destroyed a portion of the true skin a pit remains, and is permanent.

Such are the symptoms that characterize distinct Small-pox (Variola *discreta*, and V. *coherens*, of authors), which is seldom attended with dangerous symptoms, and almost never proves fatal when the disease has been communicated by inoculation. When the fever is severe and the pustules are numerous, they run together, and constitute the confluent Small-pox (Variola *confluens*); the symptoms of which, as far as they differ from those of the distinct variety, require a separate notice.

2. The *confluent* Small-pox is ushered in by more severe rigors, sickness, vomiting, and pains of the back and loins, than the distinct variety, and the eruption appears earlier; but the period is uncertain and irregular. Sydenham says he has seen its appearance delayed by acute pains in the loins; or in the side, resembling pleurisy; or in the limbs, resembling rheumatism. In confluent Small-pox, the fever is apt to assume the typhoid type, without any apparent cause. Epileptic fits of a severe kind sometimes precede the eruption: and have occasionally recurred during the course of the disease. Diarrhœa, also, is not an unfrequent precursor of the eruption: and when this does not happen, there is generally sore throat, and, not unfrequently, salivation. On the second day of the fever roseola of a deeper red than in distinct Small-pox,

* *Union Médicale*, 5th Oct. 1848.

spreads over the face, neck, and chest, and is the forerunner of pustules, which appear in the midst of it, in the form of clusters of red points, that soon coalesce. The pustules assume the purulent character sooner in confluent than in distinct Small-pox; but they are not so spherical; they are altogether more irregular in shape; are rather white than yellow in colour; and do not display the red areola of the former description. They are confluent on the face and arms; but seldom on the trunk. But it is from their distinct or confluent appearance on the face that we pronounce the disease to be the *distinct* or the *confluent* small-pox. The pus has not the yellow hue of that of the distinct pustules; but it is often dark-coloured and mixed with blood. It is curious that when the pustules are confluent on the face, those on the trunk seldom run together, although they are flat, of an irregular shape, and often of a livid colour. Pustules appear on the tongue, and the pharynx; and occasionally in the nostrils and the trachea, causing coryza and cough. The pus is occasionally so acrid as to destroy not only the soft, but the bony structure of parts of the face. Burserius says, the bones of the nose and the palate have been wholly destroyed, and the jaw bones so much injured, that the teeth have dropped from their sockets.* The swelling of the face is always great; and when the inflammation has run deep into the corion, as the crusts desquamate they almost always leave pits, which are permanent. The desquamation sometimes runs on to the twentieth day. Occasionally, during the period of desquamation, an eruption, which may be regarded as erythematous, makes its appearance; and in a few instances bullæ, closely resembling those of Rupia, have appeared on the lower limbs, and have produced obstinate ulcers. †

At the period of maturation, the fever, which has never wholly abated, suffers a severe exacerbation, and is most alarming. Headache and watchfulness, the forerunners of delirium, wear down the patient, and the disease terminates fatally on the eleventh day. In very severe cases, the putrefactive process seems to exist, even during life, for the fœtor, emanating from the patient, is often so offensive, that it requires some effort on the part of the attendants to remain in the apartment.‡

When the desquamation is completed, marks of a red colour are seen, indicating the site of the pustules; and these remain for several weeks, even when pitting does not take place.

Sometimes the pustules, when very numerous and confluent, although sufficiently full and prominent, yet suddenly become flaccid;

* *Instit. Med. Pract.*

† Abrégé Pratique des Mal. de la Peau, par A. Cazenave et M. C. Schedel, p. 161.

‡ A case of this kind is detailed in the Edin. Med. and Surg. Journ. vol. xviii. p. 185.

the pulse sinks; the extremities become cold; and the patient, soon afterwards, dies. In children, this state is often preceded by convulsions: petechiæ appear, accompanied with hæmorrhage; and the pustules contain bloody pus. In some anomalous cases, the fluid in the pustules never acquires the purulent character; and when this happens, and the fever assumes the typhoid type, the disease generally terminates in death. This form of the disease (V. *crystallina*, auct.) indeed sometimes proves fatal before the eruption is fully formed.

In southern climates, many serious and dangerous diseases appear as sequelæ of Small-pox: but, in this country, it is only in the hereditarily predisposed, that phthisis is observed to follow Small-pox; but blindness and deafness are not unfrequently the result of severe confluent Small-pox. The constitution is also rendered more susceptible of inflammation, particularly rheumatism and ophthalmia.

The blood and secretions also suffer certain changes, which require to be known. Andral and Gavarret analysed the blood in five cases of confluent Small-pox. They found the blood-corpuscles nearly normal; but the fibrin varied considerably in quantity, although the increase above the normal mean was small. In the first case, which was bled three times, the average of water was 790·8; of fibrin, 3·5; blood corpuscles, 108·4; residue of serum, 93·12: in the second, which was bled four times, 806·1 of water; 3·1 of fibrin; 81·6 blood corpuscles; 95·2 residue of serum: in the third and fourth, which were bled twice, 786·7 of water; 2·10 fibrin; 122·14 blood corpuscles; 81·2 residue of serum: and in the fifth, bled only once, the quantities were 805·0 of water; 2·9 fibrin; 98·8 blood corpuscles; and 92·3 residue of serum." The residue of serum contained on an average 7·0 of inorganic constituents.*

The changes in the urine depend upon the nature of the fever. In five out of eleven severe cases examined by Becquerel†, the quantity of the urine amounted to only 23·5 ounces in twenty-four hours: the specific gravity was 1020·6: it frequently threw down uric acid precipitates, either spontaneously, or on the addition of nitric acid, and in one case a little albumen was observed. In five cases out of eleven, examined by M. Solon ‡, the urine was coagulable; I have observed the same state in seven cases. When the inflammatory symptoms, during the eruption, are slight, the urine is nearly normal; during the suppurative stage sediments, and frequently purulent mucus, are precipitated; and during desquamation it is either normal or anæmic.

*Diagnosis.* — Small-pox, in the first day of the eruption, might

* Simon's Animal Chemistry, Day's Trans., vol. i. p. 298.
† Ibid. vol. ii. p. 282.
‡ Ibid. vol. ii. p. 293.

be mistaken for measles, but the papulæ of the former are firmer; and the premonitory fever being unaccompanied with sneezing, watering of the eyes and cough; as well as the earlier appearance of the eruption, after the rigors, namely in 48 hours, whilst the period is 72 hours in measles, readily enable the diagnosis to be made out. From varicella, Variola is distinguished by the central depression, or umbilicated appearance of the pustule in its earliest stage: the slow manner in which the eruption progresses compared with its rapidity in varicella; the vesicular form, and early desiccation in varicella, also aid the diagnosis. From febrile lichen, it is distinguished by the eruption not appearing in 24 hours after the rigor; and by the eruption appearing first on the face, whereas that of lichen appears uniformly over the head and trunk. But when the prior history of the disease is known, and the probability of the infection having been received by the patient; there is little difficulty in pronouncing the disease to be Small-pox, even on the first appearance of the eruption; and when the pustules are fully formed the disease cannot be mistaken.

But independent of the eruption, some of the general symptoms mark the approach of the disease, at an early period, and enable us to take measures to mitigate its severity. Thus when, along with fever, vomiting and pain of the back occur, we may pronounce Small-pox to be about to display itself by its eruption.

Sydenham* has described a fever, attended with ptyalism, which he identified with Small-pox, and named *febris variolosa*, in which no eruption appeared, and which is named variolæ sine variolis by De Haen; and even is regarded in this light by some subsequent writers; but I am sceptical respecting the affinity of this disease with Small-pox; or that it arises from the same virus.

*Pathology.* — The real character of the pustule in Small-pox can be ascertained only after death, when the disease has proved fatal, during the process of maturation. It is found, at that time, to consist of an upper and a lower sac, communicating with each other by the rupture of a transverse septum, which consists of a layer of factitious membrane, deposited on the cutis vera, when the pustule is forming. This false membrane retains permanently the primary umbilicated form of the pustule; a form which has been attempted to be explained by different writers: but by none in a manner which is altogether satisfactory. The last is that of Mr. Erasmus Wilson, who believes it "to depend on the close adhesion subsisting between the epidermis and the first affected papilla of the derma. The inflammation of this papilla has almost completed its course before that of the surrounding papillæ has taken on the effusive stage: the central papilla consequently

* *Opera Universa*, 3rd ed., Lond. 1705. § ii. cap. 3. p. 125-6.

occupies a different pathological position to the rest of the papillæ involved in the variolous inflammation." *

In fatal cases of Small-pox congestions are present in the brain, frequently in the lungs; the heart is found turgid, with black blood, and traces of congestion in the gastro-intestinal mucous membrane. Pustules have been observed on the upper part of the tongue and the palate, and the pharynx. Cottugno, and other writers, affirm that they have never been observed in any organ to which air is not admitted; for when they appear on the lower part of the rectum, there has always been prolapsus ani. It is, nevertheless, a well-established fact that Small-pox has attacked the fœtus in utero †; and Rostan states that he detected them in the urinary bladder. Pustules are also found, sometimes, in the larynx, the trachea, and the bronchi, which explain the cough occasionally accompanying the disease; the lungs have a darker appearance than usual, and some blood tinge is observed in the pericardium.

In confluent Small-pox the cellular tissue is often complicated in the inflammatory action, swelling takes place, and subcutaneous abscesses are formed. When this inflammation occurs in the cellular tissue of the throat, the salivary glands are often involved in it; and this explains the profuse salivation which sometimes takes place.

With regard to the real seat of the pustules, Cottugno, as the result of many dissections, has ascertained it to be the rete mucosum. His words are, "Quoties pustulam incipientem dissecui, vidi cuticulam elevatam ad pustulæ formam, cutis corpore intacto, et tumoris immuni." ‡ John Hunter, Dr. Adams, Gendrin, Dr. Petzholdt, and others, also investigated this subject. They have ascertained that the site of the pustule is the cutis vera; that the inflammation commences at the phlyctidium, and radiates to the surface. Under the epidermis appears, what Hunter and Adams termed the variolous slough, which swells; and, at the acme of the suppuration, is moist. The vesicle which rises, is divided into a circle of cells, whilst the centre is bound down to the bottom of the phlyctidium. As the pus is secreted, this is loosened, and the full circular pustule is formed.

In the full pustule, on the fifth or sixth day of its existence, a vesicle, set in upon the pustule, may be seen. It appears to be distinct from the pustule, as the pus may be evacuated from the pustule, and the vesicle remain entire. The nature of the contents of this vesicle has not been determined.

*Causes.* — Whatever may have been the cause of the first

* On Diseases of the Skin, p. 86.

† There was a fœtus in the Museum of Guy's Hospital, in which the skin was covered with small-pox pustules.

‡ *Cottunius de Sede Var.* p. 202.

appearance of Small-pox, there can be one opinion only of its propagation by contagion, and by the virus emanating from the bodies of those infected with it; and, also, of its epidemic diffusion. Viewing it as being in every instance the result of infection or contagion, it is important to know that there is no proof that the infection can be communicated prior to the appearance of the eruption; but the body of a person who has died of Small-pox is capable of communicating the disease *; and the air of an apartment in which a patient has died of confluent Small-pox is so tainted, that it is capable of infecting the healthy for many days afterwards. No state of the atmosphere seems to influence the spreading of Small-pox, when it appears as an epidemic. The poison may be absorbed either by the lungs or the skin.

There is ample evidence to prove that the disease has been communicated to the fœtus, through the mother.† If we are unacquainted with the nature of this virus, we know that when it is introduced into the blood, either by inoculation or by infection, it rapidly multiplies itself, so that every pustule (and thousands may appear upon the body) contains the virus capable, in very small quantity, of again propagating the disease. It has been supposed that this propagation is by cell growth‡; but whether the multiplication is thus produced, or by fermentation, there are as yet no means of ascertaining. But by whatever manner it is propagated, if not in too great quantity, and too rapidly, there is a natural tendency in the system to its elimination. To the early observation of the infectious nature of the disease, may, with much probability, be traced the origin of inoculation, which was practised by the Hindoo doctors, and in Africa; and although it was mingled with several absurd superstitions, the operation was not less valuable on that account. Happily, the necessity of inoculation with variolous matter is now illegal; and has been succeeded by vaccination; otherwise the history of its introduction into England by Lady Mary Wortley Montague, and the difficulties that occurred in inducing the profession and the public to adopt it, might be given.§

* The body of a man who had died of small-pox was brought into the dissecting room of Mr. Cæsar Hawkins; four students took the disease, although one only had touched the body.

† For undeniably authentic cases, see the *Edin. Med. and Surg. Journ.*, vol. iii. p. 155. 308. Ibid. vol. vi. p. 501. *Mead on Small-pox*, cap. iv. *Phil. Trans.* vol. xlvi. p. 239.

‡ *Med. Observ. and Inquiries*, vol. i. p. 22.

§ The inoculators in Constantinople, whence the practice was brought by Lady M. W. Montague, were old Greek and Arabian women, who introduced the virus by pricking the skin, in the arm, with needles, and then rubbing over the part the crusts of pustules, reduced to powder. This practice was termed *engrafting*. It is curious that among the numerous objections to the establishment of inoculation, that of the propagation of the disease, by partial inoculation, to the uninoculated, and the consequent augmentation of the mortality from that cause, never suggested itself to the minds either of the profession or the clergy who fulminated against it from the pulpit. Even when the College of Physicians of London published in 1754 an approbation of the practice, no cautions were prescribed for preventing the contagion from spreading.

Small-pox rarely attacks the same individual more than once; but, that it may occur twice or even thrice, is a fact which has been known since the time of Abu-Bekr-Alrazi (Rhazes), who flourished in the 9th century.* I attended two persons who had the disease a second time: one of them, a boy of twelve years of age, in whom it was severe; and who had been inoculated, when a child, by Dr. Burns of Glasgow, and was then covered with a large crop of pustules.

The fact of its recurrence was doubted by Dr. Mead, who wrote in favour of inoculation; all the inoculators, and some of the best practical physicians of the last century, doubted the possibility of such an event: De Haen spoke of it as possible, but very unusual; there is now no doubt remaining upon the subject. No age, sex, nor rank of life, is exempt from Small-pox; but the infection exercises its influence differently upon different individuals.

*Prognosis.* — The degree of the preceding fever, the number and distinctness of the pustules, the presence or absence of cough, embarrassed respiration, and lethargy, enable us to form our prognosis with much certainty. The disease is generally milder in the spring than in the summer.

Sydenham first observed the fact that more danger is to be estimated by the pustules being crowded on the face, than from the numbers on the body; and he also observed that the prognostication of mildness or malignity depended on the favourable or unfavourable nature of the pustules on the face. In inoculated Small-pox the appearance of roseola is generally deemed the prognostic of a favourable eruption; but, in natural Small-pox, this premonitory rash has often been followed by the confluent form of the disease, and a fatal issue.† It certainly does not aid our prognosis. In children convulsions, unless frequently recurring, are not regarded unfavourable symptoms. When the disease is ushered in by very severe pains of the loins, such as to prevent the patient from moving his limbs, there is reason for anticipating a dangerous attack‡, especially when accompanied with coma.§ In confluent Small-pox, when the salivation suddenly stops, and at the same time the swelling of the face subsides, the danger is extreme.

The rapid subsiding of the pustules, and their assuming a shrivelled appearance, is always unfavourable. When they remain turgid, the earlier the desquamation of the crusts the more favourable the prognosis.

In confluent Small-pox the fever is always severe and not free from danger. In mild Small-pox the fever abates soon

* "Et possibile est quod accidunt bis vel ter." (*Contin. Rhazis*, lib. xviii. cap. 8.) Cases of it are recorded in the *Edin. Med. and Surg. Journ.* xviii. p. 236.

† See *Morton de Variol. et Morbil.* p. 186. *Rayer, Traité Theor. et Pratique des Mal. de la Peau*, tom. i. 47.

‡ Van Swieten.

§ Morton.

after the pustules appear; but in confluent cases there is scarcely any remission, and none in the worst; hence the continuance of the fever is always to be dreaded. When sweating suddenly ceases there is always danger; and the sudden cessation of salivation is equally hazardous. When it does not cease, but the saliva thickens and cannot be ejected from the mouth, there is danger of suffocation; and the danger is still more imminent when the pustules appear in the larynx and trachea, and cause a viscid secretion that accumulates in great quantity and impedes respiration. Œdema of the glottis sometimes follows this state of the fauces, and rapidly extinguishes life. The pustules flatten, and lose their red areola, which acquires a livid hue; a low muttering delirium follows, owing to the deficient stimulus of the brain by the unoxygenated blood; the tongue swells; the bladder is paralysed; the extremities become cold and the issue is fatal.

Sore throat, much hoarseness, and augmented secretion of a thick, viscid saliva are, therefore, always unfavourable symptoms. It is scarcely requisite to say that petechiæ and hæmorrhages are still more so: and the danger is always extreme when petechiæ are present and the pustules livid or of a black colour.* No symptom is so dangerous as the appearance, among the pustules, of vesicles which become gangrenous.

When the nervous system becomes implicated, during the progress of the eruption, indicated by tremors, low delirium, a feeble, tremulous, rapid pulse, dry tongue, and subsultus tendinum, with cold, clammy hands, the danger is extreme. In pregnant women, if abortion takes place during the existence of confluent Small-pox, death may be anticipated. The danger is equally urgent when sloughing on the hips and sacrum occur; or when abscesses form in the alveolar tissue.

In confluent Small-pox when diarrhœa with fœtid stools supervene there is always danger: and this is also the case when there is a severe exacerbation of fever on the eleventh day. But diarrhœa of a mild kind is to be regarded as favourable in confluent Small-pox. Sydenham† states that Small-pox appearing during or after the prevalence of measles is always of a remarkably malignant kind; but modern practitioners have not seen this remark verified. Pleurisy occasionally supervenes suddenly, almost always terminates in empyema, and proves fatal on the third or fourth day after its invasion.

There is always more danger when the patient is under five or above forty years of age than at any other period of life. At every age there is always more or less danger attending confluent

* This the old physicians termed Variola nigra.
† Opera, sect. iii. cap. 6.

small-pox; but it is most dangerous in childhood and the decline of life; the most favourable age in which the disease occurs is from the seventh to the fourteenth year.* In every case of natural small-pox the prognosis is always doubtful. Infants are in danger even when the eruption is moderate.

In confluent small-pox the greatest number of deaths occur in the second week; and this chiefly from some affection of the chest. At a later period the fatal issue is generally the result of direct debility. The greatest number of deaths occur between the seventh and the eleventh day of the eruption.

*Treatment.* — In the *mild, distinct* form of the disease the chief object is to moderate excitement during the eruption, as it is only when this is effected that the secondary fever is prevented; but it must be done with as little reduction of the powers of the system as possible. When the eruptive fever is slight, and the pustules are few, little more is requisite than the administration of gentle cooling aperients, exposure to cool air†, light bed-clothes, daily change of linen, rest, and a farinaceous, diluent diet. Should it, at first, threaten to be severe, indicated by a loaded tongue and a dry skin, an emetic is advisable, followed by moderate doses of sulphate of magnesia, or any other mild cathartic salt. If the fever still runs on, small doses of hydrargyrum c. creta, with two or three grains of James's powder, administered once in six hours, and the ordinary saline mixture, consisting of liq. ammoniæ acetatis, nitrate of potassa, with camphor mixture, given between each dose of the pills, generally render it milder, if they do not arrest its progress. Although Mead, Huxham, and some other distinguished practitioners recommended and employed blood-letting in the commencement of distinct small-pox, yet there are very few cases in which it is required, unless the pulse be sharp, uncompressible, and quick, accompanied with headache; or the breathing be embarrassed with a labouring pulse. The quantity of blood abstracted must be regulated by the necessity for the operation: its repetition is not only generally unnecessary, but it is, if possible, to be avoided; for, whilst means are taking to reduce excitement, these ought to be such as will not impair the strength of the patient; and, in most cases the febrile action may be diminished without the abstraction of blood. This argument, however, does not exclude the employment of the lancet, when the excitement resists milder means. If

* Gregory, l. c. p. 81.

† Sydenham introduced the cool regimen in small-pox. *Opera Universa*, sec. tertia, cap. ii. *De Variol. Reg. An.* 1667.

The opposite, or alexipharmic mode of treatment, had existed at the time of Ahron, a physician of Alexandria, in the reign of Heraclius. He wrote a treatise on the small-pox, which was lost, but is frequently referred to by Rhazes. It continued, and was carried to an absurd height, even in this country, until the time of Sydenham. It is curious, that the cooling treatment has been in use by the Hindoo physicians from time immemorial.

the fever be sufficient to confine the patient to bed, the bedroom should be kept cool, and the patient should lie on a mattress with few bed-clothes. The temperature should be such as will afford an agreeable sensation of coolness, but not that of positive cold. The bed-clothes, as well as the body linen, should be frequently changed, at least once in the day. When the eruptive fever has subsided, this attention to the cool regimen may be relaxed; but it should be still regulated by the feelings of the patient. On the contrary, when the eruption is coming out, if the circulation be languid, the pulse small, the surface pale and cold, with symptoms of sinking, then cordials, such as warm wine or brandy and water, with laudanum in a moderate dose and sesquicarbonate of ammonia, should be administered until reaction take place.

Should the febrile symptoms continue after the eruption is completed, the cool treatment and other moderate antiphlogistic measures must not be set aside; and, when the pustules do not fill well under such circumstances, much benefit is derived from cold sponging.* If the fever at this period runs on, a considerable exacerbation generally occurs about the seventh or the eighth day. At this time blistering has been recommended, but blisters are unnecessary unless local affections be present. When these supervene, and are attended by restlessness, I have often seen much advantage from the use of opiates, during the secondary fever; but caution in their administration is necessary if coma be present.

The diet in distinct Small-pox should be diluent and cooling, such as farinaceous, mucilaginous substances, with milk, orangeade, lemonade, weak table beer, and ripe acidulous fruits. It is scarcely necessary to say, that the latter are contraindicated when diarrhœa is present.

After the convalescence, even in the mildest form of the disease, two or three tepid baths should be taken before the patient can be regarded as altogether incapable of communicating the infection.

2. In the *confluent* form of Small-pox the cool regimen is to be carried to a much greater length during the eruptive fever than in the distinct form of the disease; regulating it, however, by the degree of fever. The eruption may suddenly recede from imprudent exposure to cold, and convulsions supervene: but we must mark the distinction between cool and cold air; and it is only in the employment of the latter that caution is requisite. The bedroom should be large, or, at least, well ventilated; the hair of the patient should be cut close: or, if pustules threaten to appear on the scalp, the head should be shaved; and every thing that can contribute to heat of skin, such as flannel shirts or waistcoats, should be removed. Purging may be carried further during

* In India, when the pustules are flaccid, and the skin hot and dry, the native doctors plunge their patients into cold water, after which the pustules rapidly fill.

the eruptive fever in the confluent than in the distinct form of the disease. The necessity for freely purging has been strongly urged by some of the old practitioners; and there is no doubt that it is necessary in the severest cases: not only when excitement is present, but even when typhus supervenes, and the skin is hot and dry. In neither instance, however, should the cathartics be of a drastic description. Drastic purgatives are peculiarly contraindicated when gastro-intestinal irritation is present. The best purgatives are calomel followed by castor oil; or the ordinary black draught. When the strength is low, it should be supported by cordials during their administration. In the secondary fever still more caution is requisite.

In this form of Small-pox, emetics are as useful as in the distinct Small-pox; and here it is not only in the commencement, but on the seventh or eighth day of the disease, that they may prove serviceable if the strength be not much impaired, and if the stomach be loaded. If typhoid symptoms, however, be present they prove hurtful. When they are indicated, the potassio-tartrate of antimony is preferable to ipecacuanha.

Sydenham regarded opium as much a specific in confluent Small-pox as cinchona in ague.* To an adult he prescribed a full dose of his liquid laudanum every night, until the eruption was completed; after which he prescribed syrupus meconi, a preparation resembling our syrup of poppies, night and morning for several successive days—a practice, which if blindly followed, might lead to danger. The preparations of opium, however, are useful when the eruption is preceded by convulsions resembling epilepsy, which exhaust the strength. In the wild delirium also, which occasionally accompanies the confluent form of the disease, and induces a tendency to suicide, a full dose of opium, or of acetate of morphia, repeated at intervals of five or six hours, calm this perturbation of the brain. The tendency of the fever to assume the typhoid type, in confluent Small-pox, is a sufficient reason for refraining from the use of the lancet; and when blood has been abstracted, in such cases the pustules are apt to acquire a livid hue, and the patient sinks, often in an alarming degree. The secondary fever, indeed, is always more or less of a low type, and when this displays itself early, as the danger in that case is augmented, nothing proves more hazardous than venæsection. Even when inflammation attacks the lungs, causing cough and dyspnœa, general bleeding is inadmissible. With regard to the employment of wine, some difference of opinion has existed. Experience of its effects, in each particular case, must determine the propriety of its administration: and, also, the quantity to be given. If it fills the pulse, lessens its frequency, and diminishes delirium, the necessity for it is obvious; and then

* *Opera Universa*, p. 371.

we have only to determine the quantity. The best description of wine, in such a case, is good sound claret. The combined brandy, that is, the brandy of fermentation, is less likely to produce acidity of the stomach, which is usually the result of other wines, all of which contain uncombined brandy. The addition of cinchona bark, or the salts of quina or cinchona, with the compound tincture of the bark and the mineral acids, is now generally admitted to be necessary in this form of small-pox; and with the further addition of alum if the pustules be flaccid or assume a livid or bloody hue. The influence of alum was much lauded by Vogel* and Dr. Wall †; and the mineral acids by Tissot and Dr. Wright for the same symptoms. In advocating the use of wine, cinchona, and acid in this stage of the disease, symptoms may arise contraindicating their employment; and it is of importance to be aware of these. Thus, when there is along with acute pain of the head, throbbing temples, inflamed eyes, intolerance of light, and a small feeble pulse, local bloodletting, either with leeches or cupping behind the ears, is essential. The bowels should be freely opened, fomentations applied to the legs, and blisters applied behind the ears. If dyspnœa, with some difficulty of deglutition, occur during the secondary fever, topical bleeding may be resorted to, if the strength be not greatly reduced, and sinapisms to the thorax; with the internal administration of small doses of ipecacuanha and squill; and if there is any symptom of pneumonia the potassio-tart. of antimony, in doses of a grain, may be given in the bitter almond emulsion. Indeed, should bronchitis or pneumonia supervene during the period of maturation, these affections must be treated as if Small-pox were not present; and the same rule holds good if a tendency to apoplexy should present itself. When ophthalmia occurs, and is severe, much caution is requisite in employing general blood-letting. Should salivation supervene, it should not be checked unless it should become very profuse. When it is severe, mild laxatives and the application of a blister under the lower jaw will be found useful; I have seldom observed any advantage derived from gargles.

Profuse diarrhœa is not uncommon in the latter stage of confluent Small-pox. It should be moderated in children, and in adults, also, when much debility is present; but it should not be suddenly stopped. The best means for moderating it is the administration of gently astringent tonics and opiates. Vomiting should always be checked, either by saline effervescing draughts; or a combination of camphor and opium. When no diarrhœa is present, I have seen nothing check this vomiting so effectually as medium doses of Epsom salts in the infusion of confection of roses, acidulated with ten or fifteen minims of diluted nitric acid.

* Prælect. Acad. † Phil. Trans. No. 484.

Suppression of urine is to be met by getting the patient out of bed, exposing the surface to cool air, and dashing cold water on the limbs; but, if there be much debility, these means are to be employed with caution.

When epileptic fits are violent and frequent, if we can trace them to visceral irritation, the bowels should be freely opened; and afterwards opium, in combination with small doses of ipecacuanha, will be found the best antispasmodics.

With regard to the management of the eruption, when the pustules, whether distinct or confluent, are very numerous on the face and the eyes are affected, an event which might terminate in blindness, fomentations and emollient poultices should be employed; and the eyelids kept constantly moist with mild refrigerant, gently astringent collyria.* Should a sudden retrocession of the eruption take place from any cause, either cold, or fatigue from remaining too long in the erect posture out of bed, when there is much debility, or from profuse diarrhœa, or depressing passions; warm wine, opium, camphor, ammonia, and whatever can rouse the nervous energy, should be administered. On the contrary, when the eruption is sufficiently out, but the neck and face are greatly swelled, the pediluvium rendered more stimulant with mustard, or sinapisms to the feet, often relieve it. It is sometimes useful to open and discharge the pustules when they are tardy in crusting. Various means have been proposed, from the time of Rhazes to the present period, for preventing pitting, which occurs very frequently in confluent small-pox. It is unnecessary to notice the multifarious compounds mentioned in ancient authors for this purpose. Among other means suggested by modern writers, it has been proposed to touch the pustules individually with nitrate of silver, or to paint over the parts on which they are rising with a solution of the nitrate on the first or second day of their appearance. The latter I have employed in the proportion of ʒj. of the nitrate to a fluid ounce of distilled water, with the addition of eight or ten minims of dilute nitric acid. It diminishes the inflammatory action, checks tumefaction, and forms a covering for the pustules, which prevents ulceration. I have not perceived that it augments fever. Sulphur ointment applied by gentle friction over the whole body, two or three times a day, at an early stage of the disease, was proposed some years since by Dr. Midivaine of Ghent.† I have had no experience of its value. Mercurial ointment and plasters, in every form of combination, have been much eulogized by the Parisian physicians; and the covering the face with mercurial ointment is a favourite practice in the French hospitals.‡ But after all the ex-

* Rhazes recommends "a collyrium of galls in rose-water." *Treatise on Small-pox and Measles, Greenhill's Trans.*, p. 51.

† Bul. de la Soc. Med. de Gand, 1840.

‡ M. Briquet has lately recorded a successful case, in which the face was covered

periments that have been made with the view of effecting this desirable object, no topical application has yet been found to prove always successful.

When the pustules have fairly crusted, and when the strength admits of the use of tepid baths, these favour the desquamation, diminish the tendency to ulceration, and prevent the formation of abscesses. Whilst attending to the pustules on the skin, the condition of the mouth and throat, from their presence on these parts, must not be neglected. I have found gargles with a weak solution of chloride of soda or chloride of lime useful; and when the patients are too young to use a gargle, these solutions may be applied by syringing.

## MODIFIED OR POST VACCINE SMALL-POX.

Notwithstanding the undeniable value of vaccination as a preservative to a certain extent from Small-pox, yet the latter disease, during its appearance as an epidemic at different times, in this country and elsewhere*, has attacked persons who were previously vaccinated; but the symptoms have been much milder, and the disease altogether modified by the influence of the previous vaccination on the systems of the patients. Even the insertion of the vaccine virus, as recommended by Eichhorn, after Small-pox has made its attack, is said to render the subsequent disease mild. Small-pox, under these circumstances, has received the appellations at the head of this paragraph.

*Modified Small-pox* assumes the same varieties of character as casual Small-pox; it may be distinct or confluent, and even death may occur †, especially when it is confluent, although in this form the disease is less severe than ordinary confluent Small-pox. In the British army, between the years 1834 and 1838 inclusive, 129 persons who had been vaccinated in early life were attacked with *distinct* Small-pox, of which number five died: out of 208 persons, under similar circumstances, who were attacked with *confluent* Small-pox, 62 died: and of 251 who are recorded as having

with mercurial ointment thickened with a little starch. In this case, which was one of severe confluent small-pox, although the whole of the body where the ointment and starch were not applied, was covered with deep cicatrices, yet not a single cicatrix formed on the face, where the ointment was applied. The editors of the Monthly Journal of Medical Science, who quote this case, affirm that they have confirmed the value of the practice under their own treatment. *Monthly Journal*, Jan. 7, 1848, p. 518.

* A list of these epidemics will be found in Dr. Gregory's Lectures on Eruptive Fevers, p. 209—211. See also Cross's History of a variolous epidemic, which occurred in Norwich, in 1819, 8vo. Lond. 1820.

† See the detail of cases in the Edin. Med. and Surg. Journ. vol. xiv. p. 656. vol. xvii. p. 70.

*modified* Small-pox (*Variola modificata*), one died. Dr. Gregory, from whose printed lectures these results are taken, remarks that as the maximum of post-vaccine small-pox * occurs at the period which immediately follows puberty, it is likely that some change in the system takes place at that period of life, "which lessens the protective power which vaccination had previously exerted."† Puberty is thus regarded as a disturbing cause, which renders the individual in future susceptible of the infection of Small-pox, notwithstanding the previous protection which vaccination afforded. Such being the case, it only remains to examine the nature of the modified disease.

When the disease is the distinct variety, the eruption appears on the third day after the commencement of the febrile attack, which does not vary in its character from that which precedes slight cases of casual Small-pox; and the same increased disturbance attends the eruptive fever when the modified disease assumes the confluent form; but in both cases the pustules are fewer in number. Sometimes the primary papulæ never suppurate; sometimes a very little fluid appears on their apex, which dries up, and only the hard bases remain; sometimes the pustules are full, and begin to crust over on the fifth day, before which time the fever abates, and does not reappear in a secondary form. Although the pustules rise, become umbilicated, then fill up, and break, or shrivel and form crusts, by pouring out their contents, exactly as in casual distinct Small-pox; yet they are usually smaller than in the casual disease. There is little inflammation and scarcely any interstitial tumefaction; the crusts of the pustules are small like the pustules, and soon fall, leaving no pits. In some instances, many of the pustules do not run their regular course, but remain as small, firm tubercles.

When the disease assumes the confluent form the fever is at first severe; there is often headache, sickness, vomiting, and, in some instances, stupor and delirium; in others convulsions; but these symptoms usually subside on the fourth day. The eruption appears on the fourth or fifth day, in the confluent form, on the face and hands, but rarely on the trunk of the body. The pustules break, and crust over on the seventh day; and there is little or no secondary fever.

The treatment is the same as in the casual disease, modified of course, according to the severity of the symptoms.

* Gregory's Lectures, p. 214.

† L. c., p. 216.

## VARICELLA* — *Chicken-Pox.*

This is one of the mildest of the Exanthemata, indeed so much so, as scarcely to require any medical treatment. From an early period it was regarded as a species or variety of small-pox; and as such was particularly described by Ingrassius, a Sicilian physician, in 1553; and not long afterwards by Vidus Vidius, who named it *Crystalli.* The disease continued to be regarded as a species of small-pox, even at the time of Morton, in 1694; and was described by him under the name *Variolæ admodum benignæ;* with the addition of its English appellation, *Chicken Pox;* which he informs us was the name by which it was commonly known in this country.

It is a curious fact in the history of this disease, that, although medical writers continued to describe it as a species of small-pox, down to the 18th century, yet the popular opinion was in favour of its being a distinct disease; and we consequently find it bearing a distinct name in different parts of Europe. In France it was termed *Verolette;* in Italy, *Ravaglione;* in Germany, *Schaffsbattern;* in the North of England, *Water-jags;* and in Scotland, *Chicken-pox, Swine-pox,* and *Hives.* Dr. Heberden first pointed out the distinction between it and small-pox, and advanced the strongest arguments in support of the opinion which he adopted, that they ought to be regarded as distinct diseases: but it is strange, as Dr. Gregory has justly remarked, "that, with this impression so strong on his mind, he should still have called the disease *Variolæ pusillæ.*† The term Varicella, however, was not in general use until after 1770.

Dr. Heberden's Essay appeared in 1767; and contained one of the best descriptions of the symptoms, and the pathological relations of the disease, drawn from his own observation, which had previously appeared. His experience led him to affirm that Chicken-pox is a perfectly distinct disease from small-pox; that it occurs both before and after small-pox; is no protection against that disease; arises from a specific contagion, affecting the same person only once during life; and, like small-pox, may be communicated by inoculation. Besides, inoculation with the lymph only of Chicken-pox will produce the disease, a fact which was, also,

* *Syn.* Crystalli (*Vidius*); variola spuria (*Auct. var.*); variola admodum benigna (*Morton*); variola lymphatica (*Sauv.*); varicella (*Vogel*); variolæ pusillæ (*Heberden*); pemphigus variolodes vesicularis (*Frank*); exanthema varicella (*Parr*); emphlysis varicella (*Good*); synochus varicella (*Young*); hydrachnis (*Cusson*); verolette, verolle volante (*F.*); unachten kindspocken, paliche pocken, schafpocken (*G.*); windpokken (*Dut.*); skoldekopper (*Dan.*); vadderkopper (*Swed.*); ravaglione (*Ital.*); viruelas locas (*Span.*); cottæmillie unmay (*Tam.*); rāngé niahn (*Duk.*); Cottamillie (*Tel.*); Pittamasoorikā (*Sans.*); Water jags.

† *Lectures on Eruptive Fevers,* 8vo. 1843. p. 224.

positively affirmed by Dr. Heim of Berlin *; and which has been verified by the experience of others. Notwithstanding these opinions, Professor John Thomson of Edinburgh, in 1818, again revived the old opinion of the identity of Varicella and variola. The treatise of Dr. Thomson displays much learned research; and his opinion was adopted by many of the profession; among others, Dr. Bateman, who remarks, "many facts crowd upon my own recollection, which incline me to believe that this suggestion will ultimately prove to be correct."† It was, however, demurred to by others, especially by Dr. Abercrombie and Mr. Bryce; and many of equal authority in the profession. The arguments brought forward by Dr. Thomson are chiefly the following — first, that he can discover no records of unequivocal examples of Chicken-pox prevailing as an epidemic, without cases of small-pox existing at the same time. 2dly, That vesicular eruptions have appeared after exposure to the contagion of small-pox, and could only, reasonably, be referred to that source. 3dly. That he had never seen Chicken-pox in persons who had not previously undergone small-pox: and whose constitutions had been modified by previous variola or vaccinia. But cases where it had appeared without the patient having undergone either were stated to Dr. Thomson. In a letter from Mr. Gibson, medical attendant at the cotton mills Lanark, to the Doctor, is this sentence — "In some of those who have neither undergone cow-pock nor small-pock, the disease continues to exhibit the symptoms which have been regarded as characteristic of Chicken-pox."‡ 4thly. That Chicken-pox and modified small-pox (*i. e.* small-pox after vaccination) cannot be distinguished from each other by any satisfactory diagnostic characters.

Dr. Thomson's character, as a writer of sound judgment and indefatigable research, gave great weight to his opinion; but my own experience and observation prevent me from adopting them. When Varicella is stated to have been transmitted by infection, I have never observed the infection to produce small-pox; on the contrary, the disease it produced has always strictly maintained the character of the original. I have seen it occur in those who previously have had small-pox; in those who have had cow-pox §; and in individuals who have had neither; and I have never seen any reason for believing that it can afford protection from future small-pox. I have, indeed, met with several instances of children who have had small-pox after Chicken-pox. Both Dr. Abercrombie and Mr. Bryce saw two children who had gone through Chicken-pox, go through cow-pox regularly soon

* *Cross on the Variolous Epidemic of Norway*, No. 1. Appendix.

† *Synopsis*, 7th edit. note, p. 299.

‡ *Edin. Med. and Surg. Journ.*, vol. xiv. p. 657.

§ Dr. George Gregory published a case, in which cow-pock and varicella were running their course at the same time. See London Medical Gazette, vol. ix. p. 683.

afterwards. A child, a patient of Mr. Wood of Edinburgh, who had Chicken-pox, affected two persons in the same family, who had gone through small-pox, and three who had had cow-pox; and, being afterwards vaccinated, went regularly through cow-pox.* Another proof of the non-identity of the two diseases might have been brought forward, namely the incapability of giving Varicella by inoculation; were there not contending facts upon this point: both Dr. Heberden and Dr. Willan adopted the opinion that it may be so communicated; and Dr. Heim verified it by experiment. The results, however, of the experiments of Mr. Bryce† are in direct opposition to that belief: and it cannot be denied that the milder form of modified small-pox‡ is capable, by inoculation, of communicating the disease in its most perfect, and even severe form to others. Mr. Bryce stated that he had seen 13 persons inoculated, with the greatest care, from the vesicles of Chicken-pox; but in none of them was any eruptive disease produced. These circumstances are sufficient to induce me to believe that Varicella and variola are distinct diseases, arising from different infections: or to employ the language of Dr. Watson, "that there is a separate disease called Chicken-pox, which springs from a specific poison."§

Dr. Willan divided varicella into three distinct species, according to the different forms of the vesicles, and named them —

1. VARICELLA *lentiformis*, Chicken-pox.
2. VARICELLA *coniformis*, Swine-pox.
3. VARICELLA *globularis*, Hives.

This division has been adopted by Dr. Bateman and Mr. Erasmus Wilson; the latter of whom has, besides, arranged, under Varicella, modified small-pox, *umbilicated pustular Varicella;* horn-pox, *Varicella papularis;* and a form of the disease, which I have never seen, *Varicella sine varicellis.* The three species mentioned by Willan, I regard as mere varieties, depending either on some peculiar state of the habit of the affected person, or on some incidental extraneous circumstances. I shall, therefore, not treat of them separately.

Many writers have described Varicella as making its attack without any initiatory fever; but fever certainly exists, although, in the greatest number of instances, it is so slight as to be easily overlooked; and this prevents the period of incubation from being determined. When the febrile symptoms are apparent, they consist of lassitude, short cough, rigors, occasionally wandering pains, restlessness, and loss of appetite.‖ The eruption appears

* *Edin. Med. and Surg. Journ.*, vol. xvi. p. 259.
† *Thomson in Varioloid Diseases*, p. 74.
‡ Variola *varicelloides*, Gregory.
§ Lectures.
‖ For the details of a case in which the fever was very severe, and the eruption confluent, see *Moore's Hist. of the Practice of Vaccination*, p. 97.

suddenly in the form of minute, transparent, irregular-shaped, either round or oblong vesicles, such as might be supposed to be caused by minute drops of boiling water, sprinkled from a loose brush and alighting upon the skin. The eruption is occasionally preceded by a rash, closely resembling roseola, which disappears on the following day; and the Varicella then appears. The eruption shows itself first upon the shoulders, back, and breast, and rapidly extends to other parts of the body; coming out in successive crops, during two or three days; the vesicles of the prior crops shrivelling and drying up as the new form. They are surrounded by a slight, red areola; have no tumid base; and, when they do not burst for forty hours, the contained serum becomes opaque. As the vesicles are accompanied with itching, they are often rubbed; and the lymph, in that case, assumes the appearance of pus. The desiccation usually occurs on the third day; the crusts form in the centre of the vesicle, are small, gummy; and become somewhat granular when they fall off. The complaint usually terminates before the sixth day. The eruption rarely is confluent *; and as rarely leaves pits; red marks only being left, and these gradually disappear. But when the eruption assumes that form, which is vulgarly called Swine-pox, which Willan regards as a distinct species (Varicella *coniformis*), the initiatory fever is more obvious than usual; the vesicles are more pointed, and the areola indicates a more inflammatory state of the skin; and as this extends to the chorion, pits not unfrequently are left, when the crusts fall. The eruptive stage, also, continues longer than in the usual form of the disease, extending to the sixth day, instead of terminating on the third. The only difference in Hives (Varicella *globularis*) is the form of the vesicles. In every other respect the somptoms are those of ordinary Chicken-pox.

Little or no fever, or constitutional derangement, accompanies the eruption: the appetite continues unimpaired, and the sleep undisturbed. Becquerel examined the urine of ten persons with Varicella. In one case in which the symptoms "were extremely severe, the urine was passed in small quantity, of a deep red colour, and a specific gravity of 1022·7." In another very mild case, the urine was normal; but Schönlein states, "that in the first stage, the urine is often as limpid as in hysteria."† As in all the Exanthemata, however, its character depends upon the intensity of the fever attending the case.

*Diagnosis.* — Varicella has frequently been mistaken for benignant, or modified variola especially that form of the disease which occurs after vaccination; but there are peculiarities connected with

* A case of confluent varicella came under the care of Mr. Ring. *Lond. Med. and Phys. Journ.* vol. xiv. p. 141.

† *Simon's Animal Chemistry, Day's Trans.*, vol. ii. p. 282.

both diseases which readily lead to a correct diagnosis. No inference can be drawn from the mildness of the initiatory fever, as that depends solely on accidental circumstances, and varies in different individuals. There is, however, much less constitutional disturbance in the incubative stage of Varicella than in the mildest cases of modified small-pox; and there is no secondary fever. In Chicken-pox, also, a cough is frequently present, a circumstance unknown in small-pox. The eruption in Varicella does not appear at first on the face, as in small-pox, but occupies chiefly the back and breast; the vesicles are not seated on a hard inflamed base, nor are they cellular, nor umbilicated, characteristics of even the mildest forms of small-pox; they are simple vesicles, formed on the first day of the eruption, and when punctured the cuticle falls to the level of the surrounding skin, and does not afford to the finger the sensation of a firm tubercle beneath it; nor are the crusts which terminate the vesicles hard, compact, and elevated above the surface on which they form, as in small-pox. The eruption in Varicella is always attended with itching, in variola the sensation is rather that of tingling and pain than itching. They are also granular when they fall off.

Another diagnostic feature necessary to be noticed is one which was pointed out by Dr. Willan, namely, the succession in which the vesicles of Chicken-pox appears, displays them in every gradation of progress, even on the fifth or sixth day; a circumstance which does not occur "in the slow and regulated progress of small-pox," * for although the pustules on the face and sometimes those on the body are more advanced than on the extremities, yet, on each of these parts, the pustules are uniform.

On the third day, or occasionally on the fourth, the vesicles burst, shrivel, and small dry scabs form on them: this is not the case with regular small-pox; nor even the mildest cases of the modified disease, occurring after vaccination. The vesicular form of the eruption does not display itself for three days, whereas in Chicken-pox it appears on the first day. The difficulty of diagnosis consists in the fact that modified small-pox is often vesicular, and Chicken-pox sometimes pustular. It might be supposed that the incrustation of the pustules on the sixth or seventh day, in modified small-pox, occurring in those who have been vaccinated might lead to mistakes; but the umbilicated form of the pustules, their hard, tubercular base, and the elevation of the crusts, are sufficient diagnostic features to distinguish the disease from every form of Chicken-pox in its decline. Varicella is almost exclusively confined to children.

*Causes.*—The infectious nature of Varicella is undoubted; but the possibility of communicating the disease by inoculation is very

* *Bateman's Synopsis*, 7th edit., p. 307.

questionable; indeed, the experiments of Mr. Bryce, already referred to, seem to have settled the question. He inoculated children with the contents of the vesicles of Varicella, in every stage of the disease; and children, also, who had not had either small-pox or cow-pox; but in none of them was either Varicella or small-pox produced.* Dr. George Gregory, also, lends his testimony to that of Mr. Bryce on this point.†

With regard to the origin of Varicella, I have already mentioned my dissent from the opinion of Dr. John Thomson, that the disease is a mere modification of small-pox; but we have no data for tracing its real origin.

*Treatment.*—This must depend altogether on the degree of fever, if any be present; but it is generally so slight, that one or two gentle aperients, with a mild, diluent diet, and a few days' abstinence from animal food comprehends all that is required. The temperature of the patient may be regulated by his feelings.

## VACCINIA ‡—*Cow-pox, Vaccine.*

Many important discoveries have been casually known, before they were fully determined to be discoveries by the investigations of the scientific; and such was the case with Cow-pox. It is not easy to trace the period when the belief originated that a disease known amongst the cows in Gloucestershire and other dairy counties in England, as well as in some places on the Continent, being frequently communicated to the hands of milkers, rendered those individuals who acquired it secure from the infection of small-pox§; but no one before Dr. Jenner examined the truth of this tradition, or thought of applying it for the extinction of small-pox. Indeed, notwithstanding the reports of the peasantry in the dairy counties, respecting the antivariolous influence of Cow-pox, even the old farmers disbelieved them, saying that "the notion was of no long standing, for they had never heard of it in their younger days;"‖ and when Jenner mentioned the opinions of the milkers to John Hunter, at the time he was pupil to that celebrated philosophical

* *Practical Observations*, &c., Edin. 1809.

† *Cyclopædia of Practical Med.*, vol. iv. p. 436.

‡ From *vacca*, a cow.

*Syn.* Variola vaccinia (*Jenner*); Vaccina (*Auctor. var.*); Exanthema vaccina (*Parr*); Synocha vaccina (*Young*); Emphlysis vaccinia γ. Inserta (*Good*); Vaccine (*French*); Vajuole vaccine (*Italian*); Kuhpocken (*German*); Koepokken (*Dutch*); Vaccuna (*Spanish*); Passuvoo ummay (*Tamul*); Gŷke scetlā (*Dukanie*); Avoumma (*Tellingoo*); Ghooniā soorikeh (*Sanscrit*); Bussunt, Mhata, Gotee (*Bengalie*).

§ The fact was known in the neighbourhood of Gottingen in 1759. *Gregory's Lectures on Eruptive Fevers*, p. 184.

‖ *Moore's History of Vaccination*, p. 4.

surgeon, they were disregarded as improbable, vague, and their authority weak. But the idea of investigating the subject having been determined upon by Jenner, he seriously commenced his inquiries as soon as he had established himself as a surgeon at Berkely. For some time he had little encouragement to proceed, owing to various causes which do not require to be here stated; at length in the spring of 1796, he inoculated a healthy boy, named Phipps, who had not had small-pox, from a genuine cow-pox vesicle on the hand of Sarah Nelmes, a milk-maid, in a dairy near Berkely, where the Cow-pox had broken out. The disease was produced and ran its now well-known course: and the boy being afterwards twice inoculated with small-pox matter in both arms, no other effect was produced than a transient inflammation where the virus was inserted. This and other experiments satisfied the mind of Dr. Jenner, and he resolved to lay them before the public, through the medium of the Transactions of the Royal Society, of which he was a member. On reading his paper, however, that learned body remained sceptical; and declined to publish it, lest it should injure the already established reputation of its author. The reply which he received, informing him of this resolution, contained a friendly admonition not to promulgate his opinions; an advice which, happily for mankind, was neglected; and his essay was published in June, 1798, without patronage.* It rapidly excited general attention, and the merits of its doctrines were warmly discussed, both in professional circles and in general society. The cautious among the profession suspended their judgment, and the "superficial and self-sufficient pronounced at once that the whole was an absurdity." But many acknowledged the great probability of Jenner's opinions; and, in the course of the same year in which they were published, their correctness was successfully tested by Mr. Cline, on a boy who had a diseased hip, in St. Thomas's Hospital. The vaccine virus, which had been kept three months on a quill, was inserted on the outside of the hip, and produced the disease. Soon afterwards the boy was inoculated with the matter of small-pox, in three different places, but it failed to produce the disease. This fact, and many other experiments which followed, although strangely opposed by self-interest, ignorance, and passion, fully established the truth of Jenner's doctrines, and led to the general establishment of vaccination as a prophylactic of small-pox.†

In a practical treatise such as this, a minute history of the opposition to vaccination; its reception by foreign nations; its

* *Inquiry into the Causes and Effects of the Variolæ vaccinæ, a disease discovered in some of the Western counties of England, particularly in Gloucestershire, and known by the name of the Cow-pox.*

† For an admirable account of the opposition to Cow-pox, see *Moore's Hist. and Prac. of Vaccination.* Dr. Jenner by two votes of parliament received a reward of 30,000*l.* for his discovery; a sum, which although large, was scarcely adequate to the advantages derived to the whole human race from vaccination.

extension through the British dominions; the passing of the laws against the inoculation of small-pox; and the establishment of vaccine institutions, would be out of place. But before describing the disease, and the manner of introducing it into the system of a healthy individual, I think a few remarks respecting the identity of small-pox and Cow-pox are necessary.

Although we have no proof whatever that Cow-pox was ever communicated to man from the cow, except through wounds or scratches, or abrasions on the hands of milkers of cows labouring under the disease, or by ordinary artificial vaccine inoculation, yet there are some grounds for the belief that the small-pox, when prevailing as an epidemic, has infected the system of the cow, and displayed itself in the form of Cow-pox. Without pausing to comment upon the facts of the prevalence of Cow-pox among cows, at the same time and place as small-pox among men, communicated by several respectable European practitioners in different parts of India*; it is only necessary to refer to the observations and experiments of Mr. Ceely, of Aylesbury.† We are informed by this respectable practitioner, that small-pox had been prevalent in the village of Oakley; and that "two cottages, in which three persons resided during their illness, were situated on each side of, and closely connected with, a long narrow meadow, or close, comprising scarcely two acres." One of these patients, though thickly covered with pustules, was not confined to her bed after the full development of the eruption, but frequently crossed the meadow, to visit the other patients, a woman and child, the former being in great danger with the confluent and malignant form of the disease. She died on Monday, the 7th of September, and, according to custom, was buried the same evening. The intercourse between the cottages across the close continued after this event. On the following day, the wearing apparel of the deceased, the bed-clothes, bedding, &c., of both patients, were exposed for purification on the hedges bounding the close; the chaff of the child's bed was thrown into the ditch, and the flock of the deceased woman's bed was strewed about on the grass within the close where it was exposed, and turned every night, and for several hours during the day, until the 13th of September, — eleven days. On that day, eight milch cows and two sturks were turned into this meadow to graze. They entered it every morning for this purpose, and were driven from it every afternoon, to be transferred to a distant meadow, to be watered and milked, where they remained through the night. Whenever the cows quitted the meadow in question in the afternoon, the infected articles above mentioned were again exposed on the hedges, and the flock of the bed spread out upon the grass, and

* *Trans. of the Med. and Phys. Society of Bombay*, vol. i.
† *Trans. of the Provincial Med. Association*, vol. i. 1842.

repeatedly turned, where it remained till the morning when the cows were readmitted. It appears, however, that the removal of the infected articles was not always accomplished so punctually as had been enjoined, for both the proprietors and milkers affirm that, on one occasion at least, they observed the bed-flock on the grass, and the cows amidst it, and licking it up."* Now these cows were in perfect health when first admitted into the close; but in twelve or fourteen days, five of the milch cows displayed symptoms of heat, and tenderness of the teats, which swelled, and hard pimples that appeared upon them rose into blisters, whilst the animals suffered "sinking," or loss of milk, dribbling of saliva from the mouth; and, in a few words, every symptom of Vaccine as displayed in the cow. Besides the appearance of the disease of these cows, Mr. Ceely informs us that it appeared "on a young sturk, in whom, of course, the disease could not have been induced by those casualties which commonly propagate it among milch cows, but simply by the cause which originated the disease in the other five animals, whatever that may have been. The sturk is not considered liable to the vaccine, at least so it is inferred in this neighbourhood" (Aylesbury), "because no one has ever seen the animal affected by it." Mr. Ceely further made some experiments on the inoculation of the cow with the virus of small-pox in February, 1839: in one experiment, seven punctures with variolous lymph were made on the teats of a milch cow; on one of these, at the close of the ninth day, a tubercle appeared, which displayed, on the tenth day, all the characters of the usual Cow-pox vesicle; on the fifteenth, it acquired its mature aspect; commenced declining on the sixteenth; and, on the seventeenth, formed a crust, which, however, was accidentally rubbed off. In a second experiment, in which re-inoculation, owing to the failure of the first inoculation, was performed, four of seven punctures were vesicular, with central crusts on the sixth day, and perfectly mature on the tenth. They began to decline on the eleventh day, and progressed regularly until the twenty-sixth, when the crusts fell and left behind them pits of a rose colour.† These cases and experiments are certainly very strong evidence in favour of the identity of the two diseases; and do not require the doubtful support of some experiments performed in India, in 1833, by Messrs. Furnel and Brown, which would tend to induce the belief that matter taken from the cow labouring under what was termed variolous disease produced, by inoculation, small-pox in man. They refute the opinion of Dr. Jenner that small-pox originated from Vaccine in the cow‡: and

* L. c., vol. v. p. 211.

† *Trans. of the Provincial Med. and Surg. Association*, vol. viii. — ix.

‡ This opinion may have originated in the mind of Jenner, from his having observed that when the disease is communicated to milkers the face is sometimes the site of vesicles, as well as the hands and joints; and, also, from the fact that the abrasion of

tend rather to lead to the belief that the small-pox was the origin of the Cow-pox, and communicated by man to the cow; and at the same time strengthen the opinion of the identity of the two diseases. The strongest opponent of this identity is one whose authority should have considerable weight in such an argument, namely, Dr. George Gregory, who, in his valuable "Lectures on Eruptive Fevers," says, "I demur to the theory of identity, and hold that small-pox and Cow-pox are antagonist affections." The strongest argument which is advanced in favour of his opinion is the following fact, which occurred in the Small-Pox Hospital in October, 1800. "A child, who had been exposed to the infection of small-pox, was vaccinated. Both diseases advanced. A lancet, charged with lymph from the vaccine vesicle, produced Cow-pox. Another lancet, charged with matter from a variolous pustule, formed within the vaccine areola, communicated small-pox." * But the subject of identity is one rather of speculative than practical interest; the fact of Vaccinia being a prophylactic of small-pox, or, when it fails to be so, rendering the small-pox extremely mild, is undoubted; and legislative measures have been properly taken to prevent the inoculation of small-pox and the consequent introduction of the casual disease. The inoculation of cow-pox has been practised, from one individual to another, for so long a period that an opinion, by no means improbable, prevails, that the virus has decayed in power, and requires to be renewed from the cow after certain periods. I confess that my opinion on this subject is not made up; but I believe that whether the lymph be taken directly from the cow or from a vesicle on the human body, the inoculation should be repeated once again soon after the age of puberty. The operation is productive of such slight and temporary inconvenience, that it can scarcely be objected to, even admitting that it affords no certain additional security against the invasion of small-pox. †

Cow-pox, when produced in the human subject by artificial inoculation, or transferred from the teats of the cow to the hands of milkers, is a circular, semitransparent, pale bluish, pearl-coloured vesicle, depressed in the centre, surrounded with a red areola; and changing ultimately into a dark-coloured crust, which falls sponta-

the surface is not necessary for the transference of the disease from the cow to the milker.

* *Gregory's Lectures*, p. 207. and *Med. and Phys. Journ.* 1801. vol. v. p. 8.

† A German physician of the name of Leihtenstein, observing the great similarity of the eruption caused by potassio-tartrate of antimony, inoculated with the fluid of the pustules, and obtained vesicles closely resembling those of Vaccinia, from which he again inoculated. He states that after inoculating and reinoculating thirty-one persons with the above matter, he found them safe from the infection of small-pox, when placed near others having that disease during an epidemic of small-pox. — *Hufeland's Journ.* 1841.

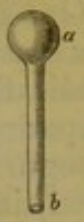
neously, and leaves a slight depressed cicatrix. The eruption is confined to the spot where the virus is inserted.

One of the great advantages attending the inoculation of small-pox was the facility it afforded of choosing the best time for communicating the disease, and also affording the opportunity of preparing the habit to receive it with impunity. Cow-pox, although a much milder disease, ought not to be communicated unwittingly, at all times, and in every condition of the habit.

In the first place, although the vaccination should take place in childhood, yet the infant should be three or four weeks old before a disease sometimes attended with considerable fever is engrafted upon its constitution. The infant should be in good health, and free from herpes, porrigo, psoriasis, lichen, and other cutaneous diseases peculiar to its age; for in such circumstances, when the infection takes place, the disease is so modified that security from small-pox cannot be depended upon. This remark does not apply to small-pox when it has spontaneously appeared, for, by vaccination at that time, the primary disease is mitigated.

It is of importance to ascertain the period and the character of the vesicle from which the lymph for inoculation is to be taken. If the vesicle has proceeded regularly the lymph is in the most active state on the fifth day; and it continues active until the eighth day; after which it declines in activity, and cannot be depended on if taken on the tenth day; but the crust, when moistened and broken down with tepid water, will produce the disease by inoculation as well as the fluid lymph. The younger the subject is from whom the lymph is taken the better; it is more efficient than from the arm of an adult. In taking the fluid from a vesicle, it should be gently punctured on its margin in one or two places, and, as the lymph oozes out, it should be taken up upon the point of a clean sharp, common, or grooved lancet, and allowed to dry for future use; or directly introduced under the cuticle of the arm to be inoculated. The point of the lancet should touch or pass into the chorion, and it should be retained in the puncture for a few seconds, to secure the deposition of the lymph. If a drop of blood oozes out it should be left to dry upon the spot; but, if it is large, after wiping it away, a little more lymph should be introduced. When the lymph is not immediately used, it should not be kept longer than two days on a lancet, as it is apt to rust the instrument; but if dried upon the points of small slips of ivory, or of quill, and excluded from the air, it will keep active for months. In using these points a puncture must be first made with a lancet, and the ivory point introduced into it, and retained for about a minute that the dissolved lymph may be left in the wound. When the lymph is required to be kept for a considerable time, it should be taken in a little glass tube with a ball blown upon it. The tube should not be longer than the figure in the margin, nor should

the ball be larger, as, when larger, it is difficult to expel the virus from it. When the lymph is to be taken the vesicle should be punctured, and after warming the little ball, *a*, either in the mouth or in hot water to expel the greater part of the air it contains, the orifice, *b*, of the tube must then be applied to the exuded lymph, and the ball wetted with a little cold water; as the contained air cools and contracts, the lymph ascends into the tube and ball. The orifice of the tube must then be hermetically sealed, by melting the glass in the flame of a candle, and twisting it.*




When the inoculation is properly performed the first appearance of the disease is the formation of a small hard pimple, on the day following that in which the inoculation took place; but this sometimes does not occur until the second or third day. This tubercle gradually enlarges, and about the fourth day it assumes the appearance of a small vesicle of a pearl-colour, with a circular base, and the margin more raised than the centre, turgid and shining, and containing a thin limpid fluid, in several small cells opening into one another. The vesicle now rapidly enlarges until it acquires a diameter of from half an inch to two thirds of an inch; and, at the same time, the areola spreads, and acquires a bright-red colour, lessening in depth until the colour is lost in the natural hue of the skin. It is attended by hardness and tumefaction of the adjoining cellular membrane, which sometimes extends to a considerable distance both above and below the vesicles, and is accompanied with pain. There is, also, frequently pain in the axilla. About the eleventh or twelfth day the areola begins to lose its bright-red colour, and acquires the appearance of concentric circles, of a bluish tint, while the vesicle remains umbilicated, hard, and the margin turgid; but it soon declines, the centre darkens, and the whole changes into a dark brown, hard, smooth crust, which drops off spontaneously between the eighteenth and twenty-first day, and leaves a cicatrix foveolated or indented by the vesicular cells. When the vesicle is regular it never suppurates, although the lymph acquires the colour and opacity of pus as the areola forms. During the whole of this process the lymph remains capable of producing the disease by inoculation, although it is most active in the early stage.

Such is the progress of the vaccine vesicle when it is regular, but it does not always run this course. In some instances the vesicle is small, with little or no areola; or it is large, pointed, and puru-

* Lymph preserved in this manner has been carried to India and brought back again, four successive times, and remained capable of communicating the disease. Dr. Weir, on whose authority this fact is stated, has found that the lymph may be well preserved by taking it on a piece of lump sugar, and when the lymph is dry, pounding the sugar and keeping the powder in a well-stopped bottle. He applies it by sprinkling on the exposed surface. — *Monthly Journ. of Med. Science, New Series*, July, 1847. p. 69.

lent, with an areola of a somewhat scarlet hue, occupying the greater part of the upper arm; and it terminates either in the formation of a yellow crust, or in ulceration. Such irregular vesicles afford an imperfect security against small-pox; consequently lymph for inoculation should never be taken from them. There is, also, some doubt of the security, when the matter is taken from an arm on which there is only one vesicle; hence, of late years it is customary to introduce the virus into at least three punctures. When the constitutional fever is scarcely obvious and doubtful, revaccination on the sixth or seventh day was proposed by Mr. John Pearson* and Mr. Bryce†, in 1801. The proposal was not submitted to the test of practice by Mr. Pearson; but Mr. Bryce tried its influence. He found that when the second vaccination succeeded, the second vesicle rose early, and ran its course simultaneously with the first; and he regarded this as a proof of the constitutional affection being adequate to secure the patient from variolous infection; but experience has not verified this opinion; and the inoculation, so as to obtain at least from three to five vesicles, is now general.

As lymph taken directly from the cow is more active than from the human arm, one, or at the utmost, two vesicles are sufficient, when that is used.

Eruptions of various kinds, namely, roseola and an eruption of minute vesicles having some resemblance to miliaria, and occasionally petechiæ, have occurred during the progress of Cow-pox‡; but they do not appear to interfere with the disease or the constitutional affection, which gives it a prophylactic influence over small-pox. Dr. George Gregory inoculated five children with the lymph taken from a vesicle on the arm of a child, on whom petechiæ appeared four days after inoculation, and the areola on the eighth day was livid; but the children went regularly through the disease.

In the progress of inoculated Cow-pox, no medicine should be given, nor any topical refrigerant employed, unless the fever and inflammation be unusually severe, as the object is to permit the disease to produce its specific object. Should the inflammation of the arm spread much, cold water may be applied, or a weak solution of acetate of lead; and the excess of fever subdued by mild aperients and saline refrigerants. After the disease has fairly run its course, a tepid bath and a dose of some mild aperient will be found useful.

The great importance of Cow-pox as a prophylactic of small-pox

* See *Willan on Vaccine Inoculation, Appendix*, p. xii.

† *Practical Observatons on the Inoculation of Cow-pox, &c., by James Bryce, F. R. S. E. Edin.* 1802.

‡ A case of cow-pox attended with petechiæ which I saw is recorded by Dr. George Gregory, in the 25th volume of the Medico-Chirurg. Trans.

is not weakened by the numerous cases of the appearance of small-pox, in those who have undergone the vaccine disease. Under such circumstances the small-pox is always modified, and runs its course in seven or eight days. But when, at the same time, we consider the numbers that have suffered from small-pox after vaccination, we must admit that the discovery has not verified the sanguine anticipation of Jenner, nor afforded reason for hoping that small-pox shall ever be banished from the world by its means. It must be taken into account, however, that many of the cases after the vaccine, reported to be variola, were varicella. The importance of Cow-pox, in reducing the fatality from small-pox, when it rages as an epidemic, cannot be better demonstrated than in the following Table: —

| Years. | Total Cases of Small-pox treated in the Small-pox Hospital. | | Numbers attacked with Small-pox after Cow-pox. | |
|---|---|---|---|---|
| | Admissions. | Deaths. | Admissions. | Deaths. |
| 1833 | 242 | 50 | 89 | 4 |
| 1834 | 165 | 23 | 63 | 8 |
| 1835 | 401 | 89 | 144 | 7 |
| 1836 | 329 | 84 | 129 | 10 |
| 1837 | 251 | 46 | 95 | 1 |
| 1838 | 712 | 188 | 298 | 31 |
| 1839 | 155 | 27 | 83 | 4 |
| Total. | 2,255 | 507 | 900 | 60* |

A table, also published in Dr. Gregory's Lectures, of the amount and mortality by small-pox, in the well-vaccinated population of Copenhagen, during five epidemics, exhibits the advantages of vaccination in a still more striking manner, the deaths in 3093 persons attacked by small-pox, after having had Cow-pox, being only 66. The statistical records, indeed, from different parts of Europe, and from Ceylon, show that the average in such cases does not exceed five and a half per cent; whereas the mortality, by small-pox, among the unprotected, is at the rate of from twenty-five to thirty-three per cent.† With regard to the period of life in which small-pox, after Cow-pox, is most likely to occur, it has been ascertained to be that between 16 and 25.‡ This fact points out the propriety of endeavouring to secure from small-pox the remainder of life, by revaccination a little after puberty; and I am more disposed to

* Gregory's Lectures, p. 213.
† Ibid. p. 218.
‡ Ibid.p. 215—216.

advocate revaccination than having frequent resort to lymph from the cow, and depending upon that as a positive security. From observations made, with respect to the protective power of lymph fresh from the cow, in Sardinia, by order of the government; in Wirtemberg, and other parts of Germany; in France; and in this country*; the results were not such as to afford much more confidence in the fresh lymph than in that which had passed through the human body; and that even when lymph from the cow is employed, there is some difficulty in getting it to produce the disease. When the virus operates, the fever is more severe than when humanized virus is employed, but the security from small-pox is not greater. On the second day after inoculation, the punctures appear surrounded with a red blush, which subsides on the following day, and a line of red is seen only round the papula as it rises. The vesicle contains fluid until the sixteenth day; and the crust which then forms does not spontaneously fall, until the fourth or fifth week. The areola, also according to the account of Mr. Ceely, is sometimes covered with supernumerary vesicles, and occasionally accompanied with a general eruption of papulæ and bullæ. Ulcers are also apt to form when the primary vesicle has been broken. It is, therefore, evident that the disease is modified by transmission through the human subject; but it does not lose its prophylactic influence over small-pox. At the same time, it has been observed that in process of time the constitutional fever, induced by long transmission of the virus through the human subject, is scarcely obvious; and there is some reason for fearing that its protective power is thus weakened.

The following case is given merely to display the severity of the early stage of small-pox when it occurs after Cow-pox, and the rapidity with which the threatening symptoms subside.

### Case 8.

*Variola discreta, after Vaccine.*

Martha T——, æt. 20, a house servant, who had been vaccinated, and had cow-pox when an infant, was attacked, on the 1st September, 1844, with lassitude, pains in the arms, and a choking or hysterical sensation in the throat, with palpitation of the heart, and much uneasiness at the epigastrium. These sensations were followed by pains of the head, back, and chest. On the tenth day from the commencement of the attack she had rigors, with cold feet, vomiting, and great prostration of strength. On the following day, small-pox pustules appeared on the forehead

* Gregory's Lectures, p. 220.

and face. The respiration became hurried; the expression of countenance anxious; and a slight cough, with sputa slightly tinged with blood, supervened in the evening; but without any morbid sounds either of the lungs or the heart. She complained greatly of a pain under the sternum, aggravated on pressure. The mouth and gums were red and tender; the fauces hot and painful; and three white spots, like pustules, appeared on the arch of the palate. She experienced some difficulty in deglutition; and the tongue was coated and intensely red at the apex. The urine was high coloured, and deposited lithates.

The pulse was hard, resisting, and 100. She was bled to the amount of ℥xvj.; and the bowels freely opened with a five-grain pill of calomel, and a black dose. Low diet.

15th. The eruption has extended to the arms, and over the body; and the pustules on the face have acquired the umbilicated form. The fever has abated.

℞ Spir. Ammon. Acet. f ℥iv.
Potassæ Nitratis gr. x.
Mixturæ Camphoræ f ℥j.

Fiat Haustus 4tâ q. q. horâ sumendus.

16th. She has lost the sensation of heat in the fauces, and generally feels more comfortable. *Pergat in usu Misturæ.* 19th. Some of the pustules are fully maturated; pulse 72; heat of body natural; bowels open. *Pergat in usu Medicam.*

21. The pustules have crusted over; the bowels are regular; and no secondary fever appeared. She was discharged cured on the 23d.

## FRAMBŒSIA * — *Yaws* — *Sivvens.*

This disease, which is a true exanthem, contagious, and appearing once only during life, is rarely, if ever, seen in England; although it is not uncommon in the north of Scotland†, and the Zetland Islands. It is also common in some parts of Ireland.‡ The following account of it, therefore, is derived from the observations of those who have seen it in Africa, where it is indigenous; and in the West Indies, whence it was carried from the coast of Africa. It is a febrile affection, accompanied with an eruption, to be afterwards described; and having run its course, it never attacks the same individual a second time.

The eruption of Yaws is always preceded by some degree of

* *Syn.* Lepra *fungifera* (*Cartheus*); Anthraca *rubula* (*Good*); Pian (*Native American*); Yaws (*Guinea*); Schwammförmige (*G.*); Sivvens (*Scotch*).

† Sivvens, *Sibbens*, raged in Scotland in the 17th century.

‡ Carmichael (*Essay on Venereal Diseases*, 1825, p. 7.) informs us that it has been met with in the county of Antrim, but particularly in Belfast. It has been frequently seen in the Glasgow Hospital.

fever, although that is sometimes so slight as to be scarcely obvious*; but at other times, rigors, lassitude, pains of the joints, and great debility, indicate the breaking out of the eruption, which at first appears as if the skin was dusted with flour. The degree of premonitory fever depends on the condition of the patient at the time. In weak, ill-fed children it is always most severe. In a few days afterwards, an eruption of minute flat pimples, which gradually become elevated, appears on various parts of the skin, increasing in size until, in some cases, they attain the diameter of more than half an inch; and in others, even a greater breadth. They are not very protuberant; and the crop is not completed at once, some appearing in different places, while others are on the decline; but each preceded by a fresh attack of fever. The eruption is greatest, and the spots are largest, on the forehead, face, the axillæ, arms, groins, and pudenda. It is a curious feature of the disease that, if the person attacked have any ulcer on the body, no eruption of Yaws takes place, until the ulcer heals, after which the eruption appears in its ordinary form.

The eruption, after eight or ten days, assumes the pustular character; the cuticle gives way, and a crust forms on the surface. The crust continues to increase in size, and, when removed, displays beneath it a foul sloughy ulcer, on the surface of which, at an uncertain period, red fungous excrescences shoot up; and this occurs whether the crusts be removed or left undisturbed. When the eruptive spots are numerous, the fungous growths are small, and only larger when they are less diffuse. In vigorous habits the fungus is of a deep red hue, like a raspberry, but in weak persons it is pale, not unlike a piece of cauliflower, and bleeds on the slightest touch.† Some of the fungous growths, however, acquire the size of a mulberry, which they very much resemble. The fungus is not painful, except when it is rubbed, or when it appears on the soles of the feet, being there confined and compressed by the hard, thick cuticle. These fungous sores exist in all stages on the body at the same time; and are often accompanied with ulceration of the throat, resembling that of syphilis. The ulcers, says Dr. James Thomson, resemble a piece of toasted cheese ‡, and never display any fungous growth, although they extend to a degree sufficient to destroy the greater part of the palate.

It is said that when the Yaws appear upon parts of the body covered with hairs, the colour of the hair is changed from black to white; but Dr. Thomson denies that the hair becomes white, ex-

* Hillary says, it "makes its appearance without any previous sickness or pain." — *Obs. on the Changes of the Air, &c.*, by W. Hillary, M.D. 8vo. 1759, p. 341.

† Observ. and Experiments on the Nature of Yaws, &c., by James Thomson, M.D. Edin. Med. and Surg. Journ. vol. xv. p. 322.

‡ Ibid. p. 323.

cept in very dirty people.* When the hair is destroyed, however, it seldom grows again; but when it does grow, the colour is the same as before.

The period during which the eruption continues varies from a few weeks to eight months; and, usually, towards its termination, one of the fungous spots becomes larger than the others, equalling nearly two inches in diameter, and acquires the appearance of an ulcer depressed below the surface of the skin, foul and sloughy, and pouring out an ill-conditioned pus, which corrodes the surrounding sound skin. This is called *Mama-pian*, or mother Yaw, by the negroes. When this occurs, the disease ceases to augment in severity, and gradually runs its course without danger, except owing to the improper interference of art. Indeed, the patient seems to suffer no inconvenience except that which arises from the foul discharges of the sores.

In this condition the disease remains for some time, until the fungus contracts, diminishes, and is finally cicatrized. No pitting of the skin remains, unless the inflammation has run high, in which case the cicatrices resemble those of cow-pox. The sequel of Yaws is often more fatal than the disease itself; the constitution is deeply injured, the body becomes emaciated, worms form, the feet swell, and the wretched sufferer often dies dropsical.

*Causes* — Framboesia is propagated by contagion and infection, and if any doubt remained of its contagious nature, it would be completely set aside by the disease having been communicated by inoculation. Dr. James Thomson inoculated a negro child with matter taken from a Yaw where the scab had been removed: the virus was inserted in five different places. Three of the punctures healed; two remained like irritable scratches for three weeks, after which small sores appeared and increased until they became foul, sloughy, ragged ulcers. Seven weeks from the time of inserting the matter pimples appeared on the forehead, and the disease ran its regular course.† Inoculation does not, however, render the disease milder than when it is produced by simple contact. It may be communicated by using the same spoon, by kissing, and by coition when the Yaws appear on the genitals. Dr. Bancroft informs us that none ever receive the disease whose skins are entire, on which account the whites are rarely infected.‡ There is, also, a greater aptitude in some individuals than in others for receiving the disease. The period of incubation is uncertain, and it is equally uncertain whether the disease can be communicated to the child in utero. It may occur at any period of life, but it is most common in childhood.

*Treatment.*—The best practice in Framboesia is the expectant;

* L. c. p. 323.

† L. c. p. 324.

‡ Nat. Hist. of Guiana, p. 385.

and in no disease is the saying, that if let alone the disease will wear itself out, so true as in Yaws. Dr. Winterbottom * informs us that the native Africans never attempt to cure the disease until it has nearly reached its height, when the Yaws have acquired their full size, and no more pustules appear.† Indeed every interference of art seems only to retard the progress of the disease, and nothing more effectually produces this effect than mercurials, which, although they clear the skin of the eruption, yet leave the constitution under the influence of the virus, which, as soon as the effects of the mercurials subside, again displays its virulence, and the disease reappears and runs its course. Most of the West Indian practitioners now declaim against the use of mercury, which in Hillary's time was the remedy on which they chiefly depended, when administered at the time the Yaws were at their full height. It was always carried to salivation. It merely suspended the progress of disease, and it is a truth that no medicine, yet discovered, has been able to supersede the action of this poison. There is much truth in the remark of Bateman, that the disease, "like the pustular and exanthematous fevers of our own climate, will only leave the constitution, after it has completed the various stages of its course, and removed the susceptibility of the individual to future infection."‡ In the West Indies, good, nutritious food and light work constitute the treatment, except in weak, cachectic children, when a combination of sulphur and camphor, with decoction of the woods, and antimonial preparations have been found beneficial.

In the second stage of the disease, when the yaws cease to appear, light nutritious diet, warm clothing, dry air, moderate exercise, and a course of either sarsaparilla or cinchona, with the mineral acids, has proved useful. At this period mercurials and antimonials have usually been administered; but experience has fully demonstrated, not only the inefficiency of the practice, but the injurious influence of it, aggravating all the symptoms.

With respect to topical treatment, Hillary recommends the Yaws to be touched with some fluid escharotic, or to be sprinkled with a powder consisting of one drachm of binoxide of mercury and half a drachm of alum; and this he regards as "the gentlest and safest,"§ and at the same time the best escharotic. After thus eating down the fungus, the ulcer is to be treated with any mild digestive and

* Winterbottom's "Sierra Leone," vol. ii. chap. 8.

† An anonymous writer in the Edinburgh Essays recommends the following bolus to be given every night until the yaws are at their height.

℞ Florum Sulphuris ℈j.
Camphoræ gr. v.
Theriacæ Andromachi ʒj.
Syrupi Croci q. s. ut fiat bolus.

‡ Synopsis, 7th edit. p. 438.

§ L. c. p. 348.

dissiccative ointment. When the Yaws appear on the soles of the feet, the callous skin over them must be pared down, and the feet bathed in warm water. As soon as the yaws protrude, they should be destroyed by the before-mentioned escharotic powder, and the sore cicatrized in the usual way.

---

The diseases already treated of in this chapter are generally considered true Exanthemata: but there are two varieties of Continued-fever, which are attended with eruptions of the skin, and which have a close affinity to the Exanthemata in being contagious and infectious, and the result of animal poisons: but the circumstance of their occurring once only during life being doubted by many, although I have no doubt upon the subject, induces me to arrange them rather as supplemental to the Exanthemata than as truly belonging to that class of diseases. There is some reason for supposing that they are the result of dissimilar poisons, for the infection of either always produces a disease similar to that whence it emanated; at least the observations of those who have ample opportunities of seeing many cases of both varieties have led to this conclusion.* In the belief that this opinion is correct I shall treat of them separately; and name the one TYPHUS MACULATA PETECHIALIS, *Spotted Fever;* and the other FEBRIS TYPHOIDES MACULATA, *Typhoid Spotted Fever.* Before describing, however, their distinctive character, in reference to the eruptions to which our attention is chiefly to be directed, there are some particulars common to both varieties, and indeed to every form of Continued-fever, which may be briefly mentioned.

The term Continued-fever comprehends many varieties and modifications of the disease, distinguished by different names, but all of them having something in common; and all being the production of animal poisons, either dissimilar or modified, introduced into the system. The original source of these poisons is unknown; but the evidence of the emanations from the bodies of those affected by Continued-fever being capable of causing the same fever in other persons, in a state of apparent health, is too abundant to be doubted. It, however, most commonly attacks those debilitated either by moral or physical agency. In whatever manner the poison is introduced into the system, whether, as is most commonly the case, through the mucous membrane of the lungs, or, as occasionally happens, through the skin, it generates itself, accumulates and produces most important changes on the blood, operating, at the same time, as a powerful sedative agent on the nervous centres.

* I refer to the officers of the London Fever Hospital; and I am indebted to one of them, Dr. Jenner, for many of the facts relative to the eruptions in these varieties of Continued-fever.

It does not display its effects immediately after its introduction, but remains latent for some time. The period of latency, or incubation, as it is termed, varies in different individuals; and it is also influenced by some external circumstances, such as locality, season, and climate. This variation cannot readily be accounted for; but periods of only a few hours, and so much as upwards of sixty days, have elapsed after the infection was supposed to be received before the symptoms of fever presented themselves.

It is unnecessary for our purpose to enter into the details of the symptoms of Continued-fever, independent of the cutaneous eruptions, which constitute the chief characteristic of the two varieties about to be described. The general symptoms are those of Typhus; nor is it essential to describe here the derangements which the poison induces on the nervous centres, or the alterations of structures which are the result of its action, except as they have some connection with the state of the skin. The poison may exert its specific action on the mucous membrane and follicular glands of the alimentary canal, including the stomach; or on the lungs; or on the brain and its membranes; or on the skin, that tissue to which our attention is to be chiefly directed, producing either of the two eruptions about to be described; and a third, namely, sudamina, which is considerably less frequent in this country than on the Continent. I shall now describe the distinct nature of these eruptions, which characterize the two varieties of Continued-fever to which I have referred.

1. TYPHUS MACULATA PETECHIALIS, *Spotted Fever.* After the fever has run its course for five or six days, and displayed the usual symptoms that constitute the phenomena of Typhus, either in a mild or a severe degree, if we examine the body of the patient at this time, we shall perceive upon the thorax and abdomen, and occasionally upon the thighs, the legs, the arms, and even the face, a number of small rose-coloured spots of an oblong or lozenge form, scarcely elevated above the surface of the skin, into which they fade without any definite margin. On the first day of their appearance, they vanish under the pressure of the finger, and slowly reappear when the pressure is removed; after two, or at the utmost three days, they only partially disappear under pressure; and after that time they do not disappear at all, whilst, at the same time, they become circumscribed, or display a margin, deepen in colour almost to a brown hue, and assume the true petechial character. That such is their real character is confirmed by their dissection and examination under the microscope, after death in fatal cases; they then present the exact capillary effusion of blood which is characteristic of petechiæ. This eruption does not attack simultaneously all the parts upon which it appears; nor does it show itself all at once but in successive crops, without following, however, any decided rule of progression. In the greater number

of instances, its duration does not exceed five or six days; but I have observed it continue for twelve or fourteen days. The extent of the eruption varies; sometimes the spots are not numerous and appear only on the abdomen and thorax: but in other cases they are extremely numerous, and densely cover the abdomen, the thorax, back, the thighs and arms; and occasionally a few are seen on the face. In whatever manner this eruption appears, it is a true exanthematous eruption, and runs a regular course, although less constant than that of the other exanthematous eruptions; a proof that like the eruption of the Exanthemata, it is the elimination of the poison by the skin instead of its settling upon the internal organs. This, however, requires further investigation. It occurs more frequently in some epidemics than in others. When there is much prostration of strength, the spotted eruption does not run the course above described; but appears, at once, in its advanced stage or as petechiæ.

When *sudamina* occurs it is rarely seen until the petechial eruption is on the decline: it generally occurs about the termination of the fever. It appears in the form of small, round-topped vesicles, seldom exceeding a line in diameter, affording a sensation of roughness when the finger is passed over them; bursting when strongly pressed, and exuding a clear serum. They frequently cover the whole trunk of the body; but, occasionally, they merely form patches on the side of the neck, in the axillæ, and on the groin. This eruption is very common in the French hospitals.

*Diagnosis.*—The chief use of a knowledge of this *petechial* eruption (for although in running its course it differs from what we usually term petechiæ, which are small, circular, dark, reddish-brown specks resembling flea-bites, but without the dark central puncture, yet they terminate as true petechiæ by the effusion, or minute extravasation of blood under the cuticle) is the certainty which its appearance affords that no ulceration of Peyer's glands exists, a fact which post mortem examinations of fatal cases at the Fever Hospital have amply verified. The distinction between these maculæ and those that, as invariably, indicate ulceration of Peyer's glands shall be pointed out in describing the latter. It is not my object to describe the general diagnostic features of Typhus.

*Prognosis.*—I have not observed any more than usual danger to be indicated by these maculæ in their first and second stage. I have seen them very numerous in mild cases of Typhus; and, on the other hand, very few only have appeared when the general symptoms were of the most threatening kind. The presence of petechiæ, in their last stage, without running through the two former stages is always indicative of danger; especially when, at the same time, internal hæmorrhage occurs, and the depression of the vital powers is extreme. In such cases, there can be little doubt

that both the petechiæ and the discharge of blood depend on a morbid change in the circulating mass. The general symptoms display an increased severity, the tongue becomes drier, and exhibits a deeper streak of brown in the centre; the teeth are covered with sordes; low delirium is seldom absent; the urine and fæces are passed unconsciously; and a variety of other symptoms supervene which indicate the destructive influence of the poison; and the tendency to a rapid fatal issue.

*Pathology.*—It is not essential for our purpose to enter minutely into the pathology of Typhus. The state of the blood, however, is of importance in reference to the influence of the poison on the skin. It is found very deficient in fibrin, and not unfrequently also in albumen: the clot is soft, easily broken down, and of a very dark colour. Dr. Stevens found that in every case the chloride of sodium is diminished: but the analyses that have been published throw little light upon the action of the poison on the animal œconomy. With regard to the state of the kidney and its secretion little satisfactory is known. The urine sometimes assumes the character of that present in inflammatory diseases; sometimes it is limpid like the urine of hysteria. In the latter stage of the disease, it loses its acid reaction, becomes neutral and even alkaline and ammoniacal. The quantity of urine is usually small. It is always an unfavourable symptom when the urine assumes a dark-brown colour, and retains that hue: on the contrary, the return to the acid state is favourable.

*Causes.*—Whatever may have been the origin of the poison of Continued-fever, and although there is no doubt of its transmission both by infection and contagion, yet we are ignorant of the nature of the poison. If we are to be guided by the manner in which it affects the habit, we should be led to suppose that there are various modifications of it; and we have no other method of reasoning respecting it. That there are at least two distinct modifications, appears evident from the production of the eruptive fever under consideration, and that which we have yet to describe. The infection of the one does not produce the other; but always produces a fever in every respect resembling that whence it emanates.

I shall reserve any remarks on the treatment until after the second variety has been described.

2. FEBRIS TYPHOIDES MACULATA, *Spotted Typhoid Fever.* The early symptoms of this variety are nearly the same as those of the former. The eruption does not show itself so soon, seldom appearing before the eighth or ninth day. The spots are few; in some instances not more than three or four; they generally appear upon the abdomen, the thorax and back, but rarely or never upon the extremities; and never upon the face. The eruption is in the form of a small circular or lenticular spot of a bright rose-colour, fading into the natural colour of the skin, and disappearing on

pressure, during the whole time of its existence, which is generally three days, after which it gradually fades and wholly disappears. Fresh crops, however, appear during the greater part of the continuance of the fever. The spots are more elevated than those of the former variety, and display none of the petechial character. Their appearance does not obviously influence the general symptoms.

*Diagnosis.* — It is of some importance to distinguish this eruption from the former, as its appearance always indicates morbid changes, in which both Peyer's and the solitary glands participate. Almost all of these glands, in truth, become inflamed, and ultimately ulcerate; especially, where they are most numerous, as they approach the cæcum. The diagnostic distinction between the maculæ in this variety and the former is, in the first place, the small number which appears, and their being confined to the trunk of the body; in the second place, their greater elevation above the surface of the skin than the former, and their disappearing on pressure at every period of their existence.

*Prognosis.*—From what has been said it is scarcely necessary to remark, that the assurance which this form of cutaneous eruption affords of the condition of the follicular intestinal glands, obliges us to give at least a cautious prognosis. The existence of ulceration in Peyer's glands is always attended with danger; and, as it often occurs without any pain indicative of its existence, the importance of the physical character of the maculæ in directing attention to the state of these glands cannot be too much insisted upon.

*Cause.*—Upon this point little can be said, except that the poisons producing the two varieties of eruptive Continued-fever differ in some respects from each other, as each produces in those who are infected by it the same modification of fever as that whence it emanated; a fact which the observations made in the Fever Hospital have verified beyond a doubt. The one is denominated the *Typhus-poison*, the other the *Typhoid-poison* by the officers of that institution; and as their investigations have induced them to regard them as distinct poisons, it is proper that each should have its specific appellation.

*Treatment.*—With regard to the treatment in both varieties, it is that which is proper for cases of Continued-fever, independent of the accompanying eruption, and, therefore, it does not require to be brought here under consideration. Every attempt to arrest the progress of Continued-fever has proved unsuccessful: and no antidote, if such a term can be employed, has yet been discovered for the poisons of this form of fever. To watch the progress of the cases, and, in the language of the celebrated Dr. John Gregory, "to obviate the tendency to death," is, in truth, all that can be effected. When the skin is hot or dry, and the state of the pulse permits the employment of the cold affusion, or cold sponging, the eruptions do not interfere with these applications.

# CHAPTER II.

## CONTAGIOUS FEBRILE ERUPTIVE DISEASES WHICH MAY OCCUR MORE THAN ONCE DURING LIFE: — THEIR NATURE, CAUSES, AND TREATMENT.

THE poisons which produce the Exanthemata operate such a change upon the constitution, that all future susceptibility to the influence of the same poison is destroyed: hence these diseases attack the same individual once only during life. The occasional recurrence of some of them in a few instances is not sufficient to affect this general law. There is, however, one febrile disease of a contagious and infectious nature, and attended by a cutaneous eruption, which in many respects resembles the Exanthemata, but differs from them in producing only a temporary security against future attacks; and which, consequently, may recur several times during life. The poison producing this febrile affection, like those of the Exanthemata, must have originated in circumstances with which we are now utterly unacquainted: but that the disease, besides being occasionally epidemic, is constantly transmitted from one individual to another, is verified beyond a doubt, although this opinion has still its opponents, especially on the Continent; but the evidence in favour of the infectious nature of Erysipelas, for that is the disease about to be treated of, has been accumulating so rapidly on this side of the British Channel, that scarcely any British practitioner now doubts either its contagious or infectious nature. When it breaks out or is brought into the wards of an hospital, it rarely happens that all the patients escape the infection. I have seen it pass over a dozen of patients and attack one at the most distant part of the ward; although no direct communication had taken place between that individual and the previously diseased person; a strong proof of its infectious nature, and also of the necessity of predisposition to render a person susceptible of the influence of the infection; and the difficulty of determining the infecting distance.

## ERYSIPELAS.*

WRITERS upon this disease have regarded too exclusively its external or local features, and consequently have formed species and varieties of Erysipelas†, although these apparent distinctions are only characteristic of the greater severity of the same disease; depending either on the condition of the habit, the age, and the temperament of the patient; the locality in which he resides; or on some external circumstances that operate as exciting causes of the attack, in habits predisposed to the disease. Mr. Lawrence‡ conceives that it is a mere modification of inflammation, that its various forms depend upon accidental circumstances; and that, in classing it, "we should place it between the Exanthemata and Phlegmons."§ I agree partly with those‖ who class it with the Exanthemata, because the disease is a distinct febrile affection of which the eruption is merely the external characteristic symptom, as much as the eruptions attending measles, scarlatina, or any of the other Exanthemata.¶ That Erysipelas may appear after external injuries, surgical operations, and local irritations is undoubted: but it is probable that, when it occurs from such causes, there is a predisposition to the disease, which is merely developed by their influence. Convinced of the correctness of these opinions, I consider all the varieties of Erysipelas, described by authors, to depend on the degree and type of the accompanying fever, and other incidental circumstances, consequently that they may be disregarded.

Erysipelas may be defined,—A FEBRILE, CONTAGIOUS DISEASE,** IN WHICH SOME PART OF THE SKIN, AND, ALTHOUGH

* *Syn.* Febris erysipelatosa (*Sydenham*); Febris erysipelacea (*Hoffman — Vogel*); Emphlysis Erysipelas (*Good*); Rosa, Ignis Sancti Anthonii (*Auct. var.*); Erysipile (*F.*); Rothlauf (*G.*); Hemmet, Humnah? (*Arab.*); Akki (*Tam. Tel.*); Shirjah (*Duk.*)? Pitta vicharchika (*Sans.*); Socrkh (*Pers.*); Kasalapani (*Malayalie*); The Rose: St. Anthony's Fire.

† Galen, Meth. Med. cap. xiv. Forest, Obs. Chirurg. lib. ii. 1. 4. 5. Plater, De Superfic. Corp. Dolore, cap. 17. Frank, de Curandis Hominum Morbis. lib. iii. Pearson, Prin. of Surg. chap. x. Willan, Descrip. and Treatment of Cutaneous Diseases, ord. iii. genus ii., and ord. iv. genus i. Bateman, Synopsis, 7th edit. p. 176. Rayer, Traité des Maladies de la Peau, p. 108. Tweedie, Encyclop. of Pract. Med. vol. ii. 106. Erasmus Wilson, on Diseases of the Skin, 2d edit. p. 130.

‡ Medico-Chirurg. Trans. vol. xiii.

§ L. c. p. 18.

‖ Cullen, Frank, Rayer.

¶ The opinion that Erysipelas differs from ordinary inflammation prevailed at a very early period. Galen, speaking of the diagnosis of the disease, says — "Non tamen similiter dolet erysipelas ac inflammatio."

** In his definition of the disease, Rayer[1] uses the words, "non contagieuse," but this assertion is, at the present day, remarkable, when the general opinion is in favour of the contagious nature of the disease.

[1] *Maladies de la Peau*, vol. i. p. 108.

RARELY, THE MUCOUS MEMBRANE, ARE AFFECTED WITH HEAT, REDNESS, SWELLING, AND SOMETIMES VESICATIONS.

Although the occasional occurrence of vesication enters into this definition, yet it is by no means an essential feature in Erysipelas, even in its most severe degree: the redness, heat, tumefaction, and fever are the best distinctive features of the disease. I cannot accord with my excellent friend, Dr. Watson, that the term Erysipelas should be confined "to that disease in which the integuments of the *face* and *head* become diffusely inflamed." * True Erysipelas may attack any part of the body.

*Symptoms.*—Erysipelas commences with feeling of languor, drowsiness, and shiverings, followed by the usual symptoms of febrile paroxysm. The hot stage is accompanied with languor and lassitude, headache, pains in the limbs and the back, a quick, often hard pulse, nausea or loss of appetite, a white coated tongue, thirst, occasionally pain at the epigastrium and confined bowels. Retching and tenderness of the epigastrium are not uncommon symptoms. When the face and scalp are the seat of the inflammation, there is confusion of head, drowsiness, and frequently coma, or low muttering delirium, with a dry and brown tongue; rapid and feeble pulse; and great prostration of strength. Sometimes the delirium is high and indicates a condition of intense cerebral inflammation. After these febrile symptoms have continued for a day, or two or three days, a diffused patch of inflammation appears upon the skin, accompanied with itching at first, followed by heat, and some degree of swelling; and it spreads irregularly; but with a defined margin. The colour of the part is a bright rose red or scarlet, and the sensation of pungent heat is intense: when pressed with the finger the redness disappears, but it returns as soon as the pressure is removed, a circumstance, however, which is not peculiar to Erysipelas. If the disease is left to run its course, vesications rise on the inflamed part, and the redness, pain, and heat abate. The vesicles are sometimes small, numerous and distinct; on other occasions, they run together, and form more or less irregular bullæ, which burst and either discharge a colourless or a straw-coloured serum; then shrivel and dry into crusts or ulcerate. These vesications are the result of an augmentation of inflammation, and do not constitute any peculiar form or variety of the disease, such as has been, by some writers, designated Erysipelas *phlyctenodes*. When vesications do not appear, the cuticle desquamates; the febrile symptoms disappear, and the patient gradually regains his usual health.

In young and plethoric individuals both the fever and the affection of the skin display a higher degree of inflammation than usual, forming what writers on skin diseases term Phlegmonous Ery-

* Lectures, 2d edit. vol. ii. p. 766.

sipelas (Erysipelas *phlegmonodes*), but differing only in severity from the form of the disease as already described. It is ushered in by a sharp febrile paroxysm, which does not subside when the redness, which is of a deep shade, sometimes almost livid, and tumefaction of the skin appear, symptoms that usually occur on the second night of the fever. It is at first accompanied with itching, or rather stinging, and a sensation of burning heat. Vesications are more common under such circumstances: they generally appear on the third or fourth day, and discharge their contents, or subside, on the fifth or sixth day. The discharged serum is sometimes extremely acrid, and does not crust. When crusts form they acquire a yellowish or brownish hue; whilst the intervening cuticle assumes a yellowish tinge; and as the tumefaction abates and desquamation of the cuticle takes place, the crusts fall off, and leave the skin in its natural condition. This termination in resolution is the most favourable: it displays its approach by the gradual abatement of the heat, tumefaction and redness, the detachment of the crusts, and the decline of fever. When these symptoms appear suddenly, there is some danger of metastasis.

But the disease does not always terminate in so favourable a manner. The inflammation extends to the sub-cutaneous tissues, pus is formed, and burrows beneath the skin, extending rapidly, unless an exit be given to it by a free incision. When the pus is not discharged by a free incision, it is spontaneously discharged by ulceration; which is an event always, if possible, to be prevented, as it increases the constitutional irritation and induces hectic fever; or gangrene ensues and may destroy the patient.* In some instances the suppuration has extended to the muscles, and produced sloughing of the tendons. The suppuration is accompanied by rigors, which, however, cease as soon as a free incision enables the pus to escape. Sometimes, when the pus burrows more deeply, and undermines the fasciæ, the fever assumes a typhoid character; the affected portion of the surface becomes livid, or dark-red; vesications containing a *bloody* or *purple* serum rise; and, if the strength of the patient be not supported, gangrene ensues, and the case generally terminates fatally. If the strength can be maintained, sloughing takes place, and ulcers form, which are tedious in granulating and cicatrizing.

When Erysipelas attacks those predisposed to dropsical effusions,

* A case occurred to M. Velpeau, in which the Erysipelas extended from the face to the scalp, under which pus formed. This was partially evacuated by several incisions; but the whole of the scalp, which was found to be unadherent to the bone, mortified, and separated at the anterior part; this formed a wound over the whole top of the head, and exposed the bone to a considerable extent. Exfoliation occurred in one small spot only; granulations soon covered over the rest of the bone, and the ulcer healed, leaving a cicatrix of a wrinkled appearance; as if the scalp had been too large, and was plaited to fit the head.—*Journ. de Med. et Chirg.*, quoted in Monthly Med. Journal, Sep. 1847.

and of impaired constitutions, the inflammation, being of a subacute character, instead of terminating in resolution or in suppuration, causes serous effusions into the cellular tissue, and the parts assume the character of anasarca; a true œdema occurs, and the part pits on pressure. This has been regarded as a distinct variety of the disease, and named œdematous Erysipelas (Erysipelas *œdematodes*); but it is the same disease merely modified by the condition of the habit of the patient. Neither is œdema confined to this modification of the disease; it occurs when the eruption appears on the eyelids, the penis, the scrotum, and the labia pudendi; for the cutaneous affection may appear in all of these parts.

When the poison of Erysipelas displays its effects on the skin and cellular tissue, it generally but not invariably produces fever; a circumstance which is not uncommon in the traumatic form of the disease. The skin is usually the part affected, and it may be so affected as to display the eruption over a large extent of the surface of the body. This affection of the skin may terminate in three ways, either in resolution, or vesication, or gangrene. But Erysipelas may display itself upon any external part of the body, the character of the inflammation being modified by the part on which it appears. The *face* and *scalp* are most frequently the seat of erysipelatous inflammation; and the most dangerous parts on which it can appear. The redness and tumefaction generally spread from the part where they first appear over the other parts of the face, swelling the eyelids so as frequently to shut up the eyes, and to give the whole face a turgid, disagreeable, even monstrous aspect; it then extends over the hairy scalp, and if its progress be not arrested, it descends upon the neck and the trunk of the body.* I have seen it pass from the head downwards and terminate on the feet. The redness and tumefaction decrease on the parts previously affected as it proceeds onwards.† Vesications may rise, and gangrene has succeeded and the disease proved fatal, when the face was the part affected.‡ When the scalp and the ears are affected the sufferings of the patient are greatly increased, for he cannot lay his head on the pillow, or change his position without an increase of pain. Pus frequently forms as in other parts; the integuments thin, and give way, and gangrene may supervene. As the redness spreads, the fever often increases, and other organs become affected, as for example, the throat and the larynx, the membrane of which becomes

* For cases of this kind see the Edin. Med. and Surg. Transactions, vol. ii., and the Edinburgh Med. and Surg. Journal, vol. xvii. p. 588.

† Mr. Arnott accords with Dr. Watson in thinking that the term Erysipelas should be restricted to the affection of the face; and that it differs from what he terms erysipelatous inflammation of other parts of the skin (*Lond. Med. and Phys. Journ.* vol. lvii. p. 210.); but the extension of the inflammation over the rest of the body refutes this opinion.

‡ A severe case of this kind is recorded by Dr. Lalor. *Dublin Hosp. Gazette*, June, 1845, p. 132.

more or less inflamed, and there is usually sore throat, although it is often overlooked. I have seen cases in which the disease commenced with every symptom of tonsillitis *, and spread from the throat to the face and scalp. When it spreads to the larynx the symptoms at first resemble those of croup. In these cases there is usually more languor and pains of the back, and more general fever, than in cases when the face is first affected. If the attack be severe and accompanied with delirium and coma, the patient may die apoplectic; but it may terminate favourably, in which case the fever ceases, the redness and swelling abate, and health and strength are gradually restored.

When the œdematous diathesis is present, and the patient has been previously in a debilitated condition, the tumefaction of the face is great, but the redness and heat are not so great, an appearance altogether depending on the cellular effusion causing distension; the surface is also smoother and more shining than in the absence of œdema; and the affected part readily pits. When vesications appear they generally rise on the third or fourth day; are smaller and more numerous than ordinary; and, soon breaking, they are succeeded by dark-coloured crusts, easily detached, and from under which lymph exudes. In the progress of this œdematous form of the disease (Erysipelas *œdematodes*), febrile paroxysms succeed one another, and are occasionally accompanied with the erysipelatous affection of the tonsils, already mentioned, which extending to the pharynx and sometimes to the larynx, affects the voice and respiration, and sometimes proves fatal. In some instances the affection of the tonsils precedes the redness and tumefaction of the face†; but this is not confined to the œdematous form of the disease.

In this condition of the habit, the subcutaneous cellular tissue is not only the seat of serous deposits, but abscesses and troublesome sinuses occasionally occur.

In some instances the *scrotum* is the part topically affected. The nature of this organ renders it more susceptible of gangrene, as a termination of the disease, than any other part of the body; but, in no part, is the sloughing and destruction of parts so soon repaired.

The *arms* and *limbs* are generally supposed to be the least dangerous seat of the erysipelatous inflammation. But the inflammation may extend to the subcutaneous cellular tissue, spreading even beneath the fasciæ, and forming abscesses: such cases have frequently occurred.

A peculiar form of the disease is occasionally seen in infants, a

* See Case of John H———, p. 108.

† That Erysipelas should affect the mucous membrane is not at all remarkable, when we consider the close analogy that exists between that membrane and the skin.

few days after birth; indeed infants have been born with it; and the disease has appeared as an epidemic, in lying-in hospitals.* It commences at the umbilicus, or the genitals, and extends in every direction. The redness of the skin is dark, but the swelling is moderate, and the parts slightly hard. Numerous livid vesications rise, and terminate in sphacelus; indeed the gangrene occasionally destroys the genitals, or causes the loss of some of the fingers or toes. It may terminate favourably; but it proves more frequently fatal.

Erysipelas sometimes leaves one part and attacks another; and thus travels over the whole body (Erysipelas *erraticum*, auctorum †); but this cannot be regarded as sufficient to constitute a variety, much less a specific difference. It is not uncommon, whatever form the disease may assume. Metastasis is not so frequent as is generally supposed: but, whilst the external eruption remains, the inflammation may extend to the brain, and cause delirium and coma. When, along with these symptoms, effusion takes place within the head, the result is fatal. Dr. Watson mentions another cause of death from Erysipelas, which is often overlooked. The sub-mucous tissue of the glottis and epiglottis is filled with serum, the chink of the larynx is nearly or completely closed, and the patient dies of *apnœa*.‡

*Diagnosis.*— The only cutaneous eruption with which Erysipelas might be confounded is erythema: but the diffused uniform surface of the swelling, instead of rising in the middle, as in erythema, the redness being uniform, and not in patches, with a definite margin; the tendency also to vesication, or true desquamation; besides the pungent, burning pain, and the accompanying fever, are sufficient guides to distinguish Erysipelas from erythema.

Erysipelas is symptomatic of the preceding and accompanying fever; erythema may appear without any fever, and when fever is present it is secondary to the rash.

It is still more easily distinguished from rubeola by the rash, in that disease, consisting of crescent-shaped or irregular spots, commencing in the face, and spreading over the chest, trunk, and extremities, by the inflammation and watering of the eyes, and the

* See Underwood's Diseases of Children, 5th edit. vol. i. p. 31. Medical Commentaries, 1790, vol. ii. art. iv. v.

Umbilicalem regionem in infantibus infestat, ac inde per abdomen spargitur, cum pathematibus funesto ut plurimum eventu. — *Hoffm. de Morbis Infantum*, cap. 15.

† See *Pearson's Principles of Surgery*, § 303. *Frank*, lib. ii. § 281.

Ita à facie in genitalia sæpe ruit erysipelas, quod jam intellexerat Hippocrates, ab aurium posticâ parte ad articulas fluxisse vidi, ab his in oculos.—*Lorry de Morb. Cutan.* 4to, p. 195.

Rayer mentions an extraordinary case of the whole body being simultaneously affected and yet readily cured. The patient was a woman. "La malade, qui se sentait comme dévorée par des flammes, fut promptement guérie par l'usage des aperitifs et des bains tièdes frequemment répétés.—*Des Maladies de la Peau*, tom. i. p. 118.

Lectures, 2d edit. vol. ii. p. 769.

frequent sneezing which accompany the premonitory fever. If any other features were required to distinguish the two diseases, we find them in the uniform swelling; the diffused bright-red of the surface in Erysipelas; and by the sensation of roughness and inequality of the surface when the finger is passed over it; and the complete absence of a tendency to vesication in rubeola.

From scarlatina, Erysipelas is distinguished by the efflorescence of the former commencing in minute red points, coalescing into small patches, which gradually spread over the body; by the papillæ of the tongue being considerably elongated, and projecting their deep scarlet points through the white fur on the tongue; whilst the presence of the diffused swelling, and circumscribed redness in Erysipelas, and the distinct character of the fever in the two diseases, afford the means of forming a correct diagnosis.

Another eruption likely to be confounded with Erysipelas is roseola, — but the latter is readily known by its appearance in irregular small patches, its rosy hue, the absence of swelling, and fever; and its decline on the third day, and disappearance on the fifth day. It is scarcely necessary to mention the distinction between Erysipelas and phlegmon; the firm circumscribed swelling, the uniform deep red colour, the throbbing, and the limited suppuration are sufficient to distinguish phlegmon.

In the early stage of the disease, when the throat is the part first affected, it may be mistaken for tonsillitis until the eruption appears in the face. In such cases we shall find the swelling of the tonsils less, their colour a more rosy red, and more shining than in ordinary tonsillitis; and there is a constant desire to expectorate a viscid mucus, which is secreted in large quantity in the throat. The accompanying fever, also, is of a low typhoid type.

*Pathology.*—The inflammation is not confined to the most superficial layer of cutaneous capillaries, but involves the whole vascular structure of the skin; and, in numerous instances, it extends to the subcutaneous cellular texture. When pus is formed, it is not always confined to one spot, but appears in distinct abscesses, sometimes distant from one another. The fauces, as already stated, are frequently inflamed; and, in some cases, the inflammation has extended to the larynx, and proved fatal.

With regard to the state of the blood, analyses have been made by Simon, Andral, Gavarret, Bindskopf and Holler. The average of five analyses of the blood of five distinct patients by Andral and Gavarret, gave 255·7 of solid matter, 5·6 of fibrin, 99·1 of blood corpuscles, 76·5 of organic and 6·8 of inorganic solid residue of serum, and 805·9 of water. Bindskopf, in a case of Erysipelas of the head, obtained 7·71 of fibrin; and Holler, in a case of the disease affecting the face, found in 1000 parts of the blood 762·44 of water, 237·56 of solid matter, 5·45 of fibrin, 141·71 of blood

corpuscles, 90·40 solid residue of serum. The serum contained no biliphœin. These proportions may be expected to vary according to the temperament, age, and many other circumstances connected with the affected persons.

The urine is frequently loaded with bile pigment; it is of a deep reddish brown colour; but occasionally, when much fever is present, of a deep orange-red, and of specific gravity, 1021·0. In two analyses made by Becquerel, one on the fourth, the other on the sixth day of the disease, the following were the results:

| | Anal. 1. | Anal. 2. | Health. |
|---|---|---|---|
| Quantity of Urine passed in 24 hours, in ounces - - - | 27·0 | 30·8 | 45·0 |
| Water - - - - - | 965·5 | 961·9 | 972·0 |
| Solid Matter - - - - | 34·5 | 38·1 | 28·0 |
| Urea - - - - - | 12·5 | 12·7 | 12·1 |
| Uric Acid - - - - | 1·2 | 1·3 | 0·4 |
| Fixed Salts - - - - | - - | 8·2 | 6·9 |
| Extractive Matter - - - | - - | 15·9 | 8·6 |
| Specific Gravity - - - | 1021·0 | 1023·1 | 1017·0 |

In the analysis of the urine of a woman, 45 years of age, labouring under Erysipelas of the face, with a full pulse, 104, and the urine scanty, of a dark brown colour, sp. gr. 1023, strongly acid, and depositing a yellow sediment, the results were: — 961·7 of water, 38·3 solid constituents, 11·7 of urea, 1·3 uric acid, 9·2 fixed salts, and 15·7 of extractive matter. A lateritious sediment and a little albumen are occasionally observed.*

*Causes.* — The peculiar predisposition of habit, which, on the application of certain exciting causes, developes Erysipelas is unknown; even the exciting causes are not, in every instance, obvious. The disease may occur in persons of the most opposite habits and form of body; in the weak and broken-down constitution; in those of a choleric sanguine temperament; in the habitually cheerful and energetic; and in the melancholic and those under the temporary influence of the depressing passions. The disease is frequently epidemic; at which times operations, wounds from other causes, and abrasions of the skin, cannot occur without being followed by Erysipelas. That the inflammation of the skin is the effect of fever, essentially gastric, modified by the existing predisposition, whether symptomatic of external injuries, wounds, punctures, and even a leech bite; the inoculation of certain poisons, either of a vegetable or an animal origin, and other irritants supposed to influence directly the skin;

* *Animal Chemistry*, by D. J. Franz. Simons, Day's Trans., vol. ii. p. 278, 279.

or idiopathic *, developed by internal or constitutional causes acting more generally upon the system, or other causes, such as cold and damp air †; crude and indigestible food; some kinds of shell-fish, as mussels and periwinkles; putrid meat; intemperance; or some of the violent passions, such as anger; or the depressing, such as grief, cannot be doubted.

Dropsy, also, seems a predisposing cause; indeed, Erysipelas is a frequent accompaniment of œdema. Some practitioners have referred the inflammation to acid in the blood arising from acidifiable diet; and infer that the acid, detected in the serum of the vesications, is derived from this source. Without admitting the truth of this opinion, there is every reason for believing that the blood has undergone some change, which renders it capable of producing inflammatory action in the capillaries of one part or other of the skin; an opinion that is to a certain degree verified by the frequent propagation of the disease by contagion and infection. Rayer ‡, among many continental physicians, has combated the opinion of its contagious or infectious nature; and contends that, in those cases which have been regarded as resulting from communication with others labouring under the disease, it can be more rationally referred to the persons being exposed to the same influences. But the facts in support of its infectious nature are too numerous to admit of any reasonable doubt upon this point: and instances of Erysipelas spreading in the wards of hospitals after the introduction of a solitary case into them, are almost of daily observation. In every hospital in London, whenever it occurs in any ward, it rarely happens that other patients, debilitated by previous disease, escape its attack. Phthisical patients, however, seem less susceptible to the infection than those labouring under other diseases. It has, however, rarely been observed to spread in private houses, although Dr. Wells § has collected several examples which seem strongly to support the opinion of its general tendency to extend itself by the intercommunication of the healthy with the diseased. ‖ Whatever the nature of the infectious virus may be, it most probably, as in small-pox, propagates itself after it enters the blood. From five to seven days frequently inter-

* I employ the terms *Idiopathic* and *Symptomatic*, as they are commonly used in this country, the former implying a disease arising from internal causes, or previous derangement in an internal organ; the latter implying a disease set up in a part by external causes acting directly on it.

† Virum novi militarem qui nunquam aëris uvidi humiditati exponitur per horam unam aut alteram, quin illico corripietur erysipelate.—*Lorry, de Morb. Cutan.* 4to. p. 196.

‡ *Maladies de la Peau*, vol. i. p. 109. Andral equally doubts its infectious nature. *Cours de Pathologie interne*, p. 460.

§ *Trans. of Soc. for the Improvement of Med. and Chirurg. Knowledge*, vol. ii. art. xvii.

‖ Proofs, also, of its contagious nature are recorded by Dr. Stevenson, in the Trans. of the Med. Chirg. Society of Edin. vol. ii. It may prove contagious even when it has apparently originated from external injury.

vene, after the infection has been communicated, before the disease shows itself; but it has, occasionally, appeared on the second day. It attacks women more commonly than men, which gives some colour of truth to the opinion, that the predisposition is one of augmented irritability; and this hypothesis receives, also, some support from the disease appearing more frequently in spring and autumn than in the other two seasons of the year.

Erysipelas has been ascribed to violent mental emotions, either exciting or depressing. Its occurrence is, also, favoured by intemperance, insufficient food, foul air, and, in a few words, by whatever tends to debilitate the body.

The distance to which the influence of the infection extends has not been determined. I have seen a patient confined to his bed, in a ward of University Hospital, at a distance of thirty feet from the person first displaying the disease, take the infection. The disease has been communicated by inoculation, and also by fomites. It is probable that the virus is taken into the system by the lungs and the skin.

*Prognosis.* — There is always more or less danger attending Erysipelas; the degree of which will depend upon the nature of the accompanying fever, the age of the patient, and the region of the body which is attacked. Some danger is always to be anticipated, when œdema is present, at least sufficient to require us to give a cautious prognosis. But when the constitution is not otherwise impaired, when the fever is moderate, and the local affection not severe, the prognosis is favourable. There is always, however, danger when the patient is either very young, or of advanced age. When the head is affected there is more danger than when any other part is the seat of the cutaneous inflammation; and this is greatly increased when delirium or coma is present; and especially when these symptoms appear early in the disease. There is, also, danger when subcutaneous abscesses form: and when vomiting, or vomiting and purging supervene. Much has been said of the danger of erysipelatous metastasis: but I have never seen a case where the translation of the inflammation to an internal organ could be satisfactorily traced. Bleeding from the nose has been regarded salutary.* It is important to preserve in recollection the fact, that persons who have once suffered from Erysipelas are liable to a return of it.

*Treatment.*—It is scarcely requisite to remark that the method of treatment must, necessarily, vary according to the type of the accompanying fever, the age, previous state of health, the habits of the patient, and whether the Erysipelas is complicated with other diseases.

* Sanguis etiam ultro erumpens ex naribus salutaris fuit. — *Heberden, Commentarii*, p. 148.

The indications to be fulfilled are, —

1. To subdue or moderate the febrile symptoms.

2. To allay irritability and, at the same time, maintain the powers of the habit.

3. To arrest the progress of the external inflammation as far as topical means are required.

1. In the commencement of the disease, when the attack is mild, gentle purgatives, saline diaphoretics and low diet, with repose, are sufficient to insure its termination by resolution; but when it is more severe, and the patient is young, of a robust habit of body, and the fever of the simple inflammatory type, with a hard frequent pulse and headache, I have found it requisite to abstract blood, either from the arm or by cupping, and then follow it by a full dose of calomel and a saline purgative, with gentle diaphoretic and refrigerant medicines. In pursuing this plan we must enjoin, at the same time, repose in bed, and a cool apartment. Emetics have been administered in such cases. I am not certain of their doing good; but if they prove useful, their beneficial influence must be due to the act of vomiting promoting the general equalisation of the blood, restoring the balance of the circulation, improving the portal circulation, and consequently diminishing abdominal congestion, which is a frequent occurrence in Erysipelas. The powder of ipecacuanha, in the dose of ʒss. for an adult, is the emetic which I have occasionally employed. It is scarcely requisite to remark that emetics are contraindicated should symptoms of gastric irritation exist. I have not generally found that nauseating diaphoretics are required to insure the beneficial influence of the emetic; it is important, especially in London and in populous towns, not to depress but to maintain the strength as far as that can be accomplished, consistent with the existing inflammation. To allay nervous excitability sedatives and narcotics are indicated. I have generally prescribed ♏xx—xxx. of the tincture of henbane and from ♏iij—v. of Fleming's tincture of aconite* in half a fluid ounce of Liquor Ammoniæ Acetatis and a fluid ounce of camphor mixture to be taken at bedtime. This mixture operates as an anodyne sedative, abating vascular excitement, and at the same time allaying pain and aiding the henbane in procuring sleep. I have also found beneficial effects from the administration of one-sixteenth or one-tenth of a grain of extract of belladonna as recommended by Mr. Liston. In the country, when the pulse is full and hard, and the heat of skin considerable, bloodletting may always advantageously precede this treatment; but it is seldom required in large towns, and perhaps least of all in London. Vogel judiciously cautions against the too free use of the lancet,

* See *An Inquiry into the Phys. and Med. Properties of Aconitum Napellus*, by A. Fleming, M.D. p. 80.

because the fever of erysipelas is seldom purely inflammatory.* Dr. Fordyce†, Dr. Wells‡, Willan§, Bateman‖, Carmichael Smith¶, Mr. Pearson**, and many others, concur in this opinion.

When general bloodletting, however, is essential, it should be followed by a grain of calomel and a grain of opium, which, as in other cases of inflammation, tend to maintain the beneficial influence of the loss of blood, and consequently to render its repetition unnecessary. Richter was of opinion that general bleeding might prove advantageous and be requisite in severe cases, especially those affecting the face; but he adds, "in no other inflammation must we exercise so much caution in its employment."†† Reil, Callisen, Desault, and many distinguished physicians of our own country, accord in this opinion. Dr. Willan says, "we generally find in London that repeated bloodletting aggravates the symptoms and protracts the disease;"‡‡ an opinion which my own experience has fully verified. If delirium be high, and the type of the fever admits of depletion, leeches may be applied, either behind the ears, or, if the face and scalp be affected, on the inflamed surface; for, as I have mentioned in another place §§, although the bites of leeches, in certain states of the habit, are followed by erysipelatous inflammation, yet this does not occur when they are applied on the inflamed part in Erysipelas. In such cases, also, the pediluvium, rendered more derivative by the addition of mustard, is beneficial; and when coma is considerable, the application of sinapisms or blisters to the legs is necessary. Under no circumstances is depletion to be carried beyond the point of merely allaying excitement; but although, generally, bloodletting is rarely demanded, yet we must never hesitate to apply leeches, or cupping glasses, when symptoms of gastric or other local inflammation are present.

When the head is the part affected, the patient should be placed in bed, nearly in the sitting posture.

The object of the second indication is —

2. To allay irritability, and, at the same time, to maintain the powers of the habit. I have found this most effectually fulfilled by a combination of decoction of cinchona bark, tincture of serpentaria, and salines, as in the following mixture: —

℞ Liquoris Ammoniæ Acetatis f℥ij.
Potassæ Nitratis ℥j.
Tincturæ Serpentariæ f℥iv.
Decocti Cinchonæ flavæ f℥iss.—M.
Sum. 4ta pars 4tâ. quâque horâ.

---

* Handbuch, vol. iii. p. 348.
† Trans. of a Soc. for the Improvement of Med. Knowledge, vol. i p. 291–93.
‡ Ibid. p. 224. § On Cutaneous Diseases, p. 507. ‖ Synopsis, p. 239.
¶ Med. Communications, vol. ii. p. 190. ** Prin. of Surgery, p. 187.
†† Die specielle Therapie, von D. A. G. Richter, 11 Band, Berlin, 1813, p. 225.
‡‡ Willan on Cutaneous Diseases. Lond. 1808.
§§ Bateman's Synopsis, 7th edit. p. 196.

At the same time may be given a moderate allowance of wine, either diluted with water or in the form of negus, and a mild but sufficiently nutritious diet. Dr. Fordyce, Dr. Wells, and many other eminent physicians, put their trust in the bark. I am not, however, of opinion that it should be given in the large doses, namely, from 12 to 25 grains of the powder in the twenty-four hours, as recommended by Dr. Jackson, an American physician.

This treatment is especially essential when the disease occurs in people advanced in age, or attacks debilitated subjects. Mr. Lawrence, in a valuable paper in the "Medico-Chirurgical Transactions" (vol. xiv.), condemns the employment of cinchona and other tonics until the pulse is quiet and the tongue clean. I firmly believe I should have lost many cases had I waited for these signs before ordering the cinchona. Dr. Peart and Mr. Wilkinson trust almost entirely to sesqui-carbonate of ammonia, and wine, from the commencement of the disease*: and Dr. Watson also bears testimony to the utility of the ammonia. Dr. Robert Williams condemned bark, and trusted entirely to wine.†

Should sloughing and gangrene occur, the disulphate of quina or cinchonia, in decoction of cinchona, or cascarilla, with diluted sulphuric acid, in full doses, and tincture of opium, are essential; whilst wine, in quantity adapted to the treatment of gangrene, and a generous diet, are necessarily demanded.

3. With respect to external or local treatment, it has been most varied: poultices, fomentations, cold lotions, dry powders, blisters, leeches, deep scarifications, and punctures by the lancet, have been each employed, and occasionally each has proved useful. I have found nothing so beneficial as painting the whole of the affected part with a solution of a drachm of nitrate of silver in a fluid ounce of distilled water, acidulated with eight or ten drops of diluted nitric acid. It rapidly abates the superficial inflammation, and, stimulating the deeper capillaries, enables them to carry forward the blood in them: thus destroying congestion, and subduing the tumefaction; whilst, at the same time, it excludes the action of the air. I have successfully pursued this plan for many years; and I am much gratified to find that Mr. Higginbottom uses, now, a weaker solution of the nitrate than he formerly employed, and has given up the use of the cylinder. The introduction of this mode of subduing the external inflammation of Erysipelas is justly due to Mr. Higginbottom. It is unnecessary to produce a blister: hence the solution is not required to be stronger than that above mentioned, unless when it is to be applied to the shaven scalp; in which case the proportion of the nitrate to an ounce of distilled

* Peart's Practical Obs. on Erysipelas, &c.; Wilkinson on Cutaneous Diseases.
† On Morbid Poisons, vol. i. p. 284.

water should be a drachm and a half, and from twelve to fifteen minims of the diluted acid. Whatever may be the part affected, the skin should be washed with warm water and soap, and wiped dry before applying the solution of the nitrate. This is necessary to prevent the too-rapid decomposition of the nitrate by the exudation of the skin. Besides stimulating the capillaries, the chemical action of the nitrate on the epidermis forms a coating which guards the inflamed vessels from the action of the air; and which, in four or five days, peels off, and leaves the skin in a healthy condition. In applying the solution, it should be extended about half an inch beyond the limits of the inflamed patch; and, if the inflammation continue to spread after the first application, it should be followed in its progress by subsequent applications. I have never seen the progress of the inflammation checked by encircling the inflamed part with a line made by the moistened cylinder of the nitrate. It seldom acts as a decisive barrier.

The application of dry mealy powders, recommended by Cullen* and the older physicians, was almost completely set aside; but it has lately been revived by Dr. Favrot, and other continenental physicians.† I have no experience of the application of sulphate of iron, in the proportion of one part to twenty of water, as recommended by Valpeau‡; nor of the actual cautery, as recommended by Baron Larrey.§

Scarifying the inflamed skin with the shoulder of a lancet has proved beneficial. The incisions should be free, two inches at least in length, and carried completely through the cutis vera; and a poultice, or moderately warm fomentations, applied over the incisions: the congested vessels are thus rapidly emptied and relieved. This practice is especially necessary when the inflammation threatens the formation of pus in the subcutaneous tissue. The practice of incisions was introduced by the late Mr. Copland Hutchinson‖, and was followed by Mr. Lawrence, Mr. Guthrie, Mr. Young, and others. In ordinary cases, however, puncturing the inflamed surface with the point of a lancet, as practised by the late Sir William Dobson‖, has been found useful in lessening the tension and reducing the swelling.

Fomentations, and slightly stimulant lotions, such as the *Liquor Plumbi Diacetatis dilutus*, or the *Liquor Ammoniæ Acetatis*, diluted with two parts of water, or compresses dipped in camphorated spirit of wine, have been found useful; but in no case have I seen them operate in so beneficial a manner as the solution of the nitrate of silver. When vesicles arise on the inflamed surface, they

* First Lines of the Prac. of Med. vol. ii. p. 267.
† Revue Medico-Chirurgicale.
‡ Surgical Observation, 8vo. 1816.
§ Revue Médicale, Fev. 1826.
‖ Medico-Chir. Trans. xiv. p. 207.

should be opened, the fluid gently pressed out, and the spot immediately pencilled over with the solution of the nitrate.

Rayer, and other continental practitioners, advise fomentations of marsh-mallow roots; or of the leaves of mallow; or gum, as soon as the inflammation appears; but, if fomentations are indicated, simple warm water or decoction of poppy-heads are sufficient for lessening the sensation of tension in the inflamed part, and they are only serviceable for that purpose. I have never observed any advantage follow the application of mercurial ointment.

When gangrene supervenes, the same topical applications are required as in gangrene from other causes; such as port-wine poultices, yeast poultices, and pledgets dipped in a solution of chloride of soda (*Liquor Sodæ Chlorinatæ* P. L.).

The diet in Erysipelas should be that required in other febrile affections, namely, farinaceous matters; unless the fever assume a typhoid character, and cordials are indicated. Milk is, perhaps, the best diet in Erysipelas; and it does not preclude the use of wine, when that is required. The quantity of wine must be regulated by circumstances in each individual case; but from four to six ounces may be regarded as the average.

For some time after the removal of the disease, the strictest adherence to a light, cooling, farinaceous, and vegetable diet is necessary; avoiding all rich and fat meats, fish, aromatics, and strong wines, as no disease is so likely to return as Erysipelas. The best beverage is weak wine and water. Sedentary habits, much study, and every cause of mental irritation, should be avoided, whilst daily exercise in the open air, within the limits of fatigue, is of primary importance.

I have not unfrequently observed, in the decline of cases of Erysipelas, the most unexpected relapses occur, on the least deviation from the mildest diet; and cases, that have been pronounced to be convalescent, have suffered relapse and assumed the most alarming aspect.

### Case 9.

*Erysipelas of the Face, treated by Venæsection at first, and afterwards by Cinchona and Wine.*

Frederick A——, æt. 20, a native of London, living in a close, but not damp, house; a green-grocer; of a sanguine temperament, and cheerful disposition: had, prior to the present attack, always enjoyed good health.

The disease commenced with a sensation of debility and fever; but he had experienced no rigor. On the second day afterwards,

the face swelled, was red, and intensely hot. He had no medical advice, but remained in bed until he was admitted into University College Hospital (18th June, 1847). The erysipelatous inflammation extended from the eyebrows to the chin, and to the ears. The face was much swollen; the eyes were shut up by the œdematous eyelids; and numerous vesications covered the reddened surface. The tongue was furred; the pulse 81, full and resisting; the tonsils were inflamed; and the skin was hot, but moist. The bowels were confined. (*V.S. ad* ℥xij. ℞ *Calomelanos, opii,* āā gr. j. *Ft. pilula post venæsectionem sumenda.* ℞ *Liq. Ammoniæ Acet.* ʒiv. *Potassæ Nitratis* gr. xv. *Decocti Cinchonæ flavæ* f℥jss. *Haust. 4tâ q. q. horâ sumendus.* ℞ *Argenti Nit.* ʒj. *Acidi Nit. del.* ♏viij. *Aq.dest.* f℥j. *Solve. Paux. ope pencilli parti affectæ applicandum.*) 21*st.* The redness and tumefaction had extended, and implicated both ears: the tongue was dry and furred; the pulse 92, full and resisting. (*Pergat in usu Misturæ, addendo Vini Antimonii Pot. Tart.* f ʒj.) 23*d.* He was delirious; the redness extended over the scalp, which was œdematous. Pulse 82, weak and small. Urine cloudy, acid, sp. gr. 1015. (*Pergat in usu Mist. Follow the extension of the redness with the solution of Nitrate of Silver.*) 24*th.* As yesterday. (*Pergat in usu Misturæ, addendo Tinct. Serpentariæ,* f ʒiv. *Beef tea, Sherry,* f℥iv.) 25*th.* Much better, the extension of the rash is checked. (*Beef tea, Sherry,* f℥vj. *Pergat in usu Misturæ.*) 28*th.* Improving; skin moist; pulse 80, full, soft; tongue clean; bowels open. (*Pergat in usu Mist. Sherry* f℥iv.) *Sept.* 2. Convalescent: omit the wine. 6*th.* Discharged cured.

## Case 10.

*Erysipelas of the Head, treated with Nitrate of Silver and Salines.*

Thomas P——, æt. 34; a labourer, with a wife and three children. He had lived in London 24 years, in an open, dry situation. His temperament was sanguine; disposition cheerful; habits of life temperate and regular. He did not remember that he had ever suffered from illness before the present attack.

He was seized on the 13th of September, 1847, with a sensation of stiffness and soreness behind the right ear, as if he had received a blow there: this feeling spread over the head and part of the face. He nevertheless continued his work for four days; but on the fourth day the face and scalp became hot, red, and swelled. He was then admitted into University College Hospital.

He said that he had had no rigors; there was not much fever; the pulse was 84, and compressible; the tongue dry, red, and furred

in the centre; the bowels were open; the urine rather high-coloured, sp. gr. 1026. The redness and swelling covered the whole of the hairy scalp, and part of the face. His countenance was anxious, but his intellect was clear, and neither delirium nor convulsions were present. He ascribed the attack to exposure to rain, and remaining in damp clothes. (*His head was shaved; his bowels opened with Calomel and a Senna draught; and the affected parts pencilled with the solution of Nitrate of Silver.*) 19*th.* The inflammation was checked where the solution was applied; but it was extending over the face: slight pressure on the scalp, and behind the neck, caused pain. (℞ *Liq. Ammoniæ Acet.* f℥ij. *Potassæ Nit.* ʒj. *T. Serpentariæ* fʒiv. *Mist. Camph.* f℥iijss. *Sum. 4ta pars 6tâ q. q. horâ.*) 24*th.* Much better: the eruption has not extended. (*Pergat in usu Mist.*) 28*th.* Discharged cured.

## Case 11.

### *Erysipelas of the Head, terminating fatally.*

Elizabeth W——, æt. 37, a woman of an indolent, plethoric habit, was admitted into University College Hospital, 2d October, 1838. Six days before her admission, she suffered from fever, for which she was purged, and took saline medicines. She had, also, sore throat, and much difficulty of opening the jaws. The practitioner who had attended her ordered fomentations and mustard cataplasms. Two days afterwards the head and face swelled, and displayed Erysipelas; and the patient's strength suddenly sank. Fomentations were assiduously applied, and purgatives and salines taken, for several days before she entered the hospital. Her head was then much swelled; the redness and tumefaction extended over the whole of the face, and hairy scalp; with some vesication. The pulse was quick, and intermitting; she could not open her mouth to show her tongue; and she swallowed with great difficulty. (*Haust. purg.* ℞ *Decocti Cinchon. flavæ* f℥viij. *Tinct. Serpentariæ* fʒiv. *Acidi Sulph. del.* fʒij. *Sum. cochl.* iij. *majora 6tâ q. q. horâ. Let the inflamed part be painted with a solution of Nitrate of Silver,* ʒss. to f℥j. *of Water.*) *Oct.* 3. The inflammation and swelling had abated; but the difficulty of swallowing was increased. 4*th.* She died this morning.

On examining the body twelve hours after death, there was slight congestion of the meninges of the brain, and a small effusion of serum into the ventricles. The cellular tissue of the neck was infiltrated with serum and pus; the tongue was denuded of its epithelium near the root; the cordi vocales were swollen,

and infiltrated with pus; the epiglottis was swollen; and the mucous lining of the larynx and trachea much inflamed and swollen. All the other organs of the body were in a normal condition.

The death in this case was, evidently, the consequence of great debility; and the apnœa, from the infiltration of the subcutaneous tissue of the glottis and larynx.

## Case 12.

*Extensive Erysipelas of the Thigh, Leg, and Mamma, terminating fatally.*

Harriet L——, æt. 28, a widow, and laundress, of a slender form, and sanguine temperament. Three years prior to her admission into the hospital, (Nov. 26th, 1838,) she had typhus fever, which had so debilitated her that she had never recovered her strength. A week before her admission, she got wet feet, which checked the catamenial discharge then present; and two days afterwards she was seized with fever, accompanied with an erysipelatous rash, which extended from a corn on the left foot to the middle of the thigh, which was œdematous. These parts, generally, were red, swollen, and hot; her countenance was anxious; the pulse quick, hard, and incompressible; the tongue white in the centre, red at the apex and the margins, and covered with a brown fur near the root; the bowels were relaxed; the urine scanty. (*Scarifications, fomentations.* ℞ *Hydrarg. c. Creta.* gr. ij. 6*tâ q. q. horâ.* *Liq. Ammon. Ac.* f℥iv. *Potassæ Nit.* gr. xv. *Mist. Camph.* f℥j. *M. inter sing. pil. doses sumendus. The affected parts to be pencilled with Nit. of Silver solution.*) 27*th.* As yesterday (*V. S. ad* ℥xij. *Pergat in usu med.*) 30*th.* The inflammation less on the part first affected, but extending upwards. (*Ap. Sol. Argenti Nit.* ℞ *Infusi Cuspariæ* f℥jss. *Tinct. Camph. C.* f℥ss. *Acidi Hydrochl. dil.* ♏xvj. *Haust.* 4*tâ q. q. horâ sumend. Sherry* ℥ij.) *Dec.* 3*rd.* Strength improved, inflammation and swelling subdued, pulse soft, regular, 84; tongue moist, bowels torpid (*Castor Oil. Omit Mist.* ℞ *Decoct. Cinchonæ flavæ* f℥jss. *Quinæ disulphatis* gr. ij. *Acidi Hydrochl. dil.* ♏viij. *M.* 4*tâ q. q. horâ sumendus.*) 6*th.* The inflammation nearly gone. She complains of pain of the head, and heat: is almost in a state of coma. No rash seen on the head. The erysipelatous inflammation has just appeared on the right leg. (*Appl. Emp. Canthar. nuchâ. Perg. in usu pil. et misturæ.*) 14*th.* Has been improving; but she complains to-day of great tenderness over different parts of the body. (*Haust. purg. statim.* ℞ *Inf. Valerianæ* f℥jss. *T. Cinch. C.* f℥j.

*M. 5tâ q. q. horâ.*) 16*th.* A considerable abscess and two small abscesses have formed on the left hip: the latter have sloughed. (*Perg. in usu med. et vini.* ℞ *Hyd. Biniodidi* gr. x. *Ung. Cetacei* ℥j. *Ung. maneque nocte utend.*) 19*th.* The abscesses discharge freely. The erysipelatous inflammation has attacked the right mamma, without leaving the leg. (*Sol. Arg. Nit. Mammæ app. Pergat in usu Med.*) 26*th.* Has been apparently improving; sleeps well; the tongue is clean, and the bowels are regular; but she is much weaker. (*Perg. in usu Med. Wine* f℥iv.) *Jan.* 2*nd.* Ulcers on the nates sloughing extensively, and very painful. All the erysipelatous inflammation has disappeared; but the pulse, which is 81, is very weak; and the strength much sunk. (*Perg. in usu Med. addendo Misturæ Tinct. Capsici* f℥ss. *sing. dosibus.*) 19*th.* The sores seem more healthy; but the appetite has failed; and the strength is more sunk. (*Omit. Mistura.* ℞ *Ext. Cinch.* ℈j. *Infusi Cascarillæ* f℥vij. *T. Cinch. Comp.* f℥j. *Acidi Sulph. dil.* f℥jss. *cochl.* iij. *majora* 3*tiis horis. Vini* f℥xij. *vel. Spir. Vini Gallici Mist.* f℥iij.) 20*th.* A water-bed was ordered; but she did not feel much comfort from it. Ulcers slightly improved; the skin is moist and warm; the pulse 104, compressible. (*Perg. in usu Med. et Vini.* 21*st.* The breathing has become oppressed; and deglutition difficult; the pulse is scarcely perceptible; the extremities are cold. (*Omit. Med. Perg. in usu Vini* f℥xviij.) 23*rd.* She died this morning. No post-mortem examination was permitted.

## Case 13.

*Erysipelas of the Head, treated internally with Cinchona; externally with Nitrate of Silver.*

Deborah C——, aged 35, was admitted into University College Hospital 7th March, 1844. She is a delicate woman, tall, of a lymphatic temperament and pale complexion. She is a monthly nurse; but her employment has been frequently interrupted by illness.

Two days before her admission, she became sick and faint, and suffered rigors. Her bowels had not acted for three days. On her admission, the head and face were swelled, from erysipelatous inflammation: the tongue was dry and furred; the pulse quick but feeble, and the skin hot.

After opening the bowels freely with a five grain calomel pill and a black draught, the whole scalp and face was pencilled over with a solution of gr. xxx. of nitrate of silver in f℥iv. of distilled

water acidulated with ♏v. of diluted nitric acid. The following mixture was also ordered: —

℞ Liquoris Ammoniæ Acet. f℥ij.
Tincturæ Cinchonæ Comp. f℥iv.
Decocti Cinchonæ flavæ, f℥iv.
Sum. 4ta pars 4tâ quâque horâ.

No other medicine was ordered. She was discharged, cured, on the 16th of March.

## Case 14.

*Erysipelas of the Face, with Ophthalmia apparently Erysipelatous, treated with Venæsection, Cupping, and Purgatives.*

Sarah P——, æt. 19, a servant. She is of a fair complexion, and stout frame of body. She has had several attacks of Erysipelas. On Sunday, 23d July, 1839, she caught cold, which caused inflammation of the left eye, the sight of which she lost four years ago. She applied fomentations to the eye, but the inflammation increased; and was followed by Erysipelas of the left side of the face. The inflammation and tumefaction now extend to the neck, and across to the right cheek. She has a slight teasing cough, but she is not feverish and she sleeps well. She was sick on the appearance of the eruption; but the sickness has abated. The pulse is only 68: — bowels open — tongue furred — eye much inflamed. (*V. S. ad* ℥xvj. ℞ *Calomel* gr. iv. *Opii* gr. j. *Pil. post Venæsectionem sumenda.*) 27*th.* The Erysipelas is nearly gone: eye still much inflamed. (*Mit. Sang. ope C. C. pone aurem* ℥xij. ℞ *Mag. Sulph.* ℥vj. *Acidi Sulph. dil.* ♏ xxxvj. *Vini Ipecac.* f℥j. *Aquæ* f℥vj. *4ta pars 4tâ q. q. horâ. Collyrium c. Plumbi acetate. Low diet.*) *Aug.* 2*d.* The eye is still much inflamed. (*Mit. Sang. ope C. C. pone aurem* ℥viij. *Haust. purg. Collyrium.*) 7*th.* The eye is still much inflamed. (℞ *Argenti Nitratis* gr. j. *Acidi Nit. dil.* ♏iv. *Aquæ* f℥vj. *Collyrium subinde utendum. App. Empl. Canth. pone aurem.*) From this time the improvement was progressive, and on the 27th she was discharged completely cured.

## Case 15.

*Erysipelas complicated with Necrosis.*

Jane B——, aged 24, a single woman, fair complexion, was admitted into University College Hospital 8th October, 1839.

She had not enjoyed uninterrupted health, and, three years previous to the present attack, she had Erysipelas of the face whilst she was a patient in St. Thomas's Hospital; and about a year ago she had another attack of the same kind, for which she became a patient of this hospital, under Dr. Elliotson, and was cured.

The present attack commenced six weeks ago. There is redness and considerable puffiness of the upper part of the face, above a line drawn across the middle of the nose; the forehead especially is puffy, red, and shining. The left eyelid is so much swelled as nearly to close the eye. In the throat are the remains of old ulcers cicatrised, and the uvula is adhering to the left side of the arch of the palate. The skin is hot and dry; the pulse 108 and slightly resisting; the tongue is red and the papillæ enlarged. The catamenia irregular. ℞ *Calomel* gr. iv. *Muc. q. s. Ft. pilula statim sumenda. Haust. purg. niger horâ post pilulam sumendus.* ℞ *Acidi Hydrocyan. dil.* ♏iv., *Decocti Cinchonæ* f℥ij. *Ft. Haust. 3tia q. q. horâ sumendus.* ℞ *Argenti Nitratis* ʒj. *Aquæ Destil.* f℥j. *Ft. Sol. ope penicilli parti tumidæ applicanda.* (*Milk diet.*) 12*th.* The redness and swelling of the face are much less; the skin is cooler than it was, and moist; the tongue is still very red. (*Pergat in usu Med. addendo T. Opii* ♏v. *sing. dosibus*). 14*th.* The face is much better in every respect: but the tongue is still red and dry. Pulse 72. Bowels slightly purged. She complains of thirst, and drinks much water. She passes six quarts of urine in the 24 hours: it is pale, acid, and free from any saccharine matter. (*Omittantur Medicamenta.* ℞ *Hydrargyri Biniodidi* gr. j. *Opii* gr. iv. *Micæ panis* gr. x. *Ft. pil.* iv. *Sum.* j. *h. s. quotidie.* ℞ *Zinci Iodidi* gr. ij. *Decocti Sarzæ* f℥ij. *Haust. bis quotidie*).

This change was made owing to a remark of the patient that some syphilitic taint might be lurking in the habit.

18*th.* The Erysipelas of the face is gone: the tongue is still red, but moist: pulse soft, 72: bowels confined. (*Pergat in usu Med. add. Misturæ Acidi Hydrocy. dil.* ♏iij. *sing. dosibus*). 21*st.* Was attacked with diarrhœa, yesterday. There is mercurial fœtor in the breath. (*Omittantur Med.* ℞ *Mist. Cretæ* f℥vj. *Sum. cochl.* ij. *majora post sing. dejectiones liquidas.* ℞ *Pulv. Ipecac. C.* gr. vj. *Pulv. 4ta q. q. sumendus.*) 25*th.* The purging stopped on the 22d, but a slight return of the Erysipelas took place yesterday. (*App. faciei Solutio Argenti Nitratis acidul. Pergat in usu pulverum*). 28*th.* The Erysipelas is increased on the forehead; and both eyelids are œdematous. Pus is discharged from the nostrils; and the discharge is increased when the forehead is pressed: it is very fœtid. The forehead is very tender towards the left side. The tongue is still red and dry. Her bowels required the assistance of opening medicine this morning. (*Omittantur pulveres.* ℞ *Calom.* gr. iij. *Antimonii Potassio-tart.* gr. iij. *Opii* gr. vj.

*Ft. pilulæ sex. Sum. una h. s. quotidie.* ℞ *Quinæ disulphatis* gr. xij. *Acidi Sulph. dil.* f℥j. *Decocti Cinchonæ* f℥vj. *M. Sum. 4ta pars ter quotidie.*) *November* 1. The puffiness of the forehead is much diminished; and also the discharge from the nostrils. Bowels confined. (*Omitt. Med.* ℞ *Decocti Sarzæ* f℥viij. *Quinæ disulphatis* ℈j. *Tincturæ Serpentariæ* f℥vj. *Sum. Cochl.* iij. *majora ter quotidie. Haust. purg. statim.*) To have beef tea and f℥ij. of wine diluted with f℥vj. of water. 4*th.* Openings have formed in the eyelids through which pus is discharged. The discharge from the nose is less. The puffiness of the forehead, and its tenderness are less. (*Pergat in usu Med.*) 8*th.* The discharge from the nose has ceased; but that from the eyelids continues. The pulse is small, sharp, and tremulous (*Pergat in usu Misturæ*); let her have an additional ounce of wine. 10*th.* She is much weaker, and has lost all appetite for food. The discharge from the eyelids is of a dark colour and fœtid. The urine is high-coloured, and she is purged. (*Omittantur Med.*) Increase the wine to f℥vj. She continued to sink till the 12th, when she died in the evening of that day.

*Autopsy* — 36 hours after death. An incision was made from the root of the nose to the occiput, and another crossing it, and extending to each ear. On dissecting and turning up the flaps thus formed, the muscles displayed two small ulcers which communicated with the frontal sinus. The os frontis, when exposed, was found to be carious, and the external openings communicated with the sinus. The caries had destroyed the nasal bones; and the septum and turbinated bones were implicated, as well as a large portion of the superior maxillary bone. The ethmoidal cells were filled with pus, which had burrowed down by the side of the nose, and along the alveolar process of the upper jaw. There was also pus between the tendon of the frontal muscle and the bone. The cranium was spongy and thicker than natural; near the carious portion the surface was rough. The dura mater was thickened, and very vascular, near the necrosed bone, and its external surface studded with portions of lymph not of recent origin. The brain was natural, except being rather more vascular than usual at the anterior portion, corresponding to the disease in the frontal bone.

## Case 16.

*Erysipelas complicated with Intermittent Fever.*

Edward F——, æt. 37, a painter, was admitted into University College Hospital, 19th February, 1842. He was a man of strong

conformation, and had always previously enjoyed good health. Without any cause, which he could assign, about a week ago his face swelled, and became red and hot; his leg, also, on which he had formerly a sore, swelled, and was red and painful. On entering the hospital the Erysipelas in the face extended to the forehead, but no vesications had risen; that on the leg had spread upwards from the ancle to the knee. The pulse was small, compressible, and 80; the tongue furred and dry in the centre; and the skin clammy. A four-grain calomel pill and a black draught were ordered to open the bowels; and the affected parts to be brushed over with a solution of nitrate of silver, ʒj. to f ʒj. of water, acidulated with ♏ vj. of dilute nitric acid. (℞ *Tincturæ Serpent.* f ʒiv. *Acidi Sulph. dil.* ♏ xxxij. *Decocti Cinchonæ* f ʒ vj. *M. Sum. 4ta pars 4tâ q. q. horâ.*) 22*d.* The Erysipelas has disappeared from the face, but is spreading upwards on the leg. He has had no evacuation for two days: pulse 64. (℞ *Calomelana* gr. iij. *Ft. pil. quam-primum sumenda. Haust. purg. horâ post pilulam. Pergat in usu Mist.*) 24*th.* The Erysipelas on the leg continues; but the tumefaction is less. He has had a rigor every morning for three days, followed by heat of skin, and copious sweating. (*Omit. Mistura.* ℞ *Liq. Potassæ Arsenitis* ♏v. *Liq. Potassæ* ♏xxx. *Infusi Quassiæ* f ʒjss. *Haust. ter quotidie sumendus.* ℞ *Pil. Hyd.* gr. j. *Ext. Colocynth. Ext. Hyosciami* ā ā gr. iij. *Ft. pil. h. s. quotidie sumenda.*) *March* 3*d.* He is greatly improved; the rigors have abated; the Erysipelas is confined solely to the leg. (*Pergat in usu Med.*) 15*th.* The intermittent attack has wholly disappeared, and the leg is nearly well. (*Pergat in usu Med.*) 18*th.* He was discharged cured.

In this case, the connection between the intermittent fever and the Erysipelas is not easily explained. The former was not present when he came into the hospital; but the cause of it may have been impressed on the system, although its action was checked by the supervention of the Erysipelas operating as a counter-irritant, and checking the congestion of the large vessels, which commences the catenation of symptoms that constitute ague.

### Case 17.

*Erysipelas commencing in the Tonsils.*

The patient, John H——, 39 years of age, was admitted into University College Hospital, 19th Nov. 1846. He was a stout man, of a dark complexion: single; of regular habits, and in circumstances adequate to afford him good clothing and a sufficiency of wholesome food. For many years he enjoyed excellent health; with the exception of an attack of acute rheumatism, which

occurred several years since, and from which he perfectly recovered.

The present disease commenced three weeks before he entered the hospital. After a slight rigor, he was attacked with pain in the back part of his throat, which increased in severity, and rendered deglutition painful; at the same time, such an accumulation of viscid mucus took place in the fauces, that he was forced to cough it up every four or five minutes. These symptoms were present on his admission into the hospital. His articulation, also, was difficult, and excited pain, but not in a similar manner to that caused when the tonsils are greatly swelled, as in common tonsillitis. The tonsils were not much enlarged, and they presented a bright rose-red colour, which extended to the uvula, and the back part of the pharynx; and the whole of the fauces was covered with a *clear*, glairy mucus. His pulse was only 86, small, and compressible; the skin dry, but its temperature not much elevated. The tongue was furred; rather dry in the centre, and red at the edges. The bowels were confined; the quantity of urine was small; it was high-coloured, of a sp. gr. 1035, and contained much urea.

He was ordered to be cupped on the nape of the neck, and a five-grain calomel pill to be taken immediately after the operation; and followed, an hour afterwards, by a purgative draught. The following mixture was also prescribed: —

℞ Liquoris Ammon. Ac. f ℥ij.
Potassæ Nitratis ℥j.
Misturæ Camphoræ f ℥iv.
Sumatur 4ta pars 4tâ quâque horâ.

He continued nearly in the same state on the following day; but, on the 21st, the difficulty and pain of deglutition and of articulation increased. The pulse was accelerated to 104; the skin was dry and somewhat pungent, and the urine scanty, and high-coloured. Two days afterwards, namely, on the 23d, Erysipelas appeared on the right side of the head, which was considerably swelled, and tender: it extended to the face, and upwards to the outer canthus of the eye. The pulse was 96 and feeble; the tongue harsh, coated, and brownish in the centre. The throat, however, was better, and both deglutition and articulation were improved. The patient complained greatly of debility; and there was low, muttering delirium during the night: indeed the fever had assumed the typhoid type. The inflamed surface was ordered to be pencilled over, beyond its limits, with the solution of nitrate of silver. He was also ordered to discontinue the mixture, and to take the following: —

℞ Liquoris Ammon. Ac. ℥ij.
Potassæ Nitratis ʒj.
Decoct. Cinch. flavæ f℥iv.
Sum. 4ta pars 4tâ q. q. horâ.

The erysipelatous eruption continued to spread until the 25th, when it covered nearly the whole of the face; whilst the fever, the restlessness, and prostration of strength also remained. The eruption had been pencilled as it spread: the parts first pencilled were greatly better; and the ear, which was much swelled, was reduced to its natural size.

He was ordered ℥iv. of wine to be diluted with water, and taken in the 24 hours.

26*th*. The symptoms remained unabated. The solution of the nitrate, the wine, and the mixture, with the addition of f ʒj. of tincture of serpentaria to each dose of the mixture, were ordered to be continued.

28*th*. The progress of the Erysipelas was evidently checked, and the swelling had subsided. The skin was soft and less dry; the tongue cleaning at the edges; and the pulse 84, regular, soft, and compressible. The bowels were lax. The medicines were continued.

*Dec.* 1. The Erysipelas had entirely disappeared; the pulse became soft, regular, and only 68; the tongue clean; the deglutition and articulation natural. He was now convalescent; and complained of nothing but weakness, and some degree of deafness in both ears, depending most probably on the extension of the erysipelatous eruption into the Eustachian tubes. He was ordered a tonic mixture of decoction of cinchona bark, with nitro-hydrochloric acid; and, in a few days, was discharged perfectly well.

---

## CHAPTER III.

### NON-FEBRILE CONTAGIOUS ERUPTIONS. — THEIR SYMPTOMS, CAUSES, AND TREATMENT.

The diseases in this chapter are decidedly contagious; but they are not so obviously preceded by, nor attended with fever, as to be regarded febrile eruptions, and the affections of the skin the result of the fever. Although the fever, if it exist, is scarcely perceptible, yet there is no direct proof of its non-existence: it is, indeed, almost impossible to conceive eruptions of the character

of one of those about to be described, without the presence of some degree of fever. They are no doubt the effects of specific poisons, and these entering the habit can scarcely produce such a derangement of functions, and such a change in the state of the animal fluids, without some obvious indications being perceptible in the vascular or the nervous system.

It is a curious fact that two of these diseases furnish a soil and nourishment for two parasites, the one a fungus, and the other a parasitic animalcule. These facts have led some to conclude that the diseases were the result of the animalculæ and the fungi; but there can be no doubt that either the eggs of the one, floating in the atmosphere, and the spores of the other, under the same circumstances, merely find in these eruptions their proper soil and nourishment, to be hatched and to vegetate. It cannot be denied, however, that both the fungus and the insect is capable of communicating the diseases, not in their proper persons, if we may use such an expression, but merely from a portion of the poison adhering to their bodies, and being thus conveyed from the infected to the healthy individual.

There are only two genera of diseases of this kind, namely, PORRIGO and SCABIES.

## PORRIGO*—*Scall Head.*

Porrigo is a contagious disease, characterised by an eruption of favous pustules, chiefly confined to the hairy scalp, and which terminate in yellowish or pale brown crusts of various forms. The duration of the disease is from a few weeks to many months. It may occur at any period of life. It is unaccompanied with fever. Dr. Willan described it under six specific forms, which Dr. Bateman, out of respect to his memory, continued in his synopsis; but he, nevertheless, justly regarded one of Willan's species more nearly allied to Impetigo than to Porrigo, and I have placed it under that disease. I am also satisfied that the Porrigo *decalvans*

* This name was adopted by Willan, and it has superseded the term Tinea, used by Sauvages, and still employed by Alibert, and some other continental writers, as well as by many of the older practitioners in this country. The term Porrigo was used by Celsus (De Medicina, lib. vi. cap. 3.), Pliny, and Vogel; and is supposed to be derived, either from the verb *Porrigo*, to spread; or from *Porrum*, a leek, on account, as some suppose, of the odour of the eruption resembling that of the leek, or according to others from the lamellated structure of the scabs. The term Tinea is of Arabic origin, and seems to be a corruption of the word Alvathim. Lorry thus accounts for it: — "Si eidem auctori (Avicenna) credamus, ab humore melancholico causam accipit, cutem corrumpit atque corrodit, hæccine est *alvathim*, à quo nomine barbari, ut videtur, thim et thineum et *tineam* fecerunt."—*De Morb. Cutaneis*, 4to, 1777, p. 463.

and the Porrigo *furfurans* of Willan and Bateman should be placed, the former under the head of Alopecia, and the latter under Eczema; the scurf which characterises the latter being the result of the rupture of minute vesicles, which ooze out a viscid fluid that concretes into thin scales. The remaining three species of Willan's arrangement are sufficiently different from each other to be regarded as distinct species. They are all contagious.*

1. Porrigo favosa.
2. Porrigo lupinosa.
3. Porrigo scutulata.

### 1. Porrigo favosa†—*Honeycomb Scall.*

The eruption in this form of Porrigo, consists of flat, straw-coloured, irregular pustules (favi), surrounded with a slight inflammatory blush. On the scalp they are generally at first small and distinct, although not distant, and preceded by itching; but, on other parts of the body, especially the face and the extremities, they appear usually in clusters, becoming confluent, and, when broken, discharge a viscid fluid, which concretes into greenish-yellow semi-transparent cellular crusts, with many depressions on the surface, presenting somewhat of a honeycomb aspect.‡ On their first appearance, especially on the scalp, the favi are minute, and resemble round white specks; they soon, however, spread and discharge their contents, whilst the crusts are gradually increased by the continued slow oozing of the viscid fluid; but they always preserve the same appearance, even when they attain to a considerable size. When the pustules rise on the hairy scalp, their most frequent site, they often spread to behind the ears, the temples, forehead, lips, and chin: but, independent of the affection of the scalp, there is no part of the body on which the eruption may not appear. It has occurred even on the palms of the hands. I have seen it also in infants occupying a large part of the body without affecting the hairy scalp. When the crusts on the head become dry, they break, and assume the appearance of a whitish sulphur-coloured powder dusted over the scalp: but frequently they adhere,

* Dr. Dick properly considers Porrigo *favosa* as contagious (see his Treatise, Glasgow, 1838), yet, he classes it with Impetigo; but my observations oblige me to differ from him in this respect.

† *Syn.* Κηρίον (*Græc.*); Favus (*Lat.*); Tinea *favosa* (*Haly Abbas, Astruc. Sauv.*); Tinea *volatica*, Ignis *volaticus*, Mentagra *infantum* (*Auct. Var.*); Scabies capitis *favosa* (*Plenck*); Ecpyesis Porrigo, et favosa (*Good*); Phlysis porrigo (*Young*); Gourme (*F.*); Kleien, Kleiengrind (*G.*); Hoafdchilfers (*Dutch*); Aspe (*Dan.*); Kliskorf (*Swed.*); Carpa (*Span.*); Ferefore (*Ital.*); Pódóghoo (*Tam.*); Goorig (*Dukan.*); Padooghoo Kūrāpānie (*Tel.*); Badkhora (*Pers.*); Honeycomb scall.

‡ The specific term *favosa* is derived from *favus*, a honeycomb.

and cannot be readily detached. Bateman says the eruption spreads occasionally from the extremities to the trunk and the head.* Sometimes the pustules are so numerous and thickly grouped as to form a broad, nearly confluent, patch, whilst the surrounding skin is red; occasionally they are pierced by hairs. The eruption is usually accompanied with much itching, wherever it appears. When the pustules are numerous on the scalp, the clusters run together, and the incrustations spread and sometimes cover not only the entire scalp, but the whole of the face. The hair and the crusts are matted together; pediculi are generated in great numbers below the crusts; and, when the crusts either spontaneously fall, or are removed by poultices, the parts beneath are found eroded, and the discharge exhales a rancid odour, which affects the eyes as well as the nostrils of those who examine the pustules.† The discharge is so acrid that it inflames the sound skin and communicates the disease to other parts; so that pustules rise, run their course and terminate in crusts, as in the parts originally affected. Bateman thus graphically describes this effect: "the breast is inoculated by the chin, and the hands and arms by contact with the face."‡ Although adults are less susceptible of the contagion than children, yet the arms and breasts of suckling mothers and nurses are sometimes infected by their nurselings.

When the scalp is affected, the acrid discharge is partly absorbed, and, inflaming the lymphatics, forms chains of hardened knots under the skin of the neck, whilst the sub-maxillary glands and those of the neck swell, harden, enlarge, inflame, and slowly suppurate, forming painful abscesses. Sometimes a discharge takes place from the interior of the ears; and in strumous habits the upper lip swells, the eyes inflame, and ulcers form on the edges of the eyelids. When the eruption spreads to the breast, the axillary glands become inflamed, and abscesses form in the axillæ.

The favous pustules are supposed to originate in the reticular web; but it is very probable that when the scalp is the seat of the disease, the hair follicles are their site. The bulbs of the hairs are also affected, as the hair and its bulb seem as if raised up and implanted into the substance of the favi. The hair becomes thin, and changed in colour; and when the disease is cured it does not regain its original hue.

The duration of Porrigo is variable. When neglected, the crusts remain for a long time; but, generally, they dry, crack, and partially fall off, while other pustules rise on the denuded spots, and form new crusts over them.

* Synopsis, 7th ed. p. 249.

† Rayer compares this odour to that of the urine of cats. *Traité des Mal. de la Peau*, 1836, tom. i. p. 499.

‡ Synopsis, p. 252.

Infants and young children, especially those of a cachectic habit, are most liable to this form of Porrigo, but it occasionally attacks adults. Alibert says that cooks are often the subjects of it.* The eruption, in children and young people, is seldom preceded by any obvious febrile symptoms, unless in infants during dentition. Indeed, generally in adults, except when the strumous diathesis obviously prevails, the general habit is scarcely deranged; but sometimes the eruption is preceded by headache, pain of the stomach, loss of appetite, and febrile symptoms: the pustules enlarge, become confluent, are harder at the base, and are surrounded by more inflammation than usual.

*Causes.* — Porrigo *favosa* is contagious, but a certain predisposition seems essential before the body can become affected; hence many persons resist the influence of the contagion when attending others with it, and even when they are accidentally inoculated by the virus getting into chaps and excoriations on their hands. What the predisposition is has not been satisfactorily determined, but it seems connected with a lax, lymphatic, strumous habit. It is developed by imperfect nourishment, by living in damp, confined, ill-ventilated habitations, and exposure to cold; hence it is most common amongst the children of the poor. It is, assuredly, most frequent in early youth.

*Diagnosis.* — When the eruption in Porrigo *favosa* is fully formed, there is little difficulty in recognising the disease: and, even in the early stage, it is well characterised by the small, flat favi, which distinguish it from all other eruptions of the scalp. It may be mistaken for lupus, when its crusts cover the nose, upper lip, and a portion of the cheeks: but when the crusts are removed, no eroding ulceration is displayed, nor is any scar left behind, characteristics which readily distinguish this form of Porrigo not only from lupus, but many other scabbing, ulcerative eruptions. The surface displays small, red, superficial excoriations, but no ulceration. It is most likely to be confounded with another species of the same genus, P. *lupinosa*; but the lupine-like form of the crusts of the latter distinguishes it from the species under consideration.

*Prognosis.*—Porrigo in none of its forms involves danger; and it is said that the disease has worn itself out, and been spontaneously cured, after having obstinately resisted all remedies. Alibert mentions the case of a girl of sixteen years of age, in whom the disease, having proved very obstinate, suddenly disappeared after an attack of erysipelas.†

*Treatment.*—The treatment of this form of Porrigo is chiefly topical; but, at the same time, the predisposition must be endeavoured to be counteracted by a course of mild alteratives; maintaining and improving the tone of the habit by such tonics as have been

* Mal. de la Peau, p. 88.

† Ibid. p. 93.

found useful in strumous affections. I have generally found the hydrargyrus c. creta, or the iodide of arsenic, in doses proportionate to the age of the patient, fulfil, satisfactorily, the first indication; while the second was answered by the solution of chloride of barium, given in the decoction of cinchona or sarsaparilla.* As the bowels are frequently in a torpid state, I have seen much advantage from combining the alterative with a purgative and chalybeate, such as the syrup of the iodide of iron; or the sulphate of iron, combined with a purgative, and given at bed-time daily, and a vegetable tonic administered during the day.†

When the eruption occurs in a child, accompanied with fever, and the family consists of several children, the patient should be confined to a separate apartment, as the disease is in such a case more than usually contagious, and may spread through the whole group. Bateman has recorded an instructive case of this kind, in which the pustules, preceded by severe fever, first appeared in clusters behind the ears, then on the scalp "and about the apertures of the nostrils, which they plugged up as the scabs were formed." Another child was affected in a similar manner, and then the mother and the nurse: the mother in the mouth, by kissing the child; the nurse in the palm of the hand.‡

When the disease has assumed a chronic character, I have administered the iodide of arsenic with much benefit. The best form is pill, in combination with extract of conium. For children under six years of age, the dose, at first, may be one twentieth of a grain; above six and under ten years, one sixteenth of a grain; between that age and twenty years, one tenth; and for adults one eighth of a grain. These doses may be gradually increased; but their effects must be watched, and if headache, dryness of the throat, tightness of the skin around the eyes, and pain of the stomach supervene, the iodide should be discontinued: but after an active purge, repeated twice or thrice in four or five days, the use of it may be resumed. The diet should be chiefly milk: milk puddings, and a moderate quantity of animal food once a day; and, if the patient be labouring under a decided strumous diathesis, I find cod-liver oil,

* I have usually ordered the medicine in the following form: —

℞ Barii Chloridi Liquoris ♏vj.
Decocti Cinchonæ flavæ f℥jss. —M.
Haustus bis quotidie sumendus.

† This form answers well for children under twelve years of age: —

℞ Pilulæ Hydrargyri gr. x.
Ferri Sulphatis ℈j.
Extracti Colocynthidis comp. ℈j.
——— Conii ℈ss.
Contunde simul, et dividitur moles in pilulas xx. æquales
Sumantur ij., horâ somni quotidie.

‡ Synopsis, 7th ed. p. 255-6.

in doses of one or two ounces, given twice a day, aid both the medicinal and dietetical measures. I have seen much benefit, in the chronic form of the disease, derived from opening an issue in one or both arms, a practice which M. Rayer has employed with success in recent cases.*

With regard to topical treatment, when the scalp is affected, the first object is to clear away the crusts; to effect which the hair should be cut short, and a linseed meal poultice applied over the whole of the incrusted portion. Having cleared away the crusts, the scalp should be washed every morning with a lotion, consisting of ʒj. of carbonate of soda dissolved in a pint of distilled or rose water, covering the head afterwards with an ointment made of one drachm of carbonate of potassa and one ounce of lard, spread thick upon lint, and an oil silk cap placed over it. This plan was proposed by Dr. Nillegan†, who farther recommends, after some time, to replace the alkaline ointment with one composed of half a drachm of iodide of lead and an ounce of lard, the quantity of the iodide to be gradually increased. I have found this ointment much more efficacious than ointments composed of the oxide of zinc, or the white precipitate, or the unguentum hydrargyri nitratis diluted with an equal quantity of cetaceous ointment, or the unguentum plumbi acetatis, recommended by Bateman. I have sometimes found an ointment composed of one drachm of calomel, half an ounce of unguentum picis liquidæ, and an ounce of lard, extremely serviceable‡; and, in long standing chronic cases, nothing has proved more useful than an ointment made with from ten grains to a scruple of iodide of sulphur, and an ounce of cetaceous ointment, first employed by M. Biett. It should be rubbed upon the affected parts every night and morning, till the pustules cease to be formed and the hair begins to grow. Dr. Hughes Bennett recommends the free application of cod-liver oil to the scalp, and an oil silk cap worn over it. The oil, as it accumulates, should be occasionally washed off with a warm solution of soft soap. I have had no experience of this application. Dr. Bateman justly condemns every stiff or rigid covering; and especially the popular application of the leaves of the cabbage, which he has seen productive of pain, inflammation, a copious purulent discharge, and an universal ulceration of the scalp.§ I have observed similar injurious effects to follow the employment of the pitch plaster, and the numerous depilatories so much resorted to by continental practitioners, and which are said to have proved so successful, in the hands of the brothers MM. Mahon, in the Parisian hospitals. Neither have I

* Traité Théorique et Pratique des Mal. de la Peau, 1826, tom. i. p. 504.

† Dub. Quar. Journ. of Med. Science, Aug. 1848, p. 57.

‡ This is the application used at St. Thomas's Hospital; and Dr. R. Williams informs us that he has never seen it fail. — *On Morbid Poisons*, vol. ii. p. 412.

§ Synopsis, 7th ed. p. 254.

seen any beneficial effects follow the employment of the strong mineral acids.

The above means are much aided by the use of the tepid bath; and, in chronic cases, by the sulphur bath, which, however, is too irritating to be employed in acute cases.

### 2. Porrigo lupinosa* — *Lupine-like Scall.*

This species of Porrigo appears, at first, with slightly increased vascularity, on some part of the scalp, on which small, yellow, favous spots, traversed by hairs, arise, either distinct or in clusters. These, in a few days, furnish a viscid, pus-like fluid, which oozes out and concretes into dry, *circular*, whitish-gray crusts, depressed in the centre and elevated at the margin, thus assuming the appearance of a lupine seed, whence the specific name of the disease. They enlarge slowly, retaining always the raised margin and depressed centre, till they sometimes attain the size of a shilling. They consist of a granular mass between layers of cuticle, firmly seated in the skin, sometimes very hard; and the saucer-like depression contains a whitish-yellow, granular powder. The crusts occupy commonly the greater part of the occiput and the sides of the head, where they are confluent; they are fewer and more distinct upon the sinciput, and still fewer upon the vertex, which is occasionally entirely free from them. The intervening skin is red, and, in old cases, thin exfoliations are thrown off; but they sometimes accumulate and cover the whole scalp like a cap. The eruption usually is confined to the hairy scalp; occasionally a few distinct crusts appear on other parts of the body, but they are rarely or never seen on the face. The structure of the crusts in Porrigo *lupinosa* was first ascertained by Remak to consist of fungoid filaments; an opinion which was afterwards confirmed by Schönlein of Zurich in 1830; also by Fuchs and Langenbeck of Göttingen, Dr. Gruby of Vienna, and Dr. Hughes Bennett. Dr. Gruby regards the crusts to be masses of parasitic plants, the nature and growth of which he describes. The lupine-like crust, he says, is situated upon a depression of the skin, and covered by a sheath of cuticle, "thickest on its concave, and thinnest on its convex, surface." Within this cuticular sheath is a thin, dense, sulphur-yellow layer, composed of minute molecules, and forming a capsule, "in contact by its external surface with the cuticle, and by its internal surface with a fungous growth." From the yellow capsule, the soil on which it grows,

* *Syn.* Scabies capitis lupina (*Plenck*); Tinea lupina, (*Astruc, Sauv.*); Ecpyesis Porrigo lupinosa (*Good*); Teigne faveuse (*Alibert, Rayer, Biett*); Porrigo favosa (*Cazenave, Schedel*); Porrigo lupinosa (*Willan, Bateman*); Porrigophyte (*Gruby*); Favus dispersus (*Wilson*); Rache sèche (*F.*). Lupine-like scall.

the parasite extends its stem and branches inwards and towards the centre of the capsule, constituting the whitish-grey, porous contents of the crusts. The divisions of the fungus, a mycodermis, are tubuli, divided by transverse septa, and filled with a granular substance. At the end of the branches, which are dichotomous, the seeds or spores are situated, dispersed somewhat into the form of a garland, and of a yellowish-white colour. Dr. Gruby estimates the diameter of the branches of the fungus to be $\frac{1}{1000}$ to $\frac{1}{200}$ of a millimetre; that of the molecules in the tubuli $\frac{1}{10000}$ to $\frac{1}{1000}$; that of the spores or seeds $\frac{1}{300}$ to $\frac{1}{100}$.* Dr. Hofle, examining the mycodermis under a power of 500 diameters, thus describes the fungus:—"It consists," says he, "1. Of roundish or oval corpuscles, 1-606‴ diameter, cohering in twos or threes in groups. Some exhibit a constriction forming two halves of nearly equal size; these are sporules. 2. Moniliform rows of corpuscles, which, according to Remak, are sporule bearers. 3. Small fibrils of various length, sometimes transparent, sometimes filled with dark granules, divided by partitions and branches. These are thallus fibrils and minute elementary granules." † I have examined the crusts under the microscope, and can confirm these descriptions; and I am now perfectly satisfied of their vegetable nature.

The eruption is accompanied with much itching; and, previous to the drying and hardening of the crusts, the scalp exhales a most offensive odour, which Alibert compares to the urine of a cat, or the odour of mice, and Rayer to that of rancid butter, or cheese beginning to putrefy; but although it is extremely disagreeable, I cannot admit the correctness of the comparison of either author. When the crusts are allowed to accumulate, pediculi generally invest their crevices, and an acrid discharge takes place; and, being absorbed, swells and hardens the cervical glands. In children of strumous habits, the disease is often complicated with thoracic and abdominal inflammation, and mesenteric affections. When the disease has been neglected, and is of old standing, the hair bulbs are destroyed, and permanent baldness of the affected parts results. In chronic cases, when the crusts separate, ulcers of various sizes are left occupying the entire thickness of the skin.

This form of Porrigo rarely attacks adults. Its duration is variable; I have seen it after it had continued for several years, but I never knew of any case in which it spontaneously disappeared.

*Causes.*—Porrigo *lupinosa* is contagious, and the contagion is most readily transmitted to individuals of a strumous habit, or those weakened by previous disease. Whether its element be tubercular‡,

* Muller's Archiv, 1842.

† Chemie und Mikroscop am Krankenbitle, &c., bearbeitet von Dr. Mark Hofle, Erlangen, 1848, p. 48.

‡ Erichsen regards it as a true tubercle. *Prac. Treatise on Diseases of the Scalp*, p. 121.

and inflammation thereby set up, various opinions as to its site have been advanced. Mahon and Dr. Dick suppose the achores to be the result of subacute inflammation of the sebaceous glands of the scalp* ; and although Bichat, Meckel, and some other anatomists deny the existence of these glands in the scalp, yet there is some reason for believing that they exist there, as the disease also appears in the same form on other parts of the body, where the presence of sebaceous glands has not been denied: this affords some confirmation of the above opinion. It is to the destruction of the sebaceous follicles, the piliparous cysts and bulbs, that Dr. Dick ascribes the permanent baldness attending this form of Porrigo. Schönlein, Gruby, and some others have ascribed the disease to the mycodermis †, but there is no proof of this opinion; and it is more probable that the crusts afford merely the proper soil and nutriment for that fungus, the spores of which, like those of many other parasitic plants, may be always floating in the atmosphere, and germinate only where they find their appropriate soil. That soil in the vegetable kingdom is most frequently the surface of diseased plants, and the same principle may hold good with regard to diseased animals affording the pabulum for vegetable parasites. Dr. Carpenter regards the vegetable nature of these cellular bodies to be problematical; and the production of this, or any similar disease, by the growth of a vegetable within the animal body, as "a very arbitrary assumption."‡

*Diagnosis.*—The peculiar lupine-like form of the crusts in Porrigo *lupinosa* distinguishes the disease from every other eruption of the scalp.

*Treatment.*—The little influence which this species of Porrigo has upon the general health, scarcely demands for it any attention to constitutional treatment.

The first indication to be fulfilled in the local management, is the removal of the crusts by means of poultices, and the daily use of warm water and soap; or, what is preferable, a lotion composed of two fluid drachms of liquor potassæ and eight ounces of water, employed immediately after removing the poultices. As soon as the scalp is freed from the crusts, much advantage is obtained from the ointment recommended by Dr. Nillegan§, made with one drachm of carbonate of potassa and one ounce of fresh lard, spread thick upon lint, applied over the scalp, and covered with an oil silk cap. I have also seen much advantage derived from another ointment, proposed by the same physician, composed of half a drachm of iodide of lead and an ounce of lard. He directs

* A short Treatise, &c. on Porrigo, by Walter Dick, M.D. Glasgow, 1838.
† Robin has named this fungus Achorion *Schönlienii*.
‡ Principles of Physiology, p. 453.
§ Dublin Quar. Journ. of Med. Science, Aug. 1848, p. 57.

it to be used some time after the former, and the proportion of the iodide to be gradually increased. Among various other ointments, such as that of the oxide of zinc, the unguentum hydrarg. nitratis, largely diluted, and an ointment containing one part of the compound lead plaster and three parts of zinc ointment, the unguentum cocculi (*Edin.*), is recommended by Bateman "to be applied to the red and shining cuticle." It rapidly destroys pediculi, but it is less beneficial than the iodide of lead ointment. With regard to the removal of the hairs, I accord with the opinion of Dr. Dick, that evulsion is chiefly useful when the diseased hairs appear parched, or are lying loose on the skin, or when they can be extracted with little pain. I have found frequent shaving of the scalp more useful than evulsion. When the disease is extremely obstinate, and the achores continue to appear in successive crops, I have found nothing more beneficial than touching each pustule, before it perforates the skin, with a hair pencil dipped in a solution of two drachms of nitrate of silver in half an ounce of nitric acid. This destroys the pustule, and it does not appear again.

The success of the brothers Mahon, in the Parisian hospitals, renders it necessary that I should give the following account of their treatment of the diseased scalp, abstracted from the treatise of M. Rayer, who approves of it.

M M. Mahon commence their operations by cutting the hair two inches from the scalp, and then detaching the crusts by means of lard, or a linseed meal poultice, and lastly washing the head with soap and water. These poulticings and washings are repeated daily for five days; after which a pommade, composed of one ounce of a powder consisting of equal parts of sulphuret of antimony and sugar and four ounces of lard, is applied to every part of the scalp covered by the crusts, twice a day, for the space of a month and a half, or two months, if the case be severe. The hairs detached must be removed by means of a comb cautiously employed, and after continuing these dressings for fifteen days, a small portion of a powder, consisting of 199 parts of calomel and one part of arsenious acid, must be dusted into the hair once a week. After this plan has been persisted in for a month, or a month and a half, another pommade, made of one ounce of sulphuret of lime and four ounces of lard, must be used daily for fifteen days or a month, and afterwards twice a week until the redness of the skin disappears. In the intervals the hair should be combed twice a day with a comb smeared with lard or with oil. Rayer informs us that 439 cases were cured by this treatment in the years 1810, 1811, 1812, and 1813.†

When the disease occurs in children of a strumous habit, the

* Mal. de la Peau, p. 93.

† Traité Théorique et Pratique des Mal. de la Peau, 1826, tom. i. p. 509.

same constitutional treatment requisite in Porrigo *favosa* should be adopted. The diet should be nutritious, but of easy digestion, and the strictest attention to cleanliness is requisite; the latter, in particular, greatly aiding the influence of the topical management.

### 3. PORRIGO SCUTULATA* — *Ringworm of the Scalp.*

This form of Porrigo is characterised by patches of minute, light-yellow favous spots, arranged in a circular form on the hairy scalp; and, occasionally, also on the forehead and neck. The patches assume the figure of a ring; for although the minute pustules generally cover the whole patch, yet they are more numerous and larger on its margin than its centre, and the area of the patches enlarge by the formation of fresh pustules on their periphery. The pustules, which are perforated by the hairs, ooze out their contents, and form thin brawny scales, which, if not removed, harden into crusts.

In the commencement of the disease the minute pustules are seen grouped in clusters upon small, red, circular spots; and they are more numerous, even at this early period, upon the circumference than in the centre. They are accompanied by itching; the oozed matter dries very rapidly; and, when examined with a good lens, the achores appear slightly depressed in the centre. When the pustules are rubbed off, and the scales removed, the denuded parts are shining and inflamed, and fresh clusters of pustules soon re-appear on them. During the progress of the patches, the hair in the centre of the pustules becomes lighter coloured and brittle, so as to break off short, owing to the pilous cysts, the roots of the hair, being destroyed; and this kind of baldness is occasionally so extensive, that only a narrow border of hair around the scalp remains uninjured. The change of colour, and the falling off of the hair, is sometimes the first notice to the patient of the existence of the achores.

The disease has no definite duration: it has continued during many months; and, in young children, for years. Sometimes, when it appears on the decline, the pustules again return, and run their usual course; this is especially the case when the spots continue red, and smooth, and shining, or become dry and scurfy. On

* *Syn.* Tinea *favosa* (*Astruc, Sauv.*); Achores sue scabies capitis (*Plenck*); Tinea *granulata* (*Alison*); Ecpyesis Porrigo, B. *Galatea* (*Good*); Teigne annulaire (*Biett, Rayer,* &c.); Porrigo *lupinosa conferta* (*Dick*); Trichoses *furfuracea* (*Wilson*); Shrine (*Arabic*); Kel (*Pers. Turk.*); Grind, Haarschuppen (*G.*); Tête teigneuse (*F.*); Ringworm of the scalp. I have adopted Willan and Bateman's name, P. scutulata, merely because the disease is most widely known in this country by that appellation.

the other hand, when the disease is actually on the decline, the redness and scurf gradually disappear, and the hair, acquiring its natural colour, begins to grow and cover the patches.

*Causes.*—It is difficult to account for the origin of this species of Porrigo; it appears in the vigorous and healthy as well as the delicate, ill fed, badly clothed, and cachectic. It was little known in this country until the commencement of the present century, when some children infected with it came from India, after which it appeared in several boarding schools, and was afterwards extensively and rapidly propagated by contagion. If the disease exists in one portion of the scalp, other parts become infected by the conveyance of the virus from the diseased to the healthy parts by the fingers, by combs, and night-caps. By the same means, also, and by children frequently laying their heads together, it spreads through families and schools. Although the cause of the circular form which the disease assumes is, in my opinion, well explained by the contagious matter attacking, at first, only one, or a few hair follicles, and gradually extending its influence, in *every direction*, to the surrounding follicles, thus constituting the circle, yet an hypothesis has been brought forward by Dr. R. E. Brown of Edinburgh*, to explain its circular form on the same principles which explain the formation of fairy rings.† Dr. Brown, who accords with the doctrine of Gruby and others, that "the crusts consist chiefly of vegetable fungi, mycodermata, accumulated in the greatest abundance at the periphery of the circles," which he considers is the soil from which they spring and on which they flourish, supposes that the growth of the mycodermis commences at a point, and, when this soil is exhausted, it seeks for nourishment on the parts exterior and contiguous to it; and this successively taking place, the extension is produced in the same manner as that of the fairy rings. There is much fanciful ingenuity in this hypothesis; but it is more applicable to Porrigo *lupinosa* than to this species, in which the rings are the result, not of an aggregation of granular masses, but of small, almost microscopic pustules, not always closely set together. Whatever may be the cause of their circular form, there can be no doubt that

* Edin. Medical and Surgical Journ., vol. lxviii. p. 139—146.

† For the sake of these who are unacquainted with the explanation of these appearances, I subjoin that of Dr. Wollaston, which is the most probable. He supposes that, first, a group of fungi (Agaricus *oreades*) spring up and flourish on the same spot until the soil becomes exhausted of the food requisite for them. If the spawn which they throw off, fall upon the exhausted ground, it rots or lies dormant; but that which falls beyond it, on unexhausted soil, produces a new crop of the fungi round the outer border; and thus the first ring is formed. The plants in each circle die in their turn, and, in this manner, by a succession of crops, the circular form is still preserved and the area enlarged. The grass within the ring is always luxuriant, owing to the dead fungi acting as manure favourable to its growth. The outermost ring consists always of withered grass, a circumstance which Dr. Wollaston ascribes to the fungi abstracting nourishment, not only from the ground on which they immediately grow, but from that a little beyond it, consequently robbing the grass of its nutriment.

the pustules constitute the disease, and the mycodermis merely finds its habitat on them.

*Treatment.*—In this species of Porrigo, the local treatment is the most important; and it must vary according to the changes which occur in the progress of the disease. When the inflammatory stage is present, the hair should be either cut very short, or the scalp shaved, and the irritation subdued; and the parts kept clean by sponging with warm water, and the application of emollient poultices. In this state, also, an ointment prepared with two drachms of the powdered fruit of cocculus *suberosus* proves useful. Decoction of poppy capsules, infusion of conium, the common lotion with diacetate of lead, or a lotion made with three grains of bichloride of mercury, two fluid drachms of hydrocyanic acid, and six ounces of almond emulsion, or the infusion of tobacco, have all been severally employed in this stage of the disease, but without any more advantage than common fomentations with tepid water, and simple bread poultices. Besides the ointment with the fruit of cocculus *suberosus*, an ointment made with the white precipitate, the unguentum hydrargyri ammonio-chloridi, or one with the tris-nitrate of bismuth, in the proportion of ʒj. to an ounce of lard, have been found useful.

It would be useless to enumerate the various stimulant washes and ointments that have been employed, praised, and, after all, condemned as inert. After the inflammatory stage has passed, the object is to destroy the pustules, and, with them, the mycodermata. The application which I have found most beneficial, is a solution of one drachm of nitrate of silver in half an ounce of dilute nitric acid. The diseased circles, after the scalp has been shaved, should be pencilled over with the solution; and, in ten or fifteen minutes afterwards, the parts should be well sponged, first with tepid water, and then covered with pledgets of lint dipped in cold water; and the evaporation diminished by covering the wet lint with oiled silk. The nitric acid alone was used by Alibert without any permanent benefit. Another useful application, suggested by Dr. Graves, is iodine, or the tincture of iodine, well rubbed into the affected spots with a sponge, after removing the crusts that cover the disease, and afterwards dressing the parts with spermaceti ointment. The dressings should be renewed at least four times in a day. After the third day, the parts are to be gently cleansed twice a day with yellow soap and water, covering them with spermaceti ointment after each washing. In rubbing in the iodine, the hands of the operator should be protected with gloves.* I have found this plan efficient, but less permanent in its effects than the acid solution of the nitrate of silver. In India, where this species of Porrigo prevails, an oint-

* Dublin Journ. of Med. Science, Nov. 1840.

ment, composed of a drachm of powdered nut-galls, a scruple of sulphate of copper, and an ounce of simple cerate is said to prove most beneficial. If the hairs loosen, they should be plucked out by the roots: but depilatories are too severe, and are seldom required. By whatever means the hairs are plucked out, they should be removed before applying the solution of the nitrate. Mr. Plumbe * recommended the parts, after removing the hairs, to be rubbed with finely powdered sulphate of copper, and to remove it, after a short time, by washing. I have had no experience of its influence; but as this sulphate acts rather as a powerful excitant astringent than as an escharotic, I cannot see upon what principle it could prove permanently useful. The patches have also been touched with the tincture of sesqui-chloride of iron, with the sulphuric as well as the nitric acid, the strong acetic acid, and blistered; but, although all of these act beneficially for a time, yet the disease returns, which I have seen even happen, although rarely, after the use of the acid solution of the nitrate of silver.

No constitutional treatment is required in this species of Porrigo, unless in delicate or strumous children. In such cases, nothing proves more beneficial than syrup of the iodide of iron, given in the decoction of elm bark. In obviously cachectic habits, small doses of iodide of mercury, with extract of conium, should be administered daily, at bed-time, until the influence of the mercurial displays its presence on the system; supporting the strength with nitro-hydrochloric acid in the decoction of yellow cinchona bark, given twice or three times a day. I have generally ordered, in conjunction with these means, the fresh-drawn cod-liver oil, and it certainly seemed to act with decided advantage.

With respect to diet, it should be such as to nourish, without stimulating; carefully avoiding all crude aliments, raw vegetable matter, and whatever is likely to irritate the stomach. Sweets and acids are both injurious. While attending to diet, the clothing should also be attended to; it ought to be warm. The exercise must be regulated. The feet, especially, should be kept warm and dry. The bowels should be daily evacuated; and, when assistance is requisite, they should be moved by warm purgatives. I have found these means, aided by the tepid bath, used in the morning, and brisk exercise taken immediately afterwards, answer every indication for bringing up the tone of the system; and, although the disease is communicated by contagion to the most healthy, yet it is always more difficult to be eradicated in delicate and cachectic subjects.

* A Practical Treatise on Diseases of the Skin, p. 70.

## Case 18.

*Porrigo Favosa.*

Ann W——, aged 12 years, a pale, thin girl, was admitted into University College Hospital, 3d July, 1843. She had been, for many months, badly fed and ill-clothed. Six months before her admission into the hospital, a small pustule appeared on the crown of the head; after which others of a similar kind rose, and extended over the whole of the scalp. Similar pustules also appeared on the face, the shoulders, and legs. The whole of the scalp is now almost one entire crust. The tongue is furred and red at the apex, and the appetite bad. The head was ordered to be poulticed; and, after a few days, it was shaved, and dressed with an ointment, consisting of ʒij. of ung. hyd. nitratis, and ℥j. of cetaceous ointment. She was ordered to take gr. iij. hydrarg. c. creta every night at bed-time, and the following pills and mixture three times a day:—

℞ Potassii Iodidi gr. ij.
Syrupi Ferri Iodidi ʒss.
Infusi Cascarillæ f℥j. — M.

℞ Sodæ Siccatæ gr. v.
Ext. Gentianæ gr. v.
Ft. pilulæ iij. inter Mist. singulas doses sumendæ.

On the 8th the head was much improved, and also the eruption on the other parts of the body. She was discharged cured on the 20th, seventeen days after she entered the hospital.

## Case 19.

*Porrigo Favosa.*

Clement D——, aged five years, a boy of a pale complexion, relaxed, flabby muscles, and general unhealthy aspect, was admitted into University College Hospital, 5th November, 1845. Before his admission, he was living chiefly on bread and butter and tea, and scarcely ever tasting animal food.

The present disease commenced a month ago, with an eruption of groups of small achores on the hairy scalp, seated on a reddened base. Many of them soon burst, and exuded a yellowish, fœtid matter, which formed honey-comb, or cellular crusts.

When he entered the hospital, the scalp was covered with these crusts; but the eruption had not extended to the neck. The colour of the skin was pale, but the temperature was natural; and although he was emaciated, yet his appetite was good; his bowels were not sufficiently open, but he slept well. His tongue was slightly furred, and there were several glands of the neck swelled

and hard. He was put upon full diet, with milk, and ordered the following medicine: —

℞ Hydrargyri c. Creta gr. iij.
Pulv. Jalapæ gr. vj. Pulvis h. s. quotidie.

℞ Syrupi Ferri Iodidi ʒij.
Infusi Calumbæ f ʒiv. — M.
Sumatur cochleare majus bis quotidie.

The hair was cut short, and the scalp poulticed at night, and an ointment, consisting of ʒj. of iodide of lead and ℥j. of lard, applied during the day. This plan of treatment was continued, except that the powder, having purged him too much, was directed to be given every other night only, and f ʒss. of the syrup of the iodide of iron was added to the mixture.

On the 11th, the eruption was much improved, the swelling of the glands of the neck were subdued, and the muscles felt firmer. The improvement continued, and on the 25th he was discharged cured.

## Case 20.

### *Porrigo Favosa.*

Phillip S——, æt. 4, a delicate boy, was admitted into University College Hospital, 12th Nov., 1838. A fortnight prior to this time, several small pustules appeared on the scalp; they itched much, and spread over the head, affecting especially the ears. His strength had failed; and a purgative brought away many ascarides. On his admission into the hospital, the hairy scalp and part of the neck were covered with favi, which broke, and formed into crusts. The complexion was pale; the tongue red; the breath offensive; and he complained of pain in the umbilical region. (*Hydrarg. c. Creta*, gr. iv. *Pulv. Ipecac.* gr. j. *Pulv. Rhei* gr. viij. *Pulv. h. s. quotidie sumendus.* ℞ *Liq. Potassæ* ♏viij. *Mist. Amygd. Amaræ* f ʒx. *M. ter quotidie. Apply a poultice over the shaved scalp.*) 16*th*. He is better; the crusts are cleared away, and the favi are disappearing. The belly is tumid. (*Omit. Mist.* ℞ *Syr. Ferri Iodidi*, ♏ viij. *Infusi Gentianæ* f ℥j. *M. ter quotidie. Perg. in usu Pulv.*) 30*th*. Improved in every respect; the head is nearly well. (*Perg. in usu Mist. Omit. Pulv.* ℞ *Pulv. Rhei* gr. j. *Sodæ Bicarb.* gr. x. *Pulv. Cascarillæ*, gr. xij. *M. Bis quotidie sumendus*). *Dec.* 3*d*. The head is well; but the muscles are flabby. (*Omit. Mist.* ℞ *Acidi Hydrocyanici dil.* ♏ij. *Potassæ Liq.* f ʒss. *Decocti Cinch.* f ℥j. *M. Ter quotidie sumendus.*) He continued to gain strength, and on the 28th was discharged cured.

## Case 21.

*Porrigo Favosa.*

Ann G——, æt. 17, a single woman, a servant, was admitted into University College Hospital, 16th April, 1842. A year ago, small pustules appeared on her head; they broke, and discharged matter, which formed crusts. The disease was treated topically only, and was cured in six weeks.

Three months ago she came to London; and, being in a good place, lived full, without taking exercise. In three weeks afterwards the same disease again appeared on her head. The eruption now covers almost the whole scalp. The tongue is slightly furred; the pulse soft and 70. The catamenia are regular. The bowels were ordered to be cleared, and the head to be poulticed after the hair was cut short; and, if it could be done, shaved. (℞ *Pil. Hydrarg.* gr. ij. *Ext. Conii* gr. ij. *Ft. pilula 8vâ q. q. horâ sumenda.* ℞ *Magnesiæ Sulph.* ʒij. *Pot. Nit.* gr. x. *Ac. Sulph. dil.* ♏xij. *Aquæ* fʒx. *Haust. inter sing. pil. doses sumendus.*) 19*th.* The crusts were removed by the poultice. (℞ *Arg. Nit.* ʒj. *Aq. destil.* fℨj. *Ac. Nit. dil.* ♏x. *Solutio ope penicilli cap. raso app.*) 26*th.* The puffiness of the scalp less, and the surface looking more healthy. (*Omit. Mist.* ℞ *Pot. Liquoris* ♏xx. *Acidi Hydrocy. dil.* ♏iv. *Inf. Calumbæ* fℨjss. *Haust. ter die cap.*) *May* 3*d.* The scalp is greatly improved. (*Perg. in usu Mist. Omit. Sol. Arg. Nit.* ℞ *Liq. Potassæ* fʒj. *Aquæ* fℨvj. *Ft. lotio mane quotidie utenda.*) 14*th.* The scalp is healed, and assuming its natural colour. (*Pergat in usu Med.*) 17*th.* She has caught cold, and has slight tonsillitis. A few fresh pustules have appeared on the head. (*Haust. purgans statim sumendus. Pergat in usu Med.*) 26*th.* She continued to improve until yesterday, when her head became hot; a fresh crop of pustules appeared on the scalp, and the pulse rose. (*Mittantur Sang. pone aures, ope C. C.* ℨxvj. *Haust. purg. post operationem.* ℞ *Magnesiæ* ℈j. *Sulphuris* gr. xv. *sit pulvis h. s. quotidie sumendus. Perg. in usu Mist.*) *June* 7*th.* The head again became hot, and fresh pustules appeared. (*V. S. ad* ℨxvj. *Perg. in usu Med.*) 14*th.* The menses have not appeared. Her head feels heavy, but the scalp looks better. (*Mittantur Sang.* ℨxvj. *pone aures ope C. C.* ℞ *Calomel.* gr. ij. *Pulv. Digitalis* gr. j. *Micæ Panis q. s. Ft. pil. h. s. quotidie ad 3tiam vicem cap.* ℞ *Pot. Carb.* ʒss. *Decocti Aloës comp.* fℨjss. *Haust. seq. mane sumend.*) 18*th.* The menses did not appear under the use of the medicine last prescribed and the use of the hip bath. The vertex is puffy, and seems to threaten a return of the eruption. (*Let the puffy part be scarified. Omit. Med.* ℞ *Liq. Potassæ* fʒxij. *Potassii Iodidi* ʒiij. *Solve sum.* ♏xxx. *ex cyatho Decocti Sarzæ ter quotidie.* ℞ *Iodidi Sulphuris* ʒj. *Ung. Picis* ʒij. *Adipis* ʒx.

*Ung. capiti. h. s. quotidie app.*) 16*th July.* She continued to improve under this treatment, which was not changed; and she was, this day, discharged cured.

## Case 22.

### *A doubtful* case of Porrigo Lupinosa.*

William T——, æt. 18, was admitted into University College Hospital, 5th April, 1839. He was of a strumous habit and sanguine temperament: but, with the exception of occasional headaches, he had enjoyed good general health. Eight years ago, the disease under which he is now suffering attacked the scalp, and it has continued more or less up to the present time. The eruption, which covers the scalp and extends over the temples, presents patches, distinct from one another, from half an inch to one and a half inch in diameter, of an irregular, circular figure, with uneven, thick, elevated margins, and rough and fissured in the centre. The patches are of a yellowish-white colour, not unlike a mixture of sulphur and lime. In some places the patches are partly cellular, and honeycomb-like; and between some of them are deep, subcutaneous channels, which harbour numerous pediculi. The patches exhale an offensive odour; and they itch. On examining them they are found to consist of the dry, concreted discharge of pustules, which, in some places, can be seen in every stage of their progress; at first small, flat, straw-coloured, increasing with an elevated border, depressed centre, and slightly inflamed base. The intervening skin is reddish and scurfy, as if it had been the site of previous pustules. The lymphatic glands of the neck, on both sides, are enlarged and hardened; and the axillary glands of the left side are in the same state, and painful. The general health is not affected; the tongue is clean, the appetite good, the bowels regular, and the urine free from albumen. The heart's impulse is too strong, and too extended. 10*th.* After shaving the head, a linseed poultice was ordered to be applied twice a day. 13*th.* The poultices have removed the crusts. A reddish, thin fluid is discharged from the denuded surface, especially on the occiput. (℞ *Solutionis Potassii Iodidi* (*Labaraques*) ♏xx. *ter die sumendus. The poultice at night, and water dressing during the day.*) 16*th.* The head is generally better, but a few fresh pustules have appeared. There is considerable tumefaction of the scalp at the back part. (*Om. Catapl. Admoveantur hirud.* vj. *capiti. Pergat in usu solut. addendo* ♏x. *sing. dosibus.*) 20*th.* The bleeding by the

* I have marked this case doubtful, being one of Dr. Carswell's cases, because it was not seen by me; but several of the appearances described induce me to think it a case of Porrigo *lupinosa*: yet, a case of this would scarcely have yielded to the treatment employed.

leeches reduced the swelling of the scalp; but fresh pustules are still appearing. (*Adm. hirud.* vj. *capiti. Perg. in usu sol. addendo* ♏x. *sing. dos.*) 27*th.* No farther improvement. (*Rep. hirud. et pergat in usu solutionis.*) *May* 4*th.* The head is greatly better: the pustules are all broken, and no fresh have appeared. (℞ *Liq. Plumbi diacet. dil. capito.*) 7*th.* There are no new pustules; but a pustular eruption has been brought out by the linseed meal poultices. A potatoe poultice was ordered instead of the linseed meal. *July* 9*th.* The scalp is improved in appearance; but the disease is not conquered. (℞ *Cupri Sulph.* ʒiv. *Aquæ ferventis* f ℥iv. *Ft. Lotio bis quotidie utenda.*) 13*th.* Decidedly better. He continued the use of the lotion, and the solution of iodide of pot., till the 23rd, when he was discharged cured.

## Case 23.

### *Porrigo Lupinosa.*

Mart. H——, æt. 12, of a strumous habit, languid circulation, and extremely indolent disposition, was brought to me on the 14th August, 1849, on account of an affection of the head, which had been discovered only two days before I saw him. His mother detected it by observing some white, scurfy scales amongst his hair, which had been allowed to grow very thick; and two pediculi on the collar of his shirt. The hair was immediately cut short; and the scalp, which was discovered to be covered with thick scales, washed with warm water and soap. This was repeated on the following day, after which he was brought to me.

On examining the scalp, I found it covered with the crusts of Porrigo *lupinosa.* They were confluent on the fore part and sides of the scalp, and on the occiput; but distinct and few on the vertex. They exhibited the true circular form, the elevated margin, and depressed centre of the lupine-like crusts of the disease; and some of them, which had not coalesced with others, were nearly an inch in diameter. Hairs were seen passed through the whole. The intervening skin was red, and pediculi occupied cracks in the crusts. There was no eruption on the face, nor on the rest of the body. The general health was not affected.

16*th August.* The scalp was ordered to be covered with a bread and water poultice, and as soon as the crusts were removed to be washed with the following lotion: —

℞ Liquoris Potassæ f ʒij.
Spir. Vini rect. f ʒiv.
Aquæ Destil. f ℥vij.—M.
Ft. Lotio.

19*th August.* I again saw my patient. The crusts were removed; whilst the parts where they existed appeared raw, and in some spots ulcerated. The scalp was directed to be washed every morning with a warm lather of soap; then sponged with the alkaline lotion; and, half an hour afterwards, an ointment consisting of half a drachm of iodide of lead, thickly spread upon lint, applied over it, and the head to be covered with an oil silk cap. The poultice to be continued every night. 23*rd August.* All the raw spots were covered with fresh cuticle, and the ulcers nearly cicatrised; but the scalp was red and shining, and several small, yellow, achorous pustules had appeared on different parts. The head was ordered to be shaved, and the pustules touched, as soon as they appeared, with a solution of two drachms of nitrate of silver in half a fluid ounce of nitric acid: and the prior treatment continued. As the habit of body was weak, a drachm of the syrup of iodide of iron was ordered to be taken in a wine-glass of water twice a day. This treatment was continued for a month, at the termination of which the cure was complete. The scalp was three times shaved during the month.

## 2. SCABIES —*Itch.*

Scabies is a non-febrile contagious disease, attacking all ages, and both sexes indiscriminately; not confined to any climate or locality; never appearing as an epidemic *; and never transmitted from one person to another through the medium of the air, or, in other words, by infection.

There is no positive evidence that Scabies was known to the ancients; for the name Ψώρα, supposed to be the appellation by which they designated it, was applied by Hippocrates † to many and very different pruriginous eruptions, especially those of a scaly or scurfy nature; even Celsus ‡, who was supposed to have first described Scabies as a peculiar disease, confounded it with several pustular, pruriginous affections. In our time, its peculiar distinct character is well understood: yet, it is remarkable that Bateman § has placed it among the pustulæ, when it is well known that the pustular form of the disease, if it can be regarded as a distinct species, is extremely rare compared with the lymphatic or vesicular form. It must, however, be admitted, that were we guided by the physical aspects which the eruption assumes, it would be difficult to decide under which of the orders, in a classification founded upon these aspects, Scabies should be ranked. ‖

* In the *Medical Commentaries* (vol. ii. p. 73.), an account is given of an epidemical scabies, which yielded to diuretics; but the disease was evidently not scabies.

† Lib. de Affection. Aphorism. § 3. ‡ De Med. lib. v. cap. 19. 16.

§ Synopsis, 7th edit. p. 279.

‖ "Scabies est pustularum *purulentarum*, vel *saniosarum*, vel *papularum* siccarum, ex duriore et rubicundiore cute, eruptio."— Callisen, *Syst. Chirurg. Hodiern.* 1. § 824.

Willan divided the genus into four distinct species, founded upon an arrangement adopted by the vulgar, who had observed accurately the different forms of the eruption, and named each of them either according to the degree of virulence which it displayed; or the nature of the fluid produced by it; or as it approached the appearance of the disease to which they almost indiscriminately refer every eruptive affection. Hence the terms *rank*, *watery*, *pocky*, and *scorbutic;* and hence, in some measure, the titles of the genera of Willan; namely, Scabies *papuliformis*, S. *lymphatica*, S. *purulenta*, and S. *cachectica*. But whatever form the eruption may assume, we are certain that it is the same disease, produced by the same poison, and requiring the same remedies for its removal. Indeed, it is by no means uncommon to see the different forms of the eruption of three of Willan's genera on the body of the same person at the same time: and any difference between the last species and the others is well explained by the condition of the habit of the individual at the time he receives the contagion, and during its continuance. I am of opinion, therefore, that such a subdivision, instead of rendering the subject clearer, only throws a veil of obscurity over it; and therefore I shall treat of Scabies as one disease under the name

## Scabies vulgaris — *Common Itch.**

Scabies, as already remarked, makes its appearance in a variety of forms; but the most common form is the vesicular: for the Scabies *papuliformis* of Willan and Bateman is only papular to the unassisted eye, and, when examined with a moderate lens, the apparent papules are found to be vesicles seated on a raised or papular inflamed base. In some cases, the vesicles have no inflamed base (S. *lymphatica*, Willan), but are perfectly transparent, and larger than the former.

The variety termed *papuliformis* by Willan appears first upon the bend of the wrist, between the fingers, the axilla, the flexures of both upper and lower extremities, the epigastrium, and the nates; the second variety, *lymphatica*, appears on the same places, with the exception of the thorax and epigastrium, where it is rarely or never seen. Both varieties are attended with excessive itching, augmented by heat, especially when the patient gets warm in bed; spirituous liquors, heating food, or whatever can quicken the circulation. Occasionally, in both varieties, a few scattered pus-

* *Syn.* Psora (*Linn. Cull. Parr*); Pruritus (*Auct. var.*); Ecpyesis scabies (*Good*); Phlysis scabies (*Young*); Gale, rogne, gratelle, charpin (*F.*); Kratze, raude (*G.*); Schurft, krauwagie (*Dut.*); Skab, klöe (*Dan.*); Skaab, kläda (*Swed.*); Scabbia, rogna, raspa (*Ital.*); Sarna, roña (*Span.*); the Yuck (*Scotch*).

The term Scabies is derived from the Latin *scabo*, I scratch.

tules, filled with a thick yellowish pus, make their appearance, and increase the necessity for the scratching, by which the vesicles and pustules are broken, and even blood drawn from the sound skin. These pustules differ from those of impetigo, with which Scabies is sometimes associated. The fluid from the vesicles concretes into small dark-coloured scabs, beneath which the spot heals; but, sometimes, fresh inflammation is set up, pustules form, discharge their pus, and ulcerate. Under these circumstances, we find the skin covered, at the same time, with fresh vesicles and pustules, intermixed with the dry, small, yellow-coloured scabs; excoriated blotches, and large scabs where these are cicatrising. I have seldom seen the pustules appear without the vesicles; but when this occurs, constituting the S. *purulenta* of Willan, the pustules are larger, more prominent and turgid with pus, and surrounded by a broader inflamed base than when the vesicles are present. They appear first upon the hands and feet: on the former, in greatest number, on the root of the thumb and the fore finger, and round the wrist; on the latter, at the roots of the toes: but, by degrees, they show themselves upon every part of the body where the eruption of Scabies usually appears. When the pustules break, especially when they are large and coalesce, they form ulcers, which are painful and difficult to heal; and which, after a time, become covered with thick, dry, hard, closely-adhering crusts, which are long in falling off.

With respect to that variety of the disease which was named S. *cachectica* by Willan, it is not at all wonderful that the eruption should display a different physical aspect from that of the other varieties, when we consider the constitution and condition of habit of those suffering under it. They are the half-starved, ill-clad, and uncleanly of the lower classes of society; children badly nursed; and adults weakened from defect of nourishment, or some previous disease, or of a decided strumous diathesis. It is not easy to describe the eruption in this variety of the disease. It combines the varieties we have already described, intermixed with patches of impetigo, and combined with a peculiar dark and sordid hue of the skin, which is not present in ordinary Scabies.

Scabies attacks all persons of whatever rank of life: but it is more common in the lower ranks, owing to the want of cleanliness; and, indeed, it seldom appears among the higher classes, except from the poison being conveyed as fomites from the laundry, or from other incidental circumstances. It attacks all ages, and both sexes indiscriminately: is confined to no climate nor country; nor to any season more than another. It is, however, probable that those of a sanguine and lymphatic temperament, are more susceptible of the influence of the virus than other persons.

When the virus has been transmitted from one person to another, the disease does not immediately make its appearance: several days

supervene, and a slight itching is felt before the eruption breaks out. The eruption is of a slight rose colour, deeper in the ratio of the youth of the patient; and, when left to itself, it spreads over the whole of the body. It never undergoes a spontaneous cure: indeed, it has been known to continue during life.

*Diagnosis.* — There is little difficulty in recognising Scabies, whatever form it may assume; yet, it is said to be easily confounded with lichen, prurigo, eczema, impetigo, and ecthyma. In the papular form of Willan, occurring in weakly children, Bateman informs us it might be confounded with lichen, especially when the papulæ in that disease are intermixed with minute vesicles: but in lichen, although the papulæ are intermixed with vesicles, yet these are distinct; the vesicle does not form a part of the papule; the irritation consists rather of tingling than itching; and the papulæ terminate in scurf. The non-contagious nature also of lichen is a diagnostic feature sufficient to distinguish Scabies from that form of lichen. There is even less difficulty in distinguishing Scabies from prurigo, in which the papulæ are solid, flat, and never vesicating nor scabbing unless they have been abraded by scratching; besides, the disease is decidedly non-contagious. From eczema, in some of its forms, there is more difficulty in distinguishing Scabies, especially those local forms of eczema which originate from the application of acrid substances to the skin: but there is more tingling and smarting pain than itching attending eczema, and the absence of contagion is of itself quite sufficient as a diagnostic feature between the two diseases. When Scabies assumes the pustular form, it has been supposed that it might be mistaken for impetigo; but the large, prominent character of the pustules, the extreme itching, and the contagious nature of the Scabies at once distinguishes it from impetigo. I have seen both diseases existing at the same time in the same person. When the pustules constitute the chief feature of the disease, it might be confounded with ecthyma; but only by those who have seen little of either disease. The pustules of Scabies are devoid of the firm, red base on which those of ecthyma are seated; they rise and attain maturity rapidly, those of ecthyma progress slowly; to which may be added the incessant itching and contagious nature of Scabies; all of which afford ample means of distinguishing this disease from ecthyma. The vesicular character of Scabies distinguishes it from the papular syphilitic eruptions. Indeed, the diagnostic features of Scabies are, in my opinion, notwithstanding the variety of forms which the eruption assumes, more easily recognised than those of most other eruptive diseases.

*Causes.* —The virus of Scabies has been supposed to originate in "crowded, close, and uncleanly houses."* Plenck says,

* Bateman's Synopsis, 7th edit. p. 289.

"Victu acri, salso, pingui nascitur. Hæc difficilius quam acquisitu curatur." * Opinions with which the contagious nature of the disease seems at variance. That the disease is contagious there is no doubt; and, in my opinion, it is equally certain that it is the result of a morbid poison; and that the fluid of the vesicles, or the pustules, is the agent transmitting the disease from one person to another. This opinion, however, is strongly opposed in the present day.† Among other opinions, Abinzoar, in the 12th century, suggested the idea that the disease originated from an insect which he first described. His opinion was revived by Gabucinus, Ingrassias, Laurence Joubert, and some other writers of the 15th and 16th century, all of whom saw and described the insect, which they regarded as an *Acarus;* and which, burrowing under the cuticle, they believed excited the formation of the pustules, and to be the origin of the intense itching. A fact adverse to this opinion, however, was pointed out by Monfet ‡, who found that the insect did not reside in the vesicles or pustules, but only near them; an observation that has been subsequently confirmed. Mr. Plumbe also states the same fact, and supposes that the insect cannot live in the fluids, and therefore escapes from the vesicles.§ There is now no doubt of the existence of the insect: it was examined under the microscope and figured, first by Hauptmann, a German physician, in 1654, then by Bonomo in 1683 ‖, and since by many others ¶; and its habits also have been well made out, confirming the accounts of it given by Monfet. But, although the existence of the insect cannot be doubted, yet there are many reasons for not regarding it as the origin of the disease; although the disease may be transmitted by the conveyance of the poison necessarily attached to the insect when it passes from one person to another. I would refer those who are desirous of tracing the discovery, the nature, and the habits of this animalcule, to a most excellent monograph on the subject, at the end of Mr. Erasmus Wilson's Treatise on Diseases of the Skin. It gives a faithful description of the insect, which he says can be seen with the naked eye, "white and shining, globular in its form, and very aptly resembling the little bladder of water of Bonomo." He says, "there is no difficulty in extracting the little animal; the cuniculus is seen without difficulty: the end of the cuniculus is perceived to be a little raised, while a

* Doct. de Morb. cul. p. 42.

† Wilson on Diseases of the Skin, 2d edit. Preface, p. xiv.

‡ Theatrum Insectorum, 1634, cap. 24. — "De Syronibus, Acaris, Tineisque Animalium."

§ Plumbe on Diseases of the Skin, 2d edit. p. 306.

‖ Dr. Meade re published Bonomo's account in the Phil. Trans. (vol. xxiii.) for 1702.

¶ Two nearly accurate figures of it may be seen in Dr. Adams' work on Morbid Poisons, 4to. 1807, p. 293.

greyish speck is perceived beneath it. As soon as this little eminence of epiderma is lifted, if the end of the needle, or pin, with which the operation is performed, be examined, the minute, white, and shining globe will probably be observed attached to the instrument. If there be no such object, the point of the needle placed again beneath the raised capsule of epiderma, will pretty certainly draw it forth."

It has "a head not unlike that of the tortoise, and a pair of large and strong legs on each side of the head. These organs are encased in a moderately thick layer of chytine, and have consequently the reddish-brown tint of the cases of certain insects, or of the bright part of a thin layer of tortoise-shell."

Mr. Wilson proceeds to say, "the ventral surface of the Acarus is flat, and occupied by the head and eight legs; the dorsal surface is arched and irregular, and covered by numerous spines; and projecting backwards, from the posterior segment of the animal, are twelve hair-like filaments, some long and others short."

He measured ten specimens, and found them to vary between $\frac{1}{147}$ and $\frac{1}{77}$ of an inch in length, and between $\frac{1}{303}$ and $\frac{1}{94}$ in breadth. The following were the measurements of seven of this number: —

| Length. | Breadth. | Length. | Breadth. |
|---|---|---|---|
| $\frac{1}{147}$ | $\frac{1}{192}$ | $\frac{1}{88}$ | $\frac{1}{109}$ |
| $\frac{1}{128}$ | $\frac{1}{303}$ | $\frac{1}{77}$ | $\frac{1}{100}$ |
| $\frac{1}{119}$ | $\frac{1}{147}$ | $\frac{1}{77}$ | $\frac{1}{94}$ |
| $\frac{1}{94}$ | $\frac{1}{143}$ | | |

He describes "the *venter* of the Acarus as being flat, and the abdominal portion slightly convex." The anal and sexual aperture is of considerable size.

There are a "pair of hair-like filaments surmounted on short tubercles" on each side of the anal opening. These four filaments, with four hair-like organs of the posterior legs, and four directed backwards from the lateral part of the thoracic segment, form the twelve hair-like filaments which are observed along the posterior margin of the animal. These filaments, together with the hairs, spines, and tubercles situated on the dorsum, serve most effectually to prevent the retrogression of the Acarus along its cunicubes, while the anterior part of the creature is equally well organised for advance.

Mr. Wilson adds, "I have not been able to distinguish any sexual differences between the animals I have examined. In the sketch before me is drawn a conical projection in this region, but I have not as yet seen that appearance repeated.

"The ova I have seen, and I have preserved a slide on which there are two of these bodies.

"The internal organization of the animalcule is obscured by the large collection of adipose cells, which form its superficial stratum." *

This extract from Mr. Wilson's monograph accords accurately with the appearance of the insect as I have seen it; but, since quoting it, I have had an opportunity, through the liberality of Mr. Rainey, of St. Thomas's Hospital, of examining the insect under the microscope, in every stage of its existence, from its exit out of egg to its full growth; and also the eggs from, apparently, their earliest period, till the insect has extricated itself and left the shell. I have nothing to add to Mr. Wilson's graphic description, except that the dorsal surface, or carapax, is very slightly arched; and the tubular cylindrical appendages of the anterior legs are terminated by funnel-shaped bodies, which appear as if designed for suction. The eggs seem at first filled with a semi-transparent, afterwards with a granular matter; and, lastly, the insect is seen within them. The empty shell appears as if its inhabitant had escaped by rupturing it laterally.†

But awarding to Mr. Wilson the merit which he justly deserves, for the labour he has bestowed in searching out the authorities respecting this animalcule, in the formation of his excellent monograph; and for his accurate description of the Acarus, I cannot accord with him in attributing the disease to that insect. Were Scabies of insect origin, we must suppose that the ova of the Acari, constantly floating in the atmosphere, would be deposited and find their nidus; and the insects, generated from them, their proper food, in numberless individuals; hence we should have daily and numerous instances of spontaneous Scabies, which, if it ever occurs, is very rare. I have presumed to say, "if it ever occurs," for I have seen so many cases of impetigo mistaken for itch, in cachectic children, and even in adults left in a greatly weakened condition after fevers and other acute diseases, that I am induced to believe that the idea of spontaneous itch, has originated in such a mistake.

The assertions of Dr. Gales, who pretended to exhibit the insect to the French Institute in 1812, are of no value, as Gales was convicted of imposing the meal mite for the Acarus *scabiei* upon the Institute, and therefore his pretended discoveries were deservedly scouted. The experiments of M. Albin Gras, at the Hospital of Saint Louis, in 1834, and even those of Professor Hebra of Vienna, have little weight with me, although these gentlemen procured the Acari, placed them upon their skin, and produced the disease. In the five experiments which M. Gras

* Wilson on Diseases of the Skin, 2d edit. p. 462—465.

† Mr. Rainey obtained the Acari from the finger of a woman who was not supposed to be labouring under Scabies; and who, I think he informed me, died in the hospital. The finger is preserved in spirits; and, from an apparently ulcerated spot, it yields numerous Acari.

made, although the insects burrowed in his skin, and vesicles were formed, yet this is easily accounted for; when we consider that the bodies of the insects must necessarily be covered with the virus, their burrowing in the skin constituted a simple inoculation: and I arrive at the same conclusion respecting M. Hebra's numerous experiments. I am of opinion, that in animal as in vegetable beings, wherever food is found there we shall find the beings intended by Providence to be nourished by it; hence we find fungi on diseased trees and plants, and even on the human body, as in porrigo. In some diseased states of the body pediculi abound; but we do not conclude, from that circumstance, that they are the cause of the diseases. Under the same states of debility and disease, when Scabies makes its attack, we find the Acari. We can only, therefore, come to one conclusion, that the origin of Scabies is unknown; but that it is always transmitted from those labouring under the disease to the healthy by contact, or by means of clothes or furniture which have imbibed the virus. In a few words, Scabies is the result of a morbid poison, which is received by the skin, propagates itself in the system, and produces the disease.

That the virus is capable of producing all the varieties of the disease, is evident, from its occasionally producing each of them in different individuals of the same family at the same time. I have elsewhere * stated that I attended a family, in which four of the children had the purulent form of the disease, whilst another, the eldest sister, and the parents, had the ordinary vesicular variety, or, as Willan terms it, S. *papuliformis*.

*Treatment.* — If there is any article of the Materia Medica that can be truly termed a specific, we may venture to consider sulphur as such for the cure of Scabies; and it has long been regarded as specific, even by the Profession. It has been employed in a great variety of forms and combinations; but in its simplest, uncombined form, it answers every purpose when properly administered.

Although Scabies is generally a non-febrile eruption, yet I have seen it preceded by fever in young, strong, and plethoric individuals, who had caught the contagion, and who required the abstraction of blood, and two or three brisk purgatives, before commencing the use of the sulphur; which, if administered before such precautions are taken, greatly augments the febrile action, and seems to lose much of its specific action on the disease.

Sulphur will cure Scabies by its topical application, in the form of sulphur ointment †, if used in sufficient quantity, and applied in such a manner as to be taken up and carried into the system. But it is requisite, in every instance, to prepare the skin for the action of the ointment, by the use of the warm bath, and a thorough ablution with soap; after which the whole of the body

* Bateman's Synopsis, 7th edit. p. 292 † Unguentum Sulphuris, comp. P. L.

should be assiduously rubbed over with the ointment, and the patient, immediately afterwards, put to bed between blankets, o in a flannel dress, and kept in bed for twenty-four hours, when : second application of the ointment may take place, if necessary. In many instances, however, except in severe and long-standing cases, a second application is sometimes not required. The patient, when a second application is necessary, should remain in the same dress, or between the same blankets, for another period of twenty-four hours, and then cleanse the skin effectually with soap in a warm bath; being careful not to put on the clothes he previously wore, nor to lie in the same bed which he used before he caught the disease, until both have been well fumigated with sulphur. In the Hospital of St. Louis, at Paris, much confidence is placed on the following ointment: —

℞ Potassæ subcarbonatis
Sulphuris sublimati ā ā gr. xc.
Adipis ʒj.
Tere optime ut ft. Unguentum.

The unguentum ad scabiem of Jasser, is also in considerable repute. It consists of equal parts of sulphur, sulphate of zinc, and laurel berries, beaten well up together, and made into a liniment, with olive or linseed oil. An ointment, made with the iodide of sulphur, has lately been much employed in the Parisian hospitals; but the iodine adds great acrimony to the sulphur, and renders much caution necessary in using it in children labouring under Scabies.

The addition of the potassa to the sulphur ointment, perhaps, merely facilitates the introduction of the sulphur into the system. Fumigations of sulphur are much less beneficial than the sulphur ointment. In these the sulphur is partially oxidized, and converted into sulphurous acid; a substance sufficiently powerful to destroy the Acari, but inadequate for the eradication of the disease. It is unnecessary to bring before the reader the various substitutes for sulphur that have been and still are employed: all of them have had their influence for a time. Ointments made with the ammonio-chloride of mercury and potassa, were at one time much relied upon, and had the testimony of very distinguished names in their favour.* They are still occasionally employed, and prove successful; but the cure is neither so rapid, nor is it so effectual as when produced by sulphur. Strong sulphuric acid, in the proportion of ʒss. to ʒj. of lard; ointments and decoctions of veratrum album, stavesacre†, tobacco, belladonna, conium, foxglove,

* Among others Turner, Willis, Fordyce, and Heberden.

† Dr. Burgess informs us that lately M. Bourgion, at the Hospital de Saint Louis at Paris, has treated the disease successfully by immersing the hands in a strong alcoholic extract of stavesacre.— *Burgess on Eruptions of the Face, Head, and Hands*, 8vo. p. 245–6.

plumbago *Europæa*, elecampane, besides chloride of lime, in the proportion of ʒj. to fʒvj of water, along with ointments of sulphuret of lime and hydro-chlorate of ammonia, have each had their day. Perhaps the greatest recommendation of most of them was their freedom from the odour of sulphuretted hydrogen, which is always exhaled from the body, whether sulphur be applied topically or internally administered.

But Scabies is seldom treated by topical remedies only. Sulphur is usually administered internally at the same time, and, when strong objections to the use of the ointment exists, the disease may be cured solely by the internal administration of the specific. It is given in doses of half a drachm night and morning daily, either in milk, or, as the common people employ it, mixed with treacle in the form of an electuary. It undergoes a chemical change in the habit, combines with hydrogen, and is exhaled by the skin in the form of sulphuretted hydrogen; a fact exemplified by the blackening of silver worn in the pockets of those taking it. The supporters of the insect origin of the disease suppose that the sulphuretted hydrogen thus generated operates as a poison to the Acari, and, at the same time, by destroying their ova, cures the disease. But, independent of other arguments against this hypothesis, it is weakened by the fact that sulphuretted hydrogen baths are less efficient remedies than sulphur. In my opinion, sulphur operates, either chemically in changing the nature of the poison which has caused and keeps up the disease; or by some specific action on the capillaries, preventing the formation of more of the poisonous secretion constituting the virus, whilst that already formed is thrown off by the skin. There can be little doubt, however, that the insect is also destroyed during this process.

Dr. Cothenius treated the disease successfully with sulphuric acid, as it appeared in the Prussian army in 1756*; and it has been stated, that the acid is decomposed in the habit, and sulphuretted hydrogen gas exhaled by the skin in the same manner, although in a smaller degree, as when simple sulphur is administered. Subsequent experience, however, has not verified the expectation raised by the reports of Dr. Cothenius, and those of Dr. Albertus Helmich of Berlin, Professor Schroeder of Göttingen, and others, respecting the sulphuric acid treatment.

The question of the best mode of treating Scabies may be answered in a few words. No remedy but sulphur can be depended upon; and, when it is properly employed, every day's experience proves that no case can long withstand its curative influence. When the cure is trusted to either its external application, or its internal administration, or to both combined, a warm bath should be taken every second day; and, during its use, the skin thoroughly cleansed

* Edin. Med. Comment. vol. i. p. 103—104.

with soap. In the treatment of Scabies no attention in general is paid to diet; but my experience warrants me in saying that the use of stimulant food protracts the cure, and that the patient should be strictly kept upon a milk and farinaceous diet.

## Case 24.

### *Scabies associated with Impetigo.*

James C——, æt. 22, was admitted into University College Hospital, 4th December, 1838. He is an attorney's clerk, of a sanguine temperament, unmarried. He had lately led a very irregular life. He says a vesicular eruption appeared at the root of the thumbs, between the fingers and toes, and on the trunk of the body almost at the same time. He believes he caught it from a person with whom he shook hands, as the eruption appeared three days after this occurred. On entering the hospital, the eruption was in the form of large, round-headed, yellowish pustules, surrounded by inflammation on the above-mentioned parts; but there were no pustules on the face. The pustules were intermingled with vesicles, most of which had been ruptured by scratching, so that they appeared as minute dark scabs.

On the thighs and arms are patches of impetigo, the grouped small pustules of which are well contrasted with the large distinct pustules of Scabies. The itching is intense, especially during the night; and his sleep is consequently much disturbed. The pulse is 86; the bowels are open. There are neither vesicular pimples nor pustules on the penis. (*Ung. Sulph. comp. mane nocteque adhibendum.*) *5th.* Somewhat better. 18*th.* The Scabies is nearly well; but the impetigo has spread, and appeared on the face and elbows. His pulse is 90, hard and resisting. (*V. S. ad* ʒ xvj. ℞ *Iodidi Potassii Sol.* f ʒss. *Aquæ* f ℥j. *Haust. ter quotidie sumendus.* ℞ *Ung. Sulph. Ung. Cetacei* āā ℥j. *Mane nocteque utendum.*) 12*th.* The blood was cupped and buffed. The impetigenous eruption is better; there is scarcely any itching, the Scabies being cured; and he is altogether cooler. (*Omit. Ung. Sulph. Perstat in usu Haust. addendo Sol. Pot. Iodidi,* ♏x.) 3*d Jan.* The eruptions, both of Scabies and Impetigo, having disappeared, he was discharged cured.

## Case 25.

### *Pustular Scabies treated internally with Sulphuric Acid.*

Priscilla B——, a stout girl, æt. 17, was admitted into University College Hospital, March 1st, 1842. The arms, legs, hands,

and feet are the seat of numerous, large, whitish-yellow, pocky pustules, which gradually break, and form crusts, with an inflamed base. They both itch and are sore. (*Sulphuris* ℈j. *Pot. Bitart.* gr. x. *Ft. pulv. mane nocteque sumend.* ℞ *Acidi Sulph. dil.* f℥j. *Aquæ* f℥vj. *Cochl.* ij. *majora bis quotidie. Milk diet.*) 8*th.* Improved; but some fresh pustules have appeared on the hands and wrists. (*Perstat in usu Mist. addendo Acidi Sulph. dil.* f℥j. ℞ *Sulphuris* ℥j. *Iodidi Sulphuris* ℥j. *Adipis* ℥ij. *Ft. Ung. mane nocteque quotidie utendum.*) This plan was pursued without any alteration, except increasing the acid to f℥iijss. in the mixture, and adding ♏xl. of Tinct. Opii, with the daily use of the tepid bath till the 12th of April, when she was discharged cured.

In this case, although it was very severe and the pustules numerous, the Acarus *scabiei* could not be detected.

# PART II.

## NON-CONTAGIOUS DISEASES AFFECTING THE SKIN.

The non-contagious diseases affecting the skin are more numerous than those of a contagious nature already described; and, indeed, constitute the great portion of those affections which are usually termed *diseases* of the skin. Some of them are attended with fever; in others no febrile affection is obviously present; but the eruptions are nevertheless merely symptomatic of general derangements of the system, which, in fact, truly constitute the diseases. This part, therefore, comprehends four distinct classes of disease.

1. Non-contagious febrile diseases affecting the skin.
2. Non-contagious diseases affecting the skin, unattended with specific fever, and symptomatic of general derangements of the system.
3. Hæmorrhagic diseases affecting the skin.
4. Eruptions depending on diseases of the cutaneous glands.

---

## CHAPTER IV.

### NON-CONTAGIOUS FEBRILE DISEASES AFFECTING THE SKIN: THEIR CAUSES, NATURE, AND TREATMENT.

The diseases in this class have some resemblance to the exanthemata: but they are neither contagious nor infectious, and they may appear many times during life. They are often, however, obstinate in their nature, and extremely difficult of treatment. They are not very numerous; and are comprehended in the following five genera: —

Erythema,
Urticaria,
Roseola,
Miliaria,
Pompholyx;

each of which requires to be separately considered.

## 1. ERYTHEMA*—*Inflammatory Blush.*

Erythema† is characterised by a smooth, inflammatory blush, or redness, of some portion of the skin, accompanied with a slight swelling of the part; occasionally with some degree of heat and itching, and terminating either in furfuraceous desquamation, or merely passing off and leaving a purplish or bluish tinge, which gradually disappears. The disease is not contagious, but it often ushers in other diseases, and sometimes attends their terminations.

All the species of Erythema described by Dr. Willan, and those who have adopted the arrangement of that distinguished physician, may be comprehended under three; namely —

1. ERYTHEMA *febrile.*
2. ERYTHEMA *symptomaticum.*
3. ERYTHEMA *locale.*

1. ERYTHEMA FEBRILE, as its name implies, is preceded and accompanied by symptoms of general fever. The attack usually commences with a sensation of languor, followed by headache, rigors, a dry skin, and quick pulse; derangement of the stomach and digestive organs, indicated by a white tongue and nausea. These symptoms are sometimes accompanied with considerable mental and physical depression, with pains, and great tenderness of the limbs. But the fever is seldom severe; its duration is various, and it subsides when the eruption makes its appearance, whether it is *fugacious*, or assumes a *papulated*, a *tuberose*, or a *nodose* form.

In the first variety (*Erythema papulatum* of Willan), the eruption appears on the neck, breast, arms, and fingers, in the form of small, bright-red spots, slightly elevated above the skin, and usually attended with a sensation of heat and tingling, which is increased during the night, and occasionally, also, after meals. In some instances the spots are distinct and distant; in others they coalesce, and form confluent patches: but there is no decided swelling of the surrounding skin. The red colour does not take place until a day or more after the eruption has appeared as a colourless, papulated state of the skin; it continues for twelve or fourteen days, and then subsides, leaving a bluish or purplish tinge, which becomes yellowish as it disappears. This variety of febrile

* *Syn.* Ἐρύθημα. (*Hippoc.*); Erysipelas (*Celsus, Galen, et auct. var.*); Hieropyr (*Vog.*); Phlogosis erythema (*Cullen*); Dartre erythemoide, Herpes erythemoides (*Alibert*); Inflammatio erythema, — Cauma erythematicum (*Young*); Erythème (*F.*); Hitze, Flugfeuer, Hautröthe, Rothlaufgeschwulst (*G.*); Roodvouk (*Dutch*); Rödskalla (*Swed.*); Riscaldamenta, rubore, eritema (*Ital.*); Fuego (*Span.*).

† This term is very variously employed. By the ancients and some of the moderns it is used synonymously with erysipelas. Among the latter, Callisen and Ratan apply it to designate the slightest degree of erysipelas. Cullen applies the term to simple redness of the skin.

Erythema is most common in young females; but it attacks all ages. It is sometimes associated with rheumatism.

In the second form (*Erythema tuberculatum* of Willan), the eruption appears in large, irregular, prominent patches of a red colour, interspersed with small, slightly elevated tumours, which continue for about a week; after which the patches become of a livid purplish colour, and gradually assume the greenish-yellow hue of a bruise before they disappear. They are usually preceded by itching and tingling; but, after they fully appear, which is generally at night, they are tender and somewhat painful. This variety is less frequent than the former: it is most common in female servants, whose constitutions have been weakened by removing from the fresh air of the country to the confinement which their occupations necessarily impose in London. Mr. Wilson mentions, that "Mr. Corfe, of the Middlesex Hospital, has observed that it is generally associated with disordered menstrual function."* It is frequently attended with febrile symptoms.

The third form (*Erythema nodosum* of Willan), is a more frequent, but a milder complaint than either of the former; and also a more distinct variety. The eruption, which is preceded by slight febrile symptoms for seven or eight days, appears in oval, hard, painful protuberances, the long diameter of which corresponds with the axis of the limb. They rise slowly, are of a bright rose or pink colour at first, but, after eight or nine days, they become softer than they previously were, acquire a bluish hue, and then terminate like a slight bruise, occasionally with a mealy desquamation of the cuticle. The protuberances have much the appearance of nodes. They are generally seated on the arms and legs, and occupy those parts where the integuments are thin, for instance, the shin; but occasionally they rise, at the same time, on the more fleshy parts. They rarely appear on the thighs. The accompanying fever sometimes assumes an intermittent type; and the pain of the eruption is increased during the paroxysm, which usually occurs in the evening. This variety of febrile Erythema affects chiefly young females of delicate habits, in whom it is sometimes conjoined with chlorosis. Dr. Merriman says that he has "frequently witnessed it in children of both sexes;" but, although I have frequently met with it in girls under ten years of age, yet I have once only seen it in a boy, and never in the adult male. It is sometimes associated with strumous, colonic dyspepsia.

*Diagnosis.*—The character of febrile Erythema, under any of the forms which it assumes, renders it readily distinguished from all other febrile eruptions. It might, most readily, be confounded with erysipelas; but there is no inflammation of the subcutaneous tissue, and it never runs into vesication. It is attended

* On Diseases of the Skin, p. 163.

with more circumscribed tumefaction. From urticaria it is distinguished by being less evanescent, and having none of the stinging sensation characteristic of that disease.

*Causes.*—Febrile Erythema is generally referrible to some derangement of the digestive organs, causing congestion, and consequent inflammation of the cutaneous capillaries: but the system must be in a peculiar state or predisposition, the nature of which is unknown. Mr. Travers considers both Erythema and Erysipelas "modes of inflammation with inadequate power to carry them to a termination. They are," says he, "deficient in the adhesive state; they are incapable of a healthy suppuration, and their imperfect effusion or suppuration is at the expense of the life of the part." * But, as I have elsewhere † mentioned, although we may admit this reasoning in some of the varieties of erysipelas, yet, it certainly does not apply to Erythema. Erythema is occasionally the result of certain acrid, volatile substances. A person was attacked with it in the face every time he opened a bottle of nitro-hydrochlorate of potassa, or of dry ammonio-oxide of platinum. It spread rapidly over the face, which felt hot, itchy, and acquired a pale red hue.‡

*Prognosis.*—Febrile Erythema is generally a slight affection, and although it may become chronic, yet, it is easily relieved, and seldom extends beyond two or three weeks in duration.

*Treatment.*—The indications to be fulfilled in the treatment of febrile Erythema are two: — 1. To allay febrile excitement; 2. To diminish excitability by increasing tone. The first is fulfilled by the administration of small doses of calomel, combined with potassio-tartrate of antimony, or James's powder; with the ordinary saline medicines and gentle aperients, followed by the decoction of cinchona bark; with the mineral acids, and other tonics. No case has occurred under my observation which has required blood-letting. When tonics were necessary, I have found the decoction of cinchona to answer better than the disulphate of quina; although it is not easy to assign a reason for its superiority. There is frequently considerable depression, but I have rarely had occasion to order wine. When there is much pain, I have found the following anodyne useful:—

℞ Liquoris Ammoniæ Acetatis f℥iv.
Solutionis Morphiæ Bimeconatis ♏xx.
Vini Antimonii Potassic-tart. ♏ xxx.
Misturæ Camphoræ f℥vj.
Ft. haustus h. s. sumendus.

---

* Travers on Constitutional Irritation, p. 220.
† Bateman's Synopsis, 7th edit. p. 168, nota.
‡ Edin Medical and Surgical Review, vol. viii. p. 524

The diet should be light; and, to allay the tingling, the tepid bath may be used in the evening. Bateman recommends, as the best topical application, a lotion consisting of f℥x. of rectified spirit of wine, and f℥v. of rose-water. I have seen it employed with decided benefit.

2. Erythema symptomaticum is that form of the disease which is associated with, and depends upon, other morbid conditions of the habit. Like Febrile Erythema, the eruption assumes different appearances, which are the foundation of the species described and named by Willan. In some instances it consists of a superficial extended redness of the skin, without any appreciable swelling of the part. It is unequally diffused, and neither very red, nor much hotter than the rest of the skin, which is dry, and its heat greater than the natural temperature. It is generally symptomatic of some acute disorder of the abdominal viscera, and demonstrates the sympathy which exists between the skin and the mucous membrane.

When the eruption is fugacious, and consists of superficial, irregularly-shaped red patches, of short duration, appearing on the face, neck, chest, and arms, and accompanying various febrile affections, bilious diarrhœa, inflammatory gastric dyspepsia, follicular duodenal dyspepsia, hysteria, hemicrania, and some other affections in which the digestive organs suffer, it constitutes Willan's Erythema *fugax*.* It chiefly affects females; and is sometimes associated with uterine irritation, and occasionally with pregnancy. It usually disappears without desquamating. When it is produced by the distension of the skin, in aggravated cases of anasarca, whether in young persons of sedentary habits, or elderly persons who have led intemperate lives, and displays an uniformly smooth, shining surface, affecting chiefly the lower extremities in confluent patches, it is the Erythema *læve* † of the same author. It generally continues as long as the anasarca is present; and, when that disappears, terminates in extensive desquamation. Sometimes, although rarely, it has terminated in gangrenous ulceration; in which case the patches are previously of a dark-purple hue. This form occasionally occurs without anasarca, when the skin is distended by tumours of rapid growth; sometimes when the bowels are much deranged, and occasionally, in a transitory manner, in women at the menstrual periods. When the patches are round, of a vivid red colour, and bounded on one side by an elevated, hard, tortuous, red border, obscurely papulated, and the redness having no definite termination on the open side, this variety has received the specific name E. *marginatum* from Willan. In the early stage, the patches

* L'Erythème symptomatique (*Rayer*).

† L'Erythème idiopatique (*Rayer*); Erythema *odematosum* (*Good*); Odematous inflammation (*J. Hunter*).

are distinctly annular, and from half an inch to an inch in diameter; but as they advance, one side of the ring, as it were, gives way, and the appearance described above occurs. When the round margin becomes conspicuous only after the redness in the centre of the patch disappears, it constitutes the E. *circinnatum* of Willan; a form which is not unfrequently associated with acute rheumatism. I have seen it on the shoulders of young women apparently, otherwise, in good health. In such cases, it first appears as a small red spot, which fades in the centre, and then assumes a yellowish hue; whilst the slightly-raised edge seldom disappears until several weeks afterwards. This form is also sometimes symptomatic of gastro-intestinal inflammation in infants.

All of these forms are mere diversities of the same eruption, and require no distinct treatment, otherwise than refers to the diseases with which they are associated. In the last form the patches usually appear on the extremities and loins of old people, and indicate an unfavourable termination of the associated disease.

*Diagnosis.* — The only disease with which symptomatic Erythema may be confounded is Roseola. Both of these eruptions so closely resemble, and indeed run into one another, that it is almost impossible to distinguish them. Happily, it is a matter of minor importance; the treatment not depending on the aspect of the eruption, but on the nature of the disease upon which it is an attendant.

*Prognosis.* — These forms of symptomatic Erythema are in themselves almost always slight affections; but the first mentioned, when it attends bilious diarrhœa, generally denotes a state of danger, — a fact observed even by Hippocrates and the ancients.

*Treatment.* — Little requires to be said upon this part of our subject, the Erythema usually disappearing with the diseases of which it is symptomatic. In the second form, besides the diuretics and other remedies necessary for the removal of the anasarca, the limbs should be kept in the horizontal position, and the heat and irritation of the eruption allayed by one or other of the following lotions: —

℞ Liquoris Ammoniæ Acet. f ʒvj.
Spir. Vini rectif. fʒiij.
Misturæ Camphoræ f ʒvss. — M.

Ft. Lotio.

℞ Plumbi Acetatis gr. xij.
Aquæ Rosæ fʒvss.
Spir. Vini rect. fʒiij. — M.

Ft. Lotio.

3. Erythema locale. The only local variety of Erythema is the E. *intertrigo* of Willan *, which is caused by the attrition of con-

* Erythema intertrigo (*Sauv.*); Intertrigo (*Lin. Vog.*); Erythema ab acri inquillino (*Cull.*); Maculæ volaticæ (*Auct. var.*); Ecorchure (*F.*); Enat (*G.*); Kerch (*Arab.*).

tiguous surfaces, in fat and sanguine persons; especially females, in whom it usually appears beneath the breasts, in the axillæ, and at the upper part of the thighs. It is also common in fat children, wherever the skin forms deep folds, or between the buttocks, and in the groins; and is frequently accompanied with a pale, viscid, acrimonious discharge, which produces excoriations that extend beyond the original seat of the disease, if attention to cleanliness be neglected. This discharge is apparently a hurried secretion, caused by irritation of the sebaceous follicles, which are large in young children.

When it breaks out around the anus, it causes much uneasiness and pain in passing the fæces; and, in this part, it is not unfrequently the result of diarrhœa. The eruption of eczema, which frequently appears round the anus in adults, has been erroneously regarded by some writers as local Erythema. It is always accompanied with intolerable itching.

It may also arise from mere mechanical friction, chemical irritants, sinapisms, and the stings of insects. Incisions employed instead of punctures in anasarcous limbs, are sometimes apt to cause local Erythema, which may terminate in gangrene. Sometimes the surface is dry, red, and scurfy; and repeatedly desquamates.

Eruptions analogous to Erythema *locale* are frequently caused by morbid discharges, such as occur in gonorrhœa, leucorrhœa, dysentery, and by the urine and fæcal discharges in infants when cleanliness is not duly attended to by nurses. In some habits, and those labouring under diseases of a low type, the discharges causing local Erythema are fœtid.

*Treatment.* — The chief object in the treatment of Erythema *locale* is attention to cleanliness, frequent ablutions with tepid water; and, when the discharges are considerable, dusting the parts with prepared calamine, fullers' earth, or powdered starch. The levigated powder of carbonate of lead, cerussa, is often employed for this purpose; but it is apt to cause colic and paralysis, in the same manner as when this salt of lead is taken into the stomach. When there is much irritation, I have seen great relief obtained from what is usually termed the black wash, or still more from a lotion consisting of three grains of bichloride of mercury, a fluid drachm of dilute hydrocyanic acid, and six fluid ounces of emulsion of bitter almonds. I have occasionally known pencilling the parts with a solution of nitrate of silver, in the proportion of a drachm to a fluid ounce of distilled water, as serviceable as in erysipelas; and when the Erythema occurs from the person lying long upon the projecting points of the body, especially the hips *, as in low fever and in the bedridden, this is of all applications the best, and the most likely to prevent subsequent ulceration. The fœtor

* Vogel terms this Erythema *paratrimma*.

of the discharge is readily corrected by bathing the parts with a lotion composed of a fluid ounce of the solution of chloride of soda, and five fluid ounces of distilled water. In less severe cases, when excoriation has already taken place, decoction of bran, or marsh mallows, or mucilage of linseed and decoction of poppy heads, prove serviceable as emollient washes.

The Erythema caused by the sting of any insect, is most effectually relieved by bathing the part with solution of acetate of ammonia, containing an excess of ammonia; but when the sting is left in the wound, as in that caused by the bee, it must be abstracted before using the lotion. When the Erythema is the result of leech-bites, the best topical application is lint dipped in cold water, and kept moist by a covering of oiled silk.

## Case 26.

### *Severe Erythema affecting the Face and Lower Limbs.*

Jane W——, æt. 30, was admitted into University College Hospital, 5th of September, 1839, under Dr. Carswell. The place where she lives is damp; and she has been frequently exposed to rain, from which she has suffered. She says that the eruption, for the relief of which she was admitted into the hospital, appeared four months since, after she got wet. It then occupied the legs, and consisted of pale reddish tumours, about the size of half a walnut, but not much raised above the skin; and which, after a short time, became purplish. The face, thighs, legs, and feet are now covered with an erythematic eruption, rather of a papulated than nodose character. The bowels are open; the tongue is furred and brownish in the centre; the pulse is quick and sharp; the catamenia irregular. She has lately suffered from mental anxiety, owing to the death of her husband and a child. (*V. S. ad* ℥xij. ℞ *Vini Colchici* ♏xx. *Magnesiæ* gr. x. *Magnesiæ Sulph.* ʒj. *Aq. Menthæ Pip.* f℥jss. *Ft. Haust. 6tâ q. q. horâ sumendus. Low diet.*) 14*th.* The eruption has nearly disappeared, and she is otherwise much better. (*Omit. Mist.* ℞ *Infusi Artemesiæ* f℥ij. *Haust. ter quotidie sumendus.*) 16*th.* Not so well: the pulse is accelerated; there are pains in the limbs; the skin is hot; and fresh eruption seems about to appear. (*V. S. ad* ℥xij. *Rep. Mist. c. Colchici Vino.*) 19*th.* She is again better, but she complains of great pain in the right eye. (*App. Hirud.* x. *tempore dextro.* ℞ *Calomel.* gr. iij. *Opii* gr. ¼. *Muc. q. s. Ft. pil. 6tâ q. q. horâ.*) 20*th.* The eye is still painful. (*Mit. Sang. ope C. C. tempore dextro* ℥viij. *et postea app. Emp. Ext. Belladonnæ.*) 24*th.* The mouth is sore. (*Om. pilulæ*). 27*th.* The eye is nearly well, and the eruption rapidly dis-

appearing. (℞ *Cinchoniæ disulph.* gr. j. *Acidi Sulph. diluti* ♏v. *Aquæ* f℥ jss. *Haust. bis quotidie sumend. Balneum tepidum.*) *Oct.* 3*d.* Discharged cured.

## Case 27.

### *Erythema with Œdema of the Legs.*

Jane R——, æt. 27, was admitted into University College Hospital, July 25th, 1835. Both legs, but more particularly the left, are swollen: the skin is red and shining. Her appetite is good, her bowels are open, and the pulse is only 66, but full and resisting. (*V. S. ad* ℥xiv. ℞ *Calomelanos* gr. v. *Mucilaginis q. s. Ft. pilula h. s. quotidie sumenda.* ℞ *Magnesiæ Sulphatis* ℥iv. *Mane quotidie sumendus. Low diet.*) 28*th.* The blood was cupped and displayed the buffy coat. The pains, swelling, and redness of the legs have abated, but the pulse is 90 and resisting; the tongue is clean, and the bowels are relaxed. (*V. S. ad* ℥viij.) *August* 1*st.* The blood abstracted on the 28th ult. was neither cupped nor buffed. The redness of the legs has disappeared, and the swelling is greatly abated. The bowels are open; the pulse is 66. (℞ *Sol. Potassii Iodidi* f℥ss. *Aquæ* f℥xjss. *Haust. ter quotidie sumendus.*) 8*th.* The legs are again swollen and painful; the pulse is 70, tongue clean, and the bowels are open. (*V. S. ad* ℥viij. *Pergat in usu Misturæ.*) 11*th.* The blood is buffed and cupped: but the swelling and redness have disappeared, and she is also free from pain. (*Pergat in usu Misturæ.*) 15*th.* Discharged cured.

## Case 28.

### *The Nodose Variety of Erythema in a Boy.*

On the evening of the 16th February, 1818, I was called to see Master Charles F——, a delicate boy, thirteen years of age, who was supposed to have caught cold, and was then labouring under fever. He complained of languor, rigors, headache, thirst, and a sensation of pains in the bones. His tongue was slightly furred; the skin dry, but not very hot; the pulse 80, and the bowels torpid. He was ordered a three-grain calomel pill, and a purgative draught to be taken on the following morning; with the adjoined mixture to be commenced after the operation of the purgative: —

℞ Liq. Ammoniæ Acet. f ʒij.
Potassæ Nitratis ʒj.
Vini Sem. Colchici ♏xlviij.
Misturæ Camphoræ f ʒiv.—M.
Sumat Cochl. ij. maj. 4tâ q. q. horâ. Low diet.

12*th.* The bowels were well cleared, but he had no motion yesterday, and the febrile symptoms continued unabated. He had had scarcely any sleep. (*Perstat in usu Mist.* ℞ *Calomelanos* gr. iij. *Pulv. Jacobi* gr. ij. *Extracti Hyoscyami* gr. ij. *Ft. pil. h. s. sumenda. Rep. Haust. purg. cras mane.*) 15*th.* The febrile symptoms continued until this morning, when they disappeared, and a pinkish-red, circumscribed eruption appeared on the fore part of both legs. It consisted of five patches on the right leg, and seven on the left, of different sizes, from half an inch to two inches, but all oblong, slightly elevated above the skin, and nearly parallel with the tibia; evidently the nodose variety of Erythema. The tumours were firm and accompanied with considerable pain, which was increased in the evening, at which time a slight exacerbation of fever was experienced. The treatment was now necessarily changed, and the following medicine ordered. (℞ *Pilulæ Hydrarg.* gr. ij. *Pulv. Jacobi* gr. ij. *Ext. Papav.* gr. jss. *Ft. pil. h. s. quotidie.* ℞ *Mag. Sulph.* ʒij. *Magnesiæ* gr. xij. *Aq. Menthæ p. p.* f ʒj. *Haust. primo mane quotidie.* ℞ *Decocti Cinchonæ flavæ* f ʒjss. *Tinct. Serpentariæ* f ʒss. *Acidi Hydrochl. dil.* ♏ vj. *Acidi Nitrici dil.* ♏ vj. *Haust. ter quotidie sumendus.* ℞ *Plumbi Acet.* ʒss. *Alcoholis* ʒvj. *Aq. Rosæ* f ʒvij. *Lotio tumoribus appl. A mild but nutritious diet.*) No alteration was made either in the medicines or the topical application. On the 23d the tumours became softer, and began to subside, whilst they acquired a blueish tinge, mixed with greenish-yellow, as in the subsiding of a bruise; and, in a few days afterwards, no trace of them remained. The boy continued weak for some time, and was sent into the country to recover his strength.

## URTICARIA * — *Nettle-rash.*

Urticaria is a non-contagious, eruptive disease, characterised by moderately prominent patches of the skin, resembling those caused by the sting of a nettle, and accompanied with the burning,

* *Syn.* Febris urticata (*Vogel*); Purpura urticata (*Junck*); Scarlatina urticata (*Sauv.*); Caldas (*Plouq.*); Uredo (*Linn.*); Febris erysipelatosa (*Syden.*); Essera (*Heberden*); Erysipelas urticatum (*Burser*); Exanthesis urticaria (*Young, Good*); Fièvre orticé (*F.*); Nesselausschlag, Nisselfieber (*G.*); Brand-Nettlehoorts, Nettlesacht (*Dutch*); Nældefeber, Nældesot (*Dan.*); Nässelfaber (*Swed.*); Orticaria (*Ital.*); Ortigaria (*Span.*); Eshera (*Arab.*).

tingling sensation of that sting.* These patches, or wheals, are generally redder on the margin than the surrounding skin, with a paler summit or centre; they vanish and reappear, sometimes apparently shift from place to place, and occasionally terminate in slight desquamation of the cuticle.

Although Dr. Willan has described Urtcaria as constituting six species of the disease, and designated each by a distinct appellation as the eruption displays any deviation from the usual standard, yet, as the specific distinctions of that distinguished physician refer chiefly to the form and duration of the eruption, I am of opinion that the arrangement of the whole under three species only, will be sufficient for practical purposes; namely,

1. URTICARIA *febrilis.*
2. URTICARIA *chronica.*
3. URTICARIA *subcutanea.*

1. URTICARIA FEBRILIS, febrile nettle-rash, is preceded for two or three days by fever of a remittent type. It commences with languor, headache, pains in the limbs, together with a sensation of weight at the pit of the stomach, nausea, and occasionally cramps of the legs. Sometimes syncope occurs; and, more frequently, rigors. The heat of the skin, which succeeds the chills, is very considerable; the pulse is rapid and resisting; and, occasionally, there is delirium. These symptoms abate as soon as the eruption, which is usually sudden, makes its appearance; but the febrile symptoms reappear in the evening, and usually continue during the night, abating in the morning; and, throughout the day, the pulse is either at the ordinary standard of health, or falls below it. The wheals appear first upon the extremities, next upon the face, and ultimately spread to the shoulders and other parts of the body. They vary in form, size, figure, and appearance; but, under every state, they are accompanied with intolerable tingling and itching.

The most common appearance of the wheals is that of a more or less round or oblong, slightly elevated, circumscribed tumefaction of the skin, the central portion or summit of which is whiter than the skin, whilst the surrounded part, or border, is a crimson, rose-coloured blush, which lessens in depth of colour on its periphery, until it fades into the natural colour of the skin. The stinging sensation is increased with the febrile exacerbation in the evening, continues during the greater part of the night, and is augmented in severity on the exposure of the body to cool air on rising in the morning. The stinging sensation is most insupportable when the

* It is scarcely necessary to remark that the name of the disease is derived from the scientific name of the stinging nettles, Urtica *urens.*

wheals attack the scrotum. Wherever they appear they are fugitive, often disappearing a short time after they come out, without leaving any trace behind them; but they rapidly reappear, and, during the continuance of the disease, they may be brought out upon any part of the skin by friction or scratching. When they appear chiefly on the face or the limbs, they are often numerous, have a more inflamed base, and coalesce, forming the Urticaria *conferta* of Willan; but, although they assume more irregular forms, are attended with more itching and with less fever, these circumstances are not sufficient to constitute this variety a distinct genus. Bateman informs us that it "chiefly affects persons above forty years of age, who have a dry, swarthy skin."* When the stomach is in an irritable condition, the appearance of the wheals relieves it; but the derangement returns if the wheals suddenly disappear.

Febrile Urticaria usually affects the young, especially those of sedentary habits; but it may occur at all ages. When infants are suffering under it, although there is less fever than in youths and adults, yet the intolerable tingling is a source of great distress to the little patients. The disease is not an unfrequent accompaniment of some other diseases, such as some forms of dyspepsia, rheumatism, ague; and, it is also said, small-pox and purpura: but in these cases roseola may be mistaken for it. Sir Charles Clarke notices it as an occasional attendant on cancer of the uterus.†

As in all febrile affections, so in Urticaria *febrilis*, the secretions are more or less altered. The urine has been chemically examined by Scherer. He analysed that of a young man who was labouring under what he terms Urticaria *tuberculosa*; but this analysis can scarcely be regarded as satisfactory, as the patient was at the time suffering also under rheumatism. The urine was scanty, "often not more than five or six ounces in forty-eight hours. It was clear, of a brownish-red colour, very acid, and its specific gravity 1028. It contained in 1000 parts

| | |
|---|---|
| Water - - - - | 931·58 |
| Solid residue - - - - | 68·42 |
| Urea - - - - | 30·46 |
| Uric acid - - - - | 0·74 |
| Alcoholic-extract, with much lactic acid | 21·24 |
| Water-extract - - - | 4·92 |
| Alkaline salts - - - | 8·03 |
| Earthy phosphates - - - | 2·02 |

"The most remarkable points in the constitution of this urine

* Synopsis, 7th edit. p. 137.

† Clarke on Female Diseases attended with Discharges, 8vo. 1814.

were the large amount of earthy phosphates and the excess of free acid." *

*Diagnosis.* — Although the eruption of Urticaria *febrilis* renders it readily recognised, yet it has been confounded with erythema, roseola, and some of the exanthemata. The tumours of erythema are very different from the wheals of Urticaria. Erythema is accompanied with pain, but not with the stinging sensation of nettle-rash: when it subsides, a purple spot remains behind, and it possesses none of the fugitive character of Urticaria. The distinction between Urticaria and roseola is not so obvious, as the latter sometimes appears in wheal-like patches; but roseola does not appear and disappear, nor are the centre of the patches white, as in Urticaria, nor is it attended with the nettle-stinging sensation. Urticaria can scarcely be confounded with scarlatina, rubeola, or lichen.†

The stings of some insects closely resemble the wheals of Urticaria; but they do not disappear and reappear, and the mark of a puncture is always visible in the centre of the wheals caused by the stings of insects, which is not the case in nettle rash.

*Causes.*—Febrile Urticaria may originate from causes operating either locally or generally, and the seat of these, with a few exceptions, is either the stomach or the intestinal canal. Among the former, some are purely topical irritants; thus it is scarcely necessary to mention the application of the nettle, Urtica *urens*, the Loasa, and several other stinging plants, as well as several of the molluscous animals. The general irritations which may originate Urticaria in the predisposed, are various: dentition, derangements of the digestive organs, morbid affections of the uterus and the urinary organs, peculiarities of habit, or idiosyncracies in which some kinds of food, such as crabs and mussels ‡, caviare, salted fish, cheese, mushrooms, cucumbers, especially when eaten without being skinned, strawberries, raspberries, honey, bitter almonds, oatmeal, pickles, and cayenne pepper, all tend to produce the disease in some individuals; but the nature of the predisposition which favours it is unknown. Besides these Heberden mentions valerian internally administered, and the application of a common blistering plaster. § Indeed, in some individuals even the mildest food will produce it. The late Dr. James Gregory, the author of the Conspectus Medicinæ, could not eat a small portion of the

* Simon's Animal Chemistry, Day's Trans. vol. iii. p. 320.

† It was, however, at one time, regarded as a modification of the two former of these diseases, and purpura. The distinction between it and these diseases was first accurately pointed out by Vogel. — *De Cogn. et Cur. Morborum*, § 138.

‡ M. Breumié asserts that it is not the mussel which proves poisonous, but an almost microscopic species of starfish, which invests the mussel at certain periods, and which develope the morbid symptoms, that eating the mussel, at these times, induces. — *Devergie, Médecine Légale*, tom. ii. p. 801.

§ "Emplastrum cantharidis in quibusdam genuit hunc affectum, in aliis radix valerianæ sylvestris intus data." — *Comment. de Morb. Hist.* p. 149, 150.

white of egg without being attacked, a few hours afterwards, with severe Urticaria. I have known several people who suffered in the same manner after eating bitter almonds. Dr. Winterbottom was prevented from eating even sweet almonds on this account *; and Mr. Erasmus Wilson mentions that a member of his own family suffers from it after eating rice milk. With regard to some fish producing Urticaria, a few of the tropical fish, namely, the yellow billed sprat, Barracuda *porga*, Otaheite eel, and the king fish, are so constantly causes of severe Urticaria, at certain seasons of the year, that they have been regarded as truly poisonous at such times, although the nature of the change in them which renders them poisonous is unknown. It is unnecessary here to enumerate the symptoms that eating these fish occasions; the Urticaria, although severe, yet is the least hazardous of these, and can scarcely be regarded as leading to the fatal issue which often occurs. In all these instances, the nettle-rash must be referred to either direct or indirect irritation of the digestive organs. Among the exciting causes we may also include mental anxiety. The disease is more frequent in cold than in warm climates; women are more liable to its attacks than men; and, in a few instances, I have traced the disease to hereditary predisposition. I have never seen any case of the disease which could be traced to contagion. Heberden, however, in mentioning the same fact, adds, "Semel tantum dubitavi an vir illam ab uxore contraxisset." †

*Prognosis.* — Febrile Urticaria, in the form it usually assumes, is unattended with danger; but instances have occurred, in which it has assumed a severe character, and from the sudden retrocession of the eruption it has proved fatal. Dr. Willan relates a case of this description, which he saw in a man about fifty years of age, who had led a life of intemperance. Whilst the eruption continued vivid, he was relieved from nausea and great pain of the stomach, which had preceded its appearance; "but, on its sudden disappearance about the fifth day, the febrile symptoms and delirium became more violent than at first. On the sixth day it appeared again on the face; he was, notwithstanding, very hot, restless, and delirious. He remained in the same state during the following day, and died in the evening." ‡

*Treatment.* — Although in the greatest number of the cases of Febrile Urticaria, palliative, rather than directly curative measures, are required, yet in some cases bloodletting is necessary; and, in plethoric persons, with a sharp resisting pulse, it is generally followed by beneficial results. When the attack can be traced to substances that have deranged the stomach, an emetic of sulphate

* Med. Facts and Observations, vol. v.

† Commentarii de Morb. Hist. p. 150.

‡ Willan on Cutaneous Diseases, 1813. Similar cases are recorded by Van Sweiten, *Comment. ad App.* 723.; and by Werlhoff, *De Variolis et Anthracibus, Hanov.* 1735.

of zinc, or sulphate of copper, should be administered; and afterwards the bowels should be evacuated by means of a brisk purgative. As long as the fever preserves its remittent character, it should be moderated by mild laxatives, and the saline mixture, with doses of ten to fifteen grains of nitrate of potassa, and fifteen to twenty minims of the wine of the seeds of colchicum, given every fourth or fifth hour. If it assumes an intermittent type, the disulphate of quina may be prescribed without reference to the eruption, the stomach and bowels having been previously well cleared. I have found the alternate administration of a purgative and tonic, in the following forms, in some instances, more beneficial than the disulphate of quina: —

℞ Magnesiæ Sulphatis ʒiv.
Infusi Rosæ f ʒxj.
Tinct. Jalapæ f ʒj.
Acidi Sulph. diluti ♏x. — M.
Haustus primo mane quotidie sumendus.

℞ Tincturæ Cinchonæ comp. ♏xxxvj.
Acidi Sulph. diluti ♏xviij.
Decocti Cinchonæ flavæ f ʒxj.
Syr. Aurantii f ʒss. — M.
Haustus ter quotidie sumendus.

The diet in Febrile Urticaria should be light and cooling: the patient should abstain from wine, spirits, and malt liquors. This caution is especially requisite in those cases in which the wheals are numerous and coalesce; and which demand the employment of alteratives and tonics. When the disease occurs during dentition, the gums should be deeply scarified, and every cause of irritation removed; the bowels kept open by means of rhubarb and magnesia; and the habit soothed by the tepid bath morning and evening. As soon as convalescence commences, a combination of tonics and alkalies, or the alkaline earths, tend to diminish the susceptibility of impression, and to fortify the habit. Perhaps the most useful combination for fulfilling this indication is the old compound contrayerva powder; but it is now seldom prepared. I have usually prescribed the following powder for children under two years of age: —

℞ Magnesiæ gr. iv.
Sodæ bicarbonatis gr. vj.
Pulveris Rhei gr. iij.
Pulveris Calumbæ gr. vij. — M.
Ft. pulvis mane, et meridie quotidie sumendus.

No topical application calculated to repel the eruption should be employed: but stimulant lotions are useful in allaying the itching and stinging, which are often almost insupportable. In slight cases, vinegar and water, in the proportion of two parts of the

former to three of the latter, will be found sufficient to produce comfort, and a respite from the tingling; but, in more severe cases, the following lotion will be found more efficacious: —

℞ Spir. Vini rectificati f ℥ij.
Aceti Destillati f ℥j.
Aquæ Destillatæ f ℥v.—M.
Lotio ope spongiæ, pro re natâ, applicanda.

If the eruption recedes suddenly, and the stomach suffers, blisters may be applied on the epigastrium; or stimulant liniments, sufficiently strong to cause either powerful counter-irritation, or to bring out rapidly a crop of vesicles or pustules, should be prescribed.

2. Chronic Urticaria (Urticaria *evanida*, Willan) is that variety of the disease in which the eruption appears and disappears at short intervals, and in this manner continues to harass the patient for a considerable period of time.* In general it is not attended with fever, nor any other very obvious derangement of health; although, occasionally, it is accompanied with headache, irregular pains in different parts of the body, and an irritable condition of the stomach. The wheals have more the appearance of the effects caused by the lash of a whip than the sting of a nettle, being long and streaky. As in Febrile Urticaria, they are readily produced by scratching or friction, yet they rapidly subside. They are seldom surrounded by the red base, which is always more or less present in the former variety. The sensation of itching and stinging is severe, and most troublesome on rising from bed, or undressing; it is increased, also, by all the circumstances that increase it in Febrile Urticaria.

Chronic Urticaria attacks persons of all ages, and both sexes: females, however, are more liable to it than males; and it is also most common in those of sanguine temperaments. The wheals are of various duration, sometimes continuing, with short intervals, for several months, sometimes for years. I was consulted by a distinguished physician on the case of his wife, in whom the disease had resisted every remedy for upwards of a year, but ultimately disappeared. Dr. Willan mentions one which continued upwards of two years, with a few short intervals; and Heberden another, which did not terminate for ten years. In debilitated habits, the wheals occasionally acquire a large size and considerable induration, attended with much heat and deep-seated pain, becoming tumours (Urticaria *tuberosa*, Willan); and, when they appear on the loins or the extremities, they tend to impede motion. The wheals are very evanescent, coming out at night and disappearing in the morning. They sometimes extend to the breadth of the

* Heberden says—"Novi quos male habuerit biennium cum paucis intermissionibus; alios vero septem, aut etiam decem annos vexabit." — *Commentarii*, p. 149.

hand, and are much swollen; and when they disappear the parts remain with a sensation of having been bruised, and the patient feels as if suffering from fatigue and languor. This variety generally occurs in persons of intemperate habits, who have indulged freely in the excesses of the table: it is always tedious and obstinate. In some cases of Chronic Urticaria, the wheals do not disappear, but continue stationary, hard, and itching, although the redness which originally surrounded them has disappeared, the swelling only remaining. After continuing in this state for some weeks, the swelling gradually subsides, and leaves behind it a faint reddish patch, which, after a few days, completely vanishes.

As in Febrile Urticaria, so in the chronic variety, the secretions suffer changes. A satisfactory examination of the urine of a person labouring under Chronic Urticaria, was made by Dr. D. Maclagan. The attacks occurred almost daily, after every meal; the wheals appearing especially on the face and arms. The urine was of a sp. gr. 1010; but it contained no albumen. About ten ounces of it, passed in the morning, were submitted to analysis; it was of a pale straw colour, transparent, and free from any deposit. It afforded a faint acid reaction; its density was 1000·039; and 1000 parts yielded —

| | |
|---|---|
| Urea - - - - - - | 6·91 |
| Uric acid - - - - - - | 0·05 |
| Inorganic salts - - - - - | 12·03 |
| Other organic matters and water - - | 981·31 |
| | 1000·00 |

Comparing it with healthy urine, the urea and uric acid were deficient; and there was an excess of inorganic salts. Dr. Maclagan inferred that the defect of the urea and uric acid arose from the "want of what modern chemists term the products of transformation of the tissues; and the retention, in this way, in the system, of matters which ought to be eliminated from it, might be the cause of the cutaneous irritation, especially recurring as it did after meals."* On this suggestion, Dr. Scott, who was attending the gentleman, put his patient on a course of the tincture of the seeds of colchicum. After using it for about a fortnight, the density of the urine increased to 1029·9; the urea to 20·36; the inorganic salts only to 12·72. The quantity of urine was tripled; whilst the proportion of water it contained was diminished, comparatively with the other ingredients.

*Causes.* — Chronic Urticaria can generally be traced to some irregularity of diet, or an irritable condition of the stomach, or to idiosyncracy. The difficulty, in the latter case, is to ascer-

* Monthly Journ. of Med. Science, Aug. 1846, p. 157.

tain the offending causes; which may be fish, or pork, or raw vegetables; or many other articles of diet, such as cheese, eggs, sugar, honey, fruits, wine, spirits entire or diluted, or vinegar. As the appearance of Urticaria in what is termed fish poisoning is merely incidental, I do not think it necessary to enter into any details upon that subject.

*Treatment.* — Chronic Urticaria most frequently depends upon some article of diet operating as a morbid excitant on the stomach; but the difficulty of detecting the offending substance is considerable. It can only be accomplished by omitting first one, and afterwards successively other articles of food or drink, marking the influence of each omission for a few days, until the offending article be detected; when the use of it must be immediately and permanently discontinued. If this be not effected, our next object should be a strict investigation of the state of the cylopoetic viscera. If the tongue be red, glazed, and tender, indicating the existence of gastric inflammatory dyspepsia, recourse must be had either to leeches or cupping on the epigastrium, following the local abstraction of blood by mild purgatives, and afterwards by alkalies and hydrocyanic acid, in combination with non-excitant tonics, such as infusion of calumba, or quassia, or gentian. When the irritability of the stomach is not so considerable, the mineral acids may supersede the alkalies. I have observed much benefit from the tincture of the sesqui-chloride of iron, in doses of fifteen or twenty minims, decomposed, by mixing it, at the moment of taking the dose, with a scruple of bicarbonate of soda, dissolved in a fluid ounce and a half of infusion of orange-peel. Whenever the disease assumes an intermittent character, disulphate of quina, or any other antiperiodic is indicated, on the principle which demands their employment in ague.

As topical remedies to allay the itching and tingling, a course of tepid bathing, or the vapour bath, continued for several successive weeks, has proved highly beneficial. Temporary relief may be obtained from lotions composed of one part of spirit of wine to three parts of water; or vinegar and water in the same proportions; or simple, undiluted lemon-juice. I know no lotion which is so permanently serviceable as the following: —

℞ Hydrargyri Bichloridi gr. iij.
Acidi Hydrocyanici diluti f℥ij.
Misturæ Amygdalæ Amaræ f℥vjss. — M.
Ft. lotio ope spongiæ subinde applicanda.

The food and beverage of the patient should be the same as that proper for the febrile variety of the disease.

3. URTICARIA SUBCUTANIA is not, at first, characterised by the appearance of wheals: indeed, no rash generally is thrown out; but the itching and stinging sensation, as if hot needles were thrust

into the skin, is intolerable, especially when sudden changes of temperature occur. Its attack is usually confined to one or two of the extremities; more commonly a leg: from which it extends to all the limbs, and occasionally to the trunk of the body. It is usually accompanied with stiffness in the affected parts. Although this form of the disease might properly be termed *Latent Urticaria*, yet occasionally a few wheals appear at distant intervals: but they are very transitory, continuing only for a day or two, and then disappearing without any relief to the other symptoms. This variety is often attended with pain at the epigastrium, and severe cramps of the legs.

*Causes.* — These are similar to those of the other two varieties. The difference of the symptoms may depend on some condition of the nervous system, which we have no means of ascertaining.

*Treatment.* — This consists chiefly in confining the patient to mild, unstimulating diet, and administering gentle aperients. I have seen much advantage derived from tepid sea-water bathing, and gentle friction whilst in the bath.

## ROSEOLA — *Rose-rash.**

Roseola is a rose-coloured rash or efflorescence of the skin, devoid of any elevation of the surface, either papulæ, or wheals. It appears in small irregular patches, which occasionally fade and revive. It is usually accompanied with slight fever, but is neither contagious nor infectious. It is frequently the precursor of other more important eruptions; and sometimes accompanies dentition and dyspepsia. These circumstances induced Willan to arrange Roseola under seven distinct species; but on this principle the species might be greatly extended, as it not unfrequently appears associated with many diseases. I am of opinion that there are only three species, namely —

1. Roseola *æstiva.*
2. Roseola *autumnalis.*
3. Roseola *symptomatica.*

1. Roseola *æstiva,* Summer Rose Rash, appears in summer, most frequently in adults of nervous irritable habits, especially females. It is sometimes preceded by slight fever; during which the rash

* *Syn.* Rubeola (*Frank*); Rossalia, Rossania, Purpura Scarlatina (*Auct. var.*); Exanthisma *roseola* (*Young*); Exanthesis roseola (*Good*); Eruption rosacée, roseole; Fausse rougeole (*F.*); Rothlen, Wiebelsucht, Wieblen, Ritteln feurmasern, Rother hund (*G.*); Roodvonk (*Dutch*); Kur (*Polish*); Rossalia, Rossania (*Ital.*).

The term Roseola, appropriated by Willan to this eruptive disease, is exceptionable, inasmuch as colour is liable to vary from the most trivial causes.

first displays itself in the arms, face, and neck, whence it extends over the body. It appears in small irregular patches, of a rose-colour, with the intervening spaces the natural colour of the skin: its vividness increases through the second day, after which it declines in brightness, and generally disappears on the fifth day. The rash usually shows itself first at the most prominent point of the portion of the surface which it affects; for example, on the fingers, before it spreads to the hands and arms; around the nipple, before it extends over the breast; and on the nose, prior to its appearance on the other parts of the face. Sometimes it is accompanied with erythematic inflammation of the fauces and swelling of the tonsils. It occasionally disappears and reappears, without any obvious cause, although its variation in this respect has been attributed to taking wine, spiced food, and even mental causes. It generally appears in the evening, reaches its acme on the following day, and disappears on the fifth day along with the febrile symptoms. When it suddenly recedes, its recession is followed by gastric disturbance, which is relieved when the rash returns. Under such circumstances, the disease may continue for an indefinite period.

When this form of the disease occurs in infants (Roseola *infantilis*, Willan) during dentition, it is more irregular in its appearance; sometimes, after showing itself for a single day or a night, it disappears for several successive days, and again appears. The patches are usually smaller and more crowded than in adults; and it is also more partial in infants, being often confined to a single limb. The constitutional affection is variable in degree; but the eruption is always attended with more or less itching.

*Diagnosis.*—This form of Roseola may be mistaken for scarlatina, measles, urticaria, or erythema; and it is not improbable that some of the cases of scarlatina, supposed to be a second appearance of the disease, were attacks of Roseola, especially when the fauces have been affected, which is not unfrequent in Roseola *æstiva*. It is distinguished from scarlatina by the colour of the eruption; by its appearance, first in the extremities, and lastly passing to the trunk, the reverse of the progress of the eruption in scarlatina; neither does it afford the rough feeling when the finger is passed over the rash. In the greatest number of cases of Roseola there is no obvious affection of the throat.

From measles, the absence of catarrhal symptoms, sneezing, and watery eyes; the irregular form of the patches instead of the crescentic shape of those in measles; its non-papular surface, and its paler hue, readily distinguish it. The fever of Roseola is slight compared with that of measles; it is also not contagious. From urticaria it is distinguished by the absence of wheals, and the less evanescent character of the eruption. The tingling stinging sensation, also, which accompanies urticaria, is not present

in Roseola. With respect to erythema, the rash of Roseola is more superficial than in that disease; it is also more disseminated over the skin. In some instances, however, it is difficult to determine between this form of Roseola and erythema. In the latter the patches are larger; the skin is more swollen than in Roseola; and the redness, on disappearing, leaves behind it a purplish tint, which is not the case in Roseola.

*Causes.* — Roseola *æstiva* is usually referred to the increased heat of summer acting on a sensitive irritable skin; but it is more likely to depend on some derangement of the gastric and intestinal secretions, or an augmented, hurried secretion of bile, so frequently the result of the sudden setting in of hot weather. It may also arise from sudden alternations of temperature, or the indiscreet use of cold liquids after violent exercise, or exertion of any kind. In some instances it has appeared connected with irregular menstruation. It may occur at any period of life, but it is most frequent in infancy, when it is often connected with dentition and the disordered state of the bowels which frequently attends that process. It attacks females more frequently than males.

*Prognosis.* — This form of Roseola is always a slight affection, altogether devoid of danger.

*Treatment.* — The treatment of this form of the disease requires scarcely any comment. The *nimis diligentia medici* always does harm. The causes of the attack must be avoided, as well as any circumstance which, during the presence of the eruption, might occasion its retrocession. The habit should be kept cool, but not exposed to currents of air; and the bowels preserved gently lax. If dentition be present, the gums should be scarified, the bowels relieved daily, and the compound powder of contrayerva, with small doses of nitre, administered twice a day. During the presence of the rash, tepid water should be employed for the morning ablutions of the infant, and the breast-milk ought to be its only food. The tepid bath is always useful.

2. Roseola *autumnalis* is attended with more fever than the summer variety; although, occasionally, little or no fever either precedes or accompanies the eruption.* The rash is displayed in distinct circular, or oval, circumscribed, scattered patches, which rarely exceed two thirds of an inch in size, and are of a deep damask-rose colour. It appears chiefly on the arms, continues for the space of six or eight days, and then gradually disappears or terminates in a scurfy desquamation.

A rather severe variety of this species appears on every part of the body, in the form of rose-coloured rings (R. *annulata*, Willan), with the central areas of the colour of the skin. The rings, at first,

* Two cases of Roseola, accompanied with much fever, are recorded by Dr. Bateman in the *Edin. Med. and Surg. Journ.*, vol. viii. p. 225.

seldom exceed a line or two lines in diameter, but they extend until the central spaces exceed half an inch: in some cases I have seen them dilate to an inch. The rose-coloured circle is pale in the morning, but increases in vividness as the day advances, and becomes deeply coloured in the evening and the night, during which time it is attended with considerable itching. As in the former variety, the recession of the eruption is attended with much gastric and intestinal disturbance. When fever is present, the eruption is of short duration; on the contrary, when no obvious constitutional symptoms display themselves, it becomes chronic, and continues for an indefinite period. In a case recorded by Dr. Willan, the disease recurred for several months during three successive years. Its sudden disappearance is not unfrequently accompanied with languor, pains in the limbs, vertigo, and considerable derangement of the stomach.

*Diagnosis.* — The only disease likely to be confounded with this form of Roseola is Erythema *circinnatum* of Willan, when the spots assume the annulated appearance: but the latter is recognised by the rings being broader than those of Roseola *autumnalis;* by their running into one another; by their termination in desquamation; and by the central parts having a yellowish tinge instead of the natural colour of the skin.

*Causes.* — It is more difficult to trace the origin of this variety of Roseola than that of R. *æstiva.*

*Prognosis.*—This form of Roseola is as free from danger as the summer rash.

*Treatment.*—When fever is present in Roseola *autumnalis,* it must be allayed by means of gentle aperients and saline refrigerants; and these followed by a mixture, consisting of a drachm of sulphate of magnesia dissolved in the infusion of confection of roses, or of gentian, acidulated with fifteen or twenty minims of diluted sulphuric acid, given twice a day. If the itching or tingling be very troublesome, a few minims of tincture of opium may be added to the mixture; and either of the following lotions applied twice or thrice a day :—

℞ Plumbi diacetatis f℥j.
Spiritus Vini rectificati f℥iij.
Aquæ Rosæ f℥vijss. — M.

Ut ft. Lotio.

℞ Hydrargyri Bichloridi gr. ij.
Acidi Hydrocyanici diluti f℥ij.
Misturæ Amygdalæ Amaræ f℥vij. — M.

Ft. Lotio.

In cases where the tingling or itching is moderate, sponging with hot water, or the tepid bath, affords much relief.

When the disease assumes a chronic character, nothing proves

more serviceable than a course of sea-bathing, in addition to the use of the mineral acids.

3. Roseola *symptomatica.* Roseola is occasionally seen preceding, or associated with, small-pox, cow-pox, continued fever, rheumatism, gout, and cholera. The appearance which it assumes, in its companionship with these diseases, varies, but not so much as to constitute each difference a distinct variety. When it accompanies small-pox (Roseola *variolosa*, Willan), it usually occurs on the second or third day of the fever of incubation, although, in natural small-pox, it seldom precedes the eruption. It suddenly appears first on the arms, breast, and face, and then extends to the trunk at an early period. After the introduction of small-pox into Europe, it was regarded as measles, which were supposed to be subsequently converted into small-pox; an opinion likely to have been suggested by the fact, that on the second or third day after Roseola has appeared, pimples rise in the midst of the patches, and, in two or three days afterwards, these enlarge, become depressed in the centre, and display all the diagnostic features of small-pox. It more commonly accompanies inoculated than natural small-pox, and usually appears on the second or third day of the eruptive fever. Dr. Willan says, that it occurs once in every fifteen cases of inoculated small-pox. It resembles Roseola *æstiva*, the interstices in some cases being considerable, and the patches distant; whilst, in others, they are so small as to give the eruption the aspect of a continuous rash covering the whole of the body. The patches are sometimes, although rarely, slightly elevated. They usually disappear as the variolous pustules are formed. The following case illustrates the course which it runs. *June* 30*th*, 1826, I was requested to see Miss ———, who was supposed to be labouring under scarlatina. The hands, forearms, feet, lower legs, and the mammæ around the nipples were covered with the roseolous rash, but there were scarcely any patches on the chest, none on the face, nor on the back nor abdomen. The fever was moderate, the pulse soft, the tongue moist; a slight blush spread over the fauces, and there was a kind of pustule on the left tonsil. On the following day, the eruption had declined on the legs and arms, and was beginning to show itself on the face, neck, and trunk; and a few, distinct, variolous pustules rose on the face: the pulse was still soft, and the uneasy sensation in the throat was gone. *July* 2*nd*. The rose-rash was gone, and the pustules were advancing.

This rash is often regarded as prognosticating a mild case of small-pox: but this opinion is not always verified; on the contrary, some writers mention it as the precursor of a severe disease, when it precedes the eruption in natural small-pox.* Willan regards it

* Inquiry into the Small-pox, Medical and Political, chap. viii. Edin. 1790.

as indicating confluent small-pox and danger when it is of a deep red colour, and attended with high fever. It was always considered a good omen by the early inoculators.

In children of irritable habits, and with thin delicate skins, Roseola appears as an accompaniment of cow-pox (R. *vaccina*, Willan). It displays itself in the form of clusters of minute dots and small patches; sometimes as a diffused red rash round the place of inoculation, or when the areola that surrounds the vaccine vesicle is forming, whence it occasionally extends irregularly over the whole body. This rash rarely continues more than two days, when it accompanies cow-pox; but the fever is always high, the pulse rapid, the tongue white, and the patient suffers from wakefulness.

When Roseola occurs during either simple continued fever, or typhus, it resembles R. *æstiva*, except that it is of a deeper colour than usual in that form of the disease. It may display itself at any period of the fever, but it most frequently occurs after the febrile symptoms have run their course for some days. The patches are slightly elevated, but quite smooth, of a bright rose-red colour, and unaccompanied with itching, or any uneasy sensation. The fever frequently abates when the rash appears, which is usually upon the arms and the breast. The patches extend and sometimes coalesce for twenty-four hours, after which they fade and leave a faint purplish stain, which also soon vanishes. I have seen the rash return and disappear several successive times during the course of the fever. A similar roseolous eruption sometimes accompanies gout and acute rheumatism. It is not easy to explain its appearance during these diseases; but it requires no particular treatment. The rash usually disappear spontaneously; and its presence does not interfere with the management of the diseases which it accompanies.

### Case 29.

*Roseola from checked Perspiration.*

Elizabeth H——, æt. 19, was admitted into University College Hospital, 22d January, 1846. She was a tall young woman, with a ruddy complexion, and a cheerful disposition; a native of London, and living in a dry, open situation. She had been subject to swelling of the tonsils, but was otherwise healthy. She was attacked, six days before, with pain and stiffness, of the neck, headache, and general feverishness. In two days these symptoms subsided on the appearance, on the back of the hands and the feet, of a roseolous eruption, which disappeared and reappeared several successive times. A medical gentleman, who saw her, prescribed

opening medicine and a gargle. She ascribed the attack to having sat down upon grass after much fatigue, which had induced a copious perspiration.

On entering the hospital, the eruption was confined to the hands and feet. She felt slightly vertiginous when sitting up, but was free from fever. The pulse was 82, full; the respiration and the chest sounds natural. The tongue was furred, and the right tonsil somewhat swelled. The bowels were open; the urine acid, and free from albumen; and deposits, sp. gr. 1025.

℞ Magnesiæ Sulphatis ʒiv.
Infusi Sennæ fʒx.
Misturæ Camphoræ fʒvj. — M.
Ft. Haustus primo cras mane sumendus.

℞ Liquoris Ammoniæ Acet. fʒiv.
Potassæ Nitratis gr. xv.
Misturæ Camphoræ fʒj. — M.
Ft. Haustus 4tâ quâque horâ sumendus.

25*th*. The eruption has disappeared. The pulse is 68; the urine natural; the bowels confined. (*Haustus purgans quam primum sumendus. Pergat in usu Haustuum.*) 30*th*. The eruption has not returned. In other respects, also, she feels well. Let her be discharged.

## MILIARIA* — *Miliary Eruption.*

This eruption has been already noticed, under the name *Sudamina*, when it was mentioned as accompanying continued fever. It can scarcely be regarded as an idiopathic affection, although some distinguished medical writers have described it as such†; and even as a symptomatic eruption it is less frequent than was formerly the case when fevers and the exanthemata were treated by stimulants, and those suffering under them were kept in close and hot apartments. It is always connected with increased vascular excitement of the skin.

* This name is derived from the size and the aspect of the vesicles of the eruption resembling the *Millet seed*, Milium. *Syn.* Ἴδρωα (*Gr.*); Sudamina (*Roman*); Miliaris (*Syden.*); Febris miliaris (*Vogel, Hamilton, Fordyce, Webster*); Febris purpura (*Junck*); Exanthema miliaria (*Burser, Parr*); Febris purpurata miliaris (*Hoff.*); Emphlysis miliaria (*Good*); Synochus miliaria (*Young*); Morbus miliarium (*Allion*); Fièvre-miliare, Millet (*F.*); Die Friselblattern, Friesel (*Germ.*); Gierskoorts (*Dut.*); Friesler (*Dan.*); Friesel (*Swed.*); Febbre migliare, Miarola (*Ital.*); Milios, Calentura miliar (*Span.*); Sarpulidos (*Lima*).

† For a list of these, see Bateman's Synopsis, 7th edit. p. 346.

Miliaria is characterised by an eruption of roundish vesicles about the size of a millet seed, transparent at first, and surrounded by a slight inflammatory blush, which is seen through the translucid vesicles, and imparts to them somewhat of a pinkish colour. In less than thirty hours the serum becomes opaque, and the vesicles acquire a white pearly appearance; after which, at an uncertain period, varying from three to four days, they shrivel, and terminate in desquamation.* The eruption is generally preceded by languor, a sensation of sinking, and accompanied with profuse perspiration and tingling of the skin. Rayer mentions the sensation of a hot vapour diffused over the body. It is certainly accompanied with both heat and itching. The vesicles, although crowded together, yet, never become confluent: they appear chiefly on the breast, back, and thighs, occasionally on the neck, but rarely on the face. Fresh vesicles, or crops of vesicles, rise daily, during the continuance of the attack, the duration of which is uncertain; much depending on the treatment of the febrile affection with which it is associated. When it was the custom to treat acute rheumatism with powerful diaphoretics, I have seen Miliaria break out and continue for many weeks, successive crops of the vesicles rapidly succeeding one another. In some instances, apthous vesicles have appeared in the mouth and on the fauces at the same time as on the skin.

When the lymph of the vesicles is examined, it displays an acid reaction; and the urine is usually loaded with lithates.

*Diagnosis.* — It has been supposed that Miliaria might be confounded with eczema and herpes: but, independent of the difference between the form of the vesicles, and their clustered and even confluent character in eczema, the eruption of Miliaria never appearing but as an accompaniment of some distinct febrile affection, is sufficient to distinguish it from eczema. With respect to herpes, the greater size of the vesicles, their appearing in clusters upon an inflamed patch, and the deep-seated, acute pain which usually precedes their appearance, are diagnostic features quite sufficient to distinguish herpes from Miliaria.

*Causes.* — Miliaria is the result of a highly excited state of the cutaneous vessels, especially when the excitement is sufficient to produce copious sweating. It accompanies fevers in which a heated and perspiring state of the skin is one of their characteristics, as in acute rheumatism. It is not unfrequent during scarlatina. It sometimes accompanies dentition; and still more frequently the puerperal state, when the hot regimen is pursued, which, happily, is now seldom the case. Indeed any disease which confines a person to bed, if he is loaded with bed-clothes, takes hot drinks, and

* The two former appearances of the vesicles led to the erroneous idea that there were two species of Miliaria — M. *rubra* and M. *alba*.

is in a close ill-ventilated room, may induce Miliaria. Even violent exercise in the heat of summer is sometimes followed by a crop of miliary vesicles. Rayer regards it as contagious, but he describes it as an idiopathic affection, and appearing as an epidemic.* I have never seen the disease which he describes; and never Miliaria under any other form than an accompaniment of some other disease. It is not improbable that the miliary eruption in the epidemic he describes was merely associated with the fever, but not itself the disease.

*Treatment.* — As Miliaria can only be regarded as a symptomatic affection, its treatment must vary according to the nature of the disease which it accompanies. In every instance, however, cool air, cooling subacid diluents, and frequent changes of body-linen and bed-clothes are essential. It usually subsides under this plan of treatment, without any other medical management than that which the disease it accompanies requires.

## POMPHOLYX †— *Water Blebs.*

Pompholyx may be defined — "an eruption of bullæ without an inflammatory border; bursting and discharging their contents, and healing under the cuticle or crusts; preceded and attended by some degree of fever; non-contagious."

Rayer‡ and Biett§ have considered the disease as consisting of two distinct species, namely, Pemphigus *acutus*, and Pemphigus *chronicus;* and they have been followed by Mr. Erasmus Wilson‖, who has also adopted the term Pemphigus, the appellation by which it is generally known on the Continent. With regard to the terms *acute* and *chronic*, the former may be applied to both the forms of the disease, described by the writers who employ them; the chronic differing from the acute only by the lower type of the accompanying fever, and a more protracted succession of bullæ; circumstances depending altogether on the constitution and age of

* Hist. de l'Epidémie de Suette Miliare qui a regne en 1821 dans le Departement de l'Oise, 8va. Paris.

† I have adopted the term Pompholyx in preference to Pemphigus, as the Greek Πέμφιξ means an air bubble; but Πομφόλυξ a bubble filled with watery fluid. "Hæ enim pustulæ (Πόμφοι), si Galeno credamus, bullæ sunt humore plenæ seroso illo ac sanguineis partibus turgido." — *Lorry, de Morbis Cut.* p. 234.

*Syn.* Πομφόλυξ (*Gr.*); Wassenblassen, Blusenauschlag (*Ger.*); Fièvre bulleuse (*F.*); Abenje (*Arab*); Pemphigus sine pyrexia (*Sauv.*); Pemphigus apyretus (*Plenck*); Herpes Phlyctenoides, confluens Pemphix (*Alibert*); Ecphlysis, Pompholyx (*Good*); Pompholyx (*Willan, Bateman, Auct. var.*); Water Blebs.

‡ Traité des Maladies de la Peau, vol. i. p. 158.

§ Abrégé Pratique des Mal. de la Peau, par Cazenave et Schedel, 1828, p. 128.

‖ Diseases of the Skin, by Erasmus Wilson, 8vo. 2d edit. p. 174.

the patient. Some writers distinguish the two by a red, areola, or inflamed margin, which they say surrounds the bullæ in Pemphigus; whilst in Pompholyx the bullæ rise without any inflammation around them: but this distinction, were it always present, is too trivial a reason for separating into distinct species simple varieties of the same disease, and such a separation tends to no useful practical results.

Willan, who is followed by Bateman, has described three species of the disease; namely, Pompholyx *benignus*, P. *diutinus*, and P. *solitarius;* but the two latter are scarcely distinct varieties. The only specific distinctions in Pompholyx depend upon two circumstances incidental to the attack: —

1. The nature of the preceding and accompanying fever.
2. Whether the attack be accompanied with obvious fever.

It may be, also, either idiopathic, or symptomatic and co-existent with some other disease. I shall, therefore, regard Pompholyx as consisting of two species only; namely, that which is apparently non-febrile, and excited by dentition or some other casual irritation; and that which is truly a febrile affection.

As the generic term Pompholyx is of Greek origin, the specific appellation should be taken from the same language: hence I propose to name the species

1. Pompholyx *apyreticus.*
2. Pompholyx *pyreticus.*

### 1.—Pompholyx Apyreticus— *Mild or Non-febrile Water Blebs.*

This form of Pompholyx is not preceded by any obvious febrile disturbance, except when it accompanies severe dentition. It is characterised by small transparent bullæ, scarcely ever enlarging to the size of a hazel nut; and which, in three or four days, break, discharge their contents, and quickly heal. They appear on the face, neck, trunk of the body, and the extremities, and run their course in a few days; seldom exceeding a fortnight, however frequent their return. In Pyretic Pompholyx, on the contrary, the succession of bullæ is continued, one crop being scarcely on the decline before another makes its appearance; and this succession continues for an indefinite period of time.

Dr. Underwood describes the disease under the name Phlytænæ; and he mentions its appearance "both in bowel complaints and in teething." It may occur in young persons of irritable habits, from various causes of irritation; for example, as Bateman remarks "from eating acrid vegetable substances, or from swallowing a few grains of mercury;"* or, rather, some mercurial preparation. Dr. Underwood regards it as beneficial in new-born infants, as well as

* Synopsis, 7th edit. p. 199.

in the diarrhœas and teething of childhood. He recommends to discharge the contents of the bullæ by puncturing them "with a needle, especially the larger ones; and," he says, "no medicine is necessary but such as the particular state of the bowels may call for, which usually abound with acidity whenever there is much eruption on the skin."* When dentition is present, I have found nothing so serviceable as scarification of the gums, with the administration of a powder containing from six to ten grains of rhubarb, ten grains of sulphate of magnesia, and the same quantity of carbonate of soda or bicarbonate of potassa. In every instance in which the eruption appears to be symptomatic of some prior affection, the primary disease is that which should be attended to, leaving out of consideration the bullæ, except that they should be punctured, their contents pressed out, and the parts touched with the solution of nitrate of silver.

### 2.—Pompholyx Pyreticus—*Febrile Pompholyx.*

In this form of the disease there is always more or less constitutional or febrile disturbance, prior to the appearance of the bullæ; such as languor and lassitude, headache, sometimes nausea, pains of the bones, acceleration of the pulse, and febrile heat. These symptoms are, occasionally, of a nature scarcely to attract the attention of the patient: but, in some instances, they amount to a regular febrile paroxysm, accompanied with slight tonsillitis, pain at the epigastrium, heat of head, restlessness, and sometimes delirium. In two or three days after the commencement of these febrile symptoms, small red, slightly raised points appear on different parts of the skin, accompanied with a stinging sensation; these extend in circumference, lose their elevation above the skin, assume a circular erythematic appearance, and, in a few hours, transparent shining bullæ rapidly rise upon them. Such is the manner in which the bullæ appear in idiopathic febrile Pompholyx; but, when the eruption is symptomatic of intermittent, remittent, or typhoid fever, not only the period at which they appear is very irregular, but the manner in which they rise is equally eccentric. The bullæ are at first globular, or oval, about the size of a small pea; but they rapidly enlarge, soon acquire nearly the size of a walnut, and then appear somewhat flattened. From their commencement, and throughout their progress to their greatest size, they usually cover the whole of the inflamed base on which they rose and are seated; the intervening skin retaining its natural colour. In some instances, however, a narrow red margin appears round the base of each bulla; but I have never observed this to be of sufficient breadth to give it, strictly speaking, the character of an areola. The serum in the bullæ at first is perfectly limpid,

* Treatise on the Diseases of Children. 4th edit. vol. i. p. 95.

but it gradually acquires a yellowish tinge; and, towards the second or third day, becomes opaque and white, as if changed into pus; a circumstance which is owing to the absorption of a portion of the water of the serum, and the partial coagulation of the albumen. The bullæ most frequently appear in the night. Their increase in size does not depend on the coalescence of two or more small bullæ, although they occasionally become confluent when they rise near one another. Soon after they have attained their full size, they either wither, the cuticle shrivelling and drying, without bursting, into a brownish scab, which falls off, and displays the true skin, with its new epidermis as a red patch, which occasionally requires many weeks to restore the natural colour: or they burst spontaneously, or are accidentally ruptured, and discharge the whole or a great portion of their contents; the cuticle then shrivels, and covers the inflamed surface, which shines red through it: but, after two or three days, it separates partially from the surrounding healthy epidermis, hardens, and, turning up at the edges, exposes a portion of the inflamed surface; or it wholly falls off, and leaves the spot either red and healed, or moist and painful. When the bullæ burst only at one point, and discharge a small portion of their contents, the flaccid epidermis is softened in the remaining fluid, which becomes mixed with a bloody sanies; and a yellowish-brown crust, more or less thick, forms over the inflamed surface. This is especially the manner in which the bullæ on the face terminate. If this crust is not rubbed off, it soon falls, and leaves the part it covered cicatrised; and this exfoliation also takes place when the epidermis changes merely to a hardened scale, which exfoliates sooner than the crust. The new epidermis generally, for a short time, continues to form thin scales, which are thrown off as the cuticle acquires its normal texture and aspect. If the local inflammation is considerable, and the patient is weak, the bullæ assume a purple or livid hue, owing to the extravasation of blood from the congested capillaries; and, in this case, the inflamed surfaces frequently ulcerate after the bullæ burst. In some instances the ulcers thus formed spread like phagedenic sores, and become gangrenous, involving the surrounding tissues.

*Pathology.* — There is partial inflammation of the mucous layer, the rete mucosum of the skin, causing an excessive excretion of serum, which, detaching a portion of the cuticle, rapidly raises it into a bulla. The fluid, when taken from the bullæ in their pellucid state, has a slight odour and a saltish taste. When subjected to heat, it rapidly coagulates; and, when treated with nitric acid, it forms a nearly solid mass of albumen.

Simon examined the fluid of the bullæ, and found that it had an acid reaction, and deposited corpuscles which he says resembled "mucous or pus corpuscles in form, and in which a nucleus was very

apparent. Its specific gravity was 1018." Evaporation developed an acid odour, which he considered due to "a little acetic acid." At a high temperature the fluid deposited a white albumen, and gave a stronger acid reaction than before; but this disappeared on carrying the evaporation to dryness. In 1000 parts of the fluid he found 940 of water; 60 of solid constituents, which consisted of 2·6 of fat resembling cholesterine; 48·0 of albumen and earthy phosphates; 6·5 of extractive soluble in alcohol, with lactate of soda, and chlorides of sodium and potassium; 1·9 of a substance resembling ptyalin, soluble in water, and imponderable traces of acetic acid and mucous corpuscles."* An analysis of the same quantity of the fluid from vesicles on the abdomen, by Gerardin, gave 939·500 of water; 60·500 of solid constituents, namely, 49·200 of albumen, 6·475 of cholesterine, 1·075 of extractive soluble in alcohol, with phosphates of soda and lime, and chloride of sodium.†

It may be interesting to give the result of the analysis of the urine in a fatal case of Pompholyx, occurring in a woman of forty years of age, by Heller, compared with the mean of several analyses of healthy morning urine, by Simon. The urine of the woman deposited a cloudy mucous sediment, fat globules, urate of ammonia, and a few epithelium scales. It was acid, and of a sp. gr. 1017·5; that of the healthy urine, 1022·5.

| Heller's Analysis. | | | | Healthy Urine. | | | |
|---|---|---|---|---|---|---|---|
| Water | | | 955·80 | Water | | | 961·00 |
| Solid Constituents. | Urea | 24·63 | 44·20 | Solid Constituents. | Urea | 16·60 | 39·00 |
| | Uric Acid | 0·58 | | | Uric Acid | 0·61 | |
| | Extractive Matters | 11·79 | | | Organic Matter & loss | 12·02 | |
| | Fixed Salts | 7·20 | | | Fixed Salts | 9·77 | |
| | | | 1000·00 | | | | 1000·00‡ |

In fatal cases of Pompholyx, the mucous membrane of the intestinal canal has displayed redness, softening, and ulceration.

The bullæ may appear on any part of the body, but they do not appear always simultaneously. As one set is in progress, others appear, either upon the entire skin, or upon the recently exposed red spots, rising occasionally among the lamellar crusts of the ruptured bullæ. This is always the case when the disease assumes a chronic character; irritative fever supervenes, and, depressing the strength, wears out the patient. In this manner the disease is protracted; and when the attack has been severe, and the bullæ are very numerous, the greater part of the body and limbs becomes covered with brown and yellow encrustations, elevated at the edges, and showing intervening red spots; or a viscid fluid oozes from between the crusts, and, concreting, forms rugged, yellow, cellular

* Simon's Animal Chemistry, trans. by Dr. Day, vol. ii. p. 488.
† Ibid. p. 489.
‡ Ibid. pp. 146. 322.

scabs, which give the unfortunate sufferer a very disgusting appearance. Even when this occurs, the bullæ continue to rise in succession on different parts, and reappear on the spots first affected; extensive excoriations frequently follow, accompanied with tingling and pain, increased by a febrile paroxysm in the evening, and the sleeplessness caused by the irritation.

It is said that bullæ appear on the mucous membrane of the mouth, the stomach, and intestinal canal. I have detected them in the mouth; but, in accordance with Rayer *, who admits their occasional existence there, I doubt their presence in the stomach and intestines. The fever abates, or at least diminishes, after the bullæ rise; but it generally continues in a mild form till the termination of the attack.

In milder cases of the disease, the number of bullæ is smaller; there is little obvious fever; and, after the fluid is discharged, the parts heal kindly, forming the Pompholyx *benignus* of Willan. In some rare instances, a single large bulla appears in the night, after a sensation of tingling in the skin. It occasionally increases to the size of a small cup or a hen's egg, and closely resembles a common blister, but without any surrounding inflammation. This bulla, in less than forty-eight hours, breaks, discharges its fluid, and sometimes leaves a superficial ulceration; whilst another equally large rises in a day, or in two or three days afterwards, and runs the same course; and, occasionally, the succession of large single bullæ continues for a week or twelve days. This is the Pompholyx *solitarius* of Willan, who mentions that it affects women only; but I have seen two instances of it in men, both of whom were bakers. This variety is, however, of rare occurrence, but I have seen several cases of it. The ulceration, although superficial, is troublesome to heal. Cazenave and Schedel state that M. Biett mentions, in his lectures, that he has seen a chronic case of this variety.†

*Diagnosis.* — Pompholyx is easily distinguished from erysipelas with vesications, the only disease with which it is likely to be confounded. The distinct round or oval form of the bullæ, the natural appearance of the intervening skin, and the absence of the shining tumefaction, and inflammation of the parts on which the irregular, flattened vesications appear in erysipelas, are strongly-marked characters at once distinguishing Pompholyx from erysipelas.

Although some writers have considered the possibility of difficulty in distinguishing Pompholyx from herpes, yet, the forms of eruption characterising the two diseases are so different, that this part of the diagnosis requires no comment.

From rupia it is distinguished by the larger size of the bullæ, the absence of the hard inflamed base which exists in rupia before

* Des Maladies de la Peau, tom. i. p. 160.

† Abrégé Pratique des Mal. de la Peau, p. 131.

the bullæ rise, and of the thick, prominent, accumulating crusts which form successively over an ulcerating spot in that disease.

*Causes.* — Pompholyx seems to depend on a condition of the habit, connected with increased irritability of the nervous system. It may appear at any period of life; but it is most severe in the aged. It attacks both sexes indiscriminately; for I have not observed the opinion of Rayer, that it is more frequently seen in women than in men, verified. Every cause of irritation, whether mental or corporeal, may operate as an exciting cause of the disease in the predisposed: but the condition of the habit which predisposes to it has not been satisfactorily ascertained. The old physicians ascribed it to what they termed a scorbutic diathesis; thus Lorry remarks, "Earum (bullæ) causas ad scorbuticam diathesim referri vulgare est, imò et illæ sæpius habentur, à practicis ut scorbuticæ indolis, licet non semper in hanc idæam consentientem non habuerint." * I have seen the disease in persons of very opposite temperaments; in those worn down by long continued illness and mental suffering, and in persons of a stout conformation, and apparently in the enjoyment of health. That a certain predisposition, however, is favourable to the appearance of Pompholyx, when the exciting causes are present, is undoubted. I have seen it produced by mental anxiety, especially when this is accompanied by corporeal fatigue. A very interesting case, in proof of its development by the depressing passions, is recorded by Dr. Mayd, of Epsom.† The patient was a lady, who referred her first attack, which was severe, to great anxiety of mind. She was cured; but, a considerable time afterwards, the disease reappeared, on her mind again becoming anxious, from some family misfortunes. Among the exciting causes may be mentioned, bad or deficient food, causing more or less gastric irritation; intemperance; general debility; the imprudent use of cold water as beverage immediately after profuse sweating; sudden suppression of hemorrhoids, or of leucorrhœa, of long standing; and whatever has a tendency to produce a cachectic condition of habit. In young people, the disease has appeared to be occasionally hereditary. It is sometimes the accompaniment of other diseases; among which Bateman mentions continued, remittent, and intermittent fever, as well as arthritic, and other secondary fevers; and he gives references to numerous cases on record, illustrative of these observations.‡ It has sometimes appeared in conjunction with rheumatism, anasarca, general dropsy, purpura, and that low condition into which the habit is often brought by living in cold, damp, and confined apartments. Mr. Erasmus Wilson mentions that he once

* Tractatus de Morbis Cutaneis, Paris, 1777, 4to. p. 255.
† Medical Repository, vol. v. p. 453.
‡ Bateman's Synopsis, 7th edit. p. 201.

saw it as a sequel of scarlatina. It has occasionally followed suppression of the menstrual discharge and of hæmorrhoids. I have seen it accompany purpura* ; and I had a case of it in a gentleman who had long suffered under eczema in both legs. As the eczema was rapidly disappearing, Pompholyx made its appearance. Some writers affirm that it occasionally accompanies gastro-intestinal fever, and cerebral affections. It is probable that in every instance the cutaneous affection is merely symptomatic of a peculiar form of fever, arising from an animal poison, the nature of which is not yet understood.

Were I to indulge in hypothetical conjectures, I should ascribe the disease to the absorption of some acrimonious matter, or morbid poison, into the blood, which, being conveyed to the cutaneous capillaries, and accumulating in distinct patches, excites the same description of action in these vessels as is produced by the canthariden in a blister plaster, and which rapidly terminates in effusion of serum sufficient to elevate and distend the epidermis into a bulla, like a blister. The epidermis rises over the whole of the inflamed spot, and presents no areola. This is assuredly owing to the superficial nature of the inflammation : but I offer this as a mere conjecture. Pompholyx is not contagious. Husson† and Martin‡ inoculated children with the fluid of the bullæ ; and Mr. Gaitskell inoculated himself with it : but in none was the complaint produced ; and the same experiment has also been tried by others with impunity.

*Prognosis.* — Apyretic Pompholyx is attended with no danger, and is of short duration ; but Pyretic Pompholyx may run on for many weeks ; and, although the greater number of the cases of it recover, yet the disease may terminate fatally, by the continuation of the fever and irritation breaking down the powers of the system. The more the attack assumes a chronic character, therefore, the more cautious ought the prognosis to be ; and this also should be the case when the attack occurs in old people and worn out constitutions, and in those of much nervous excitability. It is, necessarily, most dangerous when the fever assumes the typhoid type ; or when the disease is complicated with some internal inflammation.

I have once only seen a fatal case of Pompholyx ; and, as no post-mortem inspection was permitted, I can offer no description of the appearances of the body after death : but Rayer states that, in many post-mortem dissections of cases which terminated fatally in the Hospital of Saint Louis in Paris, he never observed any bullæ, or traces of them, in the intestinal mucous membrane, although they have been stated to have risen on it. The membrane was always pale. He has found serum in the chest, and fatty liver, in several

* See Case 32.

† Recherches Hist. et Medicales sur la Vaccine.

‡ Journ. de Med. Chirurg. et Pharmacie, vol. ii. p. 225.

cases; and Biett mentions a chronic case of the disease, which proved fatal, in which he observed the same state of the liver.*

*Treatment.* — In this form of Pompholyx the treatment must have reference both to the constitutional affection and the eruption; hence it is —

1. Internal or general.
2. External or topical.

With regard to the general treatment, the indications to be fulfilled, are —

*a.* To diminish plethora, if present.
*b.* To allay fever.
*c.* To restore the lost tone of the capillaries, and the general system.

It is scarcely requisite to remark, that the first indication is to be answered by the same means which are found successful in abating general fever.

When the disease is mild, gentle purgatives and salines, with a vegetable cooling diet, are all that is required. When the febrile symptoms are of a more severe description than usual, especially if inflammation of any internal organ, or of the mucous membrane, be present, active antiphlogistic measures must be pursued, and pushed to the utmost; and, indeed, these affections must be treated without any reference to the more conspicuous disease. In idiopathic Pompholyx, I have seen a few cases only in which one general bloodletting, or a few leeches, were requisite. But nothing is so likely to mislead a practitioner as an opinion that Pompholyx is an inflammatory affection. In the works of continental writers, however, we find directions for topical bleedings, from under the lower jaw, the epigastrium, or the verge of the anus, according as the bullæ appear in the bronchial tubes, the stomach, and the large intestines. But I should wish to inquire by what diagnostic symptoms they can ascertain the presence of bullæ in these parts. Intestinal and pulmonary inflammation may occur during an attack of Pompholyx: but that does not indicate the existence of bullæ in these viscera. On the possibility of their existence, however, Rayer condemns purgatives. There is no hazard in the employment of purgatives; but, in a very irritable state of habit, they should be mild.

If the disease be complicated with other morbid conditions of the habit, we must endeavour to ascertain how far it is dependent upon these, and accordingly modify our practice. In every instance, the bowels should be cleared, by means of a full dose of

* Cazenave and Schedel, Abrégé Pratique des Mal. de la Peau, p. 135.

calomel, followed by a brisk purgative, consisting of magnesia and sulphate of magnesia, or the common black draught. The beneficial influence of a large dose of calomel, in irritable conditions of the habit, has been often demonstrated, although it cannot be readily explained. Whilst it operates as a sedative, a small portion enters the circulation, and improves the hepatic secretion; relieves congestion in that organ, and aids the full evacuation of the bowels. When the disease runs its usual course, I have seen, after purging, a combination of a mild diaphoretic, with a saline alterative, and decoction of yellow cinchona bark, as in the following formula, prove highly beneficial: —

℞ Liquoris Ammoniæ Acet. f℥iv.
Potassæ Nitratis gr. xv.
Decocti Cinchonæ flavæ f℥x. — M.
Haustus quartâ quâque horâ sumendus.

In old persons, and those of a debilitated or delicate habit, I add a drachm of tincture of serpentaria; and, when there is much depression of power, instead of the solution of acetate of ammonia and nitre, I add a fluid drachm of the compound tincture of cinchona, and from fifteen to twenty minims of nitro-hydrochloric acid to the decoction of cinchona. On account of the tendency to gastric irritation, I have found the decoction of cinchona a preferable tonic to either the salts of quina or cinchonia. I have had no experience of the effects of iodide of potassium, which is stated to be a valuable remedy in Pompholyx.*

As there is generally much restlessness at night, accompanied with pain and tingling, a full dose of either the tincture of opium, or a quarter of a grain of hydrochlorate of morphia, with twelve or fifteen minims of tincture of digitalis, will be found beneficial.

To palliate the general irritation, Willan recommended the warm bath to be used every second day. I have seen some comfort and advantage derived from it, in a few cases; but, in general, it has aggravated the symptoms, and occasionally has brought out bullæ, when it has been employed for other diseases. The warm bath was ordered for a boy, in University College Hospital, who was labouring under psoriasis; it was used only twice; and, on both occasions, brought out a crop of bullæ on the shoulders. In a case, also, mentioned by Bateman†, and another by Dr. Mayd, it proved injurious.‡ Such instances, however, may depend on idiosyncracy, as in general it has acted beneficially; although, when used, the patient should not remain so long in it as to produce languor or fainting; and, after being taken out of it, should have

* Wilson on Diseases of the Skin, 2d edit. p. 179.
† Synopsis, 7th edit. p. 202, note.
‡ Med. Repository, vol. v. p. 457.

some warm wine and water. Rayer recommends alkaline baths to allay the itching and heat. I have had no experience of their influence, nor of the utility of mustard baths, even in cases where the eruption appears to be an effort of nature to determine a morbid deposition to the surface*; nor have I seen any case of this description.

2. For the external treatment of the disease, a variety of applications have been proposed: blisters, poultices, anodyne and emollient fomentations, astringent lotions, and desiccative ointments. I have found no plan equal to that of puncturing the bullæ, gently pressing out their contents, and then pencilling the parts over with a solution of nitrate of silver, in the proportion of a drachm to a fluid ounce of distilled water, acidulated with ten or twelve minims of dilute nitric acid. This application acts chemically upon the cuticle, hardens it, and thus forms a good covering and safeguard to the tender surface beneath it; and, as the application should extend at least half an inch beyond the base of the discharged bulla, it stimulates moderately the congested capillaries, and favours the healthy formation of the new cuticle.† It is equally serviceable, when the parts ulcerate, in promoting cicatrisation. It is preferable to covering the parts with gold-beaters' skin, or the lining membrane of the egg, which are recommended in some continental works. When ointments are required, the best is composed of two drachms of the compound lead plaster, liquefied by a gentle heat, and then mixed with six parts of lard, and one part of oxide of zinc.

The diet should be regulated by the degree and type of the fever; but under no circumstances ought it to be stimulant. In the early stage of the disease, it should consist of milk and farinacea; but, in the advanced stage, a more generous diet may be necessary. The type of the fever is seldom so low as to require the aid of wine or brandy.

There is a disease which has a close affinity to Pompholyx, which Dr. Willan placed in his genus PEMPHIGUS, and named Pemphigus *infantile;* and which is described by Bateman under Rupia (R. *escharotica*). I have never seen the disease; but, from the remarks of Dr. Corrigan, in a valuable paper on Pemphigus, in the Cyclopædia of Practical Medicine‡, I think it ought to be placed under Pompholyx: and, on this account, I have adjoined the following description of it from the paper of Dr. Whitley Stokes, quoted by Dr. Corrigan:—

"The approach of this disorder is sometimes, though rarely, de-

* Diseases of the Skin, by Erasmus Wilson, F. R. S. 2d edit. p. 179.

† Dr. Graves of Dublin has recorded, in the *Medical Gazette*, a case of five years' standing, in a boy fourteen years of age, which was cured by opening the bulla with a lancet, and applying to the naked surface of the corium, solid nitrate of silver. No internal medicines were given.

‡ Vol. iii. p. 270.

noted by a livid suffusion, like that of erysipelas, slightly elevated. This was observed both by Dr. M'Donnel, of Belfast, and by Dr. Spear, in the county of Monaghan, at a time when this disease prevailed there epidemically. It more frequently happens, however, that the complaint comes on in perfect health. One or more vesicles appear, mostly larger than the best distinct small-pox; these increase for two or three days, burst, and discharge a thin fluid, having a disagreeable smell; limpid in most cases, sometimes whitish, and sometimes yellowish, the latter less dangerous; usually the weaker a child's constitution is, the thinner is the matter. Before, or after breaking, the vesicles run together, the sores become painful with loss of substance, and a thin, fœtid, ichorous discharge; the edges of the ulcer are undermined, and it spreads quickly. The more usual seats of the disease are behind the ears, sometimes on the hands or feet, on the private parts (seldom in the arm-pit), the breasts, folds of the thighs, lower belly, on the inside of the mouth or lips. The disease, however, it is said, seldom passes from the inside to the outside of the mouth. In the progress of the disorder, the ulcers enlarge rapidly, with remarkable fœtor, a very great discharge, and livid edges. If the sores are behind the ears, they destroy the connexion of the posterior cartilage with the cranium; they spread to the meatus auditorius; to the eyes, the sight of which seemed in a few cases to have been destroyed one or two days before death; and they sometimes extend to the vertex. The constitutional disturbance that accompanies this disease seems principally the effect of irritation. When the vesicles burst, the child begins to grow peevish and fretful, pale, loses its appetite, and the flesh becomes remarkably flabby. The periods of this disorder are not very regular; but it often happens about the eighth day that the pulse sinks, lividity spreads over the whole sore, and the fœtor and the discharge increase greatly. The smell is so strong as often to be perceivable at a distance from the bed. The discharge, in one case, where the ulcers affected the arm-pits and breasts, was such, that the linen was completely loaded several times a day. Death takes place about the tenth or twelfth day, often preceded by convulsions, sometimes by extreme debility. Patients are apt to relapse soon after the sores are skinned over.

"The causes of this malady are rather obscure. It seems exclusively confined to children. Dr. M'Donnel saw twenty cases before the year 1795; all the patients were under four years old. Dr. Spear observed that it was confined to children from the age of three months to that of five years; but it has been observed near Dublin in children of nine years old. It attacks the finest children in preference; the children of the poor more frequently than those of the affluent; and those who live in damp situations seem more

peculiarly subject to it than others. The disease is more prevalent in summer than in winter. It appears to be infectious, though obscurely so in general; but, in the year 1800, Dr. Spear observed it to spread epidemically. It has been said that the disease is oftener given to the younger from the older, than the reverse. It would be interesting to determine whether it attacks the same person twice; it certainly is apt to return after apparent recovery. Children, as is well known, are subject to excoriations behind the ears, which sometimes produce formidable sores; these may possibly, in a few cases, resemble the disease we speak of, in its advanced stages; but, in a great majority of cases, these excoriations are far less rapid and dangerous than the complaint in question. On the other hand, the swine-pock (varicella) resembles this disease in its first stage: but the fever rarely precedes the eruption in white blisters, and the pustules of varicella dry readily.

"This is a disorder of great danger, but of various progress in different individuals. It often happens that a fatal change takes place about the eleventh day. The unfavourable signs are, the rapidity with which the sores spread; the blackness, first at the edges, after some time, spreading over the whole; the quantity and fœtor of the discharge; its colour, the paler being the most dangerous.

"It has been alleged, by empirical practitioners in this disease, that, after the blackness had covered the whole sore, death was certain; but I have observed the blackness to go off, although it has spread over the whole surface of the sores. When this appearance abates, livid streaks generally remain for a day or two. When a favourable change is effected in bad cases, the diminution of the fœtor and discharge, were the first signs of the abatement of the malady; appetite was afterwards restored."

## Case 30.

*Pompholyx with uncommon fluid of the Bullæ.*

Frances P——, a washerwoman, æt. 50, healthy, and of healthy parents, but in poor circumstances, applied to me for advice on the 14th July, 1840. About five weeks prior to this time, she perceived a small vesicle on the heel of her right foot, which was burst by scratching, and discharged a thin watery fluid. This was soon followed by other globular vesicles on the same foot. She poulticed them; but they continued to rise, and in a few days appeared on the left foot, and afterwards on the hands. When she was sent into University College Hospital, she stated that, on the

application of a lead lotion to the broken bullæ, the epidermis became black.* She was in the habit of using much soda.

On entering the hospital (14th July), the hands were covered with large bullæ, many of which were broken, leaving a red, in some places a raw surface, partially covered with a brown shrivelled epidermis. The feet were in a nearly similar condition. The lymphatics running up the left arm were inflamed, and the glands in the axilla of the same side swelled and painful. There was also an enlarged gland in the bend of the arm. Her general health was much impaired. The tongue was furred; the bowels were torpid; and the pulse quick, sharp, and resisting. She complained of pain of the right side, and in the head. (*Mittantur sang. brachio* ℥xvj. ℞ *Calom.* gr. v. *Opii* gr. j. *Ft. pil. post v. s. sumenda. Haust. purg. horâ post pilulam.* ℞ *Magnesiæ Sulph.* ʒvj. *Infusi Rosæ* f℥vj. *Ac. Sulph. dil.* fʒj. *Sum. cochleare maj. 4tâ q. q. horâ. Farinaceous diet.*) 17*th.* Hands improved. The blackness of the cuticle has disappeared. A large fresh bulla has appeared on the right heel. Tongue furred; pulse still sharp. The blood taken on the 14th was cupped and buffed. (*Pergat. in usu Med.*) 20*th.* Improving; the cuticle is peeling off. A large vesicle rose on the knee yesterday. The bowels confined. Has a regular evening paroxysm of fever. (*Haust. purgans statim sumendus.* ℞ *Calomel.* gr. j. *Pulv. Jacobi veri* gr. iij. *Muc. q. s. Ft. pil. 2dâ q. q. horâ urgente febre sumenda.* ℞ *Quinæ disulphatis* gr. ij. *Magnesiæ Sulph.* ʒj. *Decocti Cinch. flavæ* f℥jss. *Acidi Sulph. dil.* ♏viij. *Ft. Haust. 2dâ q. q. horâ absente febre.*) 24*th.* No fresh bullæ have appeared; but she still sweats in the night. Pulse sharp. (*V. S. ad* ℥viij. *Pergat in usu Med.*) No change of treatment was made: she was discharged on the 30th, cured.

## Case 31.

### *Pompholyx appearing periodically, treated with Salines and Cinchona.*

Ann M——, æt. 20, a single woman, of strong form of body, a servant of all-work, was admitted into University College Hospital, 26th November, 1842. Two years since, owing, as she thinks, to having caught cold, from standing washing in damp shoes, a few globular vesicles appeared on the instep of the left foot, and extended upwards to the knee. They were preceded by a tingling sensation; and, after a few days, they burst, formed crusts, and left a red mark. The eruption disappeared after she had taken a

* This could only be accounted for by supposing that sulphuretted hydrogen was exhaled.

few doses of sulphate of magnesia: but it again made its appearance, and has continued to do so, once in three months, up to the present time. Two days since, the reappearance of the vesicles was preceded by rigors, followed by heat of skin, thirst, headache, vertigo, and watchfulness. Her appetite, however, continued good; her bowels open; the tongue very slightly furred; the pulse 80, hard, and resisting; and there was more than usual impulse of the heart. (*V. S. ad* ℥xvj. ℞ *Calom.* gr. j. *Opii* gr. j. *Ft. pil. post venæsect. sumenda.* ℞ *Liq. Ammoniæ Acet.* f℥iv. *Pot. Nit.* gr. x. *Mist. Camph.* f℥j. *Haust* 4*tâ q. q. horâ sumendus.*) 29*th.* The blood was slightly buffed, but not cupped. She has slept well since the bleeding. All the bullæ have burst. The tongue is clean; the temperature of the skin natural; the pulse 80, and much less resisting. The urine is not high-coloured, nor does it deposit any sediment. (*Omittatur Mist.* ℞ *Decocti Cinch. flavæ* f℥vj. *Potassæ Nitratis* ℈ij. *Sum.* 4*tâ pars* 6*tâ q. q. horâ.* ℞ *Argenti Nit.* ʒj. *Acidi Nit. dil.* ♏x. *Aquæ Destillatæ* f℥j. *Ft. solutio ope pencilli app. Mild diet.*) *Dec.* 1. The bullæ are nearly gone, and only a few of a small size have appeared on the instep. (*Pergat in usu Mist. et solutionis.*) 3*d.* No fresh bullæ have appeared; and, in other respects, she feels well. (*Pergat in usu Misturæ.*) 6*th.* All the crusts having fallen off, and no fresh bullæ having appeared since the 1st, and the patient feeling quite well, she was discharged cured.

## Case 32.

### *Pompholyx associated with Purpura.*

John M——, an Irishman, aged 48 years, was admitted into University College Hospital, Tuesday, December 3rd, 1842. He is stout, robust, and somewhat plethoric, and of a habit approaching the sanguino-melancholic temperament. He is by trade a blacksmith. He says he never drinks to excess; and that he has always had a sufficiency of good wholesome food. Some years since, he suffered from a vesicular eruption, which, from his description, must have been Pompholyx.

The first symptoms of the present attack manifested themselves about two months since. The bullæ were mostly confined to the lower part of the legs; and, in passing through their different stages, appeared in successive crops, and disappeared in a somewhat tardy manner. About three weeks before his admission into the hospital, another symptom displayed itself, and his general health began to be affected. He experienced an acute pain in the ball of the great toe of the right foot, which was followed by a bleb of Pompholyx,

and the whole of the instep became affected with a diffused redness. This disappeared in the course of a few days: but, shortly afterwards, a few spots of purpura appeared at the outer side of the foot; and these were succeeded by others, gradually extending up the leg, and especially affecting its outer part. Another bleb soon appeared at the same side of the foot, and another towards the inner ankle; both were extremely sore. The left leg became affected at the same time. He continued, however, at his work till the Friday preceding his admission into the hospital, although he did so with very great difficulty. The domestic treatment consisted in the application of poultices, with a little aperient medicine, taken when his bowels were confined.

*Present Symptoms.* — Both legs are marked with the scars of former eruptions. The instep, outer and inner side of the foot and leg, are covered with irregular, small, purple spots. They are more numerous, and more in patches, at the *lower than the upper part* of the leg; and the outer side is principally affected. The blebs contain a bloody liquid at the inner part of the instep and on the great toe. The left leg presents a similar appearance to the right. The spots of the purpura are most distinct upon the outer side of the leg. There are no febrile symptoms. The tongue is a little furred, but not dry; the temperature of the skin is natural; the countenance tranquil; the bowels confined; the pulse somewhat full. There is no thirst.

*Treatment.* — He was ordered to take five grains of calomel at bed-time, and a purgative dose early on the following morning. *December 4th.* The medicine ordered yesterday has acted well. The purple spots appear somewhat paler; pulse 78, full. (*Mittantur Sanguinis brachio* ℥xvj. *Ammoniæ Sesquicarb.* gr. v. *Sodii Chloridi* gr. xv. *Decocti Cinchonæ* ℥jss. *M. Ft. Haust. ter quotidie.*) *5th.* The blood is neither buffed nor cupped. He felt a good deal of pain in his legs and feet last night; but the spots upon them are certainly less deep-coloured. The urine deposits sediment consisting of lithates; its sp. gr. 1026; it contains a large excess of urea. The tongue is furred, but not dry; the pulse feeble, 104, a little sharp. (*Pergat in usu Med. Calomelanos* gr. iv. *Muc. q. s. Ft. pil. h. s. sumenda. Mag. Sulph.* ʒiv. *Tinct. Jalapæ* fʒjss. *Inf. Sennæ* fʒxij. *Ft. Haust. cras mane sumendus.*) *8th.* Improving in every respect. (℞ *Acidi Nit. dil.* ♏xij. *Acidi Hydrochlor. dil.* ♏xij. *Decocti Cinchonæ* fʒjss. *Haust. ter quotidie sumendus.*) He continued daily to improve, both in respect to the Pompholyx and the Purpura; and was, on the 19th, discharged cured.

### Case 33.

*Pompholyx with an unusual degree of Fever.*

Emily W——, æt. 18, a servant, of slender form and lymphatic temperament, was admitted into University College Hospital, 29th October, 1847. Six months before this time, she had lost her place, and, having gone upon the town, she acquired habits of intemperance, drinking large quantities of gin and beer daily. Under these circumstances, she was attacked with syphilis, from which she recovered, and remained well until the present disease appeared, three weeks ago. Before the bullæ showed themselves, she had been much exposed to cold and damp, and had suffered from bad and scanty diet. Their appearance was preceded by rigors, heat of skin, great thirst, and headache.

On entering the hospital, several yellow crusts, about an inch in diameter, occupied the face: one on the left cheek, one between the eyebrows, and another, smaller than the others, on the right eyelid. The arms, hands, neck, chest, abdomen, and lower extremities were covered with bullæ of various sizes, from that of a pea to that of a walnut. They displayed no inflamed margin; and the intervening skin was of its natural colour. When they first appeared, they were small, globular, and filled with a limpid serum, which soon acquired a yellow tinge; and, when the bullæ had attained their full size, the serum became opaque, as if changed to pus. They were accompanied by a sensation of itching and tingling. She was restless; had lost her usual taste, and even to a considerable degree her sight; and suffered much pain across the loins. Her countenance was anxious; the cheeks and lips were pallid; the pulse small, 110; the tongue furred, and the bowels torpid. Her appetite, however, was not much impaired; the menses were regular, and their quantity sufficient. (℞ *Calomelanos* gr. iij. *Opii* gr. j. *Ft. pilula statim sumenda. Haust. purg. niger horâ post pilulam.* ℞ *Liq. Ammoniæ Acetatis* ℥iv. *Tinct. Serpentariæ* ℥j. *Decocti Cinch. flavæ* ℥jss. *Haust. 4tâ q. q. horâ sumendus. Milk diet.*) 31*st.* The bowels have not yet acted, although the calomel (without opium) and the purgative draught were repeated yesterday. (*Enema c. Terebinth. statim injiciendum. Let the bullæ be punctured and pencilled over with Solution of Nitrate of Silver;* ʒj. *to* ℥j. *of distilled water, and* ♏viij. *of diluted Nitric Acid*). *Nov. 4th.* The bowels now act; but the skin is hotter than before. (*Perstat in usu Mist. addendo Potassæ Nitratis* gr. xv. *singulis dosibus.*) *5th.* She complains much of restlessness and want of sleep. (*Perstat in usu Med.* ℞ *Morphiæ Hydrochloratis* gr. ¼. *Mist. Camphoræ* ℥j. *Haust. h. s. sumendus.*) *8th.* The anodyne has procured ease and sleep. The pulse is now small, soft, and 80. Few fresh bullæ have appeared; and these have remained small. The bowels are

still torpid. (*Perstat in usu Med. Haust. purg. primo mane quotidie*). 10*th*. The crusts formed by the broken bullæ cover the greater part of the body, and are very painful. A few fresh bullæ have appeared on the spots from which the crusts have fallen. (*Omittatur Mist.* ℞ *Liq. Ammoniæ Acetatis* f℥iv. *Decocti Cinchonæ flavæ* f℥jss. *Tinct. Aconiti* ♏v. *Haust. 4tâ q. q. horâ sumendus. Let her have a tepid bath.*) 13*th*. She was soothed by the bath; but a fresh crop of small bullæ rose on the following night. The crusts have fallen; and she is, in every other respect, improved. (*Perstat in usu Med.*) 17*th*. She has not again used the bath: the bullæ that rose after using it were punctured, and touched with the solution. The crusts of the former bullæ are rapidly falling off. She complains chiefly of debility. (*Omittatur Mistura.* ℞ *Decocti Cinchonæ* f℥jss. *Acidi Hydrochlor. dil.* ♏xij. *Acidi Nit. dil.* ♏xij. *T. Cinch. C.* f℥j. *Haustus ter quotidie sumendus. Perstat in usu Haust. Anod. A chop daily.*) 20*th*. Nearly convalescent. (*Rep. Medicamenta.*) 23*d*. She has suffered a relapse, passed a restless night, is feverish, and several fresh vesicles have appeared. The tongue is moist, the bowels are open, and the urine high coloured. (*Omittant. Med.* ℞ *Liq. Ammon. Ac.* f℥iv. *Potassæ Nit.* gr. xv. *Decocti Cinch.* f℥jss. *Haust 4tâ q. q. horâ sumendus.*) 27*th*. She is much better; but some fresh vesicles still appear. (*Perstat in usu Mist. Let her have a bath at* 85° *this evening.*) *Dec.* 4*th*. She is rapidly getting well. Let her have a bath daily, at 90°. 18*th*. Discharged cured.

---

## CHAPTER V.

### NON-CONTAGIOUS ERUPTIONS, NOT DEPENDING ON ANY SYMPTOMATIC OF SPECIFIC FEVER, BUT CHIEFLY CONNECTED WITH, AND CHARACTERISTIC OF DERANGEMENTS OF THE DIGESTIVE, ASSIMILATING, AND SECRETING ORGANS: THEIR SYMPTOMS; DIAGNOSTIC CHARACTERS; AND TREATMENT.

The eruptions which have been already treated of, are all, with two exceptions *, more or less the consequence of certain modifications of fever, and truly symptomatic of specific febrile affections, which, consequently, must be regarded as the diseases. In

* Porrigo and Scabies.

some of them, indeed, so decidedly is this the case, that the eruptions do not always appear, and yet the diseases run their usual course in every other respect. Scarlatina and rubeola afford frequent illustrations of this fact.

The eruptions which are about to be treated of in this chapter are also accompanied with, and sometimes preceded by fever; but the febrile affection has no specific character, and it is not always obviously present. The eruptions, however, can generally be traced to some morbid condition, either of the digestive organs, or the secreting or assimilating systems; and, consequently, independent of fever, they may still correctly be regarded as symptomatic of constitutional affections. It is scarcely necessary to remark that every deviation from the healthy condition of the skin, if it cannot be traced to the direct influence of some external agent, such, for example, as great solar heat, which produces Eczema *solare;* or to dry powders and alkaline solutions, which produce two distinct local forms of psoriasis, and similar causes, must be regarded as depending on some morbid change, either in the function of digestion, or assimilation, or secretion, or in some derangement of the general constitution. This truth was indeed known to Hippocrates, who classed cutaneous eruptions as *local* and *general*, or *constitutional.* The former are few compared with the latter; and there is reason for suspecting that even the former, with some exceptions, are also connected with general derangement of the system. With respect to the latter, it is well known that the blood occasionally becomes changed in its composition, owing to the nutrient matters from which it is formed not being in their natural state; hence, either depositions of morbid matter take place in the tissue of the skin, or inflammations are set up in it, both productive of various cutaneous eruptions. Many diseases of the mucous membrane are occasionally excited by the action of external injurious agencies on the skin; and, from the same sympathetic influence, derangements of the mucous membrane cause diseased conditions of the skin, not only in relation to its circulation, but in inducing an altered and morbid state of its secreting function. This sympathetic influence of these two important organs has been well ascertained; indeed, on no other principle can we explain the repulsion of some cutaneous eruptions affecting internal organs, and the relief occasionally afforded to internal diseases by their sudden appearance. I have seen deep-seated pains in the chest, which have been mistaken for and treated as pleurisy, suddenly disappear, on the breaking out of a crop of herpes on the skin over the seat of the pain, which probably was in the serous membrane, as the symptoms closely resembled those of pleurisy. There is no doubt that the skin and serous membranes sympathize, although in a less degree than the skin and the mucous membranes; we nevertheless observe in-

flammation of serous membranes sometimes excited by the action of hurtful influences on the skin, and the latter suffering from derangements of the former. The stomach, and the digestive and secreting organs, however, are generally the primary sources of the altered condition of the capillary circulation and the cuticular secretions that produce many of the eruptions which appear on the skin. It is not necessary to regard this as an absolute rule; but I cannot accord with the opinions which some writers have advanced, that in the *greater* number of individuals labouring under affections of the skin, the digestive organs are in a perfectly healthy condition.* Indeed, in treating these affections, we cannot hope for success without having constantly before us their intimate connection with the organic functions. In dyspepsia the stomach and digestive organs are in such a condition as causes either a superabundant secretion of the gastric juice, or an unnatural description of that secretion; or they are in a state either of atony, or irritability, or subacute inflammation sufficient to produce general constitutional disturbance. In the two latter conditions, the usual food causes painful sensations, and such a degree of excitement as calls into activity the sympathetic action of the skin.

Under such circumstances we can readily account for the affections of the skin which supervene, and even those which are apparently the result of mental influences; the primary influence of these being experienced on the stomach, the secondary on the skin. It must, however, be freely admitted, that there are also affections of the skin which cannot be traced to derangement of the mucous membrane, or to any other obvious cause. Some are regarded as hereditary; but in stating this we are doing little more than employing a term to cover our ignorance. A question of still more difficult solution here presents itself. To what are we to ascribe the great diversity of physical characters which the different eruptions, not exanthematous, assume? We recognise and describe some as *papular*, others as *pustular*, *vesicular*, *squamous*, and *tubercular*; but we are forced to acknowledge that we are ignorant of the peculiar changes in the functions and general condition of the system whence these diversities originate. It is, nevertheless, true, that in every condition of the habit, originating or associated with diseased states of the skin, the capillary vessels are the organs morbidly affected; and, according to the degree of this change from their normal action, the diversities in the physical characters of the eruption may be traced. The importance of becoming familiar with these diversities need not be insisted upon; they are the chief sources whence a diagnosis can be formed, and from which, in many instances, we must derive our information of

* Cazenave and Schedel, Abrégé Pratique des Mal. de la Peau, Prolégomènes, p. xxiv.

the general constitutional derangement with which they are associated. The information thus obtained is the foundation of the rational treatment of these diseases; for, by regarding them as mere local affections, and requiring only topical remedies, would undoubtedly be productive of disappointment in our anticipations of effecting a cure. It is, indeed, impossible to form a correct idea of almost any disease affecting the skin, by the mere inspection of the eruption, however important the characters of the eruption may be in aiding our diagnosis; we must exert our observing, discriminating, and reasoning powers in connecting the external indications of the disease with the general condition of the system; and the fact, that it is only by treating the latter that the former can be removed, ought never to be forgotten. On this account we must regard those cutaneous eruptions which are to form the subject of this chapter, to a certain extent, in the same point of view as the exanthemata, as secondary to the general affections, which truly are the diseases.

From what has been said respecting the difficulty of ascertaining the general diseased conditions of the habit originating these eruptions of the skin, there can be scarcely any difference of opinion respecting the necessity of arranging the tribe of those diseases, about to be treated of, according to the physical characters of the eruptions. In adopting this method, I have selected, as the least exceptionable, the orders of Willan, placing under each order those affections which display not only a considerable resemblance in the physical characters of the eruptions, but which are connected with derangements of the same organs. The classification of Willan consists of eight orders; but, in several of them, diseases of very opposite nature are associated in the same order. In illustration of the correctness of this remark, it is only necessary to mention that variola, varicella, and vaccinia, belonging to the exanthemata, are found in the same order as impetigo, porrigo, ecthyma, and scabies. Exanthemata also are associated with herpes, rupia, and eczema, merely on account of the vesicular character of their eruptions; and, for the same reason, miliaria and aptha are placed in the same order, besides others equally objectionable. I have endeavoured to avoid this objection in the five orders, namely, *Papulæ*, *Pustulæ*, *Vesiculæ*, *Squamæ*, and *Tubercula*, which I have adopted. But, although I am, as it were, forced to adopt this arrangement for the diseases in this chapter, yet, it must not be supposed that I regard the knowledge of their physical characters as throwing any light upon the nature of the diseases which originate the eruptions. These must be investigated, and their nature determined, before a rational method of treatment can be suggested.

## Ord. 1. Papulæ*—*Papular Eruptions.*

Papules are small, acuminated, firm, itchy, cuticular elevations, devoid of any fluid, either serum or pus, and which terminate by resolution; either leaving no trace of their existence, or a slight scurfy desquamation of the cuticle. They originate, most probably, from circumscribed capillary inflammation, and are formed by some consequent deposition into the cutaneous tissue; this deposition is absorbed when the papules disappear, the cuticle remaining entire. They usually appear on different parts of the body at the same time; but, occasionally, they are confined to one part, either the outer part of the extremities, or the back. Their appearance is generally preceded by itching, but rarely by any obvious constitutional derangement. In some cases they are nearly white; in others of the same colour as the skin; and in others redder than the skin. As they disappear, they leave a yellowish stain, which remains for a considerable length of time. Sometimes the papule is perforated by a hair.

None of the papular eruptions are contagious; and, although the degree of itching with which they are accompanied is often almost intolerable, yet they are not attended with danger.

The diagnosis of the papular eruptions is very obvious, and prevents them from being confounded with any of the other eruptions, except in one form of prurigo, in which the degree and appearance of the desquamation might lead it to be regarded as a squamous affection. The distinctive features which separate it from the squamous eruptions, shall be pointed out in the diagnosis of prurigo.

Willan arranged under this order three distinct genera, namely:—

1. Lichen—*Lichenous rash.*
2. Strophulus— *Gum, Tooth rash.*
3. Prurigo—*Pruriginous rash.*

Rayer, Biett, and Gibert, consider Strophulus as a modification of Lichen, and therefore make the order to consist of only two genera: but, as I am of opinion that the constitutional derangements connected with Strophulus, and the physical characters of the eruption, are sufficient to separate it from Lichen, I have therefore retained the arrangement of Willan.

* The term *Papula* is derived from the Greek word πάππος, "the sprouting of down or buds;" and the terminating diminutive *ula*, from ὕλη, "of the matter;" hence the term implies "of the matter or nature of pappus," *i. e.* of a bud. See *Good's Physiological Syst. of Nosology*, p. 460.

## G. 1. LICHEN.*

The term Lichen (Λειχὴν) was employed, by the Greek, Roman, and Arabic medical authors, to designate diseases affecting the skin of very different nature, and essentially distinct from that affection to which Dr. Willan appropriated it, and to which it is now confined. Celsus† used the term Papula to designate the Λειχῆνες of Hippocrates‡; but it is not clear that the father of physic confined that appellation to a purely papular affection. The question respecting the employment of the term by the ancients, however interesting in a historical point of view, is of little moment with reference to the nature of the diseases now generally known under the generic name, Lichen.

As a genus, Lichen may be defined, "a more or less diffused eruption of red papules, sometimes in clusters, more frequently distinct, accompanied with a sensation of tingling, pricking, or itching, and usually terminating in scurf; recurrent but not contagious." It is often hereditary.

Willan and Bateman enumerate seven species of Lichen, but three of these are mere varieties of the same affection. I shall describe the disease as consisting of four species only, under names imposed by Willan. They are, 1. Lichen *simplex;* 2. Lichen *circumscriptus;* 3. Lichen *urticatus;* 4. Lichen *tropicus.*

### 1. Lichen Simplex.

The affection of the skin, in this species of Lichen, which is that most common, varies in its appearance. When there is no obvious fever present, the eruption consists of small, distinct, scattered, acuminated, inflamed papules, seated on a red surface; appearing first on the arms, sometimes on the face, and gradually extending to the rest of the body. When the face is affected, the papules are larger than on the rest of the body, and somewhat resemble acne, but contain no fluid; they are more acuminated on the chest and arms, and, whenever they appear, they are accompanied with a sensation of heat, and smarting or tingling, which is increased when the patient is excited with exercise, or is warm in bed. When the eruption is associated with fever, the febrile symptoms abate when

* *Syn.* Papulæ (*Celsus, Lorry*); Herpes siccus (*Swediaur*); Tinea volatica (*Sauv.*); Exormia Lichen (*Good*); Licheniasis adultorum (*Young*); Λειχὴν (*Gr.*); Dartre farineuse, Poussée (*F.*); der Zitterich, Schwindfluken (*Ger.*); Huidmos (*Dut.*); Hudmossa (*Swed.*); Lichene (*Ital.*); Usagre (*Span.*).

† De Medicina, lib. v. cap. 28.

‡ Aphorism. § iii. Aph 20. Manoroles refers the Lichens to the papulæ. — Lib. 7. Epist. 2.

the eruption appears; and, in five or six days, the colour of the papules fades, and they exfoliate in minute mealy scurf: but they sometimes remain for twelve or twenty days before that occurs; and, occasionally, they appear in successive crops, the one crop advancing as the other is exfoliating; or, as sometimes happens, disappearing without terminating in scurf. In low conditions of the system, with hepatic congestion but little fever, the papulæ, instead of their usual bright colour, assume a dark-red or livid hue (L. *lividus*, Willan). They are flat and broad, and are occasionally accompanied with petechiæ; in which case, unless the tone of the habit is brought up, the eruption, after desiccation, reappears in successive crops, and continues longer than in the former variety. On the contrary, in highly irritable subjects, and when the febrile symptoms which precede the eruption are inconsiderable, the papulæ are small, form in clusters of a bright red colour on an extended inflamed base (L. *agrius*, Willan). They occur in masses, and the accompanying itching and tingling amount almost to a sensation of scalding when the patient gets warm in bed, or during or after violent exercise, or when wine or other stimulants are taken into the stomach. There is a daily exacerbation and remission of the tingling, which is greatly increased after dinner, and occasions scratching, which abrades the papules. These symptoms continue for several successive weeks, during which the eruption disappears and reappears; and, in very severe cases, the skin, particularly in the flexures of the joints, becomes red, harsh, thickened, fissured, and painful. I have never seen it pass into impetigo, although Celsus remarks — "nisi sublata est, in impetiginem vertitur;"* and Bateman accords with that opinion.† In this variety there is much more gastric derangement than in the other varieties of Lichen *simplex*, indicated by headache, nausea, loss of appetite, and pains of the extremities. In some instances the papules appear only at the roots of the hairs of the skin, which pierce their centre (L. *pilaris*, Willan); a modification of the disease which, according to Bateman, is connected with derangement of the digestive organs, arising from the abuse of spirituous liquors, in irritable habits. It is accompanied with a greater degree of itching and tingling than the first described variety; and, as scratching and friction can scarcely be refrained from, the papules are surrounded by temporary wheals, not unlike those of urticaria. When it assumes a chronic character, which is frequently the case, it may continue for an indefinite period.

*Diagnosis.* — The diagnosis of these varieties of Lichen *simplex* is not difficult: their papular character, and the scattered position of the papules on the skin, mark at once their distinction from measles

* De Medicina lib. v. c. 28. † Synopsis, 7th edit. p. 16.

and scarlatina, for which it has been supposed they might be mistaken. Even when the papules congregate in patches, which occasionally occurs, these differ most obviously from the crescentic forms of measles, and the aggregated masses of scarlet fever. The first variety has some resemblance to scabies in its earliest stage; but the vesicular aspect which the latter disease rapidly assumes, its contagious nature, the eruption terminating in crusts instead of scurf, and the itching rather than tingling which attends it, at once distinguish scabies from Lichen.* Prurigo is more likely to be confounded with the first variety; but the papules of prurigo are less prominent, scarcely coloured, and the sensation they induce is more that of formication mingled with itching, than the tingling of Lichen. When the papules run together in small groups, and the skin becomes thick and fissured, and is more or less scurfy, this variety, the L. *agrius* of Willan, might be mistaken for psoriasis or eczema. The deep colour of the lichenous patches, the papules discernible on their margin, and the tingling accompanying them, readily distinguish these patches from those of psoriasis; whilst the vesicular form of the eruption, in eczema, the discharge, and the scales instead of scurf, characteristic of that eruption, are sufficient to prevent Lichen from being mistaken for it. When the papules surround the roots of the hairs of the skin, the diagnosis cannot be mistaken; and when they assume a dull red, or brown colour, their elevation at once points out the distinction between them and the spots in purpura. The more severe form (L. *agrius*) might be mistaken for a papular syphilitic eruption (Lichen *syphilitica*); but, the absence of primary symptoms, of sore throat, iritis, and the copper colour of the patches, are the best diagnostic features for separating simple Lichen from syphilitic Lichen, in which these symptoms occur.

*Causes.* — In these modifications of this species of Lichen, we must attribute the diversities displayed in the eruption to a concurrence of circumstances influencing the action of the primary cause, whatever that may be. The difference in physical power, the locality, and even the mental condition of the individual, undoubtedly operate in changing the effects resulting from the same morbific cause on the living system. In all, there is inflammation of the cuticular capillaries, and most probably a deposition of plastic lymph in the dermoid tissue. It is on this account that

* Lorry (Tractatus de Morbis cutaneis) long since pointed out the following as the diagnostic symptoms which distinguish Lichen (papulæ) from Scabies: —"Primò à scabie differunt, quod papulæ illæ vulgò magis confertæ sint et elatiores; 2°. quòd rubicundæ magis et minus aridæ sunt; 3°. quòd sæpè sanatis febribus superveniant; 4°. quod latiores sint et sæpius recidivam patiantur, quam vera atque legitima scabies; 5°. quòd in furfur abeant notabile; 6°. demum quòd remediis sanentur à scabiei curatione alienis."—Cap. iii. parag. ii. p. 215. It is singular, however, that he confounds Lichen with Herpes.

I am of opinion that the four above described varieties of Lichen may be classed as mere modifications of the same disease. The temperament most liable to Lichen is the nervous and excitable, consequently it is more frequently seen in women than in men; and in those seasons in which this temperament is most called into action, namely, spring and summer. In tracing its origin, in its most severe form (L. *agrius*, Willan) we find it occurring in nervous irritable persons who are liable to irritable or inflammatory gastric dyspepsia, and have either indulged in stimulating food or drink, or who have been subjected to fatigue, watching, or mental anxiety. Even when the disease has disappeared, and the patient might be regarded as cured, I have seen it renewed by mental agitation. It is, also, not unfrequently associated with gout and diseases of the urinary organs. The eruption is evidently an effort of nature to relieve the general symptoms, as we find them abate when it appears, and increased if any thing occurs to repel it. To the same state of habit, with deficient power, is to be attributed that form of the disease (L. *lividus*, Willan), which is frequently attended with petechiæ.

*Prognosis.* — It is scarcely necessary to say that Lichen, in none of its forms, is attended with hazard, although it may become chronic and highly distressing to the patient, from the troublesome itching and tingling with which it is generally attended; and the probability of its recurrence. When it has continued for a considerable length of time (and it has continued for months and even years), it interferes with the natural action of the skin, and, reacting on the mucous membrane, induces atonic dyspepsia.

*Treatment.* — The treatment of Lichen *simplex*, in all its varieties, consists in keeping the bowels moderately lax; in preserving a cooling diet with a diminished quantity of light animal food, well-boiled vegetables, and ripe acidulous fruits; and refraining from violent exercise. In severe cases, occurring in a plethoric habit, it may be advisable to bleed to a moderate extent, and to pursue a strict antiphlogistic course. I have seldom seen occasion for repeating the venæsection, or employing topical bleeding. I have generally followed the venæsection with four or five grains of calomel, taken at bed time; and, in the morning, the following draught; which, if repeated two or three successive days, is well adapted for preparing the habit for a course of light tonics: —

℞ Magnesiæ Sulphatis ʒiv.
Infusi Confectionis Rosæ f ℥jss.
Tinct. Jalapæ fʒj.
Acidi Sulph. diluti ♏xvj.—M.

The best tonics are either the decoction of cinchona, acidulated with nitro-hydrochloric acid, or the solution of disulphate of quina in infusion of confection of roses, acidulated with dilute nitric acid.

Both tend to allay the itching and tingling, and to diminish the susceptibility of the nervous system. In obstinate cases, the liquor arsenicalis (*Solutio arsenitis potassæ*) is recommended, but it is rarely indicated; indeed, I have never seen a case which required its employment. When the papules assume the livid colour, and the strength is depressed, the addition of cordials to the cinchona is indicated; but, at the same time, the bowels must be kept lax.

Unless in very severe cases, when the itching and tingling are excessive, topical applications are not required. When they are required, the tepid bath, and an ointment composed of two parts of emplastrum plumbi, softened with one and a half parts of almond oil, applied after coming out of the bath, will be found useful. The ointments composed of camphor, calomel, and lard, and those with the iodide of mercury, have proved too acrid in cases treated by me. Rayer recommends gelatinous and mucilaginous baths; but they are not more serviceable than the simple tepid bath, whilst they are more expensive and troublesome to obtain. Mr. Plumbe has spoken highly of the advantage of the sulphur bath, after the bowels have been kept open for some time, and the habit reduced; but my observation of its effect, and that of all stimulant lotions, has not been favourable to their employment, unless in old obstinate cases, when the disease is truly chronic. When the tepid bath is used, brisk exercise in the open air should be taken immediately afterwards. Diet is of much importance: it should consist chiefly of milk and farinaceæ.

### 2. Lichen Circumscriptus.

This species displays the inflamed papules in clusters of various sizes, having a defined margin, and of an irregular circular form. The papules are more distant and paler on the centre than on the margin of the patches or clusters, which also enlarge by fresh papules forming on the borders. Some remain stationary, and coalesce for eight or ten days, and then nearly disappear and become scurfy, as fresh marginal ones appear. This species occurs on the face and the trunk as well as the extremities; and especially upon the back of the hand. Biett first noticed a variety of this species, in which, instead of forming in irregular patches, the papules were so aggregated as to form narrow riband-like bands, which extended in an oblique tortuous manner to different distances; hence he named it Lichen *gyratus*. Although I have never seen this variety, and believe that it is rare in this country, yet it is frequently present in the Parisian hospitals. "We have seen," says MM. Cazenave and Schedel, "a recent case in the Hospital St. Louis, in which the papules, disposed in small groups, formed a kind of riband, which, commencing on the upper anterior portion of the chest, curved downwards along the inner part of the arm, until it reached the

extremity of the little finger, following exactly in the course of the ulnar nerve: "* and Rayer mentions an instance in which the eruption formed a kind of collar in front of the neck, stretching from one ear to the other.†

In some instances, whatever form the groups assume, fresh crops of their central papulæ rise whilst the former are exfoliating, and thus prolong the disease. The eruption in this species is of a less bright red than in Lichen *simplex*, especially in the centre of the patches. The prefatory fever is also much milder than in the former species, and it declines as soon as the papulæ appear.

*Diagnosis.*—The diagnosis in this species is more easy than in the former, the eruption differing from almost all other papular and scurfy affections. It has been, nevertheless, supposed, that the patches in Lepra *vulgaris*, when their centre has acquired the natural colour of the skin, and the margin is broken into small red spots, may be mistaken for this species of Lichen in its decline: but the previous history of the case, the regular circular form of the leprous patches, and the distinction between papules and the spots forming the broken margin in lepra, are sufficient to determine the diagnosis. It is sometimes difficult to distinguish this form of Lichen from Herpes *circinatus;* but, on close examination, the former is found to be papular, whereas the latter is vesicular.

*Causes.*—This form of Lichen may be produced, in individuals of irritable habits, by whatever excites irritation, whether substances taken into the stomach or acting upon the surface; the abuse of alcoholic liquors, or any matters causing gastro-intestinal inflammation. Dr. Bateman remarks that, "in adults, it is occasionally produced by vaccination, and may be deemed a proof of the full affection of the constitution by the virus."

*Treatment.*—The treatment of this species of Lichen consists in the administration of mild aperients, such as the solution of three or four drachms of sulphate of magnesia, in ten or twelve drachms of acidulated infusion of confection of roses, taken every morning until the patches begin to exfoliate. An adherence to demulcent diluents is requisite. Opium and diaphoretics should be avoided: but, after the inflammatory stage is over, and exfoliation is proceeding, a light decoction of cinchona, or an infusion of gentian, with diluted sulphuric acid, or moderate doses of from ten or fifteen minims of tinctura ferri-sesquichloridi, in an ounce and a half of infusion of chiretta, taken twice a day, will be found beneficial. I have not seen much advantage derived from topical applications. All acrid substances, such as mercurial and sulphur ointments, are prejudicial; but, if the surface be painful or tingling, I have found the following lotion useful:—

* Abrégé Pratique des Mal. de la Peau, p. 269.

† Traité Theor. et Prat. des Mal. de la Peau, tom. i. art. "Lichen."

℞ Acidi Hydrocyan. dil. f℥jss.
Potassæ Liquoris f℥j.
Aquæ Rosæ f℥vss.— M.
Ft. Lotio, ope spongiæ urgente pruritu vel dolore applicanda.

Should the eruption suddenly disappear, and headache, quick pulse, and other febrile symptoms supervene, recourse must be had to the tepid bath, which proves beneficial, even if the eruption does not reappear.

The diet should be light and not stimulating; hence wine, spirits, and spices should be avoided. Indeed, every description of stimulant, whether taken into the stomach or topically applied, must be set aside. Exercise in the open air should be taken daily, but not carried to a degree to heat the habit, and it should also be kept within the limits of fatigue.

### 3. Lichen Urticatus.*

In this species, which is peculiar to infants and young children, the papules so closely resemble the stings of nettles, or the bites of bugs or gnats, "as almost," says Bateman, "to deceive the observer." † They commence as inflamed wheals, which subside in a few days, and leave "small, elevated, itching papulæ." ‡ The wheals and papules appear in succession, spreading over the whole body, and, in some places, coalescing into small patches: and they rise and itch violently after stimulant food or exercise. The itching, pricking, and tingling is always considerable, and becomes so intolerable to the little patients in the night, as to prevent sleep, and cause scratching to an extent sufficient to excoriate extensively.

*Diagnosis.*—This species may be confounded with prurigo; but the papules are larger and more elevated than those of prurigo. It is distinguished from urticaria by the papules which are left as the wheals subside. It somewhat resembles Strophulus *candidus* (Willan); but the distinction is marked by the papules of this strophulus having no inflammation round their base, and being even of a lighter colour than the normal cuticle.

*Causes.*—Lichen *urticatus* seems to depend on a more than ordinary degree of excitability, so that the usual sources of irritation in childhood operate with unusual force. It sometimes appears soon after birth, and continues to torment the infant sometimes for months. It may generally be traced to some disordered condition of the digestive organs. It occurs frequently

* *Syn.* Lichen Urticosus (*Good*).
† Synopsis, 7th edit. p. 19.
‡ Ibid.

in children during dentition; "recurring," according to Underwood, "uniformly a little before each tooth is cut."* It seldom attacks children after this period.

*Treatment.*—This species does not readily yield to any plan of treatment; and narcotics, especially opium, rather increase than diminish the irritation, which is so intolerable to the child. "No benefit results from the use of sarsaparilla, nor of elm bark, nor from any mercurial preparation."† Bateman recommends the internal use of small doses of sulphur, or the hydrargyrus sulphuratus niger."‡ I have not observed much benefit to follow from the use of either, and have seen more advantage from a combination of nitrate of potassa, sulphate of potassa, and powder of calumba, in proportions suited to the age of the child. In delicate and emaciated children, after the use of this powder for three or four days, the potassio-tartrate of iron, in solution, or the vinum ferri, not only strengthens the little patients, but rapidly relieves the irritation. The only topical application of any service is the tepid bath, especially when made of sea-water. The skin will not bear any stimulant application; nor even a bath of a temperature above the tepid. The clothing and the bed coverings should be light, and the infant supported on the breast alone; or, when weaned, on a milk and farinaceous diet.

### 4. Lichen Tropicus. §

This form of Lichen is well described by Bontius, Hillary, Cleghorn and Dr. James Johnson, the latter of whom suffered from it. It is peculiar, as its name implies, to tropical climates. "The sensations arising from it," Dr. Johnson remarks, "are perfectly indescribable, being compounded of pricking, itching, tingling, and many other feelings." The eruption consists of red, round, tender papules, which are spread over the trunk of the body, extremities, neck, and sometimes the forehead, close to the hair. It occasionally appears only when the person is taking exercise sufficient to cause perspiration, or swallowing warm stimulating fluids, and disappears when he remains at rest and cool; at the same time, Dr. Johnson informs us, "that the cold bath seemed rather to aggravate than to appease the eruption and tingling, especially during the glow which succeeds the immersion." But there does not appear to be any hazard attending the repulsion of the eruption by cold bathing.

* Diseases of Children, 8th edit. p. 175.
† Good, Study of Medicine, vol. iv. p. 559.
‡ Synopsis, 7th edit. p. 20.
§ *Syn.* Acresma (*Auct. Græc.*); Essera (*Plouquet*); Chaleur piquante (*F.*); Root vout (*Belg.*); Flacherothe fluke (*Ger.*); Eshera (*Arab.*); Prickly heat (*Eng.*).

*Diagnosis.*—There is little difficulty in distinguishing Lichen *tropicus* from the other species of the genus. The red, widely diffused papules, the extreme itching and tingling, are too characteristic to be mistaken, to which may be added the evident exciting cause of the disease. It might, indeed, be confounded with a severe case of prurigo; but the papules in prurigo are smoother, larger, and softer than those of this species of Lichen; and, besides, they seldom appear unless they be violently rubbed. The most severe cases of the latter disease also are of short duration, and disappear when the person is kept cool and at rest.

*Causes.*—The cause of this distressing species of Lichen is an exaltation of the sensibility which the solar heat produces in tropical climates, and a consequent increased excitement of the cutaneous capillaries. Although it is an almost constant disease of those who recently arrive in hot climates, yet, it attacks the natives and old settlers also, during the greatest heat of the climate, and is generally regarded as the sign of good health. It causes no derangement of habit, except what arises from the pricking which accompanies the eruption. It occasionally appears in this country in nervous and irritable individuals, after exposure to much artificial heat, or violent exercise, or from the use of hot-spiced food. In tropical climates it more frequently attacks children than adults. The perspiration, when tested, is alkaline, and highly ammoniacal.

*Treatment.*—This species of Lichen requires little medical treatment; the bowels should be kept moderately lax by means of mild aperients, the clothing should be light, and the diet cooling. When the disease occurs on a person's first arrival in a tropical climate, exercise in the heat of the day should be sedulously avoided, and every means taken to abate the influence of the high temperature until the habit shall have become accustomed to the climate. The topical applications of water, acidulated with lemon-juice or vinegar, and sponging with diluted camphorated spirits to allay the itching, require to be used with much caution, as the repulsion of the eruption is apt to produce fever. The cold water bath or sea bathing is less hazardous than sponging the body with cold water. Currents of cold air, and night dews, must be avoided.

### Case 34.

*Lichen Simplex, complicated with Porrigo Favosa.*

John W——, æt. 22, a footman, single, admitted into University College Hospital, 25th Feb. 1839. He is a healthy looking person, and his habits are regular. On his shoulders and arms, are a great number of small, acuminated, red papulæ; hard

and resisting, with scarcely any inflammation around them. They itch much. On the back part of the head the hair is matted together with dry concretions. There is not much gastric disturbance. (*Radatur caput. V. S. ad* ℥xv. ℞ *Calomelanos* gr. v. *Pulv. Ipecac.* gr. j. *Ext. Colocynth. C.* gr. vj. *Ft. pil.* ij. *h. s. sumendæ. Haust. purg. cras primo mane.*) 27*th.* After the head was shaved, the crusts were observed to afford cover to an immense number of pediculi. (*Balneum tepidum quotidie.*) *March* 2*d.* The pediculi have disappeared, but the eruption continues the same. The bowels are open. (*Rep. pil. et. Haust. purg.* ℞ *Potassæ Carbonatis* ʒj. *Aquæ* f ℥xij. *Ft. Lotio ter quotidie utenda. Omittatur Balneum.*) 5*th.* He continued to improve; and, on the 7th, was discharged cured.

This case is given to show the occasional spontaneous disappearance of Lichen. No attention was paid to that feature of the case, but the whole given to the topical treatment of the porrigo, which yielded to it with more than usual facility.

## Case 35.

### *Lichen Simplex.*

Major H——, a man under forty years of age, of moderate stature, nervous temperament, and who had been debilitated by residence for many years in a tropical climate, applied for my advice on account of an eruption, which at distant intervals had annoyed him for many years. From the time of his leaving India, until he arrived in this country, six weeks before I saw him, he was free from the eruption; but a week after his arrival, it appeared after a slight febrile attack, which he ascribed to a cold. The papules occupied both sides of the thorax, commencing above the nipple, and, passing over the shoulders, stretched nearly to the lower angle of the scapula; there was also a patch of them on the right arm and the right thigh. They were accompanied with itching and tingling, which were augmented when the body was heated by sitting near a fire, or by exercise. The eruption had appeared in successive crops, each crop subsiding in a slight scurfy exfoliation. He had had medical advice, and used ointments, lotions, and baths, but with little benefit. He had taken no internal medicine.

When I first saw him, his countenance was pallid, his extremities cold, his bowels torpid, his tongue slightly furred, and the pulse 80, but feeble. The eruption was partly in the exfoliating state. He complained greatly of the severity of the itching and tingling after dinner, and of the fatigue which even moderate exercise occasioned. The disease was Lichen *simplex*, in a severe form. He was ordered a five-grain calomel pill, to be taken at bedtime every third night, with a saline purgative on the ensuing

morning, and the following tonic twice a day:—(℞ *Spir. Ammoniæ Aromaticæ* ʒij. *Tincturæ Cinchonæ comp.* f ʒvj. *Infusi Cascarillæ* f ℥v. *M. Sumat 4tam partem bis quotidie.*) As a topical application, the following was directed to be applied on lint twice or three times a day, and the lint covered with oil silk: (℞ *Plumbi Acetatis* ʒj. *Spir. Vini* f ʒiij. *Aquæ Rosæ* f ℥vijss. *M. Fiat Lotio.*) The quantity of animal food he was accustomed to was diminished; and well-boiled vegetables, milk, and light puddings recommended as the staple of his diet, with daily exercise in the open air. No alteration, except an occasional tepid bath, was made in this plan of treatment, which was continued for six weeks. The eruption disappeared in four days, and did not return; his general health improved; and he is now in the country to confirm and render permanent the benefit he has received.

## Strophulus* — *Gum.*

Strophulus is a papular disease peculiar to infancy and childhood. Biett considered it a modification of lichen, and Gibert, Cazenave, and Schedel have described it as such, under the name Lichen *strophulus.* The eruption is sometimes confined to one part only, but more generally it is diffused over the whole surface of the body. The papules are either redder or whiter than the surrounding skin; of variable size, appearing in successive crops, and are attended with considerable itching, which is increased by external heat, or the warmth of the bed. They usually terminate by resolution, or by slight desquamation. The disease is unattended with danger, unless the eruption be suddenly repelled.

Strophulus usually may be traced in infancy to some irregularity of diet of the mother, or the suckling nurse; or to the administration of improper food, or overfeeding, even when the infant is nourished solely at the breast. In more advanced childhood, it is generally connected with the irritation attending dentition.† In both instances, the habit is in a more excitable state than in any other period of life; hence derangement of the digestive organs, or, indeed, of any other part of the habit, is likely to affect the skin. It has occasionally occurred from overloading infants with clothes, or confining them to overheated apartments. The duration of the disease varies from a few days to several weeks, the period depending, in a great measure, on the nature of the exciting causes; hence the discovering and removing these form an important feature in the treatment.

* *Syn.* Exormia Strophulus (*Good*); Licheniasis Strophulus (*Young*); Exanthema Strophulus (*Parr*); Lichen Strophulus (*Biett, Cazenave, Schedel*); Bouton, Efflorescence Cutanée, Ebullition (*F.*); Rothe (*G.*); Carpang (*Tamool*).

† Lorry, who regards it as a species of lichen, remarks, "Ita multi sunt infantis quibus ad singulas dentitionis periodas irritatione lichenes exterius producit."—*De Morb. Cut.* p. 245.

Willan and Bateman have arranged five species under the genus, namely, S. *intertinctus*, S. *albidus*, S. *confertus*, S. *volaticus*, and S. *candidus*; but the first and second of these are evidently varieties only of the same affection; and the same may be said of the third and the last. I consider Strophulus, therefore, as comprehending only three species:

1. Strophulus *simplex* — *Red and white gum.*
2. Strophulus *volaticus* — *Wildfire rash.*
3. Strophulus *confertus* — *Tooth rash.*

### 1. Strophulus Simplex*—*Red and White Gum.*

*Symptoms.*—This species of Strophulus is characterised by an eruption of small papules, either of a vivid red (S. *intertinctus* of Willan) or a whitish colour. They are usually distinct, but occasionally a few are grouped together and seated upon a red patch, or intermixed with red points. One variety of the whitish papules (S. *albidus* of Willan) are hard, sometimes surrounded by a red areola; and, when the red and white are not both present at the same time, the latter are perfectly distinct: but, frequently, they appear together. Both varieties chiefly occupy the forehead, cheeks, neck, fore-arms, and back of the hands; they are rarely diffused over the rest of the body. They are attended by itching increased by the warmth of bed or any external heat. They appear in successive crops, each crop remaining for some days, and then terminating in slight desquamation of the cuticle. They sometimes suddenly disappear, and, after a short time, reappear. The whitish variety sometimes appears alone, in which case Willan and Bateman have described it as a distinct species under the name Strophulus *albidus*; but the red and white are more commonly present at the same time.

This variety of Strophulus shows itself often a few days after birth, in children apparently the most healthy and robust, as well as those of a delicate frame of body.

*Diagnosis.*—The papules of Strophulus so closely resemble those of lichen, that we are led by the age of patients only in forming our diagnosis.

*Causes.*—This variety of Strophulus can generally be traced to some indiscretion in the food either of the mother or the infant. When it is preceded by vomiting or diarrhœa, it is always connected with indigestion, and a consequent ascescent state of the contents

* *Syn.* Exanthema Strophulus (*Parr*); Licheniasis Strophulus (*Young*); Strophulus intertinctus (*Willan*); Efflorescence benigne (*F.*); Rothe (*G.*); Ching Carapano (*Tamool*); Rooshitum (*Sans.*); Kurpan (*Duk.*); Cārāpānie (*Tel.*); Gum, red and white.

of the stomach with an irritable condition of the alimentary canal. The stomach seldom suffers alone; the local derangement is felt upon the whole system. The delicate state of the stomach in infancy is unknown to the greater number of monthly nurses; hence, instead of waiting until the mother is fitted to afford the infant the nutriment adapted for its digestive powers, it is crammed with pap; indigestion follows, and Strophulus is one of the least of the evils attending this custom.

*Treatment.*—When the attack can be traced to gastric and intestinal irritation, a few grains of rhubarb and magnesia, combined with two or three drops of aromatic spirit of ammonia, or some other gentle cordial, may be administered internally, and accompanied with the use of the warm bath. If the vomiting continues, the stimulus of a blister plaster, applied for a time sufficient only to redden the skin and operate as a counter-irritant, but not to vesicate, will prove beneficial. If the sickness and diarrhœa can be traced to any abnormal change in the breast milk, the diet and habits of the mother should be inquired into and corrected; and if the infant be unfortunately attempted to be brought up by hand, the food should be changed; or, what is preferable, a wet nurse procured for it, when that can be effected.

In the mild form of the disease the topical treatment requires nothing farther than a change from cold to tepid water in the daily usual ablutions of the infant, and the avoiding sudden exposure to currents of cold air; as a repulsion of the eruption may cause the gastric and intestinal disturbance already described. This precaution, however, should not prevent the infant from being, every fine day, carried out into the open air.

### 2. Strophulus Volaticus*—*Wildfire Rash.*

In this species, which is less frequent than the former, the eruption appears in clusters of from five to ten papules, which are closely grouped together, and form small circular patches of a bright red colour, appearing successively on the face, the arms, and sometimes the trunk of the body. The patches are less numerous than in the former species. The eruption is attended with fretfulness, a rapid pulse, white loaded tongue, and itching, indicative of slight feverishness. The patches appear successively, and in four or five days they assume a brownish-red hue, and terminate in slight furfuraceous desquamation of the cuticle. But usually as one crop of papules declines another appears, and thus the disease, instead of running its course in a few days, is protracted for three or four weeks.

* *Syn.* Erythema volaticum (*Sauv.*); Feu volage (*F.*).

*Diagnosis.*—It is difficult to distinguish this species of Strophulus from the aggravated form of Lichen *simplex* (L. *agrius* of Willan), especially when the papules aggregate into clusters, except that lichen is not a disease of early childhood; and Strophulus never terminates in the fissured excoriations which occur in lichen; neither is it accompanied with the intolerable itching that attends lichen.

*Causes.* — The same derangements of the digestive organs that originate the former species may produce the present.

*Prognosis.* — The only circumstance, in reference to prognosis, which demands notice, is the duration of the eruption, which varies from twenty or thirty hours to several weeks, and even, under certain circumstances, to months. The duration depends upon the nature of the exciting causes, the facility or difficulty of removing these, and the constitution of the child. When the eruption is repelled and intestinal inflammation set up, a cautious prognosis should be given, as the result is doubtful.

*Treatment.* — Strophulus *volaticus*, as it is more connected with derangement of the alimentary canal than the former species, requires more medicinal treatment. Gentle aperients, such as castor oil combined with ten or twelve minims of compound tincture of camphor, should be given to remove any offending matter from the bowels; and the aperient followed by a light tonic, either decoction of yellow bark acidulated with nitro-hydrochloric acid, in doses appropriate to the age of the patient, or a mixture of infusion of calumba, containing bicarbonate of potassa, and compound tincture of cardamoms; or from six to eight grains of the potassio-tartrate of iron, in water sweetened with half a drachm of syrup of orange-peel. I have found this treatment prove most beneficial, not only in removing the immediate attack, but securing the habit of the child from its recurrence. The regulation of the food must not be neglected. If the child has been weaned, it should consist of beef-tea, with arrow-root, for dinner; and milk and water, with rusks sopped in that fluid, for the morning and evening meals. If the child is still at the breast, the diet of the mother should not be stimulating, and the use of ale and porter, if daily taken, should be discontinued. If the child be weaned, the food should be of a description appropriate to the state of the stomach. I have rarely seen the necessity for any topical application except the tepid bath, unless the itching is very distressing; in which case sponging the patches with one part of distilled vinegar diluted with two parts of water, or with a lotion consisting of two parts of solution of acetate of ammonia, half a part of spirit of wine, and three and a half parts of water, generally allays the irritation, and procures sleep for the little patient.

### 3. Strophulus Confertus — (*Rank Red Gum*) — *Tooth Rash.*

A much greater degree of fever, and a more extensive crop of pustules than in the previous species, characterise Strophulus *confertus*. The papules are small, nearly confluent, seated upon the cheeks, the back of the arms, and the hands; but occasionally the clusters of papules are distributed over the chest, and indeed the whole body. This form of Strophulus is not unfrequently associated with that variety which Willan has named Strophulus *candidus*, and which consists of papules larger than in the other varieties; smooth, shining, and devoid of any inflammatory base or redness. They are even whiter than the skin. They seldom continue more than six or seven days, after which they slowly disappear. Some of the large white papules appear distinct, and not intermixed with those on the red patches. Bateman says, "they commonly succeed some of the acute diseases to which infants about a year old are liable:" and he adds, "it has occurred, also, on the arms, when the face was occupied with Porrigo *larvalis*."* Strophulus occurs most commonly when the teeth are commencing to press upon and swell the gums, the mouth to become hot, the salivary secretion increased, and the chylopoetic viscera disordered. It may remain for weeks; but more commonly it runs its course in ten or twelve days, and terminates in a scurfy desquamation of the cuticle. In severe cases, the cuticle peels off in large dry flakes, leaving a rough red excoriation. The itching is always most troublesome when the patches of papules appear on the legs.

*Diagnosis.* — This variety of Strophulus might be more readily confounded with lichen (L. *circumscriptus*, Willan) than any of the other varieties, the smaller size of the papules being accounted for by the age of the patient: but, as it seldom appears except as an attendant on dentition, this circumstance affords a sufficient diagnostic feature to distinguish it from lichen. The itching, also, although usually severe, is considerably less than in lichen. In severe cases, however, when the exfoliation of the cuticle leaves red excoriations, the disease, except for the age of the patient, could not be readily distinguished from the Lichen *agrius* of Willan. The papular nature of the eruption distinguishes it from erythema.

*Causes.*—This form of Strophulus is so constantly associated with dentition, that we must look to the derangements accompanying that process in the infantile system for its origin. There can be no doubt that Providence has intended that the first teeth should be protruded whilst the infant is yet at the breast, and nourished by that food which is of a nature the least likely to become ascescent, and to be most readily assimilated, namely, the

* Synopsis, 7th edit. p. 8, 9.

mother's milk. There is no period in infancy in which this is so important as about the fourth or fifth month, when the infant begins to drivel, and the gums to spread, indications of the process going forward, and the growth of the teeth about to be protruded. When the infant is supported solely upon the breast milk, when the skin is kept clean by daily ablution, and daily exposure under proper circumstances to the open air obtained, dentition may proceed without any discomfort to the infant, except the inconvenience arising from an increased flow of saliva. If the child is naturally delicate, and of an irritable temperament, feverish symptoms, and the eruption of Strophulus *confertus* may occur under the best management: but in general the crude ascescent food given to infants in addition to the breast milk, and most especially when attempts are made to rear infants by the hand, is its exciting cause. At this period of augmented irritability, derangements of the digestive organs occur; the mucous membrane first suffers, and the skin, sympathising with it, becomes the seat of these eruptions. If the mouth of the infant be examined at this time, it will be found preternaturally hot, the gums swollen and extremely tender, attended with a considerable degree of febrile disturbance. The fingers of the suffering infant are constantly in the mouth, and the pain it experiences too evidently displayed by its fretfulness and whining. Besides Strophulus *confertus*, eczematous eruptions frequently appear upon the scalp at this time, arising also from visceral derangement; but the diagnostic distinction of these from Strophulus is of little consequence, as the treatment is the same in both cases. That these eruptions are more or less conservative powers against greater evils during dentition cannot be doubted; as their sudden repulsion is followed either by convulsions, or some other serious derangement of the general health.

*Treatment.*—The indications necessary to be fulfilled in this variety of Strophulus are, 1. To remove the exciting causes, if these are obvious; 2. To allay febrile excitement; and 3. To counteract that condition of the abdominal viscera, which is the chief source of the disease.

In fulfilling the first indication, it is essential to inquire into the habits, both of the mother or nurse, and the management of the infant. If the child be kept in a hot confined nursery, if it be not kept clean, and not regularly carried into the open air, these improprieties must be set aside. In fulfilling the second indication, purgatives have been too frequently employed: but if the secretions be offensive, and the bowels irregular, mild aperients, such as rhubarb and magnesia, are requisite. I have found small doses of hydrargyrus c. creta, daily at bed-time, in addition to the aperients, prove most useful. Some writers on the diseases of children condemn the scarification of the gums, except merely to relieve the turgescent vessels by the bleeding; but when the mouth is dry, and

the gum red, swollen and tense, the utmost benefit as well as relief to the sufferings of the infant, result from a free incision of the gum down to the imprisoned tooth. Every one is fully aware that the tooth is released by the absorption of the portion of the gum upon which it presses; but when fever, intestinal disturbance, and strophulus accompany the process, it is as essential to interfere with the process of nature as in the act of parturition, when ergot, or instrumental assistance is required to aid the expulsion of the child, and save the mother when she is sinking. At such times, also, when fever prevails, besides the alteratives and aperients, the following will be found useful for allaying irritation and promoting rest:—

℞ Potassæ Carbonatis ℈jss.
Succi Limonis recentis f℥vj.
Vini Ipecacuanhæ ♏xxiv
Tincturæ Hyosciami ♏xvj.
Aquæ Destillatæ f℥x. — M.

Sumatur 4tâ pars 5tâ q. q. horâ.

A leech may also be applied behind the ear, and the greatest care should be taken to prevent the eruption from being repelled by the exposure of the infant to a sudden chill or current of cold air.

No external applications are necessary except the use of the tepid bath, and attention to cleanliness; unless the itching should prove severe, in which case it is allayed by sponging the parts with salt and water, or vinegar and water. The most important part of the treatment consists in attention to diet and regimen. If the poor infant be brought up by hand, the ordinary food should be set aside, and asses' milk substituted for it. The solid contents in asses' milk to that in human milk are as 93·0 to 116·4, yet it approaches nearer to the latter fluid than the milk of either the cow or the goat. When asses' milk cannot be procured on account of its high price, cow's milk may be substituted; but it should be diluted with barley water, and moderately sweetened. The addition of sugar to the cow's milk is necessary, the quantity of saccharine matter in it being less than one half of that contained in human milk. The quantity in the latter is about 48·8 per cent., that in the former only 23·9. The milk should be brought to the temperature of the mother's milk, namely, 90° to 95°; and administered through the feeding bottle. The tepid bath should be used every morning.

## PRURIGO.*

Prurigo is characterised by severe itching†, general or partial, either without any apparent eruption, or with a papular eruption nearly of the same colour as the skin, increased by exposure to heat. It is non-contagious, and generally chronic.

Prurigo, whatever form it assumes, is a most insupportable disease, constantly absorbing the attention; and, when very severe, it destroys all enjoyment of life. It attacks the young as well as the middle-aged and the old; and persons in every station of life. It varies in intensity, on which account modern writers on the disease have described it as constituting different species or varieties; but I accord with Rayer in the propriety of regarding the disease merely as it assumes a *general* or a *local* character. In some instances it affects many parts, almost the whole of the surface, at the same time; in other instances the extremities only; and, occasionally, it confines itself to particular circumscribed spots, such as the anus, scrotum, and the pudendum. In both general and local cases the skin is thickened, and appears coarse; and it is usually scattered over with small, dark, brownish-red scabs, the result of scratching, which, rubbing off the tops of the papules, cause a drop of blood to be effused from each, and this drying, forms the dark-coloured spots. The general colour of the skin is dusky. There is, sometimes, a slight degree of fever, which occurs in the evening; but more commonly there is no obvious constitutional disturbance. The disease is almost always chronic.

For the reasons which I have given, I shall consider every variety of the disease comprehended under the two following species: —

1. Prurigo *Generalis.*
2. Prurigo *Localis.*

### 1. Prurigo Generalis—*General Prurigo.*‡

When the disease appears in a mild form, which is the case when it affects young persons previously in a good state of general health (Prurigo *mitis* of Willan), the itching is usually experienced

* *Syn.* Pruritus (*Auct. var.*); Pruritu (*Mercuriales*); Intertrigo (*Lorry*); Exormia prurigo (*Good*); Psore papuleuse (*Alibert*); Prurigo (*Willan* and *Bateman*); κνησμός (*G.*); Prurit (*F.*); Das Juckten (*G.*); Morbo prurito (*I.*); Kejik (*Turk.*)

† Traité des Mal. de la Peau, tom. i. p. 601.

‡ It is difficult to find an English term for the Latin prurigo; I have therefore employed the Latin name instead of adopting any that has reference to other affections, or which might mislead.

upon both the upper and the lower extremities, the shoulders, and the trunk of the body. On examining these parts by the aid of a lens, we find many flattened papules scattered over the surface, and of the same colour as the surrounding skin, which retains its natural hue. They are sometimes not easily perceived even by the aid of a lens, but they are always obvious to the touch when the finger is passed over the part. There is no inflammatory appearance except where the enlarged papules have been rubbed or scratched. The itching is intense and constant, except when the mind is much occupied by other affairs; it is augmented at night, especially when the patient is in bed, and at all times when he approaches a fire. It is also increased to an almost insupportable degree by indigestible food, or by violent exercise, by scratching, and sometimes even by the friction of the clothes. The thin dark-coloured scabs, formed by the blood dried on the summits of the abraded papules, do not soon disappear. When they fall, they leave a faint brownish mark. When the disease has continued for a long time, the skin acquires a dirty hue, and the cuticle desquamates in scurf. The duration of the disease varies; I have seen it continue for many months.

When the disease is of a more inveterate character, it is preceded by headache, epigastralgia, and general uneasiness; and this sometimes continues as long as the eruption remains. The sensation connected with the eruption is not merely itching, but resembles, in some degree, the stinging of ants (Prurigo *formicans*, Willan). The papules are larger, but not so much elevated as in milder cases; and they are, also, rather paler than the surrounding skin. The disease is more extended than in its milder form, affecting, besides the trunk and extremities, the face, the palms of both hands, and the soles of the feet; and the stinging is so great and universal as to give the sensation of hot needles thrust into the skin, or of ants passing over it, and stinging in their march; indeed, so intolerable is the feeling, that the patients involuntarily tear off portions of the skin, sometimes an inch in length, with their nails. The tingling and stinging, as in the milder variety, are increased by heat, and especially by the warmth of bed, so that the poor sufferers, finding some relief from their tortures by exposing their bodies to cold, quit their beds and lie upon the floor, or the stone or marble hearths. The tops of the papules are so generally abraded, that the whole of the body appears thickly covered with small, dark-coloured, nearly black spots.

When the disease attends advanced age (Prurigo *senilis*, Willan), it is equally severe as in the cases already described; the morbid papules are larger, flatter, and more conspicuous than in youth and middle age, and the most affected parts become covered with scurf. The disease is pertinaciously obstinate, frequently resisting every mode of treatment, and rendering the remainder of the life of the

patient wretched. When daily ablution of the skin is neglected, pustules occasionally appear on the affected parts. In very old people the furfuraceous appearance of the skin is so great as to give the disease the appearance of psoriasis, particularly upon the lower extremities; and, not unfrequently, vesicles resembling those of eczema appear. I have seen several cases in which this variety of Prurigo was associated with furunculus.

In mild cases the disease may be cured, or spontaneously disappear, in a few weeks; in severe and chronic cases it may run on for years; and in persons of advanced age it may continue for the remainder of life. I have never seen it, as Bateman hints it may do *, terminate in scabies, nor in impetigo, as Bateman states P. *formicans* may do; and I have never detected pediculi, even in the worst cases of the disease in old men†: but I have no doubt they may be found in filthy persons.

When Prurigo becomes chronic in old people, the papules become confluent, and produce a thickening and brown colour of the skin, and a slight swelling of the parts, which often inflames, whilst the cuticle peels off in yellowish semi-opaque flakes. An insect, not a pediculus, is sometimes found in such cases. Willan considers the insect a pullex. The disease in this case is incurable.

*Diagnosis.*—Prurigo *generalis* has been mistaken for lichen, but the larger and less elevated character of the papules, and the more constant and intolerable itching of the former, are sufficient to distinguish it from lichen.

Its papular character distinguishes Prurigo from scabies; even when the heads of the vesicles in the latter are rubbed off, the inflamed base, covered with a small scab, are diagnostic characters to distinguish it from the colourless papules of Prurigo, covered with a drop of dark-red, nearly black, dry blood. The itching, also, in scabies, is of a different character from that of Prurigo: it is more constant; is rather pleasurable than painful; and unaccompanied by stinging. Even when complicated with scabies, its non-vesicular character, its colourless papules, and not being contagious, readily distinguish it from that disease.

*Causes.*—Those persons who possess a highly exalted, sensitive and irritable condition of the nervous system, are most likely to be the subjects of general Prurigo; a condition not unfrequently depending on a morbid state of the spinal cord. This opinion derives some support from the fact that the same tingling of the surface and formication occur when nux vomica, which acts chiefly on the cerebro-spinal system, is administered. In irritable

* Bateman's Practical Synopsis, 7th edit. p. 24.

† A diseased and much weakened state of habit, particularly if cleanliness be not attended to, produces a condition of the skin well adapted for pediculi, but they are not generated by it. It is owing to the same cause that boils and abscesses sometimes supervene on Prurigo.

habits the disease is not unfrequently connected with some derangement of the digestive organs; and the sudden suppression of the eruption augments, to a considerable degree, such a condition, when it is present. It may be induced by certain kinds of food, "especially the use of shell-fish, salted meat, and much stimulant animal food in hot weather, with a free potation of wine, spirits, and fermented liquors, and excess in the use of condiments, pickles, and vinegar,"* or whatever tends to produce an acrimonious state of the secretions. I have observed it follow the use of pickled salmon, herrings, and mackerel; and this is not a mere pruritus, such as may incidentally occur from various substances deranging the stomach, but the disease runs the usual course of a mild attack of true papular Prurigo. Pork frequently eaten, and ham or bacon, also seem to produce the disease. It is not unfrequently observed in elderly people of a spare, dry habit of body, and sallow complexion, with torpid bowels; and in those who are in a low condition of body, either from mental anxiety, over fatigue, deficient diet, want of cleanliness, or residence in low, cold, or humid localities; on which account it more frequently attacks the poor than the rich: but I have seen it in the higher classes. Rayer says he has observed that the milder form of the disease occurs in the spring or the commencement of summer, whilst the severer forms appear indifferently at any period of the year.† A temporary Prurigo is sometimes connected with the irritation which not unfrequently attends pregnancy. It is confined to no age nor sex, but is more common in infancy and advanced life. Spring and summer favour its attack.

*Prognosis.* — Prurigo rarely terminates fatally; I have never seen a fatal case. Persons have died whilst labouring under Prurigo; but the fatal result has been attributable to the supervening disease. In some instances a new disease has operated as a curative agent to Prurigo. In young people the disease frequently yields to treatment, or it sometimes spontaneously disappears: but, in advanced age, it resists every treatment, and renders the remainder of life miserable. This fact was known to the ancients: Paulus Ægineta remarks, "Pruritum in senectute, contingentem perfecte sanare non datur, verum subscriptis mitigare potes."‡

*Treatment.* — In this disease two indications require to be fulfilled; namely, 1. To correct the deranged condition of the digestive, secreting, and assimilating organs; and 2. To allay the irritability of the skin: hence the treatment requires the administration of *general and internal,* and the application of *topical* or *external* remedies.

* Bateman's Synopsis, 7th edit. p. 25.

† Traité des Maladies de la Peau, tom. i. p. 609.

‡ De re Medica, lib. ii. cap. v. Gibert remarks, "On l'a vu quelquefois pousser au suicide l'individu qui en était atteint." — *Traité Prat. des Mal. Spéciales de la Peau,* 2d ed. p. 269.

1. The *general treatment* must be determined by the age and constitution of the patient, and the character of the attack. If the patient be young and plethoric, bleeding, to a moderate extent, is necessary; but in ordinary cases it is of no value. It may be followed by mild, saline, purgatives. Demulcents and diluents are also requisite. After clearing the bowels effectually by calomel and a senna draught, they may be kept soluble by means of sulphur and nitre, which, at the same time, tend to lessen the irritation; and, in young children, a combination of precipitated sulphur and magnesia should be daily administered at bed-time. If the stomach be ascescent, the treatment may be commenced by an emetic. Some practitioners, chiefly continental, place great confidence in the decoction of the root of Arctium *lappa*, and that of Rumex *patientia;* and that of infusion of Chicoreum *intybus*, fumitory, Centaurium *minus*, and chamomile.* They also place great reliance on an alkaline beverage (*boisson alkaline*), which consists of two drachms of subcarbonate of potassa dissolved in a pint of barley water; and, also, on an acid drink formed with one drachm of nitric or sulphuric acid to a pint of *eau sucré*. I have observed considerable benefit derived from the acid beverage, but none from the alkaline. With regard to the decoction of Arctium *lappa*, I consider it an excellent vehicle for more important remedies, namely, the solution of pure potassa and tincture of cantharides: but I have observed no advantage derived from its simple administration. Washed sulphur (*sulphur lotum*), alone, or associated with carbonate of soda, or, administering at the same time, calomel and neutral purgative salts, have also been lauded; but I agree with Rayer, that much confidence cannot be placed on the influence of these remedies.

Bateman says, "I have seen considerable benefit derived from the internal use of the oxyginated muriatic acid (*Acidum Nitro-hydrochloricum*), both the eruption and the itching yielding during its exhibition. It may be taken in doses of a fluid drachm, and increased gradually to three times the quantity, in water or any agreeable vehicle."† I have had ample opportunities of verifying the statement in this quotation; although I must add, that few persons will be found capable of bearing the large doses of the acid recommended in it. In many cases, in patients of advanced age, I have seen diuretics produce more benefit than any other internal medicine. The following is the form I have usually employed:—

℞ Potassæ Nitratis gr. x.
Spir. Etheris Nit. f℥j.
Decocti Pareiræ Bravæ f℥xv. — M.
Haustus bis quotidie sumendus.

---

* Rayer's Traité des Mal. de la Peau, tom. i. p. 614.
† Synopsis, 7th edit. p. 26.

2. As *external applications*, the most important are tepid baths, either of water, at 80° — 87° Fahrenheit, or of sea water at the same temperature; or alkaline baths, of which the following form is well adapted to allay the stinging in severe cases, and especially when the disease affects those of advanced age: —

℞ Sodæ Subcarbonatis ℥ivss.
Sodæ Sulphatis ℥ix.
Chloride of Sodium ℥iij.
Gelatin ℥iij.*

To be added to a quantity of water at 60°, sufficient for a bath.*

A bath also at 95° Fahrenheit, to which the following mixture is added, has proved useful:—

℞ Magnesiæ Sulphatis ℥iv.
Potassæ Bitartratis ℥iij.
Potassii Sulphureti ℥j.
Aquæ O. xx. — M. pro balneo.

To render baths serviceable, they should be employed daily in the morning, and the patient should continue in the bath for at least half an hour each time of using it. Baths, whether simple or saponaceous, favour the insensible perspiration, relax the tension produced by the diseased papules, and soothe the irritation. With regard to baths, they may at first seem to increase the number of morbid papules; but we should keep in recollection the advice of Lorry, "Nec mirandum, si inter balneorum usum plures papulæ prodeant. Etenim laxatis vasis, ad cutem omnia deferri æquum est. Sed nulla inde ratio est, cur minus balneis fidamus."† Sulphur baths are too stimulant, if the skin be thin and irritable: but they prove useful when it is dry and thickened; and Rayer‡, recommends their employment alternately with the simple water bath, and even regards sulphur fumigations beneficial when alternated with the tepid water bath, or the vapour and emollient baths: but he adds, "the sulphur fumigations should not be used for infants."§ In chronic cases, when the skin is thickened and rough, the vapour bath, followed by frictions with olive oil, alone, or mixed with pure lard, affords much comfort to the patient, especially at night. Rayer cautions us against using the vapour bath for young and plethoric subjects, infants, and old men, as it is apt to cause syncope, which, if not dangerous, may prove very debilitating. I have never observed any danger to result from the vapour bath when the vapour was not breathed. One of the best vapour baths in these cases is formed by placing a bucket of boiling water at the

* Rayer, L. c. tom. ii. p. 565.
† Lorry, Morb. Cutaneis, cap. iii. art. i. par. 2.
‡ Traité, &c. tom. i. p. 615.
§ Ibid.

side of a chair, in which the patient, in a state of nudity, is seated; and a blanket enveloping the bucket, the patient, and the chair. If the vapour ceases to be given off, a hot brick should be dropped into the bucket of water, to recommence boiling. When baths cannot be obtained, the skin should be daily sponged with tepid water. To afford temporary relief, I have seen nothing so serviceable as sponging the affected parts with a lotion consisting of three grains of bichloride of mercury, two fluid drachms of dilute hydrocyanic acid, and ten fluid ounces of emulsion of bitter almonds, applied cold.

Attention to diet is of the utmost importance in Prurigo generally; it should be mild, and consist chiefly of milk, vegetables, and farinaceæ, with a very moderate proportion of plainly cooked, fresh, animal food. Fish, pork, fresh or salted, indeed salted meats of any kind, spiced food, pickles, and wine and malt liquor should be avoided, except in treating old and debilitated habits, and where the patient has long been in the daily habit of taking wine. Alcoholic liquors, under every form, are injurious; consequently, when wine is admissible, it should be of that kind which contains no uncombined brandy, and is the least susceptible of fermentation: for example, good sound claret and hock. For the poor, who cannot afford such luxuries, milk and water, or rennet whey, or fresh butter-milk should be prescribed. In weakened habits, the administration of chalybeates, or other tonics, are indicated.

2. Prurigo *localis* differs considerably from the general disease, the eruption being so little obvious that its existence has been often doubted*: but the true local pruriginous affections, there is reason for believing, are as much papular eruptions as the general disease. Three varieties, usually classed with Prurigo, namely, P. *præputii*, P. *pubis*, and P. *urethralis*, cannot correctly be regarded as belonging to Prurigo; as the itching, which is the only character that would class them under it, is a symptom of many other morbid affections that have no affinity with Prurigo. The only true varieties are, P. *podicis*, P. *scroti*, and P. *pudendi muliebris*.

Prurigo *podicis* is characterised by intense itching around the margin of the anus, and on the skin of the perineum. The cuticle is rough; and, when carefully examined, is seen to be covered with papules, resembling those of the general form of the disease. Many of their heads are covered with a blackish crust of dried blood, the result of scratching. There are sometimes conjoined with this variety psydraceous pustules, but these are transitory. Prurigo *podicis* is difficult to manage: it often continues to resist the means employed for its removal for many months. The symptoms occasionally intermit, but return with equal severity as before.

* Bateman's Pract. Synopsis, 7th edit. p. 31.

When the disease has continued for a long time, the skin becomes thick and scurfy, and it is said to degenerate into eczema. Rayer* says that the disease is not uncommon in women at that age when the catamenial discharge ceases.

This variety of local Prurigo must not be confounded with the troublesome itching which sometimes attends hæmorrhoids and ascarides. It occurs most commonly in persons of sedentary habits, especially in advanced age, and in debilitated habits, and in those subject to piles, and to ascarides. In old men it is apt to extend to the scrotum; and the itching increases at night to an almost insupportable degree.

When the disease is severe, leeches may be applied round the verge of the anus. The itching is always followed by amelioration under the use of alkaline lotions; and these beneficial effects may be maintained by emollient poultices, either hot or cold, and containing opium dissolved in oil. Lotions of diluted acetic acid, or diluted liq. ammoniæ acetatis, have a considerable influence also in abating the itching: and I have found a lotion, composed of calomel and lime-water, the black wash, equally beneficial. The bowels should be kept moderately open; and the diet of a nutritious and mild description; wine, spirits, pepper, pickles, and all aromatics should be avoided. The internal treatment is the same as that for the general disease.

Benefit has been obtained from touching "the prominent papulæ, previously rubbed till they bleed, with undiluted aromatic vinegar; and afterwards applying the following ointment, liberally, to the whole eruption:—

"℞ Sulphuris sublimati ʒvj.
Picis liquidi
Adipis āā lbss.
Cretæ ʒiv.
Hydro-sulphureti Ammoniæ ʒij. — M.
Ft. Unguentum." †

The young and inexperienced practitioner should be made aware that dangerous symptoms have supervened, when the eruption was suddenly repelled.

Prurigo *scroti* is frequently the consequence of the extension of P. *podicis*. The diseased papules are not always visible on the scrotum, although always present; and occasionally they spread to the penis. The tingling and itching occur in paroxysms; and are so intolerable, that the skin of the part is often completely excoriated by rubbing and scratching. The skin of the scrotum acquires

* Traité des Mal. de la Peau, tom. i. p. 606.

† The chalk is an essential ingredient in this ointment. An old woman who had acquired great celebrity for curing the disease, employed an ointment in which the chief ingredient was chalk.

a brownish colour, and is sometimes greatly thickened. Prurigo *scroti*, indeed, so closely resembles the last mentioned local variety of the disease, that it requires the same treatment.

Prurigo *pudendi muliebris* is a less frequent, but more severe affection than either of the foregoing varieties of local Prurigo. The enlarged and irritable papules are situated chiefly on the mons veneris and labia majora, and sometimes they extend to the mucous membrane of the vulva and the vagina; and, when this occurs, leucorrhœa generally supervenes. When the disease is very severe it may excite nymphomania; and, from the incessant scratching, the parts become full, red, and covered with rhagades, and exude a thin acrid fluid.

In the early stage of the disease leeches should be applied to the vulva, and emollient and narcotic lotions assiduously employed. Rayer properly condemns gelatinous-sulphurous douches, as augmenting the inflammation of the vulva and vagina, which is always present in this local pruriginous affection.*

Soft beds, and whatever can increase the natural warmth of the affected parts, are injurious; on the contrary, cold water and ice, applied when the itching is very intense, afford much comfort to the patient. I have witnessed much benefit produced by a lotion, consisting of equal parts of the chloro-sodaic solution of Labaraque and water. Nothing is so likely to increase the disease as friction of any kind. The diet applicable for P. *podicis*, is necessary in this variety of the disease.

Dr. Stokes witnessed the disease successfully treated by an empirical practitioner, who employed an ointment composed of herbs, the principal of which, in point of activity, was the Scrophularia *nodosa;* and, consequently, he afterwards used an ointment made only with that plant. "When," says he, "the parts adjoining the sores are swelled, and strongly suffused with a dusky redness, or if the sores have been previously dressed with any dry powder, I apply a poultice of porter and oatmeal. The carrot poultice in fermentation, if it can be procured without any delay, would perhaps be useful. After about eight hours, the poultice should be removed, and the parts affected very gently wiped with a roll of lint or soft rag; then the scrophularia ointment should be applied. It should be as highly saturated with the green vegetable as possible. For this purpose the plant should be taken fresh, the smaller leaves selected, and stewed for a considerable time with as small a quantity of unsalted butter as will be sufficient to prevent the leaves from being scorched. If well prepared, the ointment is of a full grass-green colour; but, after keeping some time, it becomes the colour of box leaves, especially at the surface, nevertheless it

* Traité des Mal. de la Peau, tom. i. p. 616.

preserves its efficacy, in a great degree, for many months." * Dr. Stokes recommends it to be applied by a feather, after being, by heat, brought to the consistence of honey. The ulcers should be smeared with it as already described, and then dressed with a similar ointment, combined with an eighth part of wax, and a bandage applied over the part. In severe cases, this dressing should be renewed every fourth or sixth hour, until the fœtor abates. Dr. Stokes recommends no internal remedies; and thinks that this ointment will, in the greater number of cases, prove successful. Dr. M'Adam recommends the internal administration of cinchona, and the topical application of the ointment of nitrated mercury.

### Case 36.

*Prurigo associated with Furunculus.*

Colonel ——, a veteran officer, aged 74, in apparently good health, was attacked with Prurigo, chiefly upon the lower extremities; and affecting, also, the arms and trunk of the body, but in a less severe degree. The papules were almost confluent upon the legs; and after a time the skin became thick, coarse, and the cuticle exfoliating, causing excoriations of a painful kind. The itching was so intolerable at night, that he rarely went to bed, but undressed himself and lay on the marble hearth of his bedroom; or, if he ventured to go to bed, he was forced to get up and lie upon the hearth. His pulse was quick and feeble, his tongue furred, the bowels torpid, and the urine scanty and high-coloured. A variety of internal medicines and topical applications were tried with little benefit. He found most benefit from the following mixture: —

℞ Potassæ Nitratis ʒj.
Spir. Juniperi fʒiv.
Tinct. Cantharidis ♏xlviij.
Decocti Pareiræ fʒvss. — M.
Sum. 4tâ pars ter quotidie.

The bowels were kept soluble by means of sulphur and magnesia, taken daily at bed-time, and he was directed to observe a mild diet; but this part of the treatment was not strictly observed. Amongst the various topical applications employed, he found nothing so beneficial as rubbing the affected parts twice a day with pure lard. He could not be persuaded to use any bath.

* For the paper of Dr. Whitby Stokes, see *Dublin Medical and Physical Journal*, vol. i. p. 146.

The misery which he endured from the incessant itching broke down his strength; and boils (furunculi) of an indolent kind, suppurating very slowly, and containing a core, appeared on various parts of the body, particularly the arms, shoulders, thighs, and buttocks. The urine was now copious; but when examined, it was found to contain no saccharine matter.* Soon after the boils appeared the itching greatly abated. The boils were treated topically, in the usual manner; and the following mixture administered:—

℞ Quinæ Disulphatis gr. xij.
Spir. Etheris Nit. f℥iij.
Acidi Nitro-hydrochlor. dil. f℥j.
Decocti Cinchonæ flavæ f℥vss.—M.

Sum. 4ta pars bis quotidie.

In a few weeks the boils disappeared: his general health was much improved, and the Prurigo bearable: but even now, three years from the time he was suffering, it is not completely removed.

## PUSTULAR ERUPTIONS.

Pustular eruptions are characterised by small, circumscribed, more or less conical elevations of the cuticle, with an inflamed base, containing pus; in a word, pustules.† They originate in inflammation of the cuticular capillaries. In some instances, they rise in groups, "upon a common inflamed surface;" in others, and most frequently, the pustules are distinct, and each has its own circumscribed inflamed base. Whether the fluid they contain is effused by the rupture or abrasion of the containing cuticle, or whether absorption of its thinner part takes place, and the pustules shrink, crusts are formed, more or less adherent, and display different characters which are important to be observed. Willan has enumerated four varieties of pustules: — *a.* the *Phlyzacia*, which are pustules, "commonly of a large size, raised on a hard, circular base; of a vivid-red colour, and succeeded by a thick, hard, dark-coloured scab." *b. Psydracia*, comprehending small pustules, often irregularly circumscribed, producing but slight elevations of the cuticle, terminating in a laminated scab." *c. Achores d. Favi.* I have not

* Dr. Prout has remarked that furunculi are often accompanied with saccharine urine.

† Dr. Mason Good (*Nosology*, p. 485.) derives the word *pustule* from pus, with the Greek diminutive ὕλη as a termination; and he quotes Celsus as using the word *pusula* instead of *pustula*. Dr. Bateman (*Synopsis*) regards it as deduced from the contents of the eruption (*quasi pus tulit*). Whatever may be its origin matters little, as the term is now well understood.

added Willan's definition of the two latter, as the propriety of regarding them as pustules is disputed; and the two former only belong to the diseases to be described in this group. Every part of the body may become the site of pustules: in some instances, they are very widely diffused; in others, they are confined to particular parts.

Willan has arranged pustular diseases under five genera; but one of these, *Variola*, belongs to the Exanthemata; and its pustular character affords no satisfactory reason for placing it in this order. Two others, *Porrigo* and *Scabies*, are contagious eruptions; and consequently excluded from this division of our classification; there are, therefore, only two distinct pustular diseases comprehended in this order — namely IMPETIGO and ECTHYMA.

## IMPETIGO* — *Tetter* — *Humid Tetter.*

Impetigo is a non-contagious affection of the skin, characterised by an eruption of small psydracious † pustules, either distinct or in clusters; and terminating, as they burst, in brownish-yellow crusts, more or less elevated above the surface on which they appear, and beneath which a discharge issues.‡ It is unaccompanied by fever; and Bateman adds it cannot be transmitted by inoculation. Willan and Bateman, who are followed by Biett and Rayer, describe five species of the disease. As I have never seen the last variety, Impetigo *rodens*, and doubt whether it can be correctly regarded as belonging to Impetigo, I have therefore not described it; I have besides conjoined the following varieties into one species, namely, I. *figurata*, and I. *sparsa*, and I. *scabida*, being satisfied that there is no specific distinction between them. The

* *Syn.* Lepra squamosa (*Auct.*); Kouba (*Avicenna*); Phlyctœna (*Vogel*); Herpes (*Cullen*); Melitagra (*Alibert*); Ecpyesis Impetigo (*Good*); Phlysis Impetigo (*Young*); Lichen vitiligo (*Auct. var.*); Datre, Dartre crustacée, Lèpre humide (*F.*); Zittermal, der Kleienausatz (*G.*); Scharft-held, Ringworm (*Dutch*); Ringorm (*Dan.*); Ringorm (*Swed.*); Impetigine (*Ital.*); Empeine (*Span.*); Herez (*Arab.*); Courass (*Javanese*).

† Phlyctœnœ of Vogel, who confines the term Psydracium to this pustule, when it occupies the head: — "In capite Psydracium vocatur."

‡ Pliny employed *Impetigo* as a generic term, including many diseases, amongst them the lichen and mentagra of the ancient Romans.[1] Celsus described four species of Impetigo, the first only of which corresponds with the disease now about to be treated of. He thus describes it — "mala est quæ similitudine scabiem repræsentat; nam et rubet, et durior est, et exulcerat, et rodit, distat autem ab eâ quæ magis exulcerata est, et varis similes pustulas habet; videnturque esse in eâ quasi bullulæ quædam ex quibus interposito tempore quasi squammulæ solvuntur, certioribusque hæc temporibus revertitur." (*A. C. Celsi de Medicina*, lib. v. c. 17.) Lorry (Tract. de Morb. cut.), Cullen (*Nosol. gen.* 147.), Professor Callison (*Chirurg. hodiern.* § 612), Wiseman (*Chirurg. Treatises*, chap. 17.), Turner (*Dis. of the Skin*, chap. 5.), and several others confound it with Herpes.

[1] Opera, lib. 26. in princip.

manner in which the pustules appear, whether in clusters or distinct, depends upon incidental circumstances; and does not demand any difference in the treatment of the disease. The last, in their arrangement, differs from the others, not only in the manner in which the eruption makes its appearance, but also in the fever which precedes and attends it. Impetigo may, therefore, be described under three different forms or species.

1. Impetigo *vulgaris.*
2. Impetigo *erysipelatodes.*
3. Impetigo *larvalis.*

### 1. Impetigo Vulgaris, *Common Impetigo.*

The most common form of Impetigo displays itself in irregular, circumscribed, red, pustular patches (I. *figurata*, Willan), which usually appear first either upon the face in a circular form, or upper parts of the body, and gradually spread to the lower extremities, on which the patches assume more of the irregular oval form than the circular, which characterizes them on the face. In young subjects, the patches, when they appear upon the face, occupy the cheeks and margin of the nose, and not unfrequently surround the mouth and cover the skin, extending to the neck and chest; at the same time patches display themselves on the back of the neck and the shoulders, attended with considerable itching. When the eruption thus appears in patches, the face is more commonly affected than any other part. The patches are at first of a pale-red colour, affording, as the finger is passed over them, a slight papular sensation; but, in a short time, clusters of small, yellow, psydracious pustules, almost confluent, disposed in more or less irregular, circular groups, surrounded by a slight inflammatory border, are developed upon them. The pustules are flat, at least only slightly raised above the surface of the skin, and accompanied with much heat and itching. In a few days, they burst and discharge a viscid, yellow, sero-purulent matter, which concretes into thin, either brownish-yellow or greenish-yellow crusts *, from under which the fluid continues to ooze, reddening and excoriating the surrounding surface, which acquires a shining aspect, and pours out an ichorous, thin, serous discharge, which increases the itching, and causes great heat and smarting. As long as the sero-purulent discharge oozes from under the crusts, it thickens these as it dries; but as it diminishes, the crusts dry, are detached, and leave the surface upon which they were seated red, stretched, shining, and the cuticle so thin as to be

* Ces croutes sont semitransparentes, légèrement sillonnées, et ressemblent à des fragmens de miel disséché." — Rayer, *Traité Téorique et Pratique des Maladies de la Peau*, tome i. p. 474.

ready to crack and be excoriated, on the slightest friction. Under such circumstances, fresh crusts form, and in their turn fall and are several times reproduced; but becoming, each time, thinner than before, they at length terminate in small, micaceous scales, upon a shining, inflamed, tender surface. As the patches of pustules begin to disappear, the amendment commences at the centre; gradually extends to the circumference, and the skin recovers its natural colour and texture. On the other hand, the patches not unfrequently increase in size, by the addition of successive pustular borders, until the whole of each patch becomes an area of considerable size, with the centre dry, rough, often fissured, and scaly. When this state is long continued, the skin becomes thickened and firm, like brownish parchment.

When the impetiginous patches appear upon the arms, the pustules are sometimes intermixed with clear, transparent, not much elevated vesicles, the presence of which increase greatly the itching, smarting, and heat, which are always present. These vesicles run their course more slowly than the pustules; they appear in succession, distinct from each other, and from the pustules. When they break, the cuticle surrounding them becomes inflamed and raised; and discharges a thin ichor; ultimately leaving a red, fissured surface, bearing minute weeping ulcers. Sometimes the impetiginous patches affect only certain localities, to which they are confined. The cheek, the upper lip, one or both eyelids are, in some instances, the parts especially affected. One of the most common localities of the patches is on the hand, in the space between the metacarpal bones of the fore-finger and the thumb; while, at the same time, smaller patches, and even single pustules and vesicles, rise on the wrist and the sides of the fingers; and tend to mislead the inexperienced practitioner to believe that the disease is scabies; a mistake which is strengthened by the vesicles remaining transparent for many days, during which the itching is almost insupportable.

In many instances only a few patches running the progress that has been described, are developed; whilst the pustules rise singly, without any determinate distribution (I. *sparsa*, Willan). This is especially the case when the disease first shows itself upon the lower extremities. The pustules usually appear first on the inside of the thigh and on the ankle, sometimes on the outside of the thigh, and only on one extremity; at other times, upon both legs at once. Under such circumstances the penis becomes affected, and much excoriated by the scratching which the itching induces. The eruption of single, distinct pustules, is not, however, confined to the lower extremities; they appear also on the fore-arms, the face, scalp, and ears. The pustules do not differ from those that appear in clusters; and, indeed, both patches of pustules and distinct pustules appear at the same time, and

they run their course in the same time and manner. In elderly, and much debilitated patients, the excoriations produced by both forms of the eruption sometimes pass into deep ulcers, surrounded by livid borders, and accompanied by œdema.

When the disease assumes a chronic character, and either the distinct or aggregate form of the eruption is continued by successive crops of pustules, especially when they are seated on the lower limbs, and become almost confluent, whilst fresh marginal crops of pustules successively appear; and the pustules breaking successively, and their contents concreting, the limbs become nearly encased in a thick, greenish-yellow, irregular, scabby crust, seated upon a highly inflamed base, the redness of which extends beyond the margin of the crust. In some instances, the whole of the forearm, from the elbow to the wrist, or the leg from the knee to the ancle, has been thus encased; and the movement of the limb rendered difficult and painful. It is usually attended with great itching. This incrustation, occasionally, extends to the fingers and the toes, destroying and detaching the old nails, and rendering the new ones, which surround them, thick, notched, and irregular. The crust, as it dries irregularly, cracks, and oozes out a seropurulent fluid, which concretes, and adds to the thickness of the primary crust. When the crust is removed mechanically, or by poultices, the denuded surface rapidly forms a new crust. This incrustation constitutes the Impetigo *scabida* of Willan and Bateman*; but it is, in truth, merely the termination of more than usually severe chronic cases of ordinary Impetigo: indeed it might be supposed that the formation of this crust is the method adopted by Nature to defend the raw surface from the action of the air, until cicatrization is effected. In the old and debilitated it is not unfrequently accompanied with œdema.

The constitution is apparently little affected in Impetigo; but there is always more or less derangement of the digestive organs, indicated by flatulence, torpid bowels, languor, and headache. But although the general health does not materially suffer in this form of Impetigo, yet the irritation, itching, and heat, which accompanies the eruption, is often so severe as to preclude sleep, and, in the old and infirm, to wear down the strength of the patient. In strumous subjects the lymphatic glands in the vicinity of the pustular patches swell, harden, become extremely painful, and sometimes suppurate. In a case, now under my care, in which the eruption is distinct, on the inside of the thighs and on the penis the inguinal glands are as much enlarged, and as painful, as in sympathetic bubo.

Impetigo runs its course, usually, in three or four weeks; but it successively returns many times; and even when it disappears, it

* Lepra *Herpetica*.

may recur periodically, in the spring and summer, for many years; especially in persons of a scrofulous diathesis.

*Diagnosis.*—There are few diseases affecting the skin so likely to be confounded with other affections, accompanied with cutaneous eruptions, as Impetigo. When this variety of Impetigo appears in clusters, and especially on the scalp, it may be readily mistaken for Porrigo favosa; indeed, as it is non-contagious, and the discharge, after the pustules burst and form thick, soft, crusts, as in porrigo, the diagnostic difference is so trifling as to render it extremely difficult to distinguish it from that disease. It is singular that so excellent a writer as Lorry on diseases affecting the skin, should confound Impetigo with Herpes.*

When the scattered pustules are interspersed with vesicles, Impetigo might be mistaken for purulent scabies: but the eye of an experienced or observing practitioner would readily detect the distinction between it and that disease. In purulent scabies, the pustules are phlyzacious, globular, large, sometimes exceeding two lines in diameter, prominent, and seated upon an inflamed, firm base: they appear, also, almost exclusively upon the hands and feet, and are turgid with a thick, yellow pus. These are not the characters of the small psydracious pustules of Impetigo. The vesicles, also, in the two diseases differ; in impetigo, they are larger, their progress is slower than in scabies; and they are accompanied with much heat and smarting as well as itching, which is not the case in scabies. There is sometimes much difficulty in distinguishing Impetigo from eczema when pustules appear among the vesicles of the latter disease: but the more or less confluent character of the vesicles, and the thin flaky scales, readily distinguish it from eczema. From sycosis, for which it has been mistaken when affecting the skin in male adults, it is distinguished by not being tubercular, and not affecting the bulbs of the hair: besides the tubercles of sycosis ulcerate, but seldom bear pustules. The pustules when present in sycosis are larger, less yellow, more elevated, and on a harder base than those of Impetigo, and the crusts dry. It is also important to be able to distinguish the secondary syphilitic eruption, which assumes all the characters of Impetigo, from the non-syphilitic disease. In the former, the eruption, before it assumes the pustular form, appears like reddish copper coloured pimples, but without the hard base of ordinary Impetigo. The cicatrices also constitute pits, which do not occur in common Impetigo.

*Causes.*—Impetigo is the result of suppurative inflammation of the skin. It is not contagious. The predisposition to the disease seems to be connected with the sanguine and lymphatic temperament, in which the skin is usually thin, delicate, lax, and irritable; the hair light and the habit bloated. According to Bateman, it is also con-

* Tract. de Morbis Cutaneis, 4to, Paris, 1777, p. 350.

nected "with the sanguineo-melancholic temperament, a spare form, and a thin, but harsh skin." * The disease attacks all ages; it is more common, however, in youth and adult age, than in infancy and old age; but it occasionally attacks infants during dentition, and children during the second teething. It is more common even in women than in men; and especially in women at the period when the catamenial discharge ceases. The eruption is sometimes preceded by derangements of the digestive organs; with lassitude, languor, irregular heats and chills, and other symptoms of fever; the seasons are, also, regarded as exciting causes. Bateman informs us that the distinct form (I. *sparsa*), in which the pustules are scattered, and which attacks the lower extremities, "is apt to return with regularity at the end of autumn, and to harass the patient during the whole of the winter, but disappears in the warm weather; while that variety (I. *figurata*, Willan), which chiefly affects the upper extremities, is liable to recur in the spring; of both of which," he adds, "I have witnessed several examples."† I can, also, add my testimony to the correctness of this observation, in reference to the periodical recurrence of the disease. At this time (8th February) I have, under my care, a very severe case, which has existed during the two previous winter months; and which returned nearly about the same time for two successive years. Certain kinds of diet, as salt fish, and tainted meat, along with poverty, long exposure to cold, starvation, grief, fear‡, mental anxiety, and other depressing passions, violent exercise, and intemperance, are usually regarded as exciting causes of Impetigo in the predisposed. Among other exciting causes we may also place duodenal dyspepsia; but more frequently it is difficult to trace the general disease to any obvious exciting cause.

As a local affection, Impetigo may be excited by many incidental causes of irritation. It often appears upon the fingers and hands of grocers, owing to the irritation caused by the muscovado or raw sugar, and, owing to the acrimony of lime, it as frequently attacks the hands of bricklayers.§ In both, however, it disappears soon after the individuals cease to work with these substances. I have seen the disease appear during the application of the salts of morphia to blistered surfaces, commencing sometimes at a distance from the blistered part, and extending over the whole body.‖ Its

* Synopsis, 7th edit. p. 213.

† Ibid.

‡ Med. Trans. vol. i. art. 2. Med. Observ. and Inquiries, vol. i. art. 19. Bateman's Synopsis, 7th ed. p. 214.

§ Eczema is sometimes locally produced by the same causes; and in both cases it gets the name of *Grocer's* and *Bricklayer's Itch*; but in neither case is it contagious.

‖ I witnessed a very striking instance of this in a gentleman, who was under my medical care for the cure of an obstinate neuralgia of the supraorbitary nerve, over both eyes. The complaint had resisted the most powerful antiperiodics and narcotics, besides Carbonate of Iron. Two blisters, each the size of half-a-crown, were placed on the forehead

appearance as the result of friction with the ointment of the potassio-tartrate of antimony is too well known to require any comment; and it has even appeared as the result of simple blisters.

Impetigo is sometimes complicated with herpes, or is followed by it. I had under my care a man with *Herpes Zona*, who had scarcely recovered from a protracted attack of Impetigo. It sometimes, also, appears modified by the syphilitic virus (Case 38.).

*Prognosis.*—This refers solely to the greater or less obstinate nature of the attack: for I have never seen it threaten a fatal issue. In the more acute form of the disease, it usually runs its course in two or three weeks: but if it becomes chronic, it may run on for months. This can only be prognosticated when the pustules appear in successive crops, especially when it attacks the weak, the delicate, and the aged.

*Treatment.*—The management of Impetigo *vulgaris*, both general and topical, varies according to the period of the disease when medical aid is required. In the incipient stage, if fever be present, and the eruption is considerable, especially if the patient be of a plethoric habit, ten or twelve ounces of blood may be abstracted from the arm; and the bleeding followed by a brisk purgative, and cooling saline medicine. Nothing answers better than the common effervescing mixture, with half a drachm of spirit of nitric ether, and about twenty minims of tincture of conium. When every trace of fever has disappeared, after clearing the bowels effectually, by the administration of from five to eight grains of calomel at bed-time, and a brisk saline cathartic in the following morning; doses of ten to twelve grains of precipitated sulphur, and fifteen grains of nitrate of potassa, may be given night and morning. It is not necessary that the sulphur should purge, but merely operate as an alterative, and change the action of the cutaneous capillaries. If much inflammation attends the eruption, a mixture consisting of half a drachm of bicarbonate of soda, fifteen grains of nitrate of potassa, and half a fluid drachm of tincture of conium, in ten fluid drachms of distilled water, may be given in a state of effervescence, with half an ounce of recent lemon juice, three times a day; and the sulphur and nitre taken only at bed-time. The diet should be milk and farinacea.

over both orbits; the cuticle was removed, and each sore dressed night and morning with a grain of Hydrochlorate of Morphia, and five grains of White Sugar. The pain was rapidly relieved; but a pustular eruption, closely resembling Impetigo, appeared upon the chest. In two days it extended upwards to the face, and downwards over the trunk to the thighs and legs. On the face, the pustules were nearly confluent, and attended with so much swelling that the eyes were closed. The neuralgia was cured; and, after the use of the Salt of Morphia was discontinued, the eruption faded, crusted over, and the crusts fell without leaving any pits in the course of a week. The general treatment, which was continued, was the Carbonate of Iron, made by decomposing the Sulphate with Bicarbonate of Soda, at the time each dose was taken.

When the disease has been of long standing, I have found the mercurial alteratives in combination with antimonials and conium; and the liquor potassæ, with iodide of potassium in the decoction of either elm bark, or sarsaparilla, or yellow cinchona, answer every intention necessary to be fulfilled by medicines internally administered. The following forms are those I have found most useful:

℞ Hydrargyri c. Cretâ gr. v.
Pulv. Jacobi genuini gr. iij.
Extracti Conii gr. iij.
Ft. Pilulæ duæ — horâ somni quotidie sumendæ.

℞ Potassæ Liquoris ♏xxx.
Potassii Iodidi gr iv.
Decocti Ulmi f℥ij.
Ft. Haustus mane, meridie, et vespere quotidie sumendus.

The alterative should be carried only to an extent sufficient to affect very slightly the gums: the dose of the liquor potassæ in the mixture may be gradually augmented to ♏xlviij.; and when the habit of the patient is debilitated by either mental or corporeal agents, the decoction of cinchona may be substituted for that of the elm bark, or the sarsaparilla. In delicate boys, during the second dentition, when the eruption appears on the face, and round the mouth, I have seen much benefit result from the following powder and mixture:

℞ Hydrargyri c. Cretâ gr. iij.
Pulveris Potassæ Sulphatis gr. xij.
Pulveris Rhei gr. v. — M.
Ft. pulvis horâ somni quotidie sumendus.

℞ Syrupi Ferri Iodidi ♏xl.
Tincturæ Cantharidis ♏iv.
Decocti Ulmi f℥j. — M.
Ft. Haustus ter quotidie sumendus.

In very obstinate cases, of long standing in adults, the arsenical solution may be administered in doses of from eight to twelve minims in f℥ij. of decoction of Sarzæ, or of elm bark twice a day, with the best prospect of success. The solution may be carried to as large a dose as the constitution of the patient can bear; but its use should be frequently intermitted, for two days or more at a time, during the course. The bowels should also be daily opened, by a three-grain calomel pill, at bed-time, and a saline cathartic in the morning.

The diet should be milk and farinaceæ; with a moderate proportion of mutton or poultry, and well boiled vegetables at dinner; avoiding fish, pork, cheese and salted meat of every description.

As beverage water, or rennet whey, acidulated with syrup of lemon, should be ordered: but every description of malt liquor, wine, and spirits must be countermanded, unless great debility exists, in which case a glass of sherry may be added to a pint of the acidulated whey.

Unctuous local applications never prove serviceable. When the eruption occurs on any part covered with hair, as, for instance, the scalp, the crusts should be removed by cutting the hair close, and then applying a poultice made with a decoction of poppy-heads instead of water, and lint saturated with the lotion of hydrocyanic acid and acetate of lead, afterwards applied, and an oil silk cap worn over the moistened lint. This mode of treatment subdues the distressing irritation, and aids the skinning of the denuded surface.

The most useful of the external remedies applicable to Impetigo *vulgaris*, in the early stage of the disease, is the tepid water bath, used every morning; or, when the bath cannot be procured, the affected parts should be sponged night and morning, with either tepid water, or decoction of bran; and when the irritation is great, the following lotion will be found useful:

℞ Acidi Hydrocyanici diluti f℥iij.
Spiritus Vini Rectificati f℥v.
Aquæ Rosæ f℥vij. — M.

Ut fiat Lotio.

When much heat and tingling exist, from ten to sixteen grains of the acetate of lead may be added to this lotion. It allays the smarting, cools, soothes, and favours a more healthy action in the cutaneous capillaries. I have never seen any injurious effect result from the employment of this lotion, although Mr. Plumbe cautions against the external employment of the hydrocyanic acid. In the two cases in which he employed it, the eruption reached from the ankle to the knee in both legs; an extent of surface likely to cause the constitutional influence of the acid to be felt. I have, also, observed much comfort to result from the application of the following lotion, immediately after coming out of the tepid bath.

℞ Hydrargyri Bichlor. gr. ij.
Misturæ Amygdalæ Amaræ f℥vj. — M.

Ft. Lotio.

A piece of lint, soaked in the lotion, should be applied over the affected parts, and covered with oil silk to prevent evaporation.

Bateman recommends "a lotion prepared by boiling mallow, digitalis, and poppy-heads where the parts are very painful."* When the speedy drying of lotions renders the parts stiff and

* Synopsis, 7th edit. p. 219.

uncomfortable, he recommends covering them lightly with dry lint, "or to interpose between it and the diseased surface a sprinkling of the oxide of zinc; sometimes, however," he adds, "the application of linen dipped in melted suet affords relief, when no other greasy substance can be used."* I have seen much benefit derived from wrapping the limbs, or the greater part of the body, when the eruption is extensive, in wadding. The itching is sometimes allayed by the application of lint dipped in the linimentum aquæ calcis.

Except in chronic cases of the disease, when there is little irritability, I have seen no benefit derived from the use of ointments; and when vesicles are present, even the mildest and most sedative ointments fail to lessen the heat, itching, and smarting which then prevail; indeed, under such circumstances, almost every topical application has proved hurtful. In dry and less irritable cases, an ointment composed of half a drachm of calomel, two drachms of tar ointment, and an ounce of the common cetaceous ointment, is a useful application; but it must be cautiously employed. The unguentum hydrargyri nitratis, even when largely diluted, and the unguentum hydrargyri nitrico-oxydi, with other stimulant applications, which have occasionally been employed, only aggravate the disease and increase the sufferings of the patient. When there is much inflammation, and exudation, either oxide of zinc, or the compound lead ointments, or an ointment prepared with the ammonio-chloride of mercury, will be found useful in lessening the quantity of the discharge, and allaying the inflammatory state of the excoriated surface. In that severe form of the disease, in which the limbs become incrusted with the concreted exudation, the crust should be first removed by poulticing twice a day, and the denuded surface then dressed with lint, spread with the zinc ointment, after tepid sponging. Bateman, also, recommends "a much diluted ointment of nitrated mercury, with common cerate (containing, for example, a fourth or fifth part of the mercurial); or the oxide of zinc, or calamine in powder, may be interposed;" but I have found them less serviceable than the zinc ointment employed as already mentioned.

In severe chronic cases of Impetigo *vulgaris*, the use of the waters of Harrowgate or Moffat, or those of Bareges, Enghien, and Aix-la-Chapelle, is undoubtedly the most effectual and the most permanent remedy. Bateman, who recommends the Harrowgate waters, speaks also favourably of the warm sea-water bath, when all actual inflammation is gone. I have seen it act beneficially; but nothing operates so rapidly, and restores the natural state of the skin, in chronic cases, so effectually, as the sulphur vapour bath. As a substitute for the natural sulphureous baths, and sul-

* Synopsis, 7th edit. p. 219.

phur vapour bath, is a bath containing from two to four ounces of sulphuret of potassium; or where that cannot be obtained, an alkaline bath, consisting of from four to five ounces of carbonate of soda, and four ounces of sulphate of soda, to the quantity of water necessary to form a bath for an adult.

The diet should be mild farinaceous diet, with milk, potatoes, other well boiled vegetables, and a moderate proportion of light animal food once a day. Wine, spirits, and every description of fermented liquor, should be strictly avoided.

### 2. Impetigo Erysipelatodes.*

This form of Impetigo differs materially from the former species. It sometimes commences with slight febrile symptoms, followed by a red, puffy, swelled state of the upper part of the face, œdema of the eyelids sufficient to close the eyes, and great heat of the skin; but instead of the smooth, shining surface of erysipelas, and the subsequent vesication, it feels to the finger, when passed over, somewhat papulated; and if it be not checked in limine, it displays, in the course of two or three days, an eruption of psydracious pustules, more or less aggregated together. They appear first below the eyes, and spread to the rest of the face, occasionally extending to the neck and breast. They are accompanied with increased heat, smarting, and itching; and, in bursting, discharge a hot, acrid fluid, which excoriates the surrounding surface. After ten or twelve days, the discharge becomes less, and concretes into thin, yellowish crusts; but whilst this is proceeding, another crop of pustules rise, and run the same course as the former. Several successive crops appear in this manner, and sometimes continue to appear for months; and at length, when they cease, the skin is left red, brittle, and scaly, and remains so for a considerable length of time.

Sometimes the common form of Impetigo appears on the lower extremities, whilst this species is running its course on the face and thorax.

*Diagnosis.* — This form of Impetigo may be mistaken for Erysipelas in the earliest stage of its progress; but the eruption of the psydracia at once fixes the diagnosis; and the same circumstance distinguishes it from impetiginous Eczema, in which, although psydracious pustules occasionally appear, yet they are few, distinct, and secondary to the vesicles.

*Causes.* — The causes of this variety are the same as those of common Impetigo, the difference in the form of the disease depending more on the constitutional state of the patient than on any peculiar exciting cause.

* *Syn.* Epyesis Erythematica (*Good*); *Erysipelatous running scall.*

*Treatment.* — If the febrile symptoms be obvious the antiphlogistic treatment is indicated in the commencement; namely, mild purgatives, and salines; but the strength requires to be maintained, for which purpose I have found nothing answer better than the following mixture: —

℞ Liquoris Ammoniæ Acetatis f℥ij.
Potassæ Nitratis ℥j.
Tincturæ Serpentariæ f℥iv.
Decocti Cinchonæ flavæ f℥iijss. — M.

Sumatur 4ta pars 4tâ quâque horâ.

The best local treatment in the commencement, before the pustules appear, is pencilling the inflamed surface with a solution of nitrate of silver, in the proportion ℥j. to f℥j. of distilled water, and ten minims of diluted nitric acid. If the disease be not thus checked, the topical treatment will then require to be the same as in the other species. The same attention to diet is, also, essential.

### 3. Impetigo larvalis.*—*Milk scall, Crusta lactea.*

This form of Impetigo was classed by Willan under Porrigo; but his distinguished pupil, Bateman, doubted the propriety of that arrangement; and he adds his belief "that Impetigo *larvalis* would have been the more correct appellation."† This opinion has been since verified by every correct observer, and the disease is now generally regarded as an impetiginous eruption.

The eruption, which chiefly attacks children, and at first consists of small psydracious pustules, closely set together, on a red, inflamed surface, gradually assumes, by the breaking of the pustules, and the concretion of their contents, which are viscid and tenacious, the aspect of spongy, greenish-yellow, soft, nearly semi-transparent crusts, which are increased in thickness and extent by the repeated renewal of the discharges as the pustular patches spread. It is usually preceded by itching and tingling of the parts on which the pustules are about to appear. The scalp, forehead, and cheeks are almost simultaneously affected, so that the face is involved as it were in a mask; hence the specific name *larvalis*. When the scalp is the part chiefly affected, the crusts become

* *Syn.* Αχώρ (*Auct. Gr.*); Crusta lactea (*Auct. Lat.*); Tinea lactea (*Sauv.*); Tinea faciei (*Frank*); Scabies capitis simplex (*Plenck*); Tinea benigna (*Auct. var.*); Ecpyesis Porrigo, v. Crustacea (*Good*); Phlysis porrigo (*Young*); Achore (*Alibert*); Porrigo *larvalis* (*Willan, Bateman*); Impetigo larvalis (*Gibert, Dick*); Impetigo eczematosa (*Erichsen*); Crout de lait (*F.*); die Kopfraude, der Milchgrind (*Ger.*); Hoofchilfers (*Dut.*); Aspe (*Dan.*); Kliskorf (*Swed.*); Farefore (*Ital.*); Carpu (*Span.*); Munday Cárápāng (*Tamool*).

† Synopsis, 7th edit. note, p. 226.

thicker and more irregular in shape than upon the face; but although the inflammation may extend to the hair bulbs, and induce temporary baldness, yet the hair grows again as soon as the eruption is cured. In some instances the viscid contents of the pustules are thinner and more abundant than usual, and do not concrete; in which case it is seen oozing from numerous small pores on the raw surface which this state produces. But the pustular patches frequently extend beyond the scalp and face to the neck and chest, and occasionally to the arms. When they occupy the scalp they are chiefly seated on the occiput: the hair becomes matted by the viscid nature of the discharge; and the crusts acquire a brown colour, and exhale an extremely offensive odour. The eruption, especially as it is coming out, is attended with much itching, which is sometimes so intolerable in infants at the breast as to prevent them from sucking; and, as it also completely prevents sleep, they suffer from the constant irritation to a degree which excites fever; hence they languish, become emaciated, and, in some severe instances, the mesenteric glands are affected, diarrhœa and hectic follows, and the issue proves fatal: but such a termination is extremely rare. In comparatively milder cases the lymphatic glands in the neck swell and become hard, and sometimes, but rarely, suppurate. Psorophthalmia is not an unfrequent accompaniment of Impetigo *larvalis*.

The duration of this form of Impetigo is uncertain; it frequently repeatedly disappears and reappears for several successive times. In progressing towards a cure the crusts fall, and leave behind them a red, tender, shining, exfoliating cuticle, which continues rough for a considerable time; but, although excoriation may take place, yet no permanent scars are left, unless the scratching has caused deep wounds in the true skin.

*Diagnosis.*—The disease most likely to be confounded with this form of Impetigo is that variety of eczema which Willan has named *impetigenodes*. The crusts of both have a close resemblance; but eczema is a vesicular eruption; this disease is pustular. In eczema, also, the scabs are thin, lamellar, and light-coloured; those of Impetigo *larvalis* thick, dark-coloured, and spongy. The site, also, of Impetigo *larvalis* being the face and hairy scalp tends to assist the diagnosis. It is more difficult to distinguish it from porrigo *favosa*, which, indeed, has been regarded as a variety of the disease; but the non-contagious nature of Impetigo *larvalis* is sufficient to separate the two diseases.

*Causes.* — Impetigo *larvalis*, as already mentioned, attacks infants during the first dentition, and occasionally children during the second, most commonly those of full and excitable, lymphatic habits, but otherwise healthy. I have observed, however, that, although apparently healthy, the children most frequently attacked have thin, fair skins, light hair, and much colour in the cheeks.

It is often the result of repletion and improper diet, such as sweets and other substances likely to cause an acescent state of the stomach. It is undoubtedly excited by the irritation attending dentition; but Dr. Underwood remarks that it is favourable to that process, and he never saw an infant much loaded with it who did not "cut its teeth remarkably well."* Impetigo *larvalis* is non-contagious, although, from the influence of similar exciting causes, it may appear in several children in the same family at the same time. The disease is more frequent in summer than in winter; and, sometimes, when it has been apparently cured it has reappeared in the spring.

*Prognosis.*—In general no danger is to be apprehended from this form of Impetigo, except under the circumstances already mentioned, when mesenteric disease supervenes. Plenck, in treating of the disease, remarks, "Repressis autem papulis crustaceis morbi glandularum, tussis, asthma, tabes sæpe oriuntur;"† and some modern practitioners, also, have considered it hazardous to check the eruption. Although the sudden repulsion of the eruption is dangerous, yet its violence may be moderated by general remedies with impunity, even during dentition. Except in two instances, in which a strong predisposition to hydrocephalus existed, I have never observed any injury to follow the general treatment of this eruption, even when topical means, also, were employed.

*Treatment.* — As the general health is little affected, the treatment of this form of Impetigo consists chiefly in attention to cleanliness, regulating the bowels, and moderating the diet of the patient, trusting more to nature than to the doctor. But if the biliary secretion be defective, and the abdomen large and tense, or the inflammatory condition of the skin be unusually severe, then more active measures must be adopted; but, in general, the treatment of this form of Impetigo is confined chiefly to topical applications. When the above-mentioned conditions of the habit, however, exist, and the bowels are irritable, the hydrargyrus cum creta, in doses of three grains, should be given night and morning; and the following powder twice during the day: —

℞ Sodæ Carbonatis gr. vj.
Potassæ Sulphatis gr. viij.
Pulv. Calumbæ gr. viij. — M.
Ft. Pulvis.

If the child be still at the breast, and the quality of the milk be suspected as either exciting or maintaining the disease, the food of the nurse should be changed; and, if no improvement follows, a new breast must be procured. Indeed, so much depends upon

* Treatise on Diseases of Infants, 5th edit. p. 170.
† Doct. de Morb. Cutaneis.

food, that children labouring under the disease at a more advanced age should be strictly confined to a milk and farinaceous diet.

If the disease occur during dentition, the gums should be frequently examined, and deeply scarified when spread and tender; and means taken to allay any febrile symptoms that may be present. In weakly children, especially those of a strumous habit, after the eruption is removed, some tonic should be administered. I have found the potassio-tartrate of iron, in doses of from gr. ij. to gr. v., according to the age of the child, administered in infusion of gentian, to answer every indication; or, when the habit is decidedly strumous, the syrup of iodide of iron may be substituted for the potassio-tartrate.

With regard to the local treatment, the first object is the removal of the crusts, which should be effected by a poultice of bread and water. When they are thus removed, the surface remains raw, and a fresh quantity of viscid fluid is discharged, and rapidly concretes into scabs resembling those removed, unless the denuded parts be fomented twice a day, either with a decoction of bran, or poppy capsules, or thin gruel, and afterwards covered with the unguentum hydrargyri nitratis largely diluted, or the unguentum oxidi zinci. My experience is in favour of the former, when diluted with one part of castor oil and six parts of fresh lard or cetaceous ointment. When the eruption occupies the scalp as well as the face, the hair should be cut short, and poultices applied to remove the crusts; and the parts afterwards treated in the same manner as when the face is the site of the disease. In plethoric children, when there is a tendency to cerebral congestion, the application of two or three leeches behind the ear are requisite before using dessicative ointments. When the disease becomes chronic, Biett* recommends a lotion consisting of a drachm of sulphuret of potassium, and the same quantity of subcarbonate of potassa in a pint of water. I have observed good effects from its employment. The daily use of the tepid bath has much influence in aiding the cure.

### Case 37.

*Impetigo Vulgaris treated with bleeding and purgatives.*

Edward S——, æt. 33, a servant, was admitted into University College Hospital, February 3rd, 1837. Two months previous to his admission, he felt sick, which he ascribed to a fall, and two days afterwards, a tumor appeared in the groin, which gradually suppurated; and, during its progress, the whole inquinal

* Cazenave and Schedel. Abrégé Pratique des Mal. de la Peau, p. 260.

region became covered with flat psydracious pustules. A large phlegmon appeared, at the same time, on the back of each thigh. On his admission the bowels were open, the tongue clean, and the pulse moderate in quickness, but hard and resisting. (*V. S. ad* ℥xx. ℞ *Calomelanos* gr. v. *Muc. q. s.* : ft. *pil. statim sumenda et bis quotidie postea. Haust. purg. cras primo mane.*) 6*th.* Pulse softer, many fresh pustules have appeared on different parts of the body. (*V. S. ad* ℥xvj. ℞ *Mag. Sulph.* ʒiv., *Aquæ* fʒvij., *mane quotidie.*) 10*th.* The blood was cupped. The mouth is tender. The eruption is disappearing. 21*st.* He is in every respect improved; but some degree of inflammation has appeared in the cellular tissue of the right elbow. (*Admoveantur Hirudines* vj. *parti dolenti.*) 21*st.* The inflammation has not abated. (*Admoveantur Hirudines* viij. *parti dolenti.*) 24*th.* He has been gradually improving. The eruption is gone. 28*th.* He complains merely of weakness. Let him have full diet. 5*th March.* He was discharged quite well.

## Case 38.

*Impetigo Vulgaris treated with bleeding, purgatives, and Creasote.*

William F——, æt. 23, admitted into University College Hospital, November 6th, 1837. A stout man, of sanguine temperament; a railway porter. He has been residing in a damp situation. He ascribes his disease to sleeping in a damp bed. It commenced with rigors, succeeded by great heat, accompanied with itching of both legs, so that it was impossible to resist scratching. A few days afterwards, the eruption broke out. He has lost both flesh and strength. His legs are covered with numerous impetigonous crusts, and some small pysdracious pustules. They are accompanied with great smarting and itching, which are increased at night. His sleep is much disturbed, his skin dry, the tongue furred, the pulse 86, and firm. His bowels are open. (*V. S.* ℥xvj. ℞ *Potassa Bitart.* ʒiv. *Pulv. Jalapæ* ℈j. *quotidie sumend.* Let the legs be fomented.) 10*th.* More comfortable. The blood was slightly buffed and cupped. He is freely purged. (*Perstat in usu Med. App. ung. Zinci ulceribus.*) 20*th.* Has continued to improve, but the sores do not cicatrize. (*Om. med.* ℞ *Creasoti* ♏j. *Muc.* fʒj. *Aquæ* f℥vj. *M. Lotio subinde utenda.*) 27*th.* Discharged cured.

## Case 39.

### *Chronic Impetigo Vulgaris.*

John A——, æt. 34, admitted into University College Hospital, July 9th, 1839. An unmarried man, of sanguine temperament and fair complexion, living in a confined damp situation. The eruption appeared four months ago, after a fever, on the legs, whence it has not spread. He suffers slightly from indigestion, but otherwise his general health is unimpaired. The pustules have appeared in successive crops. The crusts are dry, and the legs itchy and painful. Bowels confined. (℞ *Ol. Ricini* f ʒiv. *Ol. Crotonis* ♏j. *Acaciæ pulv.* ℈j. *Aquæ Menthæ p. p.* f ʒj. *M. Ft. Haust. statim sumendus.* ℞ *Hydrargyri Biniodidi* gr. iij. *Aloes Ext.* ℈j. *Fit pil* xx. *Sum. una h. s. quotidie.* ℞ *Arsenici Iodidi* gr. i. *Conii Extracti* gr. xxiv. *Fiant pil.* xij. *Sum. una 8vâ q. q. horâ.* ℞ *Potassii Iodidi* gr. iii. *Decocti Sarzæ* ʒij. *Haust. cum sing. pilul. dosibus sumendus.*) 15*th.* Improved. (*Pergat in usu Medicamentorum.* ℞ *Hydrargyri Bichloridi* gr. ii. *Mist. Amygd. Amaræ* f ʒvj. *Fiat lotio, urgente pruritu, utenda.*) 18*th.* No change, but the tongue is congested and loaded, and the bowels obstinately confined. (*V. S. ad* ʒxij. *Haust. purg. niger. Pergat in usu Med.*) 22*nd.* Much improved. (*V. S.* ʒx. *Pergat in usu Med.*) 31*st.* He has continued to improve. The blood taken on the 18th was much buffed. The bowels were freely opened with calomel and colocynth. (*V. S.* ʒviij. *Pergat in usu Med.*) *Aug.* 3*rd.* The bleedings and purgatives have lowered his habit; the face is pale, and the extremities are often cold. (*Omit. Mistura. Pergat in usu pil.* ℞ *Sol. Ferri Iodidi* f ʒj. *Pot. Iodidi* gr. iij. *Infusi Cascarillæ* f ʒxij. *Haust. ter quotidie sumendus.*) Let him have a hot foot-bath every other evening. 6*th.* His mouth is affected by the mercurial; but the inflammatory state of the eruption is gone, and the legs are rapidly improving. (*Sum. pil. alternis diebus V. S. Pergat in usu Misturæ.*) 9*th.* Mouth very tender; but in other respects he is nearly convalescent. (*Omitt. pil.*) 14*th.* Convalescent. (*Omittantur Med.* ℞. *Sodæ Carbonatis* ʒij. *Infusi Cascarillæ* f ʒvj. *M. Sum.* 4*ta pars ter quotidie*). Let him have a mutton-chop daily, with milk and potatoes. 28*th.* Discharged cured.

## Case 40.

### *Impetigo Vulgaris complicated with Fever.*

Fanny K——, aged 23 years, a young woman of robust conformation, and sanguine temperament, was admitted into University College Hospital, 12th December, 1843. She had not previously,

for some years enjoyed good health; and had been under the care of my late distinguished colleague, Mr. Liston, for ophthalmia, which had suddenly disappeared at the time when the eruption under which she is now labouring broke out. This occurred three weeks previous to her admission into the hospital.

The eruption first appeared in the form of white pustules, accompanied with much itching. They burst, and crusted over. The skin was hot; she complained of pain over the eyes; the bowels were open, and the evacuations natural in appearance; the urine was copious but high coloured. She was ordered to take the following medicines; and to lose ℥xij. of blood from the arm:—

℞ Calomelanos gr. iij.
Opii gr. j.
Ft. pilula post venæsectionem sumenda.
Haust. purg. niger horâ post pilulam sumendus.

After the operation of which, the following mixture was directed to be taken every four hours:—

℞ Liquoris Ammoniæ Acet. f℥ij.
Potassæ Nitratis ʒj.
Vini Seminum Colchici ♏xl.
Misturæ Camphoræ f℥iv. — M.

This treatment was continued until the 23rd, with seeming advantage; and the mixture was then changed for a draught consisting of f ʒss. of liquor potassæ, three minims of diluted hydrocyanic acid, and f ℥ss. of infusion of calumba. The improvement not only continued, but it was more striking. On the 4th of January, however, without any obvious cause, she was attacked with rigors; and a new crop of the eruption made its appearance. She also complained of inflammation of the tonsils. She was ordered to resume the use of the mixture first ordered; and to employ a gargle consisting of ʒj. of nitrate of potassa, ♏xxx. of diluted hydrochloric acid, and f ℥vj. of infusion of roses. This plan was continued with evident advantage until the 11th, when the draught, with liquor potassæ and diluted hydrocyanic acid, and infusion of cascarilla instead of infusion of calumba, was again ordered and continued until the 16th, when she was discharged cured.

## Case 41.

*Impetigo larvalis on the scalp and trunk, in a boy.*

J. H——, æt. 5, a delicate boy, was brought to me, Oct. 22nd, 1848, with a thick, cellular, brownish yellow crust covering nearly the whole of the scalp, and patches of a similar kind on the trunk of

the body. His ancles were swelled, and felt painful after walking. He had occasional rigors, and hot skin after them. His head, after the hair was cut short, was poulticed to detach the crusts, and the scalp was afterwards shaved. (℞ *Hydrargyri c. Creta* gr. iij. *Pulv. Jalapæ, P. Rhei āā.* gr. iv. *Pulvis pro re natâ sumendus.* ℞ *Liq. Potassæ* ♏viij. *Inf. Calumbæ* f ℥j. *Haust. ter quotidie sumendus. Milk diet.*) 29*th.* Much better, the sores left by the crusts were healing. (*Pergat in usu Haust. addendo Liq. Pot.* ♏ iij. *sing. dosibus.*) *Nov.* 10*th.* He continued the same medicine to this day. No topical application except tepid water was applied to the affected parts. He now is quite free from the disease; and was ordered to discontinue the use of the medicine.

## Case 42.

*Impetigo sparsa of the legs treated with hydrocyanic acid.*

James Es——n, æt. 22, a plasterer, living in Clifford Row, was admitted, February 14, 1821, into the Chelsea and Brompton Dispensary. This young man was strong and of a sanguine temperament. The whole of the left leg, from the instep to the knee, was covered with an inflammatory irruption, consisting of small pustules, the bases of which were red and brilliant, which, before their rupture, contained a yellowish fluid. Upon the internal face of the tibia, the skin was in many places excoriated. The epidermis appeared red and brilliant, an ichorous semi-transparent, sero-purulent humour was exuded upon the surface, through a number of little pores. In other places, the skin was covered by small crusts, yellowish, moist, and circumscribed; under which escaped a humour similar to that oozing from the rupture of the pustules.

The patient complained of an intolerable itching and pricking in the affected limb, which completely deprived him of repose in the night. He was perpetually rubbing and scratching the inflamed parts, although well aware, that by so doing, he only increased the evil. The pulse was small but natural in regard to quickness. The bowels were free. The patient was fatigued by the want of sleep, but his appetite was good. "I should find myself," said he, "quite well, if my leg was in good condition and I could rest during the night."

In conclusion, E—— could not assign any cause for the complaint, which had already existed more than six weeks, unless it could be attributed to cold porter which he had taken when following his usual occupations, and whilst in a state of perspiration. He had tried a great number of remedies which had increased the itching and running, and he had taken besides a considerable

quantity of purgative medicine. I resolved to employ externally hydrocyanic acid against this impetigo, and consequently ordered the following prescriptions: —

℞ Pilulæ Hydrargyri, Calomelanos āā ʒss.
Extracti Colocynthidis Comp. ʒjss.
Simul contunde et divide massam in pilulas æquales xxx., quarum sumat j. mane, et ij. nocte, quotidie.

℞ Extracti Sarzæ, Sodæ Subcarbonatis, āā ℈ij. Infusi Cinchonæ fʒviij.
Misce ut fiat Mistura, cujus sumatur cyathus ter quotidie.

℞ Acidi Hydrocyanici, diluti Spirit. Vini rectificati fʒiij.
Aquæ destillatæ fʒviij.
Misce ut fiat lotio, diligenter utenda.

I ordered him also to keep the leg constantly moist by means of linen rag dipped in the lotion; to follow a mild regimen and to abstain from hard indigestible vegetable matter and spirituous liquors.

The 17th Feb. the leg was in appearance much better; the inflammation and discharge considerably diminished; the itching less violent, and the patient had slept well for two nights, which had greatly refreshed him. I advised him to continue the same treatment, and it was uninterruptedly followed until the 19th of May, when it was discontinued, and all remedies. The skin of the leg had reassumed its natural colour, and every symptom of impetigo had disappeared for a week previously.

The 30th of May, James Es——n was again admitted to the Dispensary; the complaint of which he had been recently cured, had shown itself upon the other leg. The eruption only occurred upon the under side of the right leg, and in a much less degree than it had been on the left leg. The bowels were very confined, and the digestive organs appeared more affected than at the first time. The complaint had appeared five days before he came to the Dispensary, and had made rapid progress. I prescribed, internally, the same remedies as in the preceding attack slightly modified.

℞ Pilulæ Hydrargyri Submuriatis Compos., Extracti Hyoscyami āā gr. iij.
Fiant Pilulæ ij. h. s. quotidie sumantur.
Extracti Sarsaparillæ ʒj.
Sodæ Subcarbonatis ℈ij.
Infusi Cinchonæ fʒviij.
Misce. Sumantur Cochl. iij. majora ter quotidie.

As I was desirous to know how the constitutional treatment would succeed, independent of sedative applications, I prescribed an active purgative, and recommended frequent bathing of the affected member with the decoction of bran, and then with an ap-

plication of the ointment of oxide of zinc upon the inflamed skin. On the 2d June, the eruption did not appear better; and the skin was much more moist and more irritable. (Same treatment). 6th June, nearly in the same state. (Same treatment). 9th. The patient complained greatly of the increased itching and other local symptoms. He entreated me again to let him use the lotion that had relieved him before. I prescribed it, but in a much smaller dose of the acid. The same internal treatment was pursued.

13th. The patient had been much relieved by the lotion, and the appearance of the eruption was evidently improved; but the tongue was so furred and so painful, that I recommended a discontinuance of the pills and the mixture that I had prescribed. I replaced them by the following: —

℞ Pulveris Rhei gr. v.
P. Ipecacuanhæ Comp. gr. vj.
Pulvis quam primum sumendus.

℞ Mixturæ Cretæ f℥vj.
Pulveris Ipecacuanhæ Comp. ℈j.
Tincturæ Catechu f℥ss.
Misce ut fiat Mixtura, cujus Cochlearia amp. iij. sextis horis sumantur.

20th. The digestive organs being perfectly restored, I ordered the pills to be resumed, and the mixture that I had ordered on the 30th May. They were continued with the lotion until the 20th July. From the 5th, every symptom of the complaint had disappeared, and since that time, Es——n has remained quite well.

## ECTHYMA.*

Ecthyma is characterised by an eruption of large, round, distinct phlyzacious pustules, seated on a hard inflamed base, and terminating in brown, adhering crusts, which, on spontaneously falling, leave behind them either slight ulcerations or brownish-red marks, which remain for a considerable length of time. The pustules are not numerous, and are unattended by any febrile symptoms; but accompanied with the sensation of stinging. They may appear on any part of the body, although they are seldom seen on the face or the hairy scalp.

Dr. Willan arranged the different forms which Ecthyma assumes as four distinct species, under the names E. *vulgare*, E. *infantile*, E. *luridum*, E. *cachecticum*; but Rayer has justly remarked, that the peculiarities of the species thus pointed out are not sufficient

* The term is derived from εκθυω — to break out.
*Syn.* Terminthus (*Auct. var.*); Epinyctis (*Sauv.*); Ecthymata (*Swed.*); Ecpyesis Ecthyma (*Good*); Phlysis Ecthyma (*Young*); Phlyzacia (*Alibert*); Bouten (*F.*); Erbsenblattern (*G.*); Paistin (*Dut.*); Abutin (*Arab.*).

to constitute specific distinctions, an opinion with which I agree; and, therefore, he divides them as the symptoms display an *acute* or *chronic* character.

1. Ecthyma *acutum*.
2. Ecthyma *chronicum*.

1. Ecthyma *acutum*.—In this form of the disease, *acute papulous Scall*, (E. *vulgare*, Willan), the eruption is generally preceded by some degree of constitutional derangement, indicated by languor, loss of appetite, and torpid bowels. The pustules usually appear first on the neck and shoulders as reddish spots, slightly raised, on which the pustules form with a hard, inflamed base, and in a few days enlarge and become turgid with pus. In subjects of advanced age the base of the pustule often assumes a livid redness; whilst at every age the eruption is accompanied with a sensation of stinging and lancinating pain. The pustules are always distinct, of various magnitudes, but seldom exceed the size of a large pea, and, in a day or two after they have attained maturity, they either burst and discharge their contents, which concrete into greenish-brown scabs, or they shrivel without bursting; in both cases the crusts soon fall off without leaving any mark, except in severe cases, in which a deep-red mark remains. When the inflammation originating the pustules is deeper-seated than usual, slight ulceration and pitting sometimes take place. When the pustules are large, and the pus not early discharged, the lymphatics of the neck swell. The constitutional symptoms that precede the eruption do not disappear when it breaks out; but they generally cease as it declines. The duration of the acute form of Ecthyma seldom exceeds ten or twelve days.

*Diagnosis.*—This form of Ecthyma might be mistaken for Rupia in its early stage, but the vesicular form of the eruption of Rupia, which soon displays itself, and the character of its crusts, point out the distinction. It can scarcely be confounded with any other pustular eruption, unless with syphilitic Ecthyma, but the history of the case, and the copper coloured areola at once point out the distinction.

*Causes.*—The acute form of Ecthyma chiefly occurs in children and young persons after being over-heated; especially in spring and summer. It has appeared after partaking of indigestible food, or exposure to cold and moisture; hence it is more common among the lower than the better classes of society. The disease is undoubtedly not contagious. It occasionally appears as a sequel of small-pox, measles, and scarlatina; in which case it is accompanied with hectic, laborious breathing, and glandular swellings. The pustules are larger and more inflamed at the base than usual; they are attended with more pain, and are sometimes followed by sloughing

ulceration. In some instances, the pustules are the result of friction, or the application of irritant substances to the skin, such as the potassio-tartrate of antimony, in the form of solution or ointment; sugar, lime, and various dry powders when constantly handled: hence, the pustules not unfrequently appear in the hands of grocers and bricklayers, as well as when the antimonial salt is employed as a counter-irritant.

*Treatment.*—When this form of Ecthyma appears in children otherwise apparently healthy, little is required to be done, except keeping the bowels moderately lax with mild aperients, regulating the diet, which should be mild, and allaying general irritation by the use of the warm bath. Mercurials are not only unnecessary, but injurious. When the little patients are weakly, especially when the disease appears after any of the Exanthemata, moderate tonics, after the maturation of the pustules, prove useful. The following mixture is well suited for children above three years old:—

℞ Quinæ disulphatis gr. iv.
Acidi Nitrici diluti ♏xx.
Decocti Cinchonæ f℥iv.
Syrupi Aurantii f℥ij.
Sum. 4ta pars bis quotidie.

No topical treatment, except the warm bath, is required.

## 2. Ecthyma chronicum.

The chronic form of Ecthyma is characterised by symptoms, and appearances of the eruption, which are modified by the age, and the conditions of the habits of the patient. When it attacks infants at the breast, or children during the first dentition or soon after it, the pustules of the character already described appear in successive crops, which run their course, and are followed by others, and this continues for months. Besides appearing on the trunk and the extremities, the pustules occupy also the face and scalp, constituting the E. *infantile* of Willan. There is no fever present, and little pain or irritation is excited by the eruption. At an advanced age, in individuals of broken-down constitutions, the effect of intemperance or hard labour and poverty, the pustules are usually large, and their base of a dark-red or lurid colour (E. *luridum*, Willan), slow in their progress, appearing in successive crops over the whole of the body except the face, on which they are rarely seen. When they burst, they discharge along with the pus a curdly sanies, which concretes into hard dark-coloured adherent scabs, surrounded by dark inflamed borders, and hardness of the surrounding parts. When the scabs are violently removed, they are succeeded by ulcers, which are difficult to heal.

When the habit is a cachectic state, the disease assumes that character which Willan has described as a distinct species under the name Ecthyma *cachecticum*, the eruption appears chiefly on the legs. The pustules are broad, much inflamed, and the crusts so adhesive that they sometimes remain attached for weeks and months. The eruption is sometimes preceded by slight fever, which is diminished in some degree, but not removed, on the appearance of the eruption, and continues throughout the disease. It is accompanied by languor, headache, want of appetite, irregularity of bowels, restlessness, and great mental and corporeal depression. This feverish condition seems to depend, in a great measure, on an irritable state of the mucous membrane of the stomach and intestinal canal. The fauces are sometimes inflamed, and occasionally slightly ulcerated.

In the course of two or three days after the febrile symptoms commence, the eruption appears on the extremities, and then on the thorax. The pustules are large, and their base bright-red, hard, and inflamed. They appear also in successive crops; but as each of these comes out before those which preceded it have run their course, the pustules multiply, and cover the body, displaying every stage of their progress. As the inflammation declines, the bases of the pustules acquire a brown or purple hue; and when the scabs fall, a dark-purple or deep-red stain, and livid cicatrices, indicating the sites of the pustules, remain for some time.

The duration of chronic Ecthyma, which is prolonged by the succession of the pustules, is seldom less than three or four months.

*Diagnosis.*—Chronic Ecthyma, when the pustules are large, and elevated on more than usually prominent bases, may be confounded with boils (furunculi); but when these are small, the sore which is formed in the languid suppurating boils of furunculus, and their slow progress, the pustular aspect seldom appearing sooner than the tenth day, are sufficient to distinguish this form of Ecthyma from furunculus. It is more difficult to distinguish between this form of Ecthyma, occurring in a cachectic subject, and syphilitic Ecthyma, in which the disease is merely modified by the syphilitic virus, so that the diagnosis is rendered difficult if the colour of the base of the pustules in the chronic form of the disease approaches to the copper hue of the secondary affection, a circumstance which occasionally occurs. We can only, in such an emergency, be guided in our diagnosis by the history of the case.

*Causes.*—Chronic Ecthyma is excited by the same causes that develope the acute forms of the disease acting upon a debilitated frame, whether resulting from bad diet, imperfect clothing, and exposure to cold and moisture, the abuse of spirituous liquors, or from some previous disease. The system must, also, be in a highly excitable condition, an opinion verified by the fact that pregnant women are more affected by the disease than those not in that

condition. Mental affections of a depressing kind also render the habit more susceptible of chronic Ecthyma.

*Prognosis.*—The chronic form of Ecthyma is not more hazardous than the acute; but its continuance, and the suffering it is likely to occasion, are always anxiously inquired into by the patients. The constitution, age, and habits of the subjects must be taken into consideration in framing a reply. If the patient be either in childhood or in very advanced life, the prognosis is not likely to be favourable, even although unattended by danger.

*Treatment.*—The chronic form of Ecthyma requires the same treatment as the acute form, except in reference to the general health of the individual at the time when the disease appears. When it occurs in infants at the breast, the milk of the nurse should be examined; and if it appear creamy, owing to its containing a greater proportion of butteraceous matter than healthy milk, a state always hurtful to infants*, the diet of the nurse should be changed, or another nurse procured. In children who are weaned, and in adults, if there is reason for suppposing the disease connected with some chronic derangement of the mucous membrane, such as occurs in strumous dyspepsia, that morbid condition must be attempted to be corrected without reference to the eruption; the tone of the habit brought up, and the diet regulated. I have not found mercurial alteratives serviceable when continued so as to affect the gums; but their occasional administration, in conjunction with iodide of potassium and nitrate of potassa, both in small doses, in any light bitter infusion, have been productive of much benefit. No mercurial preparation in such cases is equal to the iodide of mercury, in doses of one sixth of a grain, combined with two grains of James's powder, and three or four grains of extract of taraxacum, given twice a day. As soon as the irritable condition of the mucous membrane is subdued, if, at the same time, the eruption ceases to be renewed, and the crusts of the old pustules fall off, tonics are required; and the best of these, in the feeble condition of the habit which usually remains, are the salts of iron. In selecting from the preparations of iron, those likely to operate mildly, and without topical irritation, should be preferred. The potassio-tartrate is frequently prescribed; but I have found none preferable to the syrup of the iodide, when administered in doses of a drachm (3 *grains of the salt*) in an ounce and a half of infusion of gentian, and ten or twelve minims of diluted nitric acid. When a milder tonic is required, the decoctions of cinchona, and sarsaparilla, with tincture of serpentaria, and dilute nitro-hydrochloric acid, answer extremely well in bringing up the consti-

* Simon, from fourteen analyses of healthy women's milk, found it composed of 883·6 of water, and 116·4 of solid matters, in 1000 parts; and 100 parts of the latter to consist of 31·2 casein, 23·0 butter, 43·1 sugar and extractive, and 3·0 incombustible salts.—*Animal Chem.* vol. i.

tution to that state which enables it to be proof against the recurrence of the disease. When much irritation accompanies the eruption, opiates prove serviceable; indeed, in every case in which the skin is covered with pustules, the administration of narcotics abates the stinging, and relieves the cuticular tension which always accompanies these eruptions.

With respect to topical applications, neither lotions nor ointments are required, unless ulceration of the pustules, which is a rare occurrence, should take place. The daily use of the tepid bath, however, is essential; and when tonics are required, and the disease proves obstinate, the cold sea-bath, with regular exercise in the open air, is the best that can be prescribed. The diet should consist of a moderate quantity of nutritious, easily digested animal food, beef, mutton and poultry plainly cooked, with well boiled vegetables; milk and farinaceous matters. Fish and pork in every form should be avoided; as well as wine, and malt liquors.

I have never seen the topical variety of Ecthyma, described by Willan *, arising, as he informs us, from the irritation caused by metallic powders on the hands of workmen engaged with them. Bateman considers it more allied to Eczema than Ecthyma.

## Case 43.

### *Chronic Ecthyma, associated with Cephalea.*

William C——, a brush maker, had been subject to what he termed *boils*, occasionally breaking out on various parts of his body at intervals, for several years, but at length was freed from them. Soon afterwards he was attacked with shooting pain of the head, which continued for a short time, then ceased, and again returned at intervals. In consequence of their frequent recurrence, he became languid, low-spirited, and suffered from debility: and whilst in this state a pustular eruption appeared on his thighs and legs, accompanied with a stinging sensation. The pustules were seated on a hard, inflamed base; and formed crusts which adhered for a considerable time. His bowels were torpid; the pulse was 80, full and resisting, and the headache severe. On examination, the pustules were decidedly those of chronic Ecthyma. He was bled to the amount of twelve ounces; and five grains of blue pill ordered to be taken night and morning; and the bowels opened by an occasional purgative. The blood was buffed and cupped; and as the headache continued, the venæsection was repeated four days afterwards, and the blue pill and purgatives continued. The pus-

* Willan on Cutaneous Diseases, 4to. 1805.

tules which were present when he was first seen, had crusts, and the scabs of many of them had fallen; but on the fourteenth day afterwards a fresh crop of pustules appeared, and the headache remained. He was ordered the following mixture in addition to the pills.

℞ Liquoris Potassæ f℥ij.
Infusi Gentianæ f℥vj.—M.
Sum. 4ta pars ter quotidie.

Seven days afterwards the pustules of the new eruption were crusted; and several of the crusts had spontaneously fallen; the headache still continued. He was again bled to ℥xij; the blue pill was discontinued, and the liquor potassæ increased ten minims in each dose. As the headache still continued, ten days afterwards he was again bled, and a brisk cathartic ordered to be taken every morning; at the same time continuing the use of the liquor potassæ, and half a grain of calomel taken at bed-time. The bleeding was not repeated; the same medicines were continued for twenty days more, during which, both the headache and the eruption disappeared; and he remained in good health.

## Ord. 3. Vesicular Eruptions.

This order, the *phlactenæ* of the Greeks, is characterized by small, transparent elevations of the cuticle, the result of inflammation, and the effusion of limpid serum. In general, the eruption is preceded by more or less constitutional disturbance, on the decline of which the vesicles appear either in groups, on red, inflamed patches of the skin, or distinct, and each vesicle surrounded by a small inflammatory areola.

The vesicles are of various size and shape; in some instances, small and conical; in others large and globular; in others again, irregular in shape and flat. The serum which they contain loses its transparency, thickens, and appears like pus; a change depending solely on the absorption of the thinner or watery portion, and the coagulation of the albumen. The vesicles sometimes burst, and pour out their contents; or their contents may be absorbed, and their covering cuticle shrivel and dry up: in both cases, thin, scaly, lamellar crusts are formed, varying in colour from a whitish-yellow to a deep brown, under which new cuticle is formed. In some cases, blood is mingled with the serum, and gives the vesicles a livid hue; or the serum, when effused, is so acrid that it excoriates the surrounding surface, which remains raw and moist.

Vesicular eruptions may attack any and every part of the body. They are either thinly scattered over the surface, or aggregated in clusters.

Those about to be treated of are chronic, of uncertain duration, and not contagious, nor dangerous. Biett, Rayer, Gibert, and some other authors, have placed *Rupia*, one of the genera belonging to this order, in which it was arranged by Willan, in the order Bullæ; but as, in my opinion, no satisfactory reasons are given for its removal, I have retained it in this order. There is, perhaps, too much refinement in the separation even of the orders *Bullæ* and *Vesiculæ*, as the only real physical distinction is in the size of the cuticular elevations; the blebs of the one order are, in every respect, the mere vesicles of the other. Rupia, indeed, almost seems to form the transition between vesicular and pustular eruptions. Three only of the seven genera comprehended in the order by Willan require to be here noticed:

1. Herpes.
2. Eczema.
3. Rupia.

## 1. Herpes.*

The eruption in this disease consists of numerous, small, clustered vesicles, on red patches of various size and form, but which rise upon the skin without any previous tumefaction, or redness of the part. They run through a regular progress of formation, increase, maturation, and scabing, generally within a definite period. They are turgid, with a clear, colourless lymph, which after their maturity becomes milky; and when discharged concretes into scabs. In some instances, however, ulcerations, difficult to heal, succeed the rupture of the vesicles. The disease, whatever form it assumes, runs its course and terminates in fourteen or fifteen days.

Although Herpes displays considerable differences in the physical appearance of the eruption, yet these do not constitute any real specific distinctions: they are of such a nature, however, as to facilitate the investigation of the disease to the student, and to authorize, with some modification, the arrangement of Willan. The genus may be regarded as comprehending the following species and varieties: —

1. Herpes *phlyctænodes.*
   Var. *a. H. labialis.*
   *b. præputialis.*
   *c. pudendi.*

* The origin of this name is evidently ἕρπω, from the creeping progress of the eruption.

*Syn.* Ἕρπης (*Auct. antiq.*); Ignis sacer (*Celsus*); Formica (*Avicen.*); Hieropyr (*Vogel*); Erysipelas phlyctænodes (*Cullen*); Ecphlysis herpes (*Good*); Cystima herpes (*Young*); Herpe-dartre (*F.*); Zittermahl flechte (*G.*); Springendvuur (*Dut.*); Erpete (*Ital.*); Sarpullido (*Span.*).

2. Herpes *zona*.
3. ——— *circinatus*.
4. ——— *iris*.

### 1. Herpes *phlyctænodes** — *Miliary Herpes, Nirles.*

This species of Herpes is characterized by irregular clusters of small vesicles, containing either a limpid, colourless, or light-brown serum. The eruption is usually preceded, for a day or more, by slight feverish feelings, which do not abate until after the eruption has run its course for some days: and during its progress, clusters of the vesicles appear successively for six or seven days. They are attended with heat and tingling, sometimes to a considerable degree; and these are generally aggravated after taking food, or warm stimulating drink, by external heat and the warmth of the bed. It is not confined to any particular part of the body, and affects different parts at the same time. It commences also on different parts, sometimes on the cheeks, sometimes on the neck, whence it extends to the trunk of the body and the extremities: occasionally, however, there is only a single cluster of vesicles, and seldom more than two or three clusters; but in these cases the vesicle is larger than when the eruption is more diffused. The lymph, which is at first limpid, becomes opaque in the space of twelve or fourteen hours; and, on the fourth or fifth day, the vesicles discharge their contents, or shrink and dry up, and are succeeded by yellowish, or dark-brown scabs, which fall off spontaneously, about the tenth day, leaving a red tender surface. The duration of the eruption seldom exceeds fourteen days.

*Diagnosis.* — Pompholyx, when the bullæ are small, is the disease most likely to be confounded with this form of Herpes, but in the former disease the bullæ are distinct, and rarely seated upon an inflamed surface, whilst the vesicles of the latter are grouped upon red, inflamed surfaces. The distinction between Herpes phlyctænodes and Erysipelas is too evident to lead to any mistake; and the same may be said of Eczema.

*Causes.* — A predisposition to this form of Herpes seems to exist in some families; but nothing is known respecting its nature. The disease occurs as frequently in the robust, and those previously enjoying good health, as in those of weakened habits; but it is most common about the ages of puberty, and the first decline of life: women are more subject to it than men. The exciting causes are as obscure as the predisposing. Cold, over heating from violent exer-

* *Syn.* Serpigo (*Auct. var.*); Herpes *miliaris* (*Auct. var.*); Lepidosis Herpes, *a.* miliaris (*Good*); Dartre phlyctenoide (*Alibert*).

cise, suppressed menses, derangements of the chylopoietic organs, and depressing passions are all regarded capable of producing it.

*Treatment.*—The ancients treated Herpes with bloodletting and purgatives to expel the peccant humour to which they attributed the disease. The lancet is now scarcely ever employed, except when the patient is plethoric, and the preceding fever is considerable. Mild purgatives and saline medicines are chiefly, and with much reason relied upon; and occasional anodynes when the pain and tingling are severe. When the disease attacks children, Dr. Underwood* recommends the expressed juice of the creeping water-parsnip, Sium *nodiflorum*, in doses of four or five table spoonfuls, mixed with one or more spoonfuls of new milk, to be given three times a day, at the same time regulating the bowels. I have generally found the plan already stated sufficient in ordinary cases, and, when the disease has assumed a more severe character, and the patient is weak, after reducing the febrile symptoms, I have found the mild chalybeates, such as the potassio-tartrate of iron, the best tonic, combined in chronic cases with either the decoction of sarsaparilla or guaiacum; and small doses of the hydrargyrus c. creta, and an antimonial, to be taken daily at bed-time.

In general no topical applications are required. Celsus fomented the patches with wine†; Turner applied to them a solution of alum‡; and, even now, astringent lotions are not unfrequently employed. When the itching and tingling prove troublesome, I have found the following solution useful:—

℞ Spir. Vini rectificati f ℥j.
Sulphatis Zinci ʒss.
Misturæ Camphoræ f ℥iij. — M.

Unless ulceration takes place, ointments are not indicated; but, when it occurs, the oxide of zinc ointment, or the following, are those which I have found most useful: —

℞ Calomelanos ʒss.
Unguenti Picis ʒij.
Unguenti Cetacei ʒvj. — M.

Bateman recommends the small ulcers to be touched with butter of antimony.

The local varieties of Herpes belong to this species, and differ chiefly owing to some peculiarity in the part where they are seated.

*Var. a.*—Herpes *labialis*, herpes of the lips, generally appears,

* See Diseases of Children, 8th edit. 8vo. p. 182.
† De Re Medica.
‡ A Treatise of Diseases incident to the Skin.

first, at the edge of the lower lips, towards one angle of the mouth, as a cluster of small vesicles, on a red patch; and fresh clusters rising successively, spread to the angle of the mouth and the upper lip; and, occasionally round the whole circle of the lips. The lymph they contain soon becomes turbid; and, after being discharged, which usually occurs on the third or fourth day, concretes into thick, yellowish-brown scabs. Before the vesicles appear, the lips feel hot and smarting, whilst the spots on which the vesicles are about to appear are red and swollen: they then swell, harden, and continue stiff and painful, till the vesicles discharge their contents, after which the swelling subsides, and the pain abates. The crusts fall off in four or five days, and the lips return to their natural state. The same patches of vesicles occasionally appear upon the ear, the alæ of the nose, and the eye-lids: hence the terms Herpes *auricularis*, *nasalis*, and *palpebralis*, employed by some writers; but, as they are identical in every respect with this variety, and appear under similar circumstances, they do not require any particular notice.

This form of Herpes frequently attends the decline of febrile affections, especially those originating from cold; such as catarrh and bronchitis, of which it is regarded critical. It is also not an uncommon attendant of irritable gastric dyspepsia, and some diseases of the chylopoietic viscera. It sometimes affects the tonsils and uvula, at the same time that it appears round the mouth: it is then attended with much pain and difficulty of deglutition: the vesicles assume a more inflammatory aspect than those of the external eruption, and form slight ulcers, which however heal when the scabs upon the skin are drying up.

This variety of Herpes *phlytenænodes* usually requires no specific treatment, except the application of a little spirituous lotion to allay the pain and tingling, or any simple cerate, should the vesicles ulcerate from being scratched. When the eruptions, however, remains obstinate, and continues to appear in successive crops, after the diseases which it accompanies are cured, I have found that it yields to a combination of from six to eight grains of hydrargyrus c. creta, with three grains of James's powder taken at bed-time for several successive nights; and the liquor potassæ in doses of fifteen minims, gradually increased to one hundred, in a large cupful of decoction of the root of sharp-pointed dock, Rumex *acutus* *, given three times a day. No topical application is required. The diet should consist of light animal food, well boiled vegetables, farinaceæ and milk; avoiding baked fruits, salads, and every substance that can favour an ascescent condition of the stomach.

* This decoction is made with an ounce of the root, transversely sliced, and boiled in a quart of distilled water, till reduced to one third; then strained, and two drachms of refined liquorice added to cover its disagreeable taste.

*Var. b.* — Herpes of the prepuce was first described by Dr. Bateman, and named by him Herpes *præputialis;* but as it appears, also, upon the female genitals, it must be described distinct from the former variety.

When it appears on the prepuce, before the vesicles are developed, the spots on which they are about to appear feel hot, itchy, and are red. They seldom exceed the size of a silver fourpenny piece in diameter, and each soon becomes covered with a cluster of minute vesicles. They are at first transparent, and colourless; but after twenty-four hours, during which time they have enlarged, the fluid becomes white and opaque. "When seated," Bateman correctly remarks, "within that part of the prepuce, which is in many individuals extended over the glands, so that the vesicles are kept constantly covered and moist, they commonly break about the fourth or fifth day, and form a small ulceration on each patch, with a white base and slight elevation at the edges." * If any escharotic be applied to these ulcers they become worse, harden at the base, and assume much of the appearance of chancre: but if no irritating substance be applied, they begin to heal about the eighth or ninth day; are scabbed over on the twelfth; and completely cicatrized before the fourteenth.

When the eruption is seated on the exterior of the prepuce, no ulceration takes place; the vesicles soon become opaque, and shrivel, and dry, and form scaly crusts before the sixth day. Before the tenth day these scales fall off and leave the part healed, retaining only a slight degree of redness.

*Var. c.* — When this form of Herpes attacks females, H. *pudendi* the eruption appears either on the exterior surface of the labia majora, or upon its mucus membrane; but, in every respect, the eruption corresponds to that which affects the prepuce.

The chief symptoms attending the disease are heat and itching, unless some irritating substance has been applied to the patches when they ulcerate, in which case the sores become very tender, and even painful. This form of Herpes in the male may become chronic; the eruptions appear successively, several at a time, thicken the prepuce, and render its retraction impossible, owing to its extremity forming a firm cartilaginous ring, which can only be overcome by a surgical operation.

*Causes.* — This form of Herpes frequently appears without any obvious cause, although on investigating closely the state of health of the patient, there may generally be detected some derangement of the digestive organs. More frequently, however, it is connected with local causes: as, for instance, when the matter secreted between the glands and the prepuce is allowed to accumulate, and become acrid, it forms a frequent local cause of the eruption. It

* Synopsis, 7th edit. p. 337.

is not an unfrequent accompaniment of the stricture of the urethra. Its local origin is more difficult to be traced in the female.

*Diagnosis.* — To those who have seen little of either Herpes or Chancre, the former, when it ulcerates, especially when the ulcers have been treated with lunar caustic, may be mistaken for the latter; but this will rarely happen. Herpes *præputialis* seldom appears as a solitary vesicle: Chancre commences as a solitary ulcerating pustule; and, although the edges of the ulcers of Herpes are slightly elevated, yet the elevation is not the hard turned edge of Chancre. But there can be no better diagnostic character than the vesicular form of the disease, and the scales which succeed the vesicles, instead of the thick crusts of Chancre. The ulcers formed in this species of Herpes are shallow, those of Chancre deep, with hard, elevated, and horny edges.

*Treatment.* — The chief part of the treatment consists in keeping the parts clean, and guarding them from friction. When ulcers form within the prepuce, the prepuce should be retracted, the sores cleansed twice a day, and a piece of dry lint placed over them before the prepuce be replaced. Care should be taken not to separate the scabs by violence.

When the disease is connected with the state of the stomach, it is apt to recur and become chronic; hence the diet should be changed, and every substance that can become ascescent avoided.

### 2. Herpes *zona* * — *Shingles.*†

Few eruptions are so well named as this species of Herpes: the patches, as they are developed, arrange themselves obliquely, so as to give the appearance, when on the trunk of the body, of a segment of the old sword-belt, which passing over the shoulder, crossed the body obliquely to the ileum of the opposite side, where the weapon hung. When the eruption appears on the thigh or arm, it takes the same direction as a riband passed obliquely round the member.

Before the eruption of Herpes *zona* appears, there are sometimes, but not always, some degree of constitutional disturbance, indicated by lannguor, loss of appetite, nausea, headache, sometimes rigors, and an accelerated pulse. During these symptoms, the attention of the patient is directed to some part of the body, by a circumscribed sensation of heat, tingling, or acute pain, which con-

* *Syn.* Ζώνη (*Pliny, Scribon, Russell*); Ζωστὴρ (*Auct. var. Græc.*); Ignis sacer (*Auct.*); Zona ignea (*Hoffman*); Erysipelas phlyctænodes (*Cullen*); Dartre phlyctænoide en Zone (*Alibert*); Erysipelas Zoster (*Sauv.*); Le Zone Ceinture dartreuse (*F.*); Feuergurtel (*G.*); Springeendvuur (*Dut.*); Erpete (*Ital.*)

† A corruption of *Cingulum*, a belt.

tinues for hours, days, and occasionally weeks, when it suddenly vanishes on the appearance of several red, irregularly shaped patches, at a small distance from one another, scarcely elevated above the skin, and upon which are rapidly developed numerous minute transparent vesicles, the greater number clustered together, but a few distinct. The clusters vary in size from an inch to three inches in breadth, and each is surrounded by a red margin. As fresh clusters successively appear for several days, they arrange themselves as already described, so as to assume the belt-like appearance. If the first clusters appear near the sternum at the lower part of the thorax, we find them extending in the direction of the scapula.* The vesicles are, at first, colourless and transparent; but they soon lose this, and acquire a white or pale yellowish hue, and ultimately become bluish or livid, before they sink in the centre, dry up, and form a thin dark brown scab, which, loose at first, soon adheres firmly, and falls on the fourteenth day. Some writers assert that the contents of the vesicles, from being pure lymph, change to a sero-purulent matter. I have examined it in both states: it contains albumen in both; but I have not been able to detect any pus globules in it. On their first appearance the vesicles are extremely minute, but they gradually enlarge; few of them, however, exceed the size of a small pea, unless when distinct, in which case they usually acquire an oblong shape, and occasionally the size of a small field bean. The redness and tenderness remain for some time after the scabs fall; but they gradually decline, leaving only pits, where the ulceration, which sometimes attends the eruption, has affected the true skin. The itching and tingling frequently continue during the whole course of the disease; even the deep-seated pain in the chest already mentioned, does not always vanish on the appearance of the eruption, but continues to harass the patient, notwithstanding the administration of the most powerful anodynes. A question here presents itself—is it inflammatory or nervous? Rayer regards it as the latter, from having observed that it follows the direction of the intercostal nerves, and I accord in his opinion.

Such is the nature and progress of Herpes *zona*. When it occurs in old and debilitated habits, the crusts, instead of falling off, in the usual manner, remain for a considerable time: ulceration frequently takes place beneath them, and the ulcers are difficult to heal. In young people this seldom occurs, unless the vesicles be broken by friction or violent scratching.

*Diagnosis.*—The form and the belt-like course which the vesi-

* There is a popular conceit, as old as Pliny, but still believed by the common people, which affirms that if the two ends of the Zone meet, and the body is surrounded by it, the disease will prove fatal. — Pliny says, "et enecat, si cinxerit. (*Hist. Nat.* lib. xxvi. cap. ii.) But many cases are recorded in which it surrounded the body, which contradict the popular belief.

cular patches assume, is at once sufficient to distinguish Herpes *zona* from every other eruption.

*Causes.*—The high position in which Bateman stands as an authority in eruptive diseases urges me to quote the following remark from his Synopsis, to prevent it from misleading the student and young practitioner. "Although," he says, "the *shingles* commonly follow the regular course of fever, eruption, maturation and decline, within a limited period, like the eruptive fevers or exanthemata of the nosologists; yet the disorder is not like the latter, contagious, and may occur more than once in the same individuals." * Now, among the numerous cases of the disease which have come under my observation, unless Herpes *zona*, appeared as an accompaniment of some other disease, I have never seen any reason for regarding it as symptomatic of a specific fever, such as the above remark of Dr. Bateman implies. Some persons are more predisposed to it than others: it is more common in youth and advanced life than in adult age; more common to men than women, and more frequent in summer and autumn than in the other two seasons. In my opinion, it seems connected with some derangement of the portal circulation, producing a sudden and copious secretion of acrid bile, an observation which, if correct, will account for its immediately following violent fits of anger, an event which has frequently occurred. Intemperance, drinking copiously of cold liquids when the body has been heated and in a state of perspiration, and a cold, damp atmosphere, are also regarded as exciting causes of the disease. It is probable that there is some degree of gastric irritation always present, but too slight to arrest the attention of the patient. I have seen boys, apparently in the most perfect health, attacked by the disease without being conscious of its approach, and only made aware of its presence by the developement of the eruption. Herpes *zona* is not contagious, but it is said to have occasionally appeared as an epidemic. I know of no instance in which it has proved dangerous.

*Treatment.*—Little requires to be said respecting the treatment of Herpes *zona*. When it is complicated with any other disease, this must be attended to without any regard to the Herpes. When it is not so complicated, nothing is required but to regulate the bowels with mild aperients, and the observance of a light diluent diet; but, should the deep-seated pains be present, and continue to harass the patient, anodynes may be administered, in combination with the salts of quina, or some preparation of iron. In delicate children of a strumous diathesis, I have seen the syrup of the iodide of iron most beneficial: and, in old broken-down constitutions, tonics, and a generous diet, are essential. With

* Synopsis, 7th edit. p. 329. Hippocrates, in his Epidemics, regards it as a light exanthem. (*Ess.* iii. *Sect.* 5.).

respect to topical treatment, the less that is done the better. When the heat and tingling are severe, I have seen the following lotion useful:

℞ Spir. Vini rect. f℥j.
Aquæ Rosæ f℥vij. — M.
Ft. Lotio ope Lintei parti affectæ appl'.

But unless ulceration takes place, no external applications are necessary.

### 3. Herpes *circinatus**—Ringworm.

This species of Herpes is not preceded by any gastric or constitutional disturbance. It appears in small rings, composed of minute vesicles upon a red base. The whole circle, at first, does not exceed 1·8 of an inch in diameter; but fresh vesicles rising on the periphyry, it gradually enlarges until it ultimately, in some cases, attains the diameter of two inches. The central area retains, at first, its natural state; but, when the vesicular eruption begins to decline, it becomes rough, red, and throws off thin scales. When the disease attacks the scalp, there is, sometimes, only one ring; but in general there are several. The vesicles contain a limpid, colourless fluid, which is discharged in two or three days, and concretes into dark-brown scabs, which form over them. The developement of the eruption is attended with itching, but little perceptible inflammation, except a slight redness round the bases of the vesicles. Each circle runs its course, and declines in about a week; but fresh rings successively appear and carry on the disease sometimes for several weeks. The itching and tingling increase as the disease progresses.

When the disease attacks the scalp, one large ring only appears; the hair becomes bent upon itself, brittle, twisted, falls off, and temporary baldness is the result.

*Diagnosis.*—It is only when the scalp is affected that the diagnosis is in any way obscure. It has been mistaken in that case for Porrigo *scutulata*; but when the patches are closely examined, the vesicular character of the disease, and its non-contagious character, at once clear up the diagnosis; the Porrigo being a pustular disease, and contagious.

*Causes.*—The causes of this species of Herpes are as little known as those of the other species. It is more common to children between three and twelve than to adults. As several members of the same family are affected by it at the same time, it has

* *Syn.* Formica ambulatoria (*Celsus*); Herpes serpigo (*Sauv.*); Annulus repens (*Darwin*); Olophlyctide miliaire (*Biett*); Anneau herpétique (*F.*).

been thought to be contagious, but experience has amply demonstrated the error of this opinion.

*Treatment.*—Herpes *circinatus* requires no general treatment. The heat and tingling are allayed by spirituous and astringent lotions. It is an old popular custom to apply ink, and there is no doubt of its salutary influence, and that of many other metallic astringents. Dr. Underwood recommends the use of the flesh-brush as a prophylactic, in habits liable to frequent attacks of the disease.*

### 4. Herpes *iris*.

This is a very rare form of Herpes. I have seen a few cases only of it. The eruption is not preceded by any gastric or constitutional disturbance, but makes its appearance at once, either upon the back or the palm of the hand, and occasionally upon the instep. It consists of a central vesicle or umbo, and several concentric vesicular circles, each of a distinct colour. They are small in size, seldom exceeding, when fully developed, the size of a sixpence. The first vesicular ring is of a dark brownish-red colour, forming a contrast with the central vesicle which is yellowish-white. The second ring is of the same colour as the first, and the third is of a dark-red colour, and narrower than the rest. The patches attain their full size in eight or nine days, at the end of which time the central vesicle is prominent and distended. The outermost ring, which does not appear till the end of a week, is of a light-red colour, gradually softened into the colour of the skin. The disease seldom continues beyond eight or nine days.

*Causes.* — These are unknown, but it appears only in young people. It is occasionally critical of other diseases.

*Treatment.* — It requires no internal medicine, and even the less that is done topically the better.

### Case 44.

*Herpes phlyctænodes.*

Ann S——, æt. 25, a single woman, was admitted into University College Hospital, 2d Aug., 1835. Three days previous to her admission, she observed some red patches, attended by smarting and heat, appearing on her left arm. In two days afterwards, they were covered with clusters of small vesicles; and, as these formed, the patches enlarged. The patches were very red and hot; but she experienced no pain nor uneasiness before the

* Treatise on the Diseases of Children, 8th edit. p. 459.

appearance of the eruption. The pulse is 120, and sharp: the tongue white, with the papillæ slightly elongated; thirst great; no appetite; bowels open. (*V. S. ad* ℥xvj. ℞ *Calomelanos* gr. viij., *Muc. q. s. ft. pil., h. s. sumenda, Haust. purg. mane.*) 29*th.* The blood was buffed and cupped. The heat of skin is less than before the bleeding, and the patches of eruption are paler. The bowels were freely opened. (*V. S. ad* ℥xvj. *Rep. Pil. et Haust. ulto. pres.*) *Sept.* 1*st.* The blood was buffed and cupped. She complains of heat and pain of the right wrist. (*Admoveantur Hirud. decem carpo dextro.*) 3*d.* The eruption is disappearing; and she complains of nothing but weakness. (*Omittantur Medicamenta.* Full diet.) 8*th.* The strength is improved. 11*th.* Discharged cured.

## Case 45.

### *Herpes zona, with Ulceration.*

James C ——, a stout, ruddy-faced young man, aged 21, was admitted into University College Hospital, June 12. 1845.

On Wednesday, the 7th, he was attacked with pain in the lumbar region, extending down the left leg; and gradually increasing in severity. On the following Monday an eruption of small vesicles in clusters, with an inflamed base, appeared over the seat of pain. He took a dose of castor oil; and came into the Hospital in the evening. On the following day, the eruption had extended over the left lumbar and glutial regions, descending obliquely down the left thigh. The vesicles varied in size from that of a small pea to that of a sixpence. The pain ceased when the eruption appeared.

He was ordered a 5-gr. calomel pill, and a black draught, to be followed by a mixture, consisting of ♏xij. of Hydrochloric Acid, ♏viij. of Tincture of Opium, and f℥iss. of Decoction of Bark, to be taken every sixth hour.

On the 17*th* the eruption had not extended; the inflammatory base was paler than before; and the whole less hot. The bowels were open; the pulse 72, and soft; the tongue clean, but still red at the apex. He was ordered to continue the medicine; and, as some uneasiness still continued in the affected part, the following lotion was directed to be applied to it.

℞ Hydrargyri Bichloridi gr. ij.
Alcoholis f℥vj.
Aquæ Destillatæ f℥vss. — M.
Ft. Lotio.

He continued to improve: but as some of the vesicles had ulcerated, on the 20th they were touched with nitrate of silver.

On the 30th all the ulcers were healed; and, his health being also improved, he was discharged, cured, on the following day.

## Case 46.

### *Herpes zona.*

Jane O——, æt. 13, was admitted into University College Hospital, Jan. 22. 1838. She appeared to be a delicate child of a sallow complexion. A few days before her admission, she was attacked with an eruption of vesicles, over the epigastrium extending obliquely on the right side. She felt no previous illness. The vesicles were small, on a red ground, closely crowded together; and in some places two or three running into one; becoming depressed in the centre, and crusting. She experienced a sensation of burning pain in the part at night. The pulse was small and feeble. (℞ *Magnesiæ Sulph.* ʒvj., *Infusi Cascarillæ* fʒvj., *Acidi Sulph. diluti* fʒj. *Sum. cochl.* ij., *majora 4ta. q. q. horâ.*) (℞ *Alcoholis* fʒiv, *Aquæ* fʒiijss. *Ft. Lotio subinde app.*) 26*th.* The original vesicles were crusted, and no fresh ones have appeared. (*Pergat.*) *Feb.* 4*th.* Discharged, cured.

## Case 47.

### *Herpes zona preceded by deep-seated acute pain in the left Side, simulating Pleurisy.*

Mr. B——, ætatis 50, was attacked with acute pain under the left mammæ, which was supposed pleurisy. He was bled generally to the amount of seventy ounces, and afterwards topically with leeches, besides taking several five-gr. calomel pills, and aperient medicine. As no relief had been obtained, I was requested to see him. He stated that the pain was so acute, that he could not draw his breath without suffering greatly. The stethescope gave no indication of the presence of pleurisy, and as I found a cluster of vesicles on the back, directly opposite to the pained part, I suspected that the disease was Herpes *zona.* In order to allay the pain, some powerful anodynes were administered, and I urged the patient to bear the pain with as much fortitude as possible, until it should be relieved by a copious eruption of shingles, which I anticipated. On the fourth day afterwards shingles made their appearance, and the pain rapidly vanished. All internal medicine was left off, and only topically

stringents employed. He was perfectly well on the 10th day after the appearance of the shingles. This disappearance of the pain in such cases does not always follow the development of the eruption, but continues to harass the patient during the whole course of the disease. Anodynes have little effect in abating it.

## ECZEMA.* — *Heat eruption.*

This is a non-contagious † vesicular eruption, highly inflammatory, appearing in irregular, aggregate clusters of minute, pellucid vesicles, which either burst and exude their contents, or dry up from the absorption of their contained fluid, and terminate in thin, flaky crusts, and scurfy desquamation.

In many instances the eruption appears to be preceded by no obvious constitutional derangement, or fever; but in such cases it can generally be referred to external irritants. When it depends on internal causes of irritation, acting through the constitution, it is always preceded by some degree of fever. Eczema, indeed, arising from such causes, like all other affections of the skin, with a very few exceptions, can be regarded in no other light than as a symptom of general disease; and it is only by taking such a view of the disease, that it can be successfully treated. The eruption, under both circumstances, is accompanied with considerable heat and tingling. ‡

Eczema may extend over the whole body, but more commonly it is confined to certain regions, especially to those parts in which mucous follicles abound. It, also, extends to mucous membranes; as, for example, the vagina, the inner surface of the prepuce, and within the verge of the anus. The duration of the disease is uncertain: it may terminate in eight or ten days, or run on beyond a month. It is not confined to any class of society; the well-fed and well-clothed children of the rich, are as likely to suffer from it as badly-clothed, ill-fed, and squalid children of the poor. It attacks both sexes; and appears to be hereditary; but is not contagious.

* *Syn.* Eczema (*Auct. Græc. Willan, Bateman, Rayer*); *Eczesis*, Eczesma, Eczesmus (*Auct. var.*); Hidrog (*Sauv. Vog.*); Ecphlysis Eczema (*Good*); Cytisma Eczema (*Young*); Herpes squamosus madidans (*Alibert*); Schwest blättern, Hitzblätterchen (*Ger.*); Vuurige Puisten (*Dut.*); Echanbouloure, poussée, dartre vive (*F.*).

† Rayer, who admits its non-contagious character, says that he saw it given to a husband by his wife, who had the disease on the vulva. Traité Théorique et Pratique des Mal. de la Peau, tom. i. p. 274.

‡ The name is derived from this symptom, ἔκζεμα, implying that which is thrown up by boiling; and Aëtius remarks — "Eas, (hot and tingling phlyctænæ) ἐκζέματα ab ebulliente fervore, Græci vulgo appellant. Tetrab. iv. Serm. 1. cap. 128.

Bateman arranges the disease under three distinct heads; namely, Eczema *solare*, from its being the result of the direct rays of the sun; E. *impetiginodes*, from many pustules, resembling those of impetigo, frequently appearing among the vesicles, and many of the symptoms closely resembling those of impetigo: E. *rubrum*, from the deep-red colour of the patches on which the vesicles are developed. But I see no reason for distinguishing the disease which is excited by the sun's rays, more than by any other topical irritant. I have, therefore, combined his two first species into one, and thus made two species only.

1. Eczema *vulgare.*
2. Eczema *inveteratum.*

Eczema vulgare is not preceded by any very obvious constitutional or gastric disturbance; but, when the eruption is about to appear, by a feeling of slight general indisposition. The vesicles contain, at first, a limpid serum which gradually becomes opaque, and of a whitish or brownish colour; it is either absorbed, or effused and concreted into brownish yellow scales, which, after a few days, exfoliate. The eruption often appears in successive crops, and preserves no definite period of duration or decline; but runs its course irregularly, and terminates in minute desquamations. In this manner it progresses; and, in very excitable habits, may continue not only for weeks, but for many months; it usually, if not very severe, terminates finally in two or three weeks from its commencement. In plethoric individuals of a sanguine temperament, especially if they use violent exercise in warm weather, phlyzacious pustules on a dark-red, hard base, rise amidst the eczematous vesicles, suppurate slowly, and sometimes terminate in ulceration. When this occurs, the vesicles display an inflammatory areola; and the serum, acquiring a greater degree of acrimony than usual, inflames the sound skin over which it is effused when the vesicles burst.

*Diagnosis.* — This species of Eczema might be mistaken for *Miliaria*, but it is not the result of fever, nor of excessive sweating; it also differs in the vesicles being distinct and larger in Miliaria, whilst they are crowded in Eczema, and in the affected parts being slightly swelled; and, unless the vesicles are very closely crowded, in the intervening parts of the skin, and the basis of the vesicles, being of a light-red colour, whilst, in Miliaria, they are colourless. When the eruption is confined to the wrist or forepart of the arms, the back of the hand, and the fingers, it might be easily mistaken for lymphatic *Scabies;* but the clear pellucid character of the vesicles, their flatness, uniform, close distribution, the sensation which accompanies them being that of tingling and heat, rather than itching; and the non-con-

tagious nature of the disease are sufficient to distinguish this species of Eczema from scabies.

*Causes.* — This eruption is the effect of irritation from long exposure of the skin to the direct rays of the sun in midsummer. Persons who travel on the tops of coaches, sportsmen, harvest labourers, and women, whose necks are exposed, and who take long walks in the sun, are frequently affected by it. I have, several times, seen it occur in young men who were, for the first time, engaged in chemical pursuits, and long exposed to the intense heat of a furnace. It is easy to conceive, from the well-known sympathy between the skin and mucous membrane, that the noxious influence of the causes just alluded to, is sufficient to derange the latter; and this, in its turn, tends to maintain the abnormal action set up in the former. Many other external irritants, besides the heat of the sun, excite Eczema vulgare in those of irritable habits. It may appear on the hands and fingers from the irritation of sugar, constituting what is termed *Grocer's itch;* from the irritation of *lime, arsenic, tartar emetic,* the *oil of cashew nut,* the application of *croton oil, Indian varnish,* blisters, and many stimulating plasters to the skin, such as the *Emplast. calefaciens,* P. D. Among other external irritants, I have seen Eczema produced by the endermic application of the salts of morphia, although, in general, they more frequently cause an eruption closely resembling Impetigo. The eruption thus produced almost always extends to, and sometimes commences at, a considerable distance from the parts where the irritants are applied. I have seen the eruption excited by hydrochlorate of morphia applied to a blistered surface between the shoulders, appear first on the arms, then extend to the face, swelling the eyelids, and producing temporary blindness; and ultimately appear on the abdomen, and the lower extremities. Eczema behind, and on the ears, is occasionally the sequel of measles; and a local variety of the disease, chiefly affecting the skin, prevails in Herefordshire among the farm servants and labourers who drink large quantities of cider.

*Treatment.*— When this eruption has arisen from long-continued exposure to the sun, under any circumstances, especially when it has been accompanied by fatigue, or other causes of exhaustion of the powers of the habit, a course of the mineral acids, with decoction of yellow cinchona, combined with serpentaria; or the acids, with decoction of serpentaria, will be found useful. The following is the form in which I frequently prescribe them: —

℞ Acidi Nitrici diluti ♏x.
Acidi Hydrochlorici diluti ♏viij.
Tinct. Serpentaria f℥j.
Tinct. Opii ♏v.
Decocti Cinchonæ flavæ f℥jss. — M.
Ft. Haustus ter quotidie sumendus.

The bowels should be kept soluble; but active purgation, as Bateman remarks, "is adverse to the complaint."* The diet should be nutritious, but free from any stimulant property; and wine and spirits avoided.

In Eczema, from the heat of the sun, I have never seen any topical application beneficial, except the tepid bath, or sponging the parts affected, when tingling and smarting, with hot water. It is scarcely necessary to say that the exciting causes should be guarded against.

When the other irritating causes, above mentioned, besides exposure to the sun, produce Eczema *vulgare*, these, when obvious, should be removed, and means adopted to render the skin less susceptible to their impression in future. In plethoric individuals the use of the lancet tends greatly to shorten the attacks. I have even found it necessary to repeat the general blood-letting more than once; indeed, in almost every case, I have found it essentially in the commencement of the treatment. The tonic treatment, already described, after the bowels have been freely evacuated by a full dose of calomel, followed by a brisk purgative; and any febrile excitement reduced by refrigerants, and other antiphlogistic measures, is requisite. If there is, at the same time, a cachectic state of the habit, small doses (gr. $\frac{1}{6}$ to gr. $\frac{1}{4}$) of the iodide of mercury, taken at bed-time daily, with a course of sarsaparilla, and cod liver oil, aid greatly in restoring the tone of the habit. When the disease appears without any obvious cause, in an apparently healthy person, it should be treated by mild aperients, demulcents, and the tepid bath.

Topical applications are more useful in this than in the other forms of Eczema *vulgare*. Much relief from the tingling, heat, and smarted, may be procured by sponging the affected parts with tepid decoction of bran, warm gruel, and bread and water poultices: or cloths, dipped in a dilute solution of diacetate of lead, and laid over the eruption. I have observed the greatest comfort obtained from the use of either of the two following lotions: —

℞ Hydrargyri Bichloridi gr. ij.
Acidi Hydrocyanici diluti f℥j.
Misturæ Amygdalæ amaræ f℥viij. — M.

℞ Liquoris Potassæ f℥j.
Aquæ Rosæ f℥viij. — M.

Or the application of an ointment, made with ℥j. of carbonate of soda, f℥iv. of olive oil, and ℥j. of the compound lead plaster. In very obstinate cases, when the vesicles are oozing out their contents, I have found nothing so serviceable as brushing over the parts with a solution of nitrate of silver, in the proportion of one

* Synopsis, 7th edit. p. 357.

part of the nitrate to a fluid ounce of distilled water, acidulated with six minims of dilute nitric acid. The simple tepid bath sometimes proves beneficial; but sulphur baths are too irritating, and exasperate the eruption. When the itching and tingling are severe, much comfort is afforded by an alkaline bath, consisting of half an ounce of subcarbonate of potassa, to each gallon of water used for the bath. The patient should remain an hour in the bath: the temperature being maintained by additions of hot water, with the requisite quantity of alkali.

### Species 2. Eczema Inveteratum.* Inveterate, Red, or Inflammatory Eczema.

Inflammatory Eczema is the most severe form of the disease: and differs from the former species, by the vesicles rising upon a swollen, red, inflamed surface. It is preceded by febrile symptoms, accompanied by a sensation of stiffness, heat, tingling, and itching, in the parts where the eruption commences, which vary, according to the nature of the irritating cause. In some instances it first appears on the inside of the thighs, on the scrotum, and in the groins; in others, in the axillæ, the bend of the arm, on the fore-arm and the hands; and in others again, on the neck and the scalp; from any of which places it may extend over the greater part of the body. I have seen it covering nearly the whole of the trunk of the body and the limbs, whilst the face and scalp remained unaffected. At its first appearance, which is in red patches, of various sizes, and very irregular figure, the eruption somewhat resembles Erysipelas; but, when the finger is passed over the patches, they appear rough to the touch; and, when closely examined, either with a lens, or with the unassisted eye, whilst the light falls obliquely upon them, the roughness is seen to depend on numerous, minute, crowded vesicles, seated upon an inflamed base. They are at first pellucid, but in two or three days become opaque, or milky looking, enlarge to about the size of a small pin's head; and then, usually about the fifth or sixth day, burst, and discharge, as if from innumerable minute orifices, a thin acrid fluid, which inflames the surface over which it passes, generally leaving it painful and excoriated, and concretes into thin lamellar crusts. When the scalp is the seat of the eruption, the skin, between the patches, is red, inflamed, and swollen. The patches generally appear first on, and behind, the ear, and thence extend to the scalp. In some instances the exuded fluid remains thin and watery; but more frequently the scalp is excoriated, and secrets a thin, acrid, opaque, or pus-like serum, which dries into greyish-brown crusts or scales. I have observed that

* Eczema impetiginodes, et rubrum. *Willan.*

the vesicles on the scalp have, occasionally, enlarged to three or four lines in diameter, before they burst. The hair is matted together at the roots, but is not changed in colour; and although it always falls off, when the disease is severe, yet it grows again unchanged when the disease is cured; demonstrating that the eruption does not affect the hair follicles nor bulbs. The lymphatic glands are often swollen, owing to the absorption of the acrid discharge. In every instance, as the disease progresses, and new patches of eruption appear, they are accompanied with swelling of the true skin. The discharge increases in abundance, exhales a peculiar, offensive odour, and concretes rapidly into thin, yellowish flaky incrustations, which separate and turn up at the edges. The vesicles are often complicated with small psydracious pustules, (E. *impetiginodes*, Willan). In severe cases, painful excoriations are produced in the bends of the joints; and the discharge, hardening the linen of the patient, causes much suffering, which is increased by the necessary pressure of the body upon the raw surfaces from which the incrustations have fallen off. It is scarcely requisite to say that increased febrile excitement is the consequence of such a condition of the surface.

The duration of Eczema inveteratum is uncertain; in mild cases, in which the extent of the eruption is limited, it may run its course in two or three weeks; but in severe instances, it may continue for double that period; and, even by a frequent recurrence of the eruptions, it may run on for several months. The disease may become chronic, and relapses are frequent: indeed, it is so intractable under such circumstances as, occasionally, to resist the most judicious management. The disease, when it becomes chronic, is generally limited in its extent, but the inflammation is deeper seated, and attended with more severe itching and burning heat than the ordinary forms of the disease, and with excoriations and chaps. The cuticle exfoliates, and is reproduced several times during the continuance of the disease, when it extends to months, or as it sometimes does to years. When confined to the face, which is not a frequent occurrence, it causes a swollen and bloated appearance of the countenance, swelling of the eye-lids, and occasionally inflammation of the conjunctiva; when the ears are the locality of the eruption, it involves the hairy scalp, and is often accompanied with inflammation of the meatus externus. It is occasionally confined to the hairy scalp, especially in young children during dentition, in which case the hair is matted together by the copious exudation of the viscid serum of an offensive odour; which, being absorbed, swells the lymphatic glands, and beneath the crusts pediculi are usually found. When the disease declines, scales abundantly form, and when removed leave the parts beneath red and shining; and when long continued, baldness is the result. Chronic Eczema may be confined to the female breasts; the

*scrotum* and *penis* in the male, the vulva in the female, and in both sexes to the back of the hands. The chronic form of the disease is liable to many relapses; and often when the eruption seems on the decline, the vesicles reappear, and run their usual course. The itching and tingling is more intolerable in the chronic than the acute form of the disease.

Such are the symptoms when Eczema inveteratum is not the result of mercurial irritation; but, when it originates from that cause, they vary in several particulars. Dr. M'Mullin has given the best description of this form of Eczema, and I will, therefore, make free use of his essay here, with a few additional observations, derived from an attentive examination of cases in my own practice.* He justly considers the disease to consist of three stages. The first stage is characterized by languor, lassitude, and rigors, succeeded by heat of body, accelerated pulse, nausea, and other febrile symptoms: occasionally a dry cough with dyspnœa, and a sensation of præcordial stricture, are experienced. The tongue is sometimes slimy, at other times clean and red in the centre, but furred on the margins. The bowels, although costive, yet are affected by the mildest purgatives, even to diarrhœa. At this time, before the eruption appears, the skin feels hot, itchy, and tingling. It shows itself usually on the same day, or the second, after these symptoms; and at first apparently consists of papulæ, crowded together so as to form patches of a suffused redness, which temporarily disappear on pressure. It appears on the parts where mercurial friction has been applied; but when the mercurial has been internally administered, the patches occur in different places, often run together, and frequently extend over the entire body. The febrile symptoms are, at the same time, much aggravated; the pulse rises to 120 or 130, in the minute; the thirst is urgent, and sleep is seldom enjoyed. The duration of this stage is uncertain, varying from five to fourteen days; during which time the cuticle desquamates in thin, whitish, scurfy scales: the fauces become sore, the tongue swells, and the eyes are inflamed.

When other circumstances arise to render the habit as susceptible as when it is under the influence of a mercurial course. Exposure to cold and damp, or much salted food, are as likely to cause the disease as if the habit were under the influence of mercury.† A patient, whose case is described by Dr. Marcet, was from

* An account of this species was first published in 1804, by Dr. George Alley, of Dublin, in "An Essay on a peculiar Eruptive Disease, arising from the Exhibition of Mercury." In the same year Dr. Moriaty, of Dublin, published a description of it under the name of "Mercuriale Lepra." In the following year Dr. Thomas Spens, recorded a history of three cases of it, as Erythema Mercuriale, in the 1st volume of the Edinburgh Medical and Surgical Journal, and in the 2d volume of the same work Dr. M'Mullin's Essay, from which the above description is taken, appeared. Dr. Marcet named it Erythema *ichorosum*.—*Medico-Chirurg. Trans.* vol. ii.

† See Marcet's paper, *Med. Chirurg. Trans.* vol. ii.

his trade, necessarily exposed to night air, cold, and damp; and most probably suffering more from the fatigues, owing to his temperament, than a phlegmatic man would do, with a state of the digestive organs in no very good condition, was attacked by the disease. I witnessed a similar case, arising from the greater part of the food being cheese and bacon, with little bread, and no vegetables.

In the second stage, the skin appears studded with innumerable, small, pellucid vesicles; which, after one or two days, burst, or are broken by the rubbing caused by the almost insupportable tingling and itching. They discharge an acrid, fœtid, nauseating fluid, which is poured out most copiously from the scrotum, groins, or wherever the skin forms folds, and sebaceous glands are numerous. Among the exciting causes, may be also mentioned the return of spring and autumn, and sudden changes of temperature. The discharge from Leucorrhœa has occasionally produced severe and obstinate attacks of Eczema.

The last stage commences with the concretion of this fluid into crusts, that crack, displaying raw surfaces beneath them, and when detached, retain the figure of the part whence they have fallen. They are frequently many inches in diameter, and usually of a dun-yellow colour. In some instances the whole cuticle is destroyed, and, when the discharge ceases, it separates in very large flakes, of a pale brown, or blackish colour; whilst the cuticle beneath, as soon as it is exposed, desquamates again, or exfoliates in successive crops of dry branny scales. In such cases the nails become thickened, furrowed, and incurvated. The fauces now become more affected; the eyes intolerant of light; the tarsi inflamed, occasionally inverted, or the eyelids, from the general swelling of the face, completely closed. The pain caused by the decrustation is often so severe as to prevent the slightest motion. The fever, at this time, assumes the typhoid character; and when the bronchitic symptoms continue, the expectoration is sanious, the anxiety and pain of the chest severe, the pulse feeble, frequent, and irregular, and the tongue black and parched. This is the most formidable feature of the disease; and when delirium, diarrhœa, or convulsions supervene, death soon follows. The disease, however, is frequently mild, terminating with the first stage; or when protracted, even to six or eight weeks, still yielding to proper treatment. Successive irregular patches of vesicles, surrounded by a redness of the skin, continue to appear for weeks, and run through the course of discharge and incrustation, and, nevertheless, the disease terminates favourably.

*Causes.* — There is a peculiar state of constitution or predisposition, which renders some individuals more than others liable to Eczema inveteratum. From the opportunities which I have had of inquiring into this state, I am induced to regard it the same

excitable condition of the nervous system, which affords a tendency to hysterics in females, and a restless, fidgetty disposition in men. In such a state of the system many exciting causes may develope the disease: among others, too stimulant a diet; the frequent use of shell-fish, bitter almonds, vitiated, intestinal, and biliary secretion; exposure to cold and moist air; affections of the digestive organs; dentition; increased, or defective action of the uterus, such as produces Dysmenorrhœa, and Amenorrhœa. It occurs occasionally from the condition of habit accompanying pregnancy, and the final cessation of the catamenial discharge, and mental emotions of a depressing kind. It is more frequent in women than in men. But mercury, in every form of preparation, whether externally applied, or internally administered, is its most frequent cause.

*Diagnosis.* — Eczema *inveteratum* may be mistaken, at first, for *Erythema;* but the absence of roughness of the patches readily distinguishes the latter from it; and it is only in the early stage that such a mistake could occur. The cough which usually attends the eruptive fever might lead, says Dr. M'Mulling, to its being confounded with *Rubeola;* but the nature of the premonitory fever, the vesicular form of the eruption, the viscid and fœtid discharge, and the crustaceous desquamation, at once settle the diagnosis. The mode in which the eruption appears, the minuteness of the vesicles, and the nature of the discharge, readily distinguishes it from *Erysipelas.* It is more likely to be confounded with *Impetigo* than any other eruptive affection; but the existence of pustules from the commencement is a constant characteristic of Impetigo, whereas they are only incidental in Eczema *inveteratum.* In the advanced stage of the disease, when it is not severe, and the scrotum and hams are the parts chiefly affected, it is difficult to distinguish it from *Psoriasis;* but the thickened, hard state of the integument, and the absence of moisture in the latter disease, aid our diagnosis. The irregular form and colour of the patches; the densely crowded, minute vesicles which compose them; the acrimony of the discharge, its fœtor, and the yellow, flaky incrustations, are assuredly the best diagnostic features of Eczema *inveteratum.*

*Prognosis.*—In those cases of the disease, which do not originate from mercurial irritation, and those of a local character, the prognosis is generally favourable; indeed it is occasionally favourable to the general health, as, for example, during dentition, when it appears on the scalp, and should not be hastily checked. Chronic cases of long standing, which have resisted almost every variety of treatment, however uncomfortable they may prove to the patient, yet never terminate fatally. This, however, cannot be affirmed of those instances which can be traced to mercurial irritants; the danger is always more or less threatening, and in some persons of

a delicate, or broken down, or cachectic habit of body, a fatal issue has so frequently happened as to authorise, at least, a very doubtful prognosis.

*Treatment.*—In every case, whatever may be the exciting cause, the antiphlogistic and soothing plan of treatment, at first, has been the most successful. It tends to subdue fever, and allay the morbid excitability of the habit which keeps up the disease. It consists of both external and internal measures. When the patient is young, and of a full or plethoric habit, blood-letting is essential, and this should be followed by mild diluents, gentle purgatives, and some saline diaphoretic: after which, when the febrile symptoms are abated, and the tone of the system requires to be brought up, a course of the mineral acids, administered in the decoction of yellow cinchona bark, or of elm-bark, or sarsaparilla, should be followed out, with a light vegetable and farinaceous diet. Little more is requisite in ordinary cases. In severe cases, a second or third venæsection may be required, and the antiphlogistic measures pushed farther, before the mineral acids or other tonics are employed. The necessity indeed of carrying the soothing and depleting means to a considerable length, is peculiarly obvious, when inflammatory action exists; especially when the cough, and the stethoscopical examination of the chest, demonstrate the presence of acute bronchitis. The diet should be light, and sparing. Indeed the regulation of diet is of the first importance; and, when it can be effected, the advantage of country air is advisable.

When the eruption becomes chronic, and frequent relapses occur, a course of mild mercurial alteratives is essential. I have found the iodide of mercury, in doses of half a grain, in combination with five or six grains of the compound powder of ipecacuanha, taken twice a day, and at the same time the decoction of sarsaparilla, answer every intention in such cases. The influence of the mercurial must of course be closely watched in a disease of which it is sometimes the exciting cause.

With respect to topical applications, the tepid bath affords great relief to the sufferings of the patient. When the eruption is confined to particular parts, and the surface is not denuded, much advantage from lotions of the acetate of lead, and the diluted hydrocyanic acid ( P. L. ), in the proportion of a fluid drachm to eight fluid ounces of the lotion. Rayer speaks strongly of the value of poultices made with potatoes or rice, impregnated with the decoction of marsh-mallow, or of poppy capsules: at the same time he condemns linseed-meal poultices, as apt to cause an eruption of small psydracious pustules.* I have always found the common bread and water poultice answer every indication required by poulticing. I have, also, seen much benefit result from

* L. c., tom. i. p. 279.

the linimentum aquæ calcis, applied over the affected parts, by means of lint, and covered with oiled silk. In one case I used it as a bath with great advantage. But the most decidedly beneficial topical application is cold water, applied by means of lint, and the limb enveloped in oiled silk. I have made comparative experiments of the influence of cold water, applied to one limb; whilst the other was fumigated with the vapour of a compound of equal parts of iodine and sulphur, which has been greatly lauded by Biett; and, in every instance, found the cold water dressing more beneficial. It rapidly subdues the inflammation, and allays the tingling, and itching, at the same time promoting the secretion of a more healthy cuticle. Except in cases where the scalp is the seat of the disease, I have never seen much advantage derived from ointments. The best is a combination of two or three drachms of the compound lead plaster, melted and rubbed up with an ounce of cetaceous ointment. In long standing, unmanageable cases, an issue in the nape of the neck, on the upper part of the arm, has been frequently productive of benefit, especially when the face is the seat of the disease, and ophthalmia supervenes; or in the thigh, when the disease is seated in the legs. In chronic cases, especially in patients advanced in life, small doses of the iodide of mercury, decoction of elm-bark, with the addition of ten to fifteen minims of tinctura cantharidis have proved highly beneficial in cases under my treatment. With regard to the influence of the cantharides, the disease seems to possess a conservative power against its effect on the kidneys and urinary bladder, even in very large doses. It seems to aid the mercurial in changing the morbid action of the cutaneous capillaries, which constitutes the disease. I have never seen any necessity for resorting to arsenical remedies. It is, however, candid to add, they have proved useful in the hands of others. When they are employed, their effect must be closely watched, and their use discontinued immediately any of the symptoms that indicate the deleterious influence of the remedy are perceived; namely, pain, or heat in the stomach, constriction of the throat, vomiting or purging, and a sensation of constriction of the skin round the eyes. In old people, it requires some judgment in deciding how far an old standing chronic case of Eczema in the legs or arms should be cured: in such cases the disease often operates as a safety valve in warding off more serious diseases. Such is the plan when the disease does not originate in mercurial irritation. When the preparations of mercury sets up the disease, it is scarcely requisite to say, that whether internally administered or topically applied, they should be discontinued. The stomach should then be emptied by an ipecacuanha emetic, and the bowels fully evacuated by castor oil; after which, saline refrigerants must be given to subdue febrile action, and the patient confined to bed in a well ventilated apartment. To allay the cough, and inflam-

matory state of the fauces, mucilaginous and demulcent mixtures may be used. I found nothing more serviceable than the following in such cases.

℞ Acaciæ Pulveris ʒj.
Olei Amygdalæ fʒiv.
Tinct. Opii fʒj.
Misturæ Amygdalæ Amaræ fʒvss. — Tere.

Oleum c. Acaciæ pulvere, et adde altera ut ft. Mistura — Sumatur Cochl. majus urgente tussi.

As the disease progresses, should the fever assume the typhoid time, the infusion of cusparia bark, aromatized with tincture of cinnamon, and the aromatic spirit of ammonia, with eight or ten minims of tincture of opium to the dose, should be given in addition to the administration of wine, which is one of the best remedies at this period of the disease. To allay the thirst, at this time always urgent, white wine whey, or barley water, slightly acidulated, and with moderate additions of wine, may be taken ad libitum.

Dr. Jacobovies in a short treatise, published about seven years since, mentions a compound of coal and potassa, as a remedy in the chronic state of Eczema. It was introduced by Dr. Polya, of Pesth, and named, by him, Anthrakokali.* He considers it a specific in all affections of the skin, coming under the denomination of Tetter. When administered internally it causes perspiration, and lights up a state of fever, under which the eruption disappears. It was tried by M. Gibert, at the Hospital de St. Louis, at Paris, and was found useless as an internal remedy; but topically applied, he found it useful as an ointment, in cases requiring stimulant applications. Dr. Polya administered it in doses of two grains, combined with carbonate of magnesia or powdered liquorice root.

M. Deschamps, a chemist, of Avallan, formed a similar preparation with soot instead of coal, with and without an admixture of sulphur. He called it *Fuligokali.*† M. Gibert, who administered it, both internally and topically as an ointment, reports favourably

* The Anthrakokali is prepared by adding to a solution of 100 parts of *Carbonate of Potassa* in 2500 parts of *boiling water, hydrate of lime* in sufficient quantity to form the carbonate into pure potassa, filtering and evaporating, in an iron vessel, until the surface assumes the appearance of oil; then adding 150 parts of coal in fine powder, stirring to mix it well. The iron is next to be removed from the fire, and the stirring continued until the mixture is converted into a black, homogeneous powder; which should be preserved in well stoppered bottles, as it is deliquescent. A sulphuretted anthrakokali is prepared by adding 15 grains of sulphur to the former preparation.

† Fuligokali is prepared by boiling together for an hour, 20 parts of pure potassa, 100 parts of soot, with a sufficient quantity of water to make a solution, which when cold is filtered and evaporated to dryness. It forms scales, or a powder, which must be kept in well stoppered bottles. A sulphuretted Fuligokali is prepared by heating together 14 of pure potassa, and 4 of sulphur, in a little water, and after their solution stirring in 60 parts of soot. Lastly, evaporating to dryness, and preserving the compound in well stoppered bottles.

of its powers, and regards it superior to Anthrakokali. I have had an opportunity of employing the last preparation, and found it beneficial.

With regard to topical treatment, which cannot be neglected, the most beneficial is tepid bathing, and the linimentum aquæ calcis; and especially the latter, when the disease is attended with such an extent of desquamation as to leave much of the surface in a raw state, so that the tepid bath cannot be employed. In such a case, also, much comfort is obtained from tepid sponging, and frequent changes of the bed and body linen, to diminish the suffering by the stiffness caused when the discharge dries upon them.

When the eruption is confined to the extremities, or other limited portions of the body, great relief is afforded by the application of poultices, in which the acetate of lead forms a part. For the same purpose, the ointment made with the compound lead plaster, may be spread upon lint, and applied over the affected parts, renewing the application twice a day.

In some of the local forms of inveterate Eczema, the treatment requires to be modified according to circumstances. Thus, when the scalp is affected and the child is teething, nothing beyond cutting the hair as short as possible, and keeping the parts clean, is required. When the face is the part affected, besides the general treatment applicable to Eczema *inveteratum*, the eruption, if dentition be not going on, should be treated with the alkaline lotion; and, if the disease has been of long standing, and the crusts thin and dry, I have found nothing more serviceable than the following ointment: —

℞ Iodidi Sulphuris gr. xv.
Unguenti Cetacei ʒj.
Tere ut Fiat Unguentum.

This ointment should be applied at night, and washed off in the morning with mild soap and tepid water. When the disease is confined to the ears, and the surface in their immediate neighbourhood, the diacetate of lead lotion moderates the ichorous discharge, which is copious in this case. In old persons, in whom it assumes the chronic form, the parts should be repeatedly pencilled with the solution of nitrate of silver. When the eruption is confined to the nipples, during lactation, the child should be put to a healthy breast; or, if eight or nine months old, it should be weaned. The development of Eczema on the genital organs, forms the worst of the local varieties of the disease. The ichorous discharge is copious and extremely acrid, and causes the most distressing itching of the parts, especially when it extends from the perineum to the vulva. The lead lotion, with diluted hydrocyanic acid, in the proportion of f ʒj to f ʒ vj of the lotion, affords the most effectual relief.

## Case 48.

*Eczema vulgare, treated with Bloodletting and Purgatives.*

Peter G——, æt. 54, a husbandman of a sanguine temperament: a single man, and of irregular habits. Some weeks ago an eruption of small, itchy vesicles, in patches, appeared upon the legs. The vesicles burst, and a thin, acrid fluid, which concreted into flaky scales, turned up at the edges. The legs were now nearly raw, inflamed, and painful. He had taken much medicine, and used many lotions. (*Mittantur Sang. brachio* ℥xij. ℞ *Magnesiæ Sulph.* ℥j. *Acidi Sulph. diluti* f℥j. *Infusi Gentianæ* f℥viij. *Sum. cochl.* ij. *majora mane quotidie. Milk diet.*) 20*th*. The blood was inflamed. The legs are not better. (℞ *Calomel.* gr. vj. *Elaterii* gr. ss. *Mica panis* gr. vj. *Ft. pil. sex Sum.* j. *mane nocteque. Omittatur Misturæ.*) 25*th*. Slightly improved. (*Pergat iu usu pilularum.* ℞ *Hydrargyri Bichlor.* gr. j. *Acidi Hydrocyanici diluti* f℥ij. *Misturæ Amygd. Amaræ* f℥viij. *Fiat lotio, subinde utenda*). From this time he continued to improve, and, except an occasional aperient, no change was made in the medicine, until he was discharged cured, on 7th October.

## Case 49.

*Eczema inveteratum.*

John P——, æt. 30, unmarried, a servant, was admitted into University College Hospital, 7th April, 1842. Some months before his admission he suffered from an attack of erysipelas of the face; and almost immediately after his recovery, his fingers looked as if they were chapped, and they became inflamed. On his admission into the hospital, both hands were covered with eczematous vesications, were rough, inflamed, discharging an acrid serum, and itched to an almost insupportable degree. His pulse was sharp and resisting; his tongue dry in the centre, and red; but his appetite was good; his bowels were open, and his urine natural. His mental faculties were entire. (*V. S. ad* ℥xvj. ℞ *Pil. Hydrargyri* gr. x. *P. Ipecac.* gr. x. *Aloïs* ℥ss. *Ft. pil.* x. *Sum. una h. s. quotidie.* ℞ *Liq. Potassæ* ♏xxiv. *Potassii Iodidi* gr. x. *Decocti Sarzæ* f℥ij. *Haust. ter quotidie sumendus.*) 9*th*. The blood was buffy. (*Perstat in usu Med. addendo Mist. Liq. Pot.* ♏vj. *sing. dosibus.*) 12*th*. Hands still much inflamed. (*V. S. ad* ℥viij. *Perstat in usu Mist. addendo Liq. Pot.* ♏v. *et Pot. Nit.* gr. x.

*sing. dosibus.*) 16*th.* Nearly the same. The pulse still resisting. (*V. S. ad* ℥xvj. *Perstat in usu Mist. addendo Liq. Pot.* ℿv. *et Pot. Iodidi* gr. v. *sing. dosibus.*) 21*st.* Pulse still sharp. (℞ *Argenti Nit.* ʒj. *Aquæ destil.* f℥j. *Acidi Nit. dil.* ℿx. *Paux. ope pencilli parti affectæ applicandum. V. S. ad* ℥xij. *Perstat in usu Mist. addendo Liq. Pot.* ℿxvj. *sing. dos.*) 23*rd.* Better in every respect. (*Omit. Mist.* ℞ *Liq. Pot.* ℿxl. *Pot. Nit.* gr. x. *Inf. Cinchonæ* f℥jss. *Haust. ter quotidie sumendus.*) 28*th.* He has hitherto been kept upon a milk diet: but as the inflammatory stage was over, he was allowed a mutton chop daily. (*Perstat. in usu Mist. Omittatur sol. Argenti Nit.* ℞ *Plumbi diacet. Liq.* fʒj. *Spir. Vini rect.* fʒiv. *Aquæ destil.* f℥vij. *Lotio more dictu utenda.*) Lint was dipped in the lotion, and applied to the hands; and oil-silk gloves worn so as to cover the dressings. *May 3rd.* The hands are improved, but the pulse is again full and resisting; the skin hot, and the tongue coated. (*V. S. ad* ℥xvj. ℞ *Pil. Hydrarg.* gr. ij. *Pulv. Ipecac.* gr. j. *Ext. Gentianæ* gr. iv. *Ft. pil.* ij. *mane nocteque quotidie sumendæ. Perstat in usu Misturæ.*) 14*th.* Caught cold and became feverish. (*Om. Med.* ℞ *Calomel.* gr. j. *Ant. Potassio tart.* gr. ss. *Ext. Conii* gr. ij. *Ft. pil. h. s. quotidie sum.* ℞ *Magnesiæ Sulph.* ʒvj. *Aq. Menthæ p. p.* fʒxij. *Acidi Sulph. diluti* ℿx. *Ft. Haust. primo mane quot. sumendus.* ℞ *Liq. Ammoniæ Ant.* fʒiv. *Pot. Nit.* gr. xv. *Mist. Camph. Haust. 6tâ q. q. horâ sumendus.*) He continued to improve under this treatment; and, on the 26th, he was discharged completely cured.

In this case, it is probable that the patient would have much sooner recovered, had the alterative and purgative plan, with the saline refrigerant and the lead lotion, been prescribed after the first venæsection.

## Case 50.

### *Eczema mite.*

James H——, æt. 12, admitted into University College Hospital, 26th July, 1843. He is of a delicate frame of body, and is thin; and has lately been living on bread and salt butter, with, now and then, a little salted meat. The eruption appeared six months ago, whilst he was living well. It commenced on the arms, and gradually extended to the legs, buttocks, and lower part of the back. He suffered from headache every morning. His bowels are open: the urine is clear, abundant, acid, sp. gr. 1025. His pulse is 80, regular, and rather feeble. (*Haust. purg.* ℞ *Acidi Sulph. diluti* ℿviij. *T. Opii* ℿij. *Inf. Quassiæ* fʒx. *Ft. Haust. ter quotidie sumendus. Full diet.*) *Aug. 4th.* Better. (*Perstat in*

*usu Mist. addendo Acidi* ℥ij. *et T. Opii* ℥j. *sing. dosibus.*) 9*th.* The eruption is rapidly disappearing, but he is still very weak. (*Perstat in usu Mist. addendo Quinæ disulph.* gr. j. *sing. dosibus.*) 16*th.* The eruption is nearly gone. (*Perstat in usu Mist. addendo Quinæ disulph.* gr. j. *sing. dosibus. Balneum tepidum vesp.*) 20*th.* Discharged cured.

This case, although decidedly belonging to the milder species of Eczema, yet had become chronic; and was, apparently, kept up by the diet of the patient, for some months before he entered the hospital. The propriety of the tonic treatment was obvious, from the success which followed its employment.

## Case 51.

*Eczema vulgare, treated with Venæsection and Purgatives.*

Elizabeth P——, æt. 15, a single woman, was admitted into University College Hospital, 28th April, 1836. She had not enjoyed good health, previous to the present attack, having been liable to headaches which still continued. She had not yet menstruated. She attributed her disease to having drunk cold water when she was very hot and fatigued. A vesicular eruption appeared on the back of the hands, but soon disappeared after she had taken a few doses of purgative medicine. Six weeks since the same eruption reappeared from the same cause as before. On this occasion, however, it extended from the back of the hands to the arms, the abdomen, and the legs. It is in various sized, irregular shaped patches, largest on the extremities. The large patches are fissured, and exude much serum. Her health has improved since the eruption came out. The pulse is 85, the tongue clean, and the bowels are open. She cannot sleep owing to the itching. (*V. S. ad* ℥xvj. ℞ *Pil. Hydrargyri* gr. v. *bis quotidie. Low diet.*) *Dec.* 1*st.* The blood was buffed and cupped. (*V. S. ad* ℥xvj. *Pergat in usu pilularum.*) 4*th.* The blood was buffed. (*V. S.* ℥xvj.) 7*th.* Her headache is gone, and the eruption dry and exfoliating. 10*th.* Her mouth is slightly sore from the blue pill. The eruption is nearly gone. 21*st.* Discharged cured.

## Case 52.

*Eczema vulgare.*

Sarah J.——, æt. 16, was admitted into University College Hospital, January 22d, 1836. She complained of an eruption, which

had existed for nearly six months. It was situated on the forehead, and round the lips; coming out in minute vesicles, which discharged a turbid fluid that concreted into small scabby scales. The catamenia had not yet appeared. (*Mittantur Sanguinis ope C. C. lumbis* ℥x. *Coxiluvium vesp. quotidie.* ℞ *Pil. Hydrarg.* gr. v. *Ext. Colocynth. Comp.* gr. v. *Ft. pil.* ij. *h. s. quotidie sumendæ.*) 27*th.* The menses appeared yesterday, but disappeared this morning. The eruption is much better. (*Pergat in usu Med.*) 2*nd Feb.* Eruption nearly well. 16*th.* Discharged cured.

In both the foregoing cases the plethoric condition of the habit, owing to the delay of the catamenia, demanded the free employment of the lancet, and the results demonstrate the propriety of the plan of treatment adopted.

## Case 53.

*Eczema vulgare, treated with bloodletting and mild tonics.*

Martha ——, æt. 62, a woman of full habit of body, sanguine temperament, and temperate habits, was admitted into University College Hospital, October 3rd, 1847, labouring under an attack of Eczema, chiefly affecting the right leg. The whole of the leg was covered with brownish-yellow flakes; the skin beneath these flakes, when they pealed off, was red, tender, and moist. She had a slight cough; the bowels were confined, and the urine high coloured; and the appetite was good. The pulse was small and 108; and she perspired freely at night. The leg was very painful. (*Mittantur Sanguinis* ℥xij. ℞ *Pil. Hydrarg.* gr. iv. *Extracti Conii* gr. iij. *Fiant pil.* ij. *h. s. sumendæ. Haust. Purg. Niger cras primo mane.* ℞ *Quinæ Disulph.* gr. ij. *Decocti Cinchonæ* f ℥j. *Acidi Nit. diluti* ♏viij. *Ft. Haust. ter quotidie sumendus.*) 6*th.* The pulse has risen, and is rather resisting since she took the bark. (*Omittatur Cinch.* ℞ *Liq. Ammoniæ Acet.* f ℥iv. *Potassæ Nitratis* gr. xv. *Mist. Camph.* f ℥j. gr. *Haust. 4ta q. q. horâ sumend.*) 11*th.* The pulse is still sharp, the leg is less inflamed and swollen. (*Mittantur Sang. brachio* ℥xvj. *Haust. Purg. Niger. quam primum sumendus.*) 13*th.* The blood was buffed and cupped. The leg is better; the pulse softer, but the bowels are torpid. (℞ *Hydrarg. pil.* gr. iv. *Ext. Colocynth C.* gr. ij. *Ext. Hyoscyami* gr. iij. *Ft. Pil.* ij. *h. s. pro re nata.* ℞ *Liq. Ammoniæ Acet.* f ℥iv. *Potassæ Nit.* gr. xv. *Decocti Cinchonæ* f ℥j. gr. *Haust. ter quotidie cap.*) 25*th.* The inflammation is gone, and she is altogether much improved. (*Pergat in usu Med. addendo Mixturæ T. Cantharidis* ♏x. *sing. dos.*) *Nov.* 1*st.* Improved, but the pulse is still sharp, and the bowels are torpid. (*Mittantur Sang. brachio*

℥xvj. ℞ *Calom.* gr. j. *Opii* gr. j. *Ft. pilula post venesect. sumenda. Haust. Purg. mane.*) 10*th.* The leg is much better, but the patient says it is painful at night; and during the day she suffers from acidity of stomach. (*Om. Med.* ℞ *Liquoris Potassæ* ♏xxx. *Acidi Hydrocyan. dil.* ♏iv. *Mist. Amygd. amaræ* f℥j. gr. *Haust. ter quotidie sumend.*) She continued this treatment till the 15th December, when she was completely cured.

## Case 54.

### *Eczema Inveteratum.*

Elizabeth J——, æt. 44, a servant of all work, of a sanguine temperament and ruddy complexion. In the course of eight years, previous to her admission into University College Hospital (Nov. 20. 1838), she had four distinct attacks of Pompholyx. The present disease commenced, a week before her admission, with rigours, followed by heat and profuse sweating. In twenty-four hours, an eczematous eruption appeared on both legs, spreading from the ankles to the knees, in the form of small vesicles, which discharged a clear acrid fluid, that formed thin crusts, whilst the intervening skin was red, and smarted excessively. The same form of eruption appeared on the left arm. There was a sensation of pain or aching in all the joints; the pulse was full, but compressible; the tongue furred; the bowels regular; and the renal secretion natural. She coughed at night. The catamenia was regular, but scanty and pale. (*V. S. ad* ℥x. ℞ *Iodidi Arsenici* gr. j. *Ext. Conii.* ℥ss. *Fiant pil.* x. *Sum.* j. 8*vâ q. q. horâ. cum Decocti Sarzæ* f℥ij. ℞ *Hydrarg. Bichlor.* gr. ij. *Acidi Hydrocyanici dil.* f℥ij. *Mist. Amygd.* f℥viij. *Lotio subinde utenda.*) 20*th.* Inflammation gone; eruption no longer coming out: but she complains much of the pains in her limbs. (*V. S.* ℥xij. *Pergat in usu Med.*) 30*th.* The blood was buffed. The bleeding relieved the pains of the joints. The discharge from the vesicles was still very acrid. (*Pergat in usu pil. et Decocti Sarzæ. et Lotio.* ℞ *Plumbi Acet.* ℈j. *Acidi Hydrocyanici dil.* f℥ij. *Aquæ Destil.* f℥viij. *Ft. Lotio subinde utenda.*) *Dec.* 3*d.* Much improved. (*Pergat in usu Med. addendo massæ pilularum Iodidi Arsenici* ij. gr.) (9*th.* Complains still of pains in the joints: in other respects better. (℞ *Vini Sem. Colchici* ♏xi. *Magnesiæ* ℈j. *Aquæ* f℥jss. *Haust. h. s. sumendus. Pergat in usu Mist. Pil. et Lotionis*). 10*th.* The pains have left the knees. (*Pergat in usu Med.*) 13*th.* She complained of pain at the epigastrium and nausea: — otherwise she was rapidly improving. (*Omit. pil.* ℞ *Ol. Ricini* f℥iv. *Acaciæ Pulv.* ℈j. *T. Camp. C.* f℥j. *Aquæ*

*Dist.* f℥j. *Haust. quam primum sumendus. Admoveuntur Hirudines* viij. *Epigastrio.*) 14*th.* The pain at the epigastrium, and nausea gone. (*Conn. pil. Iodidi Arsenici addendo Hyd. Beniodidi* gr. ij. *massæ* ♏ *pil.* xxx. *dividend. haust.* 9*nâ q.q. horâ. Directum Sarzæ.*) 20*th.* Mouth slightly affected. The eruption improved; but she complains of tingling in the legs (*V. S. ad* ℥viij.). 26*th.* The blood was buffed: the tingling of the legs was relieved. (*Om. Med.* ℞ *Potassii Iodidi* gr. iij. *Aquæ destil. Haust.* 4*tâ q. q. horâ sumendus.*) From this time she progressed daily, and on the 16*th,* she was discharged, cured.

## Case 55.

*Eczema Inveteratum complicated with phlegmasia dolens.*

James M——, æt, 34, a policeman, residing at North Allerton, Yorkshire; a man of full habit of body and sanguine temperament, was admitted into University College Hospital. The disease, under which he was labouring, commenced six months previous to his admission. He had been, ever since, under medical treatment; but without deriving any benefit.

The first symptom was swelling of the left knee, accompanied with pain and itching; both the swelling and itching extended up the thigh; which, on the day afterwards, was covered with a minute vesicular eruption. He was put under medical treatment; but, having received no advantage, he was sent up to University College Hospital, and, on the 9th September, 1843, was placed under my care. At the time he entered the hospital, the eruption covered both upper and lower extremities, the whole of the back, and the lower part of the abdomen: the cuticle was exfoliating in large, greenish-yellow opaque crusts and flakes, exposing a highly inflamed surface, which was exuding an acrid serous fluid. There was an abscess in the right axilla. The surface of the body was hot; the pulse full; the tongue slightly furred; and the appetite impaired. The bowels were confined; and the urine was high coloured, and deposited lithates. After opening the bowels, he was ordered (*Liq. Ammon. Acet.* f℥iv. *Potassæ Nit.* gr. xv. *Tinct. Hyoscyami* ♏xxx. *Haust. h. s. sumendus.* ℞ *Acidi Sulph. dil.* ♏xvi. *T. Opii* ♏x. *Decocti Cinch. flavæ* f℥ij. *ter quotidie.*) 10*th.* The arms were less inflamed: there was no fresh eruption, and the exudation was greatly lessened. The surface was less hot. The urine still high coloured. (*Perstat in usu haust. addendo Acidi Sulph. dil.* ♏v. *et Tinct. Cinchonæ Comp.* f℥j. *sing. dosibus.* ℞ *Pil. Hydrarg.* gr. xij. *Ext. Colocynth. C.* ℥ss. *Ext. Conii* ʒss. *Ft. Pil.* xij. *Sum. una h. s. quotidie.*) 15*th.* The cuta-

neous inflammation was much abated, and the cuticle, on the arms and shoulders, returning to its natural colour. The bowels had been daily opened by the pills; and the urine less high coloured, and had ceased to deposit lithates. He complained of much pain in the right groin. (*Mittantur Sang.* ℥viij. *ope C. C. par dolenti. Perstat in usu Mist.* ℞ *Liq. Potassæ* ♏xxx. *Vini Ipecac.* ♏xx. *T. Opii* ♏xij. *Mist. Amygd. Amaræ* f℥ss. *Haust. h. s. quotidie sumendus.*) 20*th.* The cupping did not relieve the pain; and the right leg, from the groin downwards, swelled, was stiff, and so painful that he could not stand. It had much the appearance of phlegmasia dolens. The eruption was nearly gone from the shoulders, back and abdomen; and much better on the extremities. The pulse was full, resisting, and 80. The stools pale. (*Pergat in usu Mist.* ℞ *Argenti Nitratis* ℥j. *Aq. destil.* f℥j. *Acidi Nit. dil.* ♏viij. *Ft. ol. ope pencilli part. affect. applicanda.*) 23*d.* The swelling and tension of the leg had abated. The eruption was nearly gone, except upon the left leg. The pain in the groin, and down the inside of the right thigh was still considerable. (*Admov. Hirudines* xij. *Pergat in usu Medicam.*) *Oct.* 4*th.* The swelling of the thigh is abated, and the knee less stiff: but there is a renewal of the eruption and the discharge proceeding from it on the fore arm. He slept indifferently; partly owing to the itching and tingling of the eruption on the arms. The abscess in the axilla is still discharging. The bowels are not open; the urine is turbid, but in sufficient quantity. (*Omit. Medicam.* ℞ *Ext. Colocynth C.* gr. xij. *Crotonis Olei* ♍iv. *Ext. Conii* gr. xviij. *Ft. pil* vj. *Sum. j. h. s. quotidie.* ℞ *Liq. Potassæ* ♍xxx. *T. Opii* ♍x. *Decocti Cinchonæ flavæ* f℥jss. *Ft. Haust. 4tâ q.q. horâ cap.*) 8*th.* Improving—he slept better, the bowels are open. (*Pergat in usu Mist. addendo Liq. Pot.* ♍ix. *T. Canthar.* ♍xv. *sing. dosibus.*) 15*th.* The eruption was rapidly disappearing; but he had pain in the left leg; it began at the heel and extended to the groin. The bowels were open, and the tongue was clean; but the urine scanty and high coloured. (*Admov. Hirudin. decem parti dolenti;* ℞ *Liq. Ammoniæ Acet.* f℥iv. *Pot. Nit.* gr. xv. *T. Opii* ♍xx. *Mist. Camph.* f℥j. *Haust. h. s. sumendus.*) 20*th.* He feels better, although the swelling and pain of the leg, which again resemble phlegmasia dolens, are still present. (*Admov. Hirud. x. parti dolenti. Pergat in usu pil. et Mist. addendo T. Canth.* ♍vij. *sing. dosibus.*) 25*th.* The left leg is still painful, and much swelled. The eruption is nearly gone. The bowels are open; the urine is scanty, high-coloured, and depositing lithates. (*Admoveantur Hirud.* xij. *parti dolenti. Pergat in usu Misturæ.* ℞ *Sol. Morphiæ Bimecon.* ♍xx. *Vini Sem. Colchici* ♍xx. *Mist. Camph.* f℥jss. *M. Haust. h. s. sumend.*) 27*th.* The pain in the thigh is relieved, but both the leg and feet have become ædematous. There is still some hardness in the groin. Lithates in the urine. (*Admov. Hirud.* x. *parti dolenti, et Appr.*

*Cataplasm.* ē *Opio post hirud. Omit. Med.* ℞ *Liq. Potassæ* ♏xxx. *Vini Sem. Colchici* ♏xv. *Mist. Camph.* f℥jss. *Ft. Haust. 3tiâ. q.q. horâ cap.*) *November* 1. No change; but, as he complained of pain in the right lumbar region, he was cupped there to the amount of ℥xij. The right leg is painful and swelled. (*Pergat in usu Med.*) 5*th.* Improved in every respect; and he is less irritable and anxious. Pulse compressible; bowels open; urine still high coloured. (℞ *Calomel.* gr. j. *Opii* gr. ij. *muc. q. s. Ft. pil. 8vâ. q. q. hora sumenda.* ℞ *Potassæ Nitratis* gr. xv. *T. Cinch.* f℥j. *Decocti Cinch. flavæ* f℥jss. *Haust. inter sing. pil. doses sumendus.*) 8*th.* Still ædema of the right thigh and leg. There is also lividity of the toes of the right foot, which began two days since, and has increased. The temperature of that foot is less than the other. Skin rather hot; pulse regular and compressible; bowels open; urine high coloured. (*Pergat in usu Misturæ. Omitt. pil.* ℞ *Liq. Ammon. Acet.* f℥iv. *Sol. Morphiæ bimecon* ♏xx. *Mist. Camph.* f℥x. *Haustus h. s. quotidie sumendus.*) 10*th.* He had an uneasy night. The left leg painful and swelled. The right ankle still much swelled, and tender to the touch; the toes are less livid and warmer. The pulse resisting, but small; the tongue clean; the bowels open; and the urine clear, not so high coloured as before, and free from lithates. (℞ *Calomel.* gr. j. *Pulv. Digitalis* gr. j. *Opii* gr. j. *muc. q. s. Ft. pil. 8va. q. q. horâ sumenda. Perg. in usu Mist.* ℞ *Opii* ℈j. *Olei Olivæ* f℥jss. *Ft. Linimentum bis quotidie App.*) 12*th.* The temperature of the two lower extremities were, right leg 92°—left 90°—right foot 90°—left foot 86°—right toes 84°—left toes 80°. At this time the toes of both feet were equally warm, and not at all livid. Pulse quiet; urine in sufficient quantity, high coloured and turbid. (*Omitt. Med.* ℞ *Pil. Hydrarg.* gr. ij. *Pil. Scillæ* gr. iij. *Pulv. Digit* gr. j. *muc. q. s. Ft. pil. mane noctique sumenda.* ℞ *Liq. Pot.* ♏xxiv. *Decocti Cinch. flavæ* f℥ij. *Tinct. Camph C.* f℥j. *Haust. bis quotidie sumendus.*) 14*th.* Fresh eczematous patches have appeared on the legs, extending to the upper part of the thighs; the trunk of the body is free from the eruption. He has passed more urine since the last report than before. The pulse small and compressible. (*Om. Mist.* ℞ *Tinct. Ferri Sesquichlor.* ♏x. *Acidi Hydrochl.* ♏x. *Decocti Casear* f℥ij. *Haust. ter quotidie sumendus.*) 18*th.* The symptoms of phlegmasia dolens rapidly disappearing, the pain being completely abated, and the swelling rapidly diminishing. He now slept well; the pulse was softer and 84; the bowels open; the tongue clean: but the Eczema was again gaining ground. (*Pergat in usu Mist. sine Tinct. Ferri Sesquichloridi.*) 24*th.* The pain and swelling of the limbs completely gone, but the eczema extending. The tongue clean, and the appetite good. The bowels confined. (℞ *Calomel* gr. v. *Muc. q. s. Ft. pil. statim sumenda. Haust. purg. horâ post pilulam.*)

29*th*. No complaint, except the Eczema. An issue to be made in the upper part of each thigh. (℞ *Calomel.* gr. iv. *Ext. Hyoscyami* gr. iij. *Ft. pil. h. s. sumenda. Haust. purg. cras primo mane sumendus.* ℞ *Potassæ Nitratis* gr. xv. *Tincturæ Canthar.* ♏xij *Decocti Cinch.* f ℥ij. *Haustus ter quotidie sumendus.*) 13*th December*. He is daily improving after the issues began to discharge. (*Pergat in usu Mist. addendo Potassii Iodidi* gr. ij. *sing. dosibus.*) 24*th*. The eruption was now confined to its second stage; the scales large and opaque; with scarcely any exudation. No return of phlebitis. (℞ *Liq. Potassæ Arsenitis* ♏x. *Tinct. Canthar.* ♏xxiv. *T. Opii* ♏x. *Decocti Cinchonæ* f ℥ij. *Haust. ter quotidie sumendus.*) 31*st*. The scales falling, and leaving the parts below red, but not moist. Bowels open: pulse regular, soft, compressible. (*Pergat in usu Medicam.*) 26*th Jan*. As regarded the eruption and phlebitis, he was convalescent: but he had caught cold; coughed; and the urine was scanty and high-coloured. The pulse sharp and resisting; 84. (*Mittantur sang. brachio* ℥xij. *Haust. purg.*) The eruption returned three successive times, between this period and the 29th of April. During which time he continued the use of the Arsenite of Potassa, with Decoction of Bark. The bowels were regulated by mild aperients; and he occasionally used the tepid bath. On the 29th April, he was discharged cured.

This was the most severe case of Eczema I had ever treated: for although I met with one case, in private practice, in which the eruption was so generally diffused over the whole body, that the patient was obliged to be lifted upon a sheet, and immersed in a bath of linimentum aquæ calcis; yet, the eruption did not so frequently return, and it was uncomplicated with any other disease.

The most remarkable feature in M.—'s case was its complication with phlebitis, the improvement of the eruption whenever the phlebitis appeared, and its augmentation in severity on the decline of the pain and swelling of the limb. Reflecting upon these facts, I was inclined to imagine that an artificial drain might supply, as it were, the beneficial influence on the eruption which the phlebitis apparently produced; whilst, at the same time, it might arrest the inflammatory action in the veins. The result proved the accuracy of the reasoning; and to the influence of the issue the perfect recovery may, in some degree, be attributed.

## Case 56.

*Eczema inveteratum from Mercury.*

A young woman, seduced by one of those unprincipled men who sacrifice every moral feeling on the altar of self-gratification, was brought to London, and, in a short time afterwards, deserted by her seducer. She went upon the town, and in that wretched condition of life contracted syphilis, for which she was put under a course of mercury. Her father, who had followed her to town, and vainly, for some time, endeavoured to discover her retreat, at length saw her in the street, and followed her; she fled from an interview which she dreaded, and secured her retreat to her lodging for that night. On the following day she was too ill to move from home; she was salivated. Dreading a visit from her father, she heard his voice at the door of the house where she lodged: and to escape from him, rose from bed, and went into another room, as he entered that one in which she had been in bed, whence she ran into the street half naked, during a heavy shower of rain, which soon forced her to return to her room.

Next day I was requested by her father to see her; and found her covered with irregular red patches, which, to the unassisted eye, resembled the eruption of scarlatina; but examined with a lens were formed of minute vesicles. There was fever, which in a few days assumed an intermittent character. The stinging and itching of the eruption was almost insupportable; and a viscid, offensive smelling fluid, which oozed from the vesicles dried into crusts, which peeled off in large flakes. The tepid bath, anodyne fomentations, and linimentum aquæ calcis, were topically applied; and saline purgatives, refrigerants, decoction of cinchona, mineral acid, and opium were internally administered without any beneficial result. In fifteen days from the commencement of the attack, the wretched girl died in a state of extreme suffering.

In this case, the mental alarm, in a highly excitable and delicate frame of body, under the influence of mercury, had predisposed the body to be influenced in a peculiar manner by the sudden exposure to damp and cold. That the effect was not that of exposure to damp and cold alone, is probable from the fact that the poor creature had been driven by dire necessity to walk the streets in all states of the weather, during the whole period she was taking the mercurials, and did not suffer, until the nervous system received the shock which has been described.

## RUPIA.*

Rupia is a vesicular disease, characterised by a scattered eruption of flattish, distinct, transparent vesicles, with an inflamed base, and filled with a serous fluid, which gradually becomes opaque, resembling pus; occasionally sanious. These vesicles burst, and the fluid they contain concretes into a dark-coloured scab, which is easily removed, leaving a spreading unhealthy ulcer, on which the scab is rapidly reproduced. Bateman, Biett, and some others describe three species of Rupia; namely, R. *simplex*, R. *prominens*, and R. *escharotica:* but the two first are mere varieties of the same disease, or rather, the second is only a more severe case of the first; and the third is not Rupia, but the Pemphigus *infantilis* of Willan, the Pemphigus *gangrenosus* of Stokes. I will therefore describe Rupia as one disease, differing only in its greater or less severity in different cases.

Rupia is preceded, and frequently accompanied, with a low remittent fever; during which, although the pulse is quick, yet it is soft and compressible. There are usually two obscure exacerbations, and imperfect remissions in the twenty-four hours. The skin is dry and harsh; the tongue furred, red at the apex, sometimes glazed and adhesive, indicating an irritable condition of the mucous membrane. I have never seen a case of the disease in which the fever was wholly absent; although it sometimes assumes the form of general irritation, or erithism rather than actual fever. The bowels are generally regular, but occasionally they are torpid; and the urine is either turbid, or it is clear and high-coloured, and deposits lithates. If the disease occurs in a shattered constitution, the irritative fever deranges the digestive organs, and produces emaciation.

The vesiculæ of Rupia most frequently appear first on the thighs; but occasionally, at the same time, on the loins and shoulders. They rarely rise in groups; on the contrary, they are distinct and widely scattered, with the intervening skin of a natural colour. They are flattish, of different sizes; but seldom exceeding half an inch in diameter. At first they are filled with a clear, serous fluid; but this soon becomes turbid, and resembles pus in colour, but is not pus; whilst, owing to the absorption of the watery portion of the contents of the vesicles, they become flaccid; the fluid thickens and forms a greenish-brown fluted scab, thick and rough in the centre. Around each scab there is a dull, red areola, whilst the thin edges of the scab are separate from the cuticle, and ooze a small quantity of a discharge, which, in severe cases of the dis-

* From *ῥύπος*, sordes.

ease, is mixed with blood, and is more decidedly sero-purulent. After the first crust has formed, the ulceration extends in its circumference, and a fresh crust or scab is formed under the former, which is consequently raised up; and, by a repetition of the same process, the whole crust at length assumes a conical form, resembling the shell of the limpet. The ulceration generally extends a small space beyond the periphery of the crust; and a zone of inflammation spreads round it. The serum, as it coagulates into the crust, exhales an offensive odour.* As the disease runs its course, the ulcerative process may spontaneously cease, and the parts cicatrize beneath the crusts, which drop off, leaving a dark-red eschar. But this seldom occurs; more frequently the parts itch and tingle, and as the crusts are easily detached, they are rubbed off, and leave ragged ulcers, difficult to heal. If the crusts be rubbed off in the early stage of their formation, they are replaced by thin crusts, and the process of thickening and elevation proceeds as already described.

The ulcers left on the falling of the crusts are difficult to heal in old people; and, when they do cicatrize, purple spots remain a long time afterwards. In mild cases of the disease the limpet form of the crusts is not so obvious; but, in both mild and aggravated cases, the scab is easily rubbed off, displaying the unhealthy looking ulcer. In some severe cases I have seen the ulcer and the base of the conical crusts equal to an inch and a half in diameter. The ulcer is spongy, with livid raised borders, bleeds on the slightest touch, and throws out an exudation to form a fresh scab for that which has been removed. The conical crust sometimes rises upwards of an inch above the surface on which it forms. Such cases have been regarded as unnecessarily constituting a distinct species, named, by Bateman, Rupia *prominens*.

*Causes.* — The condition of habit which renders persons susceptible of Rupia, when the exciting causes are applied, is not understood. It has been supposed, owing to its more frequent appearance in women than in men, to be that lax, leucophlegmatic diathesis, which is termed strumous: but thousands of strumous persons are exposed to the exciting causes of Rupia, without being attacked by the disease. Whatever the predisposing state may be, it seems to be accompanied with delicacy of frame, and a somewhat broken-down constitution. The exciting causes are obvious enough, namely, defect of good nourishing food and clothing; cold; damp ill-ventilated apartments; indeed, whatever tends to weaken the habit. It will occur as a consequence of the poison of syphilis; but in this case, also, most commonly comes on in debilitated habits. The disease is confined almost to the lower classes, and is not an unfrequent sequence of other disease, such

* The name of the disease is derived from *ῥύπος*, sordes.

as small-pox and measles; frequently it accompanies intemperance. I have seen it complicated with hæmorrhages of the subcutaneous tissue and the mucous membrane; it always, indeed, indicates a reduced condition of habit, and consequently demands peculiar care not to lower the system in the treatment.

*Diagnosis.* — The diseases with which Rupia is likely to be confounded are ecthyma and pompholyx, when the bullæ are small. Ecthyma, after it has crusted, sometimes resembles Rupia; for, in the early stage, the pustular character of ecthyma readily distinguishes it from Rupia, which originates in a vesicle, or small bulla. In the latter stage the scab of ecthyma is not elevated, and it adheres firmly to the ulcer it covers; whereas that of Rupia is loose, and easily removed. The crusts which succeed the pustules in ecthyma, are harder, deeply indented on a hard inflamed base, and not successively produced so as to accumulate in the pyramidal form, as in Rupia. From pompholyx, Rupia is readily distinguished by the vesicles being nearly flat, never assuming the globular form, and never displaying the thin, condensed epidermis which constitutes the scab when the bullæ of pompholyx burst.* It is of much importance to distinguish between simple and *syphilitic Rupia*, the phagedenic ulcer so clearly described by Mr. Carmichael.† The latter forms an elevated scab the same as that of Rupia *simplex;* but the ulcers heal first in the centre, and continue to enlarge in circumference whilst the healing process is proceeding, which is not the case with Rupia. There is usually, also, some affection of the throat, and often an extending ulceration there, which, when the history of the case is obscure, points out its syphilitic origin. It is also generally accompanied with obstinate pains in the joints, and with swelling of the knees; besides, the disease is pustular from its commencement.

*Prognosis.* — Rupia is more or less severe according to the age of the patient, and the condition of the habit at the time of its invasion. It is likely to prove most severe in the aged, in those of any age who have been weakened by previous disease, and in the intemperate. In those predisposed to tubercular disease, the lungs sometimes become affected; phthisis supervenes, and sooner or later terminates the life of the sufferer: but, in its ordinary form, Rupia cannot be regarded as a fatal disease. It is, however, always tedious, and requires patience and perseverance in the plan of treatment, both on the part of the patient and the practitioner.

*Treatment.* — In the management of Rupia, much depends on the state of the patient. The chief indication, in the constitutional treatment, is to remove every cause of irritation, and to bring up

* Mr. Wilson regards Rupia "as a modification of pemphigus, developed in cachectic and debilitated constitutions."— *On Diseases of the Skin*, p. 181.

† Essay on Venereal Diseases.

and maintain the tone of the habit. The first is fulfilled by the administration of mild aperients, such as small doses of Epsom salts, dissolved in as small a quantity of water as their solution requires; immediately followed by moderate exercise, and, an hour afterwards, by a large cup of warm tea, or any other warm fluid. This stimulates the ductus communis choledochus, and brings down a sufficiency of bile into the duodenum, not only to aid the purgative influence of the salts, but to promote the digestive function. The best tonic is either the decoction of cinchona or that of sarsaparilla, with the nitro-hydrochloric acid, in doses of fifteen to twenty minims twice a-day. In cases where the sufferer has been weakened by too low a diet, I prefer the sarsaparilla on account of the slow manner in which its tonic influence is produced: for I have observed that more stimulant tonics, such as cinchona or cusparia, are too excitent at first, and tend to exhaust rather than afford tone when the habit is much weakened. As the cure progresses, however, it is of advantage to change the sarsaparilla for either the cinchona or the cusparia. The diet should be light, but nutritious. At first it should be milk and farinaceæ; but afterwards animal food, and either wine or malt liquor may be allowed. When the disease has been of long standing, I have seen much benefit derived from a gentle alterative course, consisting either of the blue pill in grain doses, with two or three grains of extract of conium, given at bed-time; being careful to discontinue the mercurial as soon as its specific influence displays itself. Under such a course the powers of the constitution should be supported by the mineral acids, administered, as already mentioned, in the decoction of sarsaparilla. Should the irritative fever produce sleepless nights, an opiate may be given with advantage.

The topical treatment consists, after poulticing the affected parts to remove the scabs, in touching the ulcers with the following solution: —

℞ Argenti Nitratis ʒj.
Acidi Nitrici diluti ♏xij.
Aquæ Destillatæ fʒj.
Ft. Solutio.

As soon as the solution dries on the parts, it is necessary to apply pledgets dipped in cold water, and covered with oiled silk. When the cicatrization is tedious, I have seen much advantage derived from the use of the tepid bath. In very severe cases touching the ulcers with the nitrate of silver dissolved in only moderately diluted nitric acid, greatly forwards the cicatrization. But in every case of severe ulceration, the horizontal posture is essential. I have never seen advantage derived from either stimulant or emolient ointments. I may, however, mention some of those ointments which are recommended by others. M. Biett speaks highly of an ointment con-

sisting of ℈j. of prot-iodide of mercury and ℥j. of cetaceous ointment. An ointment, also, composed of ʒj. of calomel, and ℥j. of calamine ointment, is much used on the Continent. But if the crusts be not rubbed off, nor removed by poulticing, ointments can be of no use; and, when they are removed, I have found the solution of the nitrate of silver, when employed in the manner already mentioned, aid cicatrization better than ointments.

To render the cure of Rupia permanent, a generous diet, country air, sea-bathing, and relaxation from business are requisite. The impossibility of procuring these advantages for the poor, renders them liable to a recurrence of the disease.

## Case 57.

Eliza S——, æt. 21, admitted into University College Hospital, 31st December, 1844, a single woman, of a bilious temperament, and sallow complexion. Her habits are irregular, and she is addicted to the abuse of spirits. The present disease commenced a month ago: it appeared in the form of small vesicles, distinct, on different parts of the body. In a short time the fluid they contained thickened, and a scab formed over the vesicle, gradually increased, and assumed a nearly pyramidal form; whilst the ulceration below extended, and oozed out from under the scab a seropurulent matter. This eruption is situated in the shoulders, arms, and thighs. On one tonsil is an aphthous ulcer, but there is no reason for supposing the disease to be of a syphilitic character. The pulse is small, compressible, and 88; the tongue clean, the appetite bad; the bowels are regular. The urine is scanty, of a dark colour, acid, sp. gr. 1012; it contains an excess of phosphates. She has not menstruated for two months. (℞ *Acidi. Hydrochlor.* ♏xx. *Aquæ Distil.* f℥vi. *Ft. Gargar. subinde utendum. Hydrarg. Bichlor.* gr. j. *Ext. Conii* ʒij. *Ft. pil.* x. *Sum.* j. *8vâ quâque horâ.* ℞ *Potassii Iodidi* gr. vj. *Decocti Sarzæ* f℥ij. *Haust. inter sing. pilul. doses sumend.*) 9*th Jan.* There is no obvious improvement.) (*Pergat in usu pilularum et Misturæ, addendo Pil. Hydrarg. Bichlor.* gr. ss. *et Haust. Liq. Potassæ* ♏x. *et Potassii Iodidi* gr. ij. *singulis dosibus. A milk diet.*) 14*th.* No change of symptons. *Pergat in usu pil. et Mist., addendo pilulis Hydrargyri Bichlor.* gr. ss.) 16*th.* Her mouth is tender. The eruption on the inside of the thigh is very painful. Let it be touched with nitrate of silver.) (*Omittantur pil. con. Mistura.* ℞ *Pil. Hydrargyri* gr. vj. *Extracti Conii* gr. xij. *Fiant pilulæ quatuor sum* j. *6tâ quâque horâ.* 21*st.* She is altogether better. The eruption is casting off the crusts and cicatrizing. Tongue clean, bowels open, urine pale, sp. gr. 1015: it still contains an excess of phosphates. (*Pergat in usu Med.*) 28*th.* Rapidly improving. She, however, complains of

griping pains in the bowels. (*Con. Mistura, addendo Tinct. Camphoræ comp.* f℥j. *sing. dosibus.*) On the 15*th February*, the eruption had completely disappeared; and on the 18*th* she was discharged cured.

## Squamæ — Squamous eruptions.

These eruptions depend on a morbid secretion of the cuticle in distinct patches, depending on subacute inflammatory action of the cutaneous capillaries, and terminating either in scales that adhere strongly, accumulate, and form thick, opaque, silvery crusts; or separate readily, forming patches of thin scurfy scales, that fall so easily, as to fill the bed every morning with a scurfy powder, when the disease extends over the greater part of the body. Women are more liable to scaly eruptions than men.

The order is supposed to contain three distinct genera, namely, *Psoriasis*, *Pityriasis* and *Lepra;* but modern writers on this class of diseases have endeavoured to class together the first and the last, and regard Psoriasis as a variety of Lepra. There is certainly much less reason for this amalgamation, than there would be for many that have not been attempted. Many of the physical appearances of the two diseases differ materially; and if eruptions, not depending on specific fever, must be arranged according to their physical aspect, why depart from the rule in this instance? On this account I have retained Willan and Bateman's arrangement, rejecting one of their genera, *Ichthyosis*, which certainly does not belong to the order. The three true genera of Squamous diseases are,

1. Psoriasis.
2. Pityriasis.
3. Lepra.

1. Psoriasis, *Scaly Tetter*, is characterised by flat irregular patches of minute dry scales, seated upon an inflamed base, which, on rubbing off the scales, is red and tender. The eruption is always preceded and accompanied by the same gastric affection, most commonly that form of dyspepsia, which has been named Gastric irritable Dyspepsia, in which there is a superabundant acidity, much formation of lithates, and an evident gouty diathesis.

Willan arranged the disease under eleven species, but Bateman rejected six of these; and I am of opinion that the number may be still diminished. Psoriasis *guttata*, Psoriasis *diffusa*, and Psoriasis *inveterata*, are mere varieties of the same disease, depending upon incidental circumstances; the peculiarity of the eruption in Psoriasis *gyrata*, assuredly authorizes it to be treated of as a distinct species. The local affections are numerous and very

varied; and are sufficiently important to be especially noticed: I have, therefore, arranged the species as three,

1. Psoriasis *vulgaris.*
2. Psoriasis *gyrata.*
3. Psoriasis *localis.*

Psoriasis vulgaris is the most common form of the disease; indeed, whatever can cause gastric, irritable, or inflammatory dyspepsia, to an extent sufficient to induce, by sympathy, sub-acute inflammation of the cutaneous capillaries, and thus cause the cuticle to be morbidly secreted. Women are more liable to the disease than men, especially those having a tendency to anæmia, in whom the circulation is languid, the skin dry, and the temperament the sanguineo-melancholic. It is also, occasionally, the consequence of too long continued nursing: the woman becomes pale, thin, feeble, dyspeptic; and then the eruption appears.

### Sp. 1. Psoriasis Vulgaris.

The first of these species is distinguished by the eruption appearing in patches; either small and distinct, or coalesced; broad; irregular in shape; and occupying a considerable extent of surface. It is variously modified; but although I consider these modifications as only varieties of the same species, yet I think it more useful to describe them separately.

Var. *a.* Psoriasis *guttata*, is characterized by a diffused eruption of small distinct patches, consisting of flattish, slightly elevated red points, which, soon after their appearance, are covered by minute, white, dry scales, that separate and are rapidly renewed. The patches are irregular, scarcely approaching the circular form; in some places, not more than two or three lines in breadth; but, in other places, coalescing and nearly an inch in diameter; but in either case longer than broad; giving the parts on which they appear a peculiar spotted appearance; especially when they occupy the neck, shoulders, and upper parts of the arms. The intervening skin retains its natural colour. When the patches appear upon the face, they are red and rough, but seldom scaly. The scales easily separate, and leave the parts below red, smooth, and tender; but they are soon reproduced.

This variety occasionally appears on every part of the surface of the body; but most frequently on the neck, shoulders and back. When it attacks infants*, the patches are interspersed with pustules; and the mucous membrane of the nostrils is affected, causing

* P. infantilis, *Willan.*

an acrid discharge. In children also it spreads over the body in a few days; but, in adults, its progress is slow. It is always preceded by constitutional symptoms; such as slight feverishness, and pains in the limbs; and the eruption is accompanied with itching, which is greatest in the evening and at night. It appears, sometimes, in early childhood: and is then of a more acute character than at a later period of life; but it is most common in adult age; appearing in the spring; and often recurring at that season for several successive years.

*Diagnosis.* — This variety may be mistaken for Lepra; and Bateman regards it as a sort of connecting link between the genus of Psoriasis and Lepra.* But here the patches are not circular, nor depressed in the centre, nor with a raised circumscribed margin, as in Lepra: the scales are, also, drier, and more furfuraceous; and do not cohere so as to form thick, lamellar crusts, as in lepra. There is a syphilitic eruption, however, resembling this variety so closely that it may be readily mistaken for it; but, on investigating the case, we generally find that it is accompanied with sore throat; the patches, also, are of a very dark, dusky-red hue, or copper-coloured; and other symptoms also are present which readily determine the diagnosis.

*b.* Psoriasis *diffusa* (Willan).† In this variety the patches, although composed of small spots, coalescing, as in the last variety, are yet much larger, and more irregular in their shape; rougher; more scaly; and more irritable. But they are composed at first of the same red specks, with scaly coverings as the last variety. The patches frequently run, as it were, together, and form large broad patches, and when these appear on the upper extremities, they spread longitudinally over the whole anterior part of the fore arms. The eruption is attended by intense itching, and a sensation of tingling and burning, which is greatly augmented by heat; and the itching, especially when the patient is warm in bed, rises to a degree almost completely to prevent sleep. The itching and tingling are also increased in damp weather. As the disease progresses, the redness of the patches increases; the skin thickens; and the affected parts are traversed by cracks, or chaps, which are filled with scurf; and are apt to bleed when the skin is stretched.

This variety of Psoriasis attacks every part of the body; but especially the arms and legs; and, not unfrequently, when the trunk of the body is the site of the last variety, the upper extremities are covered by the broad patches of Psoriasis *diffusa*. The face and ears, also, are frequently occupied by this variety.

Psoriasis *diffusa* is always preceded and accompanied by symp-

* Synopsis, 7th edit. p. 67.

† This term is not more applicable to this variety than to the last form, as the eruption occupies as large a portion of the surface of the body as the former.

toms of irritable or inflammatory gastric dyspepsia; indicated by sharp transitory pains in the stomach, flatulence, gripings, and headache, with a red, somewhat adhesive tongue. In children it is frequently connected with dentition; and, always when it appears suddenly, with an ascesent condition of the stomach. It is more common, however, in adults than in children.

In point of duration, this variety may continue for months; and cases unfrequently occur in which it has resisted every kind of treatment for years; and afterwards spontaneously disappeared.

The disease may assume a still more severe form, extending over the greater part of the body, with much thickening, and fissuring of the skin of the affected parts; and such a rapid and successive formation of scales, that large quantities are found daily in the patient's bed. The nails suffer, and become thickened and opaque; and small suppurating spots are interspersed among the patches. It constitutes the Psoriasis *inveterata* of Willan; but* it is merely an augmented degree of the former varieties. In old people, and when the disease is of long standing, excoriations often occur; chiefly upon the thighs, nates, and scrotum, so as to produce considerable suffering from the attrition of the clothes. The eruption is accompanied with a burning sensation. Bateman says that "it is sometimes the ultimate stage of Psoriasis *diffusa;* and occasionally a sequel of the Prurigo *senilis*."†

### 2. Psoriasis gyrata.

This is a rare species, and I have seen only one case of it. It is characterized by tortuous worm-like patches, composed of rings. It usually occupies the back, (see Bateman's Plates, pl. xii.) but sometimes the breast. It is occasionally, also, accompanied with flat circular patches, from an inch to an inch and a half in diameter, formed of concentric circles, and covered with minute, thin scales, which adhere slightly to the inflamed spot.

*Diagnosis.* — It is said that this variety may be confounded with Lepra, and some syphilitic eruptions; but, from what I observed, the diagnosis can scarcely be mistaken.

### 3. Psoriasis localis.

*Local Varieties.* — The eruption of Psoriasis *vulgaris* is often confined to a particular part, but it may originate in the same constitutional derangements as the general varieties. I shall describe each variety according to the site which it occupies.

* *Dartre squameuse lichénoïde* of Alibert.

† Synopsis, 7th edit. p. 67.

*a.* Psoriasis *palpebrarum* affects the eyelids and the angles, especially the external canthi, of the eyes. These parts often suffer when the disease is general, and affects the face; but, occasionally, the eruption is confined to these parts, constituting this local variety. The eyelids are inflamed, thickened, smooth, shining and covered with small, semi-transparent scales, which somewhat impede the movements of the lids, and excite itching, and a watery discharge from the eyes. The inflammation sometimes extends to the conjunctiva.

*b.* Psoriasis *labialis* affects the prolabium, sometimes only that of the lower or the upper lip; but often of both lips, forming a broad circle round the mouth. The skin is inflamed, thickened, cracked, and scaly; but the scales are smaller, and adhere more tenaciously than in the other varieties; indeed they seldom fall until the new cuticle under them is completed. This variety is common in young persons, and gives a very unpleasant aspect to the countenance. It is sometimes extremely obstinate, and resists every plan of treatment.

*c.* Psoriasis *palmaria.* In this variety the eruption appears upon the palm of the hand and the fingers; and, occasionally, although rarely, on the sole of the feet. It commences with slight, firm elevations of an inflammatory character on the palm of the hand, which becomes hot, dry, rough, itchy, and acquires a dirty hue; the hand swells; after which the cuticle forms white, dry, flaky scales, which partially separate, leaving the parts which they covered red, harsh, and traversed by cracks and furrows, that are apt to bleed, and always cause pain, when the hand is stretched. The eruption occupies the whole of the palm, and sometimes, also, the anterior parts of the fingers; and, occasionally, extends to the wrist. The itching is intolerable when the hand is exposed to the heat, either of a fire or warm water. The rete mucosum is inflamed. The disease sometimes disappears in summer and reappears in winter.

*d.* Psoriasis *scrotalis.* As a purely local affection, this variety is rare; but the scrotum is often severely affected in the general disease. When it is local, the skin of the scrotum is greatly thickened, and becomes hard, almost brittle. The scaliness of the cuticle is accompanied with redness, painful chaps, excoriations, heat, and intolerable itching. The pudenda in women are sometimes affected in the same manner.

*Diagnosis.* — This variety is sometimes confounded with chronic Eczema of the scrotum; but the latter always displays, more or less, its vesicular character; the skin is not so much thickened, the scales, also, much softer, and moister than those of Psoriasis; and the eruption is seldom completely limited to the scrotum.

*e.* Psoriasis *præputialis.* This variety sometimes accompanies the disease on the scrotum; but it more frequently appears alone.

Bateman says it often accompanies P. *palmaria;* an association which has not come under my observation. It is characterized by thickening of the skin, phymosis, and fissures which bleed on any attempt to retract the prepuce. There is less itching and heat than in the last-mentioned variety.

*Causes.* — Psoriasis is sometimes hereditary, but the condition of habit, which predisposes to the disease, is unknown. It is never communicated by contagion*; but it sometimes appears as if epidemic, being more frequently seen at the same time than is usual, independent of its common appearance in spring and autumn. It occasionally attacks persons in the higher and middle ranks of life; but more commonly the lower classes, those badly clothed and ill-fed. Among the exciting causes may be reckoned excesses in diet; intemperance; the frequent use of salted meat and salted butter: pork; much fish; and hard, poor, and indigestible food of any kind. I have seen it occur from the influence of the depressing passions, especially long-continued grief, vexation, and anxiety; and it is a frequent accompaniment of inflammatory and irritable gastric dyspepsia. Its intensity is generally observed to keep pace with the derangement of the mucous membrane. It occasionally accompanies chlorosis; and not unfrequently appears in individuals of a gouty diathesis.

Although the local varieties are developed by irritants applied to the skin, yet there is every reason for supposing that the persons, affected by those varieties, are constitutionally predisposed to the disease; otherwise we should see it attacking more of the labourers, in the occupations more liable to it, than is the case. It attacks both sexes, and all ages; but most frequently women and adults, between the ages of twenty and forty; and those of sanguineo-bilious temperaments.

*Diagnosis.* — As I have already remarked, there is sometimes a difficulty in distinguishing Psoriasis, in some of its forms, from Lepra, in the first stage of both diseases. But the patches of the latter disease are rounder, the scales in lamina not separating spontaneously, and the patch depressed in the centre, and raised in the margin; whereas in Psoriasis the patches are flat, and slightly higher in the centre than on the margin, and irregular in their shape. These circumstances are sufficient to distinguish the varieties, P. *guttata* and P. *diffusa*, from Lepra; the peculiar form of P. gyrata is quite sufficient to distinguish it from every other cutaneous eruption. The variety P. *guttata* might be mistaken for syphilitic Psoriasis; but although the syphilitic spots are scaly from the commencement, yet, they are circular, a little elevated above the skin; have a dark copper hue; there is scarcely

* Willan, however, says that he had observed it in several children "at the same time in large families, and in schools, especially those who sleep together."

any itching, and the scales are thinner, and not so opaque as those of common Psoriasis. It has also been confounded with Lichen in its most aggravated form (Lichen *agrius*, Willan); but in lichen the eruption does not become scaly, until the papules begin to fade, and flatten, and when this takes place it is in patches occupying the flexures of the joints. Should the disease not have been seen by the practitioner, it is often extremely difficult to distinguish the one disease from the other, and to form a correct diagnosis.

*Prognosis.* — Psoriasis, even in its most inveterate form, is not hazardous to life; but it is often extremely difficult, and tedious of cure, even under the best mode of treatment; and the inveterate form is often incurable. The removal of the disease is indicated by the patches becoming paler and smaller, the rhagades disappearing, the itching becoming less, and the diseased cuticle being replaced by one thinner, softer, and devoid of scaliness. The large patches during the cure, break, as it were, and assume the character of P. *guttata;* then gradually disappear, and the skin acquires its normal character.

*Treatment.* — The same plan of treatment is applicable to all the modifications of general Psoriasis. If the opinion that the eruption is most commonly symptomatic of derangement, either acute or chronic, of the mucous membrane of the stomach, be correct, the indications to be fulfilled, are, first, to subdue that state; secondly, to regulate the diet; and, thirdly, to bring up the tone of the habit.

If *inflammatory gastric dyspepsia* be present, and the pulse is moderately resisting, with pain when pressure is made over the epigastrium, the application of leeches or cupping on that region will be requisite; or if the pulse be hard, and the patient plethoric, a moderate bleeding from the arm may be necessary. Rayer, Dr. Duffin, and Dr. Graves, are of opinion that general bloodletting is always useful; and that it may be repeated with advantage; I have rarely seen any necessity for its repetition. After venæsection or leeching, small doses of Pilulæ Hydrargyri, or Pilula Calomelanos Composita, or Hydrargyrum c. Creta, may be given at bed-time for a few days, and followed, each morning, by a small dose of castor oil, or half a drachm of magnesia given in combination with a tea-spoonful of lemon juice. During the day, while the inflammatory state remains, the common saline mixture, in combination with four or five minims of dilute hydrocyanic acid*, has

* The following form may be adopted:—

℞ Potassæ Carbonatis ʒss.
Succi Limonis recentis fʒiv.
Acidi Hydrocyanici dilutis ♏iv.
Vini Seminum Colchici ♏xv.
Aquæ Destillatæ fʒvj. —M.

Ft. Haustus 4ta quâque horâ sumendus.

a considerable influence in lowering the vascular excitement of the stomach. When this has been accomplished, I have found small doses of bicarbonate of potassa, with from twelve to fifteen minims of tincture of henbane, in a fluid ounce and a half of the infusion of cinchona, sufficient to restore the tone of the stomach. The eruption gradually disappears as the normal condition of the mucous membrane returns. During the progress of the treatment, the mind should be kept in as complete a state of repose as possible; and the exercise of the body should be such only as can be taken without accelerating the pulse, or causing fatigue. The diet should be completely free from stimulant properties; and consist chiefly of milk largely diluted with Seltzer water, and farinaceæ, carefully avoiding spices, pickles, fermented liquors, and vegetable acids. In the progress of recovery, when animal food may be taken, pork in every form, fresh or salted, and fish should be avoided. Nothing proves more serviceable than the tepid bath, at a temperature not exceeding 96° of Fahrenheit, used every morning for the space of at least half an hour. It not only soothes the eruption, but it has an efficacious influence by sympathy on the mucous membrane, tending to equalize the circulation, and consequently to relieve the vascular congestion of the stomach.

When the stomach is free from subacute inflammation, and only in an irritable state, such as constitutes *irritable gastric dyspepsia*, the indications are to be answered, 1st, to correct the morbid irritability of the stomach, and to allay the general sensibility of the system; 2dly, to select such articles of diet as can be most easily digested; 3dly, to restore not only the tone of the stomach, but that of the general habit, so as to prevent a recurrence of the morbid condition of the digestive organ. To fulfil the first indication, my experience enables me to assert that nothing has so beneficial an influence as the liquor potassæ, given in doses of thirty minims at first, with four or five minims of dilute hydrocyanic acid, in the decoction of elm bark, or decoction of burdock root*; or even in milk, or in beer, given twice a-day; and the dose of the liquor potassæ gradually increased to as large a dose as the stomach will bear. In very severe cases, I have carried it to eighty, and in a few instances to one hundred minims. In weak and delicate individuals the decoction of yellow cinchona, or infusion of calumba, may be substituted for the decoction of elm bark; and the decoction of burdock. In plethoric and robust persons, the solution of potassa may be given in the bitter almond emulsion without the hydrocyanic acid. It is much superior in efficacy to the internal administration of sulphuret of potassæ. The bowels should be

* Arctium *lappa*.

regularly relieved, but by mild means; and it is better to combine a narcotic with the purgative.*

The tepid bath is here as beneficial as in the subacute inflammatory condition of the stomach; and it is even more useful, owing to the greater degree of itching and tingling of the eruption which attends this irritable condition of the digestive organ. Relaxation from business and repose of mind are essential; and when causes of anxiety exist, the attention, if possible, should be directed into a new channel: it is of little consequence what the nature of the change may be, provided it is sufficient to abstract the attention from the feelings of the body. Change of scene, travelling, country amusements in moderation, are fitted to invigorate the body at the same time that they relax the mind. The surface should be kept in a moderate degree of warmth; and, as the irritable state of the eruption does not admit of the use of flannel next the skin, a flannel waistcoat should be worn, lined with calico.

For fulfilling the second indication, the diet should be such as will require the least effort of the stomach; as will excite the least irritation; and which is likely to leave no indigested crudities behind it. Lightly and plainly cooked animal food, with a moderate share of well-boiled vegetables, may be allowed. The quantity should be not more than the stomach can easily make use of, so as to prevent any oppression or distention of the organ. With regard to beverage, if the patient has previously been accustomed to the use of wine, it should not be altogether withdrawn, but only greatly moderated in quantity; or a small proportion of bitter beer substituted for it. The exercise should be in the open air, and daily; but not carried to fatigue.

The third indication requires only to be acted upon, if the patient remain weak, after the stomach has regained its tone, and the eruption has been subdued. In such cases I have seen chalybeates of more use than any other tonics; and amongst these, the Tincture of Ferri Sesquichloridi, in doses of not more than ten or fifteen minims, is the best. Its efficacy is increased by combining it with the Tincture of Cantharides, in doses of ten to fifteen minims.

When the disease assumes a chronic character, and has proved obstinate, the arsenical solution may be prescribed in doses not exceeding eight or ten minims at first, and gradually increased until headache, nausea, or pain at the epigastrium demonstrate

* The following is a useful form of pill for regulating the bowels:—

℞ Pilulæ Hydrargyri gr. vj.
Pulveris Ipecacuanhæ gr. vj.
Extracti Colocynthidis comp. gr. xij.
Extracti Hyoscyami gr. xviij.

Ft. pilulæ duodecem — Sum. ij. h. s. quotidie.

that the medicine should either be left off or the dose greatly diminished.* There seems to be a conservative power, in the system labouring under Psoriasis, which enables the arsenical preparations to be carried to an extent that I hesitate to mention; but their influence should be closely watched. M. Biett employs the Arseniate of Ammonia with marked success. I have had no experience of its influence, as I have usually derived every assistance required from the solution of the arsenite of potassa (*Liq. Arsenicalis*).

In none of the varieties of the disease, with the exception of the local varieties, have I seen much advantage derived from topical applications; and in many instances, the least apparently stimulant substances aggravate the itching. In the most severe cases (P. *inveterata*), when the eruption attacks the flexure of the arms and legs, the oxide of zinc ointment, or an ointment composed of one part the compound lead plaster, three parts of lard, and half a part of the solution of diacetate of lead, affords temporary comfort, but nothing more. Dr. Merriman applied friction with a sponge, dipped in tepid water, then squeezed dry, and covered with oatmeal. He rubbed the parts briskly, renewing the oatmeal; and lastly, having well washed the parts, and dried them, he applied neat's foot oil over them, with a broad camel's hair pencil, and guarded them from the action of the air.† The best topical remedy is the tepid path.

In the purely local affections, however, much benefit frequently results from topical applications. In the variety which attacks the eyelids, P. *palpebrarum*, besides the application of leeches behind the ears, I have seen much benefit derived from an ointment consisting of a drachm of white precipitate rubbed up with eleven drachms of lard. In P. *labialis*, an ointment compounded with ten grains of iodide of sulphur and an ounce of lard is of decided efficacy, and the same is useful in the varieties attacking the præpuce and scrotum. In P. *palmaria*, after exposing the hands to the steam of hot water, I have found nothing so useful as covering them with lint soaked in a lotion composed of *liquor diacetatis plumbi*, to the extent of f℥ij. added to a pint of *distilled* water, and half a fluid ounce of proof spirit. I have never observed any advantage derived from the use of ointment in this variety. Although, in a great degree, purely local, all these varieties require the influence of the same remedies as in the general disease, and the same attention to diet, which should be as little stimulant as possible.

### Psoriasis, Common. — *Washerwoman's Scall.*

This is a form of disease which is classed with Psoriasis by Bateman, and which I retain here because I have observed it

* Abrégé Pratique des Mal. de la Peau, par Cazenave et Schedel, p. 319.
† Edin. Med. and Surg. Journ., vol. xvi. p. 525.

occur only in those washerwomen who are predisposed to Psoriasis, and in whom the general disease has appeared either before or afterwards. It is evidently excited by the irritation of soap and carbonate of soda. The inflammation attacks the wrist and fore arms, and rapidly forms brittle, flaky scales, which separate successively, and leave the parts they covered chapped and tender. It does not always disappear when the occupation which caused it is discontinued, and is apt to return in the same individuals whenever the soap is again used.

*Treatment.*—It is scarcely necessary to say that the use of soap and carbonate of soda should be discontinued. No internal medicine is required. As topical applications, the decoction of bran, or simply sponging with warm water, and the application of an ointment composed of a fluid ounce of *liquor plumbi diacetatus dilutus*, beat up with an ounce and a half of unguentum cetacei, are the best.

### Psoriasis pistorii.—*Baker's Scall.*

This, like the last variety, attacks one set of labourers only, namely, bakers, who are predisposed to Psoriasis. The eruption appears on the back of the hand, in one broad, reddish, rough patch, covered with scales and intersected with rhagades. The hand swells; and, sometimes, the nails thicken, become curved, and occasionally fall off; whilst those that succeed them are secreted in the same morbid condition.

*Treatment.*—Leaving off the occupation, and allaying the irritability of the part by an emollient poultice, applied till the swelling of the hand subsides, and then keeping the part moist with lint soaked in the dilute solution of diacetate of lead, and these dressings covered with oil-silk. If the habit be heated, a saline purgative should be taken, and repeated if necessary.

### Case 58.

*Psoriasis diffusa.*

Julia C——, æt. 27, a married woman, of sanguine temperament, and a fair complexion; employed as a laundress. She is in the habit of using soda in her employment, and seldom dries her hands. Eight months since, the eruption, which, from her description, appears to have been at first papular, appeared on the back of the hands and extended up the arms, and, after the lapse of some time, on the face. It was very itchy, red, chapped, scurfy, and hot. The heat and itching was aggravated by approaching the fire, or the smallest friction. She was pregnant, and near her confinement when the disease appeared. The catamenia has not returned since

that time. *June* 18*th*, 1839. (*Calomelanos* gr. v. *muc. q. s. Ft. pil. statim sumenda.* ℞ *Magnesiæ Sulph.* ℥j. *Infusi Sennæ* f℥ij. *Misturæ Camphoræ* f℥vj. *Sum. Cochl.* iij *majora* 6*tâ q. q. horâ. Milk diet.*)

28*th.* The eruption on the arms is much better; but it has appeared on the neck. The tongue is very red at the apex; the bowels are too open. (*Omitt. Mist.* ℞ *Liq. Pot.* ♏xxiv. *Infusi Calumbæ* f℥ij. *Haust. ter quotidie.*)

*July* 5*th.* Much improved; but the tongue is still too red. (*Pergat in usu Haust. addendo Liq. Potassæ* ♏x. *et Acidi Hydrocyan. dil.* ♏iij. ℞ *Magnesiæ* ℈j. *Sulphuris precip.* gr. x. *pulvis h. s. quotidie.*) 23*d.* The skin is now harsh, scurfy, and pale. The bowels are torpid. (℞ *Liq. Pot.* f℥ij. *Decocti Aloïs* f℥iij *Inf. Cascarillæ* f℥iij. *M.* 4*ta pars ter quotidie.* ℞ *Calomel.* ℥j. *Ung. Picis* ℥iij. *Ung. Cetacei* ℥j. *Ft. Ung. mane nocteque app.*) *Aug.* 2*d.* She is getting fat, and the eruption is nearly gone. This is the time the catamenia should appear. (*Om. Medicamenta.* ℞ *Calomel.* gr. j. *Pulveris Digitalis* gr. j. *Ext. Conii* gr. iij. *Ft. pil. h. s. quotidie ad* 3*tiam vicem.* ℞ *Potassæ Carb.* ℈j. *Decocti Aloes* f℥ss. *Haust. mane sumendus.*) Full diet, and Ojss. of milk daily. *Aug.* 6*th.* The Catamenia appeared. *Oct.* 12*th.* The eruption returned, and increased in severity after each return of the menstrual discharge; but on the 25th of September it began to disappear, and has not returned. She is now in excellent health.

## Case 59.

### *Psoriasis diffusa.*

Julia C——, æt. 33, a married woman, who had four children, and was of temperate habits, was admitted into the Hospital 19th September, 1842. She was a patient in the hospital three years ago, for the same disease, and has remained well ever since, until fifteen days ago, when an eruption resembling Psoriasis *lotorum* (Bateman) appeared on the wrists and arms, which she ascribed to having caught cold whilst washing. It has greatly extended; is much inflamed; and the cuticle separates into irregular, thin, scaly patches. She complains of much flatulence, acidity, and diarrhœa. The pulse is resisting, 90. (*Mittantur Sang. brachio* ℥xij. ℞ *Pil. Hydrarg.* gr. j. *P. Ipecac.* gr. j. *Ext. Conii* gr. iij. *Ft. pil.* ij. *h. s. quotidie cap.* ℞ *Liq. Potassæ* ♏xxx. *Acidi Hydrocyanici dil* ♏iv. *Mist. Amygd. Amaræ* f℥jss. *Haust. ter quotidie cap. Milk and farinaceæ.*) *Oct.* 25*th.* She continued this treatment, the dose of Liq. Potassæ being gradually increased until the dose amounted to f℥j. three times a day, with progressive improvement. At this time the eruption was confined to the back of the hands. (℞ *Calomelanos* ℥j. *Unguenti Picis* ℥iv. *Adipis*

℥xj. *Ft. Ung. mane nocteque utendum.*) She continued the use of this ointment, and the mixture until the 30th, when, being completely recovered, she became a nurse in the hospital.

## Case 60.

*Psoriasis Guttata, treated chiefly by bleeding and sedatives.*

Hannah B——, æt. 14, admitted into University College Hospital, 5th November, 1844, a girl of melancholic temperament and dark complexion. She lives in an open, airy situation; and, according to her own account, has enjoyed good health, until the disease under which she is now labouring commenced, which was about six years ago. It has since never left her. She is now covered, on the back of the neck, shoulders, breast, and both upper and lower extremities, with a furfuraceous eruption, in spots varying in size from that of a point to a large pea, slightly elevated, and, when the minute scales are removed, of a shining red appearance. She complains of no general uneasiness; her tongue is moist; her appetite good; the pulse is 84. The bowels are regularly opened; the urine is natural in colour and in quantity, and of sp. gr. 1015. She has never menstruated. (*Mittantur Sanguinis brachio* ℥viij. ℞ *Pil. Hydrarg.* gr. iv. *Pulv. Ipecac.* gr. iv. *Ext. Colocynth. comp.* gr. xij. *Ext. Hyoscyami* gr. viij. *Ft. pil.* iv. *Sum. una h. s. quotidie.* ℞ *Liq. Potassæ* ♏xx. *Acidi Hydrocyanici* ♏ij. *Decocti Cinchonæ* f℥ij. *Ft. Haust. ter quotidie sumendus.*) 7*th.* *Sum. Cochl. min.* j. *Syrupi Ferri Iodidi c Mist. Sing. dosibus.*) 9*th.* The eruption is less red. (*Pergat in usu Misturæ. Omitt. pilulæ.* ℞ *Hydrarg. Bichlor.* gr. j. *Pulv. Digitalis* gr. x. *Ext. Colocynth. C.* ℥ss. *Ext. Conii* ℈j. *Fiant. pil.* x. *Sum. una h. s. quotidie.*) Let her have a warm bath daily. 14*th.* She is much improved. (*Pergat in usu Medicam. addendo Liq. Potassæ* ♏x. *Sing. Misturæ dosibus.*) Under this treatment she continued to improve, and was discharged, 10th December, completely cured.

## Lepra.*

Most of the writers who have written on this disease have taken much trouble to make out the distinction between the modern disease we are about to describe and the leprosy of the ancients; it is now well understood that the term Lepra is applied to a well-known scaly eruption, and has no connection whatever with the

* *Syn.* Λεπρα (*Græc.*); Vitiligo (*Celsus*); Leprosis, Lepriasis (*Good*); Lepre (*F.*); der Aussatz (*G.*); Berat (*Hebrew*); Bereta (*Arab*); Kushtu (*Hind.*); Vidlay Koortum (*Tam.*); Tella Koostum (*Tel.*); Swita Koostum (*Sans*); Suffaid khere (*Duk.*); Vellussa (*Malay*).

leprosy of former times. I shall not, therefore, make any comments on this subject, but proceed at once to the description of the disease, the various and different species of which appear to me to be the same disease, modified only by the state of the habit, and some extraneous circumstances. I shall therefore embody them as one species under the name Lepra *vulgaris*.

*Symptoms.* — Lepra first displays itself by minute red points, generally at a distance from each other, and not larger than the smallest pin's head. On the following day, a small white silvery-shining scale appears upon the apex of the red spot. Other scales then form chiefly upon the periphery of the former, so as to enlarge the diameter of the scaly crust; but as the scales thicken and enlarge upon the circumference, the central part loses its scales, so as to give the patch a hollow appearance. The spots, however large they may become, always maintain a circular form. The scales on the periphery of the spots adhere pretty firmly; those in the centre readily fall, but are again renewed. There is no part of the body that Lepra does not attack, from the vertex to the sole of the foot. The patches run into one another, and form large irregular blotches; but when we examine these carefully, we can trace the circles of which they are constituted. The largest blotches usually occupy the back, loins, and upper part of the thighs. I have seen cases in which the aggregate blotches were upwards of ten and twelve inches in breadth.

Lepra is one of those diseases which, when left to itself, does not run a certain course and disappear; when it is of long standing, the skin becomes thickened, rough, and without any appearance of scales.

*Diagnosis.* — It has been supposed that Lepra and Psoriasis are merely varieties of the same disease, and consequently difficult to be distinguished from one another; but the saucer-like aspect of the patches of Lepra, their regular circular appearance, readily distinguish them from their regular flat patches of Psoriasis. In the latter stage of the former disease, the central part of the patch appears almost completely natural, the ring forming the circumference is broken, and is somewhat similar to imperfect ringworm. In weak habits and broken down constitutions, the inflammatory flush round the scaly patch is absent, and the patch itself assumes a sickly whitish hue (L. *alphoides*); whilst in old subjects of a hectic disposition it assumes a peculiar colour, which led Willan to regard it as a distinct species under the name of L. *cachetica*.

*Causes.* — Notwithstanding the frequent occurrence of Lepra, the causes of it are by no means obvious. It is said that some trades are more liable to it than others. It is, however, a disease which we find affecting individuals in every rank of life. It is not contagious, and although it may appear in several individuals of the same family at the same time, yet there is no reason for supposing

that this is the result of contagion. Amongst some of the causes which have been regarded as the most frequent, are mental affections; for instance, sudden alarms and other depressing influences. From the opportunities which I have had of observing the disease, I am strongly disposed to regard it as hereditary.

*Prognosis.* — Lepra is not a fatal disease, but I know of no affection so difficult to cure, and so apt to return, if the remedies that have apparently cured it are not continued for a considerable time after the eruption disappears. As there is no evidence of constitutional derangement preceding Lepra, it might naturally be expected that no constitutional treatment would be required; but this is an error: the internal or general treatment is the most important, and should be regulated by the age and the temperament of the patient; bloodletting, regulated by the state of the patient, is essential in the first instance, and its repetition afterwards, in smaller quantities, aids very greatly the influence of the other remedies.

Some practitioners have treated the disease altogether with external remedies; but I have never seen it yield to these means. In young and plethoric subjects, the use of the lancet is essential; but in old people, and even broken-down constitutions, small, or frequently repeated venæsections aid very greatly the cure. The blood is always buffed and cupped: along with these bleedings, I have found small doses of the bi-chloride of mercury or biniodide of mercury essential. These may be given in full doses of the decoction of elm-bark or sarsaparilla, twice a day. I have generally begun the treatment with the tenth of a grain of the bichloride, or the same dose of the biniodide of mercury, twice a day: in two fluid ounces of the decoction of elm-bark or sarsaparilla.

The influence of these decoctions is considerable, and much aided by from twenty to thirty minims of the liquor potassæ, or four grains of the iodide of potassium. It is unnecessary to mention the various decoctions that have been employed at different times, and greatly lauded. None of them had more reputation for a while than dulcamara. It was introduced in France by Anifasia, and afterwards very much lauded, almost as a specific, by Sir Alexander Crichton, in this country; but it has no specific property — has no influence upon the disease, except as a good vehicle for the administration of the bichloride of mercury, or the arsenical solution. The twigs of the last year are the parts employed; they act either as a diaphoretic, or a diuretic, according as the skin is kept cool or warm.

There is no necessity for carrying the administration of the mercury to ptyalism, but its use should be continued long after the eruption has disappeared.

The best preparation of arsenic, given in very minute doses, namely, the eighteenth of a grain, is the biniodide, and I have found this more beneficial when combined with mercury. In

obstinate cases, the tincture of cantharides has a powerful influence on the skin. There seems to be some conservative power in Lepra, which prevents the habit from being acted upon by certain remedies.

With regard to external applications, baths are essential: various kinds of baths have been ordered, such as vapour, sulphurous, baths of bichloride of mercury, and many others; but I have found none superior to the common warm water bath, assiduously employed twice a day.

When the eruption is extensive, and very dry, an ointment composed of one drachm of calomel, four drachms of tar ointment, and an ounce of lard, aids very much the influence of the bath. Vialt eulogises the ointment of the iodide of sulphur, but I have not found it so efficacious as the calomel and tar ointment. Nothing is more essential in the treatment of Lepra than a mild milk and farinaceous diet; indeed, where I could manage it, I have found nothing aid the cure so effectually, and render it so permanent, as a strict adherence to milk as the chief diet of the patient. When the milk diet is not attended to, the disease recurs, and every time becomes more difficult to cure than before. Patients have come to me, who have been admirably managed, as far as regarded medicine, but no instructions had been given with regard to diet. On continuing the use of the same medicine, and strictly enforcing the use of the milk, no recurrence of the disease has afterwards taken place.

### Case 61.

*Lepra vulgaris.*

G. M——, a German girl, of full plethoric habit, sixteen years of age, was admitted into the University College Hospital, August 16th, 1840, on account of a severe attack of Lepra. The disease displayed itself in all its forms, from the small red speck covered with its white silvery scale, to the circular scaly patch upwards of two inches in diameter. Many of these large patches had run together. They were seated chiefly so as to constitute large irregular blotches on the outside of the knees, and several other parts of the body, where the integuments were thin. The scalp was affected also, and the disease displayed itself upon the forehead and temples. She stated that this was the fourth time she had been under medical treatment for the same disease, and had each time got well. I found that on leaving the hospitals where she had previously been, upon the supposition that she was cured, no precautions had been given to her respecting diet, and to this I chiefly attributed the returns of the disease. She was ordered to be bled to the amount of sixteen ounces, this to be followed by — ℞ *Cal.* gr. v. *Opii* gr. j. *Ft. pil. post venæsectione sumenda. Haust. purg.*

*Nigr. cras mane sum.* She was also ordered strictly milk diet, and to use the tepid bath every morning, applying the following ointment to the parts affected immediately on leaving the bath. The blood was buffed. (*V. S.* xij. *Cal.* ʒj. *Ung. Pices* ʒiv. *Adipis* ℥j. ℞ *Arsenici Acidi* gr. j. *Ext. C. Anti.* gr. xxix. *Sum. una maneque nocte omni.*)

25*th.* The disease already began to display the most favourable symptoms of amendment, the central parts of the larger circles assumed the healthy colour of the skin to the rings, the breaking round the edges, as is usual when the disease is about to disappear. (*V. S.* ℥xvj. *Pergat in usu pilularum, decocti, ung. et balnei. Continue strictly the milk diet.*) No change was adopted, and every vestige of the eruption had departed by the 26*th* of September; but I retained her in the hospital for a month upon the same severe diet, when she was discharged with caution not to alter it too speedily. 2*d January*, 1849. She has had no return of the disease. I attribute the permanent cure to the rigid adherence to milk.

## Case 62.

J. F——, a gentleman of fortune, living in an open situation, had enjoyed good health the greater part of his life, until three or four weeks prior to his consulting me. He had no particular constitutional affection, but one morning, without being able to assign any peculiar reason for it, an eruption appeared upon the lower extremities; it consisted of small red points, distinct, and gradually enlarging at the periphery, formed with dry scales which adhered firmly, and composed an exterior circle, with the interior nearly of the appearance of the natural skin. This eruption was evidently Lepra, and as the disease advanced the patches coalesced, and formed large irregular blotches. He was bled at short intervals, ordered to employ the tepid bath daily, to live upon a milk diet, and apply the following ointment to the eruption upon leaving the bath:—

℞ Calomelanos ʒj.
Ung. Picis ʒiv.
—— Cetacei ʒj.
Ft. Unguentum.

He was ordered to take the following pill and draught twice a day. (℞ *Hydrargyri Iodidi* gr. xij. *Ft. pil.* xij. *Sum.* j. *manique nocte quotidie.* ℞ *Decocti Sarzæ* f℥ij. *Tinct. Cantharidis* ♏xij. *Ft. Haust. e sing. pilularum dosibus sumendus.*)

He was ordered the employment of the iodide of arsenic in doses of one-tenth of a grain twice a day. In this manner he proceeded, increasing the dose of the iodide, improving, and then falling back till the termination of six months, when he became greatly emaciated, his stomach lost its tone, and he evidently failed in strength and vigour of body. He went to Harrowgate, to Moffat's,

in Scotland, to Aix-la-Chapelle, and several other sulphurous springs, but received no benefit. In despair he left of all medicine, and was advised by some friend to put himself under the management of Dr. Wilson: the hydropathic system was begun, and continued for five months; he returned to London perfectly well, and has continued so ever since.

### Case 63.

Case of severe Lepra failing to be cured owing to the want of observance of a proper diet: —

J. M——, publican, 45 years of age, of a full plethoric habit, and florid countenance, applied to me July 5th, 1843, to relieve him of a severe case of Lepra, which had continued for many years. On examination I found the leprous spots very numerous on the lower extremities; there were few of them exceeding two inches in diameter, but the back and thighs were covered with large dark red blotches, rough to the touch, elevated from the skin, and which had continued in this state for several months. These blotches were more like those of severe Lichen agrius than Lepra.

He was put upon very active treatment, and ordered to restrict himself to a mild vegetable diet, to live chiefly on milk and farinacea, and to use the tepid bath daily several times. He became nearly well; but subsequently the disease recurred, and with more virulence than before. Every effort was made to eradicate the complaint, but every effort failed, and I could only ascribe this to the impossibility of confining him to a mild diet. He has since made many applications to be again treated, but I have refrained from prescribing for him, owing to the difficulty of restraining him in diet and regimen.

## Pityriasis.

This form of squamous disease might be regarded as a mild variety of Psoriasis; but there are some circumstances which are sufficient to distinguish the two diseases, on which account I have separated them.

Willan arranged the disease under four species; but the three latter are mere varieties of the same affection, depending either on the condition of the habit of the patient at the time, climate, or some other extraneous cause. I have therefore ventured to consolidate the three latter into one; and make two species only of the disease:

1. Pityriasis *Capitis.*
2. Pityriasis *versicolor.*

## 1. Pityriasis *Capitis.*

Pityriasis *Capitis* * (*Dandriff of the head*), is a very common disease in infancy and in advanced age. It is characterized by innumerable, dry, whitish, minute, very thin scabs. They appear to be irregularly scattered amongst the hairs; but when they are examined in infancy, they appear regularly superimposed or imbricated to a certain degree; but no regular arrangement is perceived in advanced age. The scalp is the usual seat of the disease; but in young females with a thin, delicate skin, it appears upon the neck, the temples, the eyelids, and around the mouth.

The scales on the scalp accumulate rapidly, and are so easily detached, that on moving the head, or scratching, great quantities fall in the form of a white scaly powder, which, when the disease occurs in middle age, whitens the collar and shoulders of the coat, as if they had been dusted with hair powder. In adults, Pityriasis *capitis* causes only partial baldness; but it occasionally alters the colour of the hair. In general, the scales are white, but sometimes they assume a darker colour, and increase to an unusual size. In recent cases, when the scalp is examined, and the scales removed, it is seen to be reddened in patches, dry and rough; but, in old cases, the cuticle appears of a dull-white colour, and is thickened. The hair frequently becomes thinned; but not to any great extent. The itching is most distressing, and this causing constant scratching, the scurf is often separated in clouds. It is in vain to attempt to diminish the quantity of scurf by brushing or combing: it forms as rapidly as it is carried away. When the disease is progressing to a cure, the scales are less rapidly renewed; but the scalp remains red, smooth, and shining for a considerable length of time

*Diagnosis.*—Pityriasis is apt to be confounded with that species of Eczema of the scalp, which Willan termed Porrigo *furfurosa*, and Erichsen more properly Eczema *furfuracea* †; but the latter is a vesicular disease; the scales are moist and of a dark colour, and do not separate so readily as those of Pityriasis. The scalp, also, frequently displays vesicles; it is also red, and moist with a serous fluid. From Eczema *amentacia* (*Erichsen*) it is recognized by being, in every stage, perfectly dry, and never causing matting of the hair, as in Eczema *amentacia.*

*Causes.*—It is extremely difficult to make out the state of habit that predisposes to Pityriasis. Mr. Erichsen supposes that "temperament has some influence on the occurrence of this disease,

* Dartre furfuracis volante (*Alibert*); Lepidosis pityriasis (*Good, Young*); Crusta capitis numatorum (*Pleuck*); Dartre Tarmineuse (*Fr.*); Schuppen (*Ger.*); Schioondoo (*Tam.*); Buffa (*Duk.*); Tsoondoo (*Tel.*)

† Practical Treatise on Diseases of the Scalp, p. 61.

which appears to be more frequent in dark than in fair children, being replaced in the latter by Eczema, into which it has a tendency to pass from any cause of irritation."*

*Treatment.*—In many instances, nothing is so easily cured as Dandriff in children. The principal means are, freeing the hair of the scales by means of a soft brush; and washing the head with a weak alkaline solution, consisting of two fluid drachms of liquor potassæ and eight fluid ounces of rose water. When the disease occurs in advanced life, and is obstinate, the sulphuret of potassium should be substituted for the pure potassa, in half the quantity required of this salt; at the same time, the Harrowgate or Moffat water should be taken internally. I do not recommend the use of ointments in Pityriasis; but when they are required, the simplest are the best,—indeed, lard is preferable to any compound ointment. No stimulant lotions nor ointments should be employed. Nothing is more injurious than the use of the small-tooth comb, so commonly employed in the nursery.

### 2. Pityriasis *versicolor*.

I have consolidated different species of coloured Dandriff, described by Willan and Bateman, into one species, under the specific name, Pityriasis *versicolor*,—the varieties of colour depending more upon some peculiarity of habit than any other cause. Whatever form it assumes, it is generally preceded by a certain degree of languor and restlessness. When it appears, whatever may be the colour assumed, the patches are more or less irregular in form, and the intervening skin of a natural character and hue; the patches are either reddish or of a fawn colour; and although, when the finger is passed over them, they appear rough, yet the scaly character of them is very perceptible at the edges of the patches. Sometimes the patches are very irregular, both in size and shape, so as to give the part in which the disease appears—as, for example, the trunk of the body—the appearance of a map consisting of continents and islands.

*Diagnosis.*—The only disease with which Pityriasis versicolor can be confounded is the larger species of Ephelides, and it is, indeed, said that this species of Ephelides frequently degenerates into Pityriasis versicolor. In Ephelides there is no elevation of the spots and no exfoliation of their micaceous *scales*.

*Causes.*—Little light has been thrown upon the causes of this species of Pityriasis; it occurs more frequently in hot than in temperate climates, and more commonly amongst military and seafaring people than in any other class of society. Violent exercise, sudden alternations of heat and cold, indigestible diet, such as mushrooms and similar substances, have appeared to be at least exciting causes of the disease.

* Practical Treatise on Diseases of the Skin, p. 165.

*Treatment.* — Although Pityriasis versicolor is not uncommonly preceded by constitutional affections, yet general remedies are seldom thought necessary for its cure. Dr. Willan has eulogised the nitro-hydrochloric acid, largely diluted, and it certainly appears useful. As topical remedies, lotions, consisting of diluted hydrochloric acid, in rose water, in the proportion of a fluid drachm, in lotions of eight or ten fluid ounces of water. Lotions also of the same strength made with the diluted nitric and diluted sulphuric acid, have proved beneficial.

Some practitioners place great reliance upon the alkaline lotions, consisting of two or three drachms of the liquor potassæ to half a pint of rose water. There can be only one opinion respecting the value of sea-bathing as a remedy.

## TUBERCULAR OR TUBERIFORM CUTANEOUS ERUPTIONS.

The term tubercle* is employed by writers on diseases affecting the skin to designate small solid tumours, which have a more or less deep-seated origin in the derma, above the surface of which they project to a greater or less extent. They do not commence in any particular structure, but involve indifferently all the elements of the cutis. The only tubercular diseases independent of those secondary to syphilis, scrofula, and cancer, are Lupus, Elephantiasis of the Greeks, and the Aleppo evil. Even these affections are not solely, nor even necessarily, tubercular, and they are arranged under this head only because a frequent mode of manifestation is by tubercles,—and they are most easily included under such a title.

### 1. Lupus.—*The Wolf.*—*Herpes exedens et non-exedens.*—*Dartre rongeante.*—*Esthiomene* (*Alibert.*)—*Fressende Flechte.*

*Description.*—Very frequently Lupus commences at once as a tubercular disease of the skin; at other times tubercles are not present, or are secondary to other changes. Either ulceration or interstitial absorption, the cuticle remaining intact, is invariably present, and constitutes the most marked feature of the complaint. The ulceration when present affects two forms; one comparatively superficial, and spreading over a considerable extent of surface, ("*Lupus superficialis*," Cazenave; "*Lupus exfoliativus*," Hebra;) the other, usually limited in extent, but penetrating and deep. ("*Lupus devoratus*;" "*Lupus exulcerans*," Hebra.) These two

* It is to be regretted, considering the now universal application of the term tubercle to designate a special morbid product, that some word cannot be devised to supersede the word "tubercular," as applied to certain skin diseases merely from their external form. The word tuberiform is not a good one; and the writer has been able to devise no other.

forms differ widely in their mode of origin and appearance, and must be described separately.

A third kind of Lupus is also to be distinguished; the *Lupus hypertrophicus* of Biett and others.

(*a*) *Lupus superficialis.*—The most usual seats of this form are on or below the alæ of the nose, on the upper and lower lips, or on the chin or cheeks. More infrequently the disease appears on the palms or backs of the hands, on the palate, the extensor surfaces of the joints, the upper part of the chest, and on the shoulders. More rarely still the disease may appear on any other part of the body.

There are several varieties of this form which must be separately noted.

In one of these, described particularly by Cazenave, the skin over a greater or less extent becomes uniformly thickened and red; there are no tubercles, properly so called, and no ulceration. The epidermis is thickened, the scales matted, and continually dropping off. After extending for a certain time, the disease arrests itself, the colour fades, the thickness disappears, and, finally, a shining, whitish, irregular surface is left, which is in some parts abnormally thin from intra-dermoid absorption and partial atrophy. This variety chiefly occurs on the face.

In another form dark red or livid soft tubercles form, either at once or on a livid patch; and increase slowly in size. They are usually numerous, are not circumscribed, but fade away into the surrounding parts, are seated near each other, and finally become united at their bases. Afterwards, superficial ulcerations occur at the apices, run into each other, and become covered with darkish crusts. The ulcerations may then heal, while the disease may extend itself at the periphery of the patch, forming raised, tumefied, and, at last, ulcerated rings, which involve gradually a considerable extent of surface. The cicatrices may be themselves attacked again, and more or less destroyed by fresh tubercles, and renewed ulceration.

In another variety the disease commences on the mucous membrane of the nose, which becomes swollen, and darkly red; the tip of the nose itself now swells, sometimes to a considerable size, and the skin assumes a livid hue; the cuticle is usually thickened, and its rapidly and irregularly formed scales, matted together by a viscid fluid, crust over the end of the nose. Under this crust, superficial ulceration may, or may not, set in. If it does not, the crust at last is detached, the colour becomes fainter, and the nose smaller; interstitial absorption occurs, and at last the end of the nose becomes smaller than natural, perhaps sharpened, white or of a dull reddish white, and irregularly seamed and marked. This process may occur on a single ala, or on part of one.

(*b*) *Lupus devoratus. — Corroding or deep-eating Lupus.* This variety occurs especially on the face, and principally on the nose,

or close to it. It commences in two ways. Sometimes the mucous membrane of one nostril becomes swollen and red, and emits an offensive greyish or green discharge. The one ala or the whole nose, or a portion of the upper lip, swells, and becomes darkly red: there is considerable pain. After a time the livid surface gets covered with dark crusts, or, perhaps more usually, soft large tubercles rise from the red patch and produce great deformity. These become then covered by crusts. Whether there are tubercles or not, ulceration occurs under the crusts, and penetrates deeply. Frequently the side, or the whole of the end of the nose, is even rapidly destroyed; the septum may disappear, with a fœtid sero-purulent discharge. Cicatrices then occur, which are frequently again destroyed by a repetition of tubercular development and ulceration.

In the second form of this variety, the mucous membrane is not implicated, a single large soft tumour rises from a tender, raised, and livid patch; after a variable length of time, it becomes suddenly larger and redder, then ulcerates rapidly and profoundly, and destroys a portion or the whole of the nose or of the cheek. It may extend itself then, as the other form also, to the pharynx, and the soft and hard palate, on which tubercles may form, may be destroyed by ulceration, and may be succeeded by depressed irregular furrows of cicatrices.

A case occurred to Dr. Thomson in which the whole side of the face had been eaten away; the eye had disappeared, and the bones of the face were exposed.

(*c*) *Lupus with hypertrophy*, was described especially by Biett. It occurs almost solely on the face, and is characterised by the comparative slightness of the ulceration. The tubercles are large, with a broad deep base, which seems to pass even below the skin into the subcutaneous cellular tissue. The swellings running together cause a considerable tumefaction, which, as usual, presents the dark red colour common to all the forms of Lupus. Even when no ulceration occurs, the summits of the tumours are often destroyed in points by interstitial absorption, and small cicatrices can be seen. There is continual desquamation, and renewal of cuticle. These tubercles may spread over one side or over the whole of the face; they are then soft, and may pit on pressure; the eyes may be concealed by the immense tumefaction, and the ears may attain a prodigious size.

Cazenave mentions another form of Lupus, in which ulcerations, which have formed on the dark red or violet patches, or on tubercles, become the seat of red, soft, fungus-looking, very prominent tumours.

All the forms of Lupus may exist at once in the same subject. They are almost all attended by troublesome itching, and sometimes, but not always, by a variable amount of pain.

With the results proper to Lupus, various complications frequently exist, such as chronic inflammation of the conjunctiva, of the lachrymal apparatus, or of the nasal mucous membrane, epiphora, &c. Attacks of erysipelas are frequent, and sometimes patches of impetigo arise in the neighbouring parts and crust over.

*Minute Anatomy.* — No satisfactory investigation has yet been made. In one case examined by Virchow, and mentioned by Gustav. Simon*, there were numerous white corpuscles scattered through the thickened surface, which appeared to be enlarged hair follicles or sweat-glands. There was also hypertrophy, or rather thickening, of the skin itself.

*Nature of the Swellings in Lupus.* — Judging simply from the physical characters and course of Lupus, and from the analogous phenomena afforded by other diseases, especially by the syphilitic tubercle and the tubercle of the Greek Elephantiasis, there seems reason to believe that the essential pathological condition consists in the exudation of an unhealthy plasma into the skin, either in a diffused manner, so as to form a raised and thickened surface without projections, or circumscribedly in the form of tubercles. Subsequently this plasma softens and is absorbed, or ulcerations occur, and it is discharged. Whether the ulcerations be superficial and extensive, or limited and profound, depends upon the original form of the deposit, and its tendency to rapid softening. This exudation in all probability occurs, as do all other exudations, under the influence of a peculiar constitutional state or diathesis. It is poured into the skin or mucous membrane of the nose from some attraction or capability of reception on the part of these structures, as tubercle is poured into the lungs or other parts in the tuberculous cachexia, or as the deposit below Peyer's patches in Typhoid fever, or as the exudation in Greek Elephantiasis is poured into the skin, mucous or serous membranes, or into the sheath of the spinal cord.

*Diagnosis.* — There are only five diseases with which Lupus can be confounded, viz. Syphilitic Tubercles, Elephantiasis, some forms of Acne, some forms of Cancer of the Skin, and Impetigo.

Of these diseases, the only one which really approaches very closely in character to Lupus is the tubercular syphilide. The differences between them are enumerated in the chapter on syphilitic eruptions. It need only be said here that the want of induration of Lupus, its violet or deep red, but not copper colour, and the absence of concomitant signs of syphilis, are the diagnostic points of greatest value before ulceration. After ulceration has occurred, the syphilitic disease always presents marked and easily recognised characters.

Tubercular Elephantiasis is distinguished by certain positive

* Die Hautkrankheiten durch anatomische Untersuchungen erlautert, von Dr. Gustav. Simon; Berlin, 1848; p. 272.

symptoms which are proper to itself, and are subsequently enumerated.

Cancer of the Skin occurs for the most part in older persons, is attended by induration, and frequently by lancinating pain, and, before ulceration, presents no similarity in physical appearance to Lupus. After ulceration, it might be taken to be deep excavating Lupus, but the cancerous ulcer is distinguished by the form of its borders, its eaten-away or fungous surface without crusts, by the inflammatory areola which surrounds it, by the lancinating pains, the implication of the lymphatic glands, and by the destruction which it subsequently entails, not only of skin, mucous membrane, and cartilage, but possibly of bone itself, which Lupus seldom attacks. The existence of Cancer in other parts, or the microscopic examination of the discharges, may assist the diagnosis.

A form in all probability of Cancer, in which a single ulceration occurs on the side of the nose or the cheek, presents some affinity to Lupus. This is the disease termed by Biett "Noli me tangere," a phrase which has been applied to Lupus itself. The ulcer is at first small, round, and covered with a darkish crust; it succeeds to a slight swelling, and is never surrounded by tubercles. It is not deep enough for Lupus devoratus, and is not like the Lupus exedens or hypertrophicus.

Acne indurata or rosacea, and impetigo, can never be confounded with Lupus if the elementary characters be made out: Lupus is never pustular. Yet these diseases may exist with Lupus, and this may cause an error in the diagnosis, if the fact is not kept in mind.

*Prognosis.*—As far as local destruction goes, the prognosis is always unfavourable. Even if the disease is sometimes arrested, there is continual tendency to relapse and renewal. Biett was accustomed to predict a relapse, when the cicatrices remained soft, blueish, and were surrounded with soft tumours, which yielded to the finger. Also, if after cicatrization, the tumours did not disappear.

As far as the life of the individual is concerned, Lupus is not immediately dangerous; yet persons affected with it do not enjoy the good state of health on which some writers have insisted. Generally, the digestive functions are deranged, and nutrition is evidently badly performed.

*Causes.*—The causes of Lupus are very obscure. Cazenave states that it attacks both sexes equally. Dr. Thomson was of opinion, with several other writers, that it was more common in women. It is certainly infinitely most common under the age of 40, and probably under the age of 30. It will attack children, and even very young infants; and if cured at this time has a tendency to recrudescence at puberty. It is said to occur in persons of scrofulous constitution, and Biett fancied that this was particularly the case with the hypertrophic Lupus. When the affected persons are not manifestly scrofulous, they are often of a phlegmatic tempera-

ment, with a pale skin, flabby muscles, and a languid circulation. Yet it has been known to attack adults who appeared to be in perfect health. It does not appear that those who are attacked with Lupus are particularly liable to Phthisis pulmonalis, but numerical observations are wanted upon this, as upon almost all other points connected with the disease. It is said by Cazenave to be more common in the country than in towns.*

*Treatment.*—Dr. Thomson was extremely successful in temporarily, and sometimes even permanently, arresting the ravages of Lupus. The writer has seen many cases treated by him, in which a speedy, manifest, and undoubted improvement followed the use of certain remedies. Local applications were sparingly used, but reliance was chiefly placed on three medicines,—viz. iron, iodine, and arsenic,which were generally used at the same time. Mercury, in the form usually of biniodide, was also often given. Cod-liver oil was frequently used, and quinine and other tonics were occasionally employed. When a patient first came under treatment, if the general health had been at all lowered, and if there were any anæmic symptoms, cod-liver oil and iron, especially the iodide, were given for ten or fourteen days; the diet being nutritious, and other usual means adopted to improve the tone of the system. Afterwards the alteratives were commenced. The biniodide of arsenic was given in doses of from $\frac{1}{12}$ to $\frac{1}{6}$, or even $\frac{1}{4}$ of a grain; in such large doses, however, it often produces gastrodynia, and when this has once occurred, the stomach is extremely intolerant afterwards of the smallest dose. Therefore, as the utility of the medicine can only be looked for after some considerable period, Dr. Thomson considered it safest to keep to the smaller doses, and to continue them regularly for a long time. If any gastrodynia came on, the medicine was at once left off, and opium and hydrocyanic acid administered. The cod-liver oil and the iron were sometimes continued, with the biniodide. Conium was found useful if there were pains in the tubercles; and even if not, appeared sometimes to have a good effect; so that it was frequently combined with the biniodide in the form of pill. If the biniodide could not be borne in any form, the liquor arsenicalis of the London Pharmacopœia, in small doses, of from four to eight minims, was given, and iodine rubbed in over the healthy skin with a view to absorption.†

Local caustic applications were very little used by Dr. Thomson. He sometimes employed the strong nitric acid to the edges of the ulcer, or nitrate of silver in strong solution, (viz. from ℥ij. to ℥iij. of the nitrate to ℥j. of water,) over the tubercles, and, subsequently, acetate of lead wash, to lessen the temporary heat and swelling which

* Abrégé Pratique des Maladies de la Peau, par MM. Schedel et Cazenave: 4th edit. Paris, 1847, p. 473.

† Donovan's solution (a mixture of arsenious acid, peroxide of mercury, and hydriodic acid) was very useful. The dose—if the solution be made according to Donovan's formula—is from 10 to 40 drops.

followed. In children, the solution of the nitrate should be much weaker. When ulceration had occurred, he used simple dressings; solution of nitrate of silver or chlorinated soda being occasionally used. If unhealthy, pale, fungous granulations rose, an ointment of iodide of sulphur, or a very weak ointment of the biniodide of arsenic, or of either of the iodides of mercury, was employed. The quantity of the biniodide should not be above half a grain, or one grain to ℥j. of lard. There is, however, always a great risk of erysipelas after the employment of powerful local applications.

Caustics and corrosives are recommended by many writers; but it may be questioned whether their use is productive of such marked benefit as has been stated. Lupus is but the local manifestation of a general disease, and local applications can never touch the real seat of the evil.* Cazenave recommends chloride of zinc, arsenical paste, or the powder of "Côme," Vienna paste (equal parts of chalk and quick lime), and other powerful applications of the like kind. Hebra also recommends cauterization, and employs usually strong nitric over the unulcerated, and nitrate of silver over the ulcerated surface.†

It is a remarkable fact in the history of Lupus, affirmed by Hebra, that the Lupus disappears during acute febrile diseases, and especially during typhus. It seems to recur with convalescence.

### Case 64.

*Lupus.*‡

Sarah Williams, a married woman, and the mother of five children, was admitted into University College Hospital, 11th Nov., under Mr. Liston, and transferred by him to the care of Dr. Thomson on the 25th of the same month. She lives in Surrey, in a healthy situation: she works in the fields, and has never been incapacitated from work, except during her confinements.

She states that, ten months ago, a small swelling appeared on her left cheek, and soon inflamed and became painful. She then applied to a surgeon, by whose advice she poulticed it for six weeks, when it began to discharge pus and looked better. Two months afterwards it again became painful and inflamed, when she was advised to have it touched with nitrate of silver, and to occasionally poultice it. No benefit was procured, the part assumed the appearance of

* The Editor cannot agree with a statement made by Dr. Burgess, that "constitutional remedies are perfectly useless when used *alone* in Lupus." (Eruptions on the Head, Face, and Hands, by T. H. Burgess, M.D. Lond. 1849, p. 88.) He must dissent also from Dr. Burgess's view of the essential local nature of the disease.

† If the disease be not on the face, and be of the superficial kind, it has certainly been sometimes arrested by caustic applications, as strong nitric acid.

‡ The cases of Lupus here inserted are those which were selected by Dr. Thomson from his collection, to illustrate his treatment.

an irregular or rugged sore, and was covered with a dry, honeycomb crust, which extended to the left ala of the nose, as well as to a part of the cheek. There was also another deep ulcer, larger than a shilling, which proceeded from a tumour similar to the other, situated on the outer and lower part of the same cheek. There was also a small swelling on the forehead over the eyebrow, which she said resembled those that had appeared on the cheek and nose.

The patient was in the foregoing state when she was transferred to Dr. Thomson, except that the disease had progressed. She complained of no pain, except a shooting soreness in the nose. After opening the bowels, a mixture containing ℥viij. of diluted nitric acid, and f ʒiss. of infusion of gentian, was ordered to be taken three times a day; the edge of the sores to be touched with concentrated nitric acid; and the swelling on the forehead to be destroyed with the acid. 30*th*. The ulcer on the nose is larger and displays an inflamed base; that on the cheek is better; and the tumour on the forehead is quite destroyed and the part cicatrized. A small swelling has appeared on the right cheek. (℞ *Hydrargyri Biniodidi* gr. jss. *Arsenici Iodidi* gr. j. *Aloës Extract.* gr. xviij. *Ft. pilulæ* vj. *Sumatur una maneque nocte quotidie.* ℞ *Potassii Iodidi* gr. iij. *Decocti Sarzæ* f ʒij. *Ft. haustus bis quotidie sumendus.*) 3*d December*. The ulcer on the left cheek is improved; the swelling on the right is gone; and the inflammation around the sore on the nose is less. (*Pergat in usu Med. addendo Arsenici Iodidi* gr. ss. *Massæ.*) 11*th*. The ulcer on the nose is smaller, and its base less inflamed; that on the cheek is granulating. The medicine has caused no deleterious effect. The bowels are regular, and the appetite good. (*Pergat in usu Med.*) 31*st*. A gradual improvement has been going on since the last report. The monthly change has to-day taken place. (*Omittantur Med.*) 3*d January*. The ulcer on the nose has cicatrized. The crust is separating from that on the cheek. Before returning to the use of the arsenical medicine, let her lose ʒviij. of blood, as the menstrual discharge was very scanty, and the pulse is sharp and resisting. 10*th*. A small tumour has appeared upon the site of the original ulcer on the nose. (*Pergat in usu Med.*) 20*th*. The tumour on the nose has disappeared; all the sores are permanently cicatrized. She was retained in the hospital until the 23d, and then discharged, completely cured.

### Case 65.

*Lupus exedens.*

Hannah Russell, æt. 23, a single woman, of stout conformation, a dress maker, admitted to University College Hospital 23d March, 1840.

At the age of fourteen a small spot appeared on the palate, which gradually increased for two years, and involved the whole of

the gum surrounding the upper incisors. After a time it improved, but never got completely well. At seventeen, a pimple appeared on the side of the nose, which gradually enlarged, forming crusts, which separated and re-formed. She was under the care of several medical practitioners, but derived no benefit. Last summer she became a patient in St. Bartholomew's Hospital; but, after some weeks, was discharged, without having derived any advantage from the treatment.

She did not menstruate until she was eighteen years of age; the catamenia have never appeared regularly, nor have been in sufficient quantity, nor of a healthy aspect. Her bowels have been always sluggish.

On admission, a pale, flabby ulcer, the size of a small bean, was found on the anterior part of the palate; but the bone did not appear to be affected, and consequently there was no communication between the ulcer and the nose. The ulceration of the nose extended upwards to within a few lines of the inner angle of each eye; laterally over a portion of each cheek, and involved the whole of the upper lip. The ulcers were covered with thick, greenish crusts, which, when forcibly separated, re-form. Her general health did not appear much affected; her spirits were cheerful, and her bowels in a regular state. Pulse languid, 72. She complains of cold hands and feet. (℞ *Calom.* gr.v. *Muc. q. s. Ft. pilula statim sumenda.* ℞ *Haust. purg. niger, horâ post pilulam sumenda.* ℞ *Decocti Sarzæ* f℥ij. *Iod. Pot.* gr. iij. *Haust. c. pil. sequente sumendus.* ℞ *Arsenici Iodidi* gr. j. *Hydrargyri Biniodidi* gr. jss. *Ext. Conii* gr. xviij. *Ft. pil.* vi. *Sum.* j. 6*tâ q. q. horâ. Milk diet.*) *April* 5*th.* She has been attacked with Influenza; but in other respects is improved. Pulse soft, compressible, intermits once in eighteen beats. (*Pergat in usu Med. addendo Pot. Liq.* ♏xv. *Haustu; et Arsenici Iodidi* gr. ss. *C. Ext. Conii* gr. vj. *Pilularum massæ.*) 14*th.* Evidently improving. The lip is much reduced in size. She sleeps well. (*Pergat in usu pil. addend. Ext. Conii* gr. j. *sing. dosibus. Same diet.*) 18*th.* The ulceration of the upper lip remains as it was. (*Omittantur pilulæ.* ℞ *Arsenici Iodidi* gr. jss. *Hydrargyri Biniodidi* gr. j. *Ext. Opii* gr. vj. *Ft. pilulæ* vj. *Sumatur una maneque nocte quotidie. Pergat in usu Mist. addend. Lig. Potassæ* ♏xxx.) 22*d.* The swelling of the upper lip is quite gone; and the ulcers beginning to cicatrize. (Let the mouth be touched with a solution of nitrate of silver ℥j. *ad Aquæ* f℥j. *Omittantur pilulæ.* ℞ *Arsenici Iodidi* gr. jss. *Hydrarg. Biniodidi* gr. j. *Ext. Conii.* gr. xxx. *Ft. pil.* vj. *Sum.* j. *maneque nocte quotidie.*) *May* 4*th.* The face generally better; but she complains of pain in the lip, which is not looking so well. The bowels are confined. (*Pergat in usu Medicam.*) 8*th.* Has taken cold; is feverish, and coughs. (*Omitt. Med. Mittuntur Sang. Brachio* ℥xvj. ℞ *Pil. Hydrargyri* gr. j. *Pulv. Ipecacuanhæ* gr. j. *Ext. Conii* gr. iij. *Ft. pilula* 4*tâ q. q.*

*horâ sumenda.* ℞ *Liq. Ammoniæ Acet.* f℥ij. *Pot. Nitratis* ʒij. *T. Conii* ɱxxxij, *Mist. Camph.* f℥iv. *Sum. cochl.* iij. *majora, c. sing. pil. dosibus.*) 12*th.* The blood was cupped and buffy. The feverishness much abated, but the cough continues. (*Pergat in usu Med.*) 15*th.* Much better. Let her return to her former medicine; but first let her lose ℥viij. of blood from the arm. 23*rd.* She has been progressively improving. (*Pergat in usu Med.*) *June* 26*th.* The face is nearly well. The ulcer in the mouth is well. (*Pergat in usu Med.*) Discharged shortly afterwards.

## Case 66.

### *Lupus.*

Jane Schweatz, a German, æt. 21, married; of sanguine temperament, and regular temperate habits of life. She had been an out-patient of the Hospital for nearly six months, under one of the surgeons, and got better; but the disease returned, and on the 14th of June, 1842, she was admitted into the hospital, and became Dr. Thomson's patient. The left lower part of the nose was the seat of the disease, which had destroyed a portion of the ala and was extending upwards. Her general health was apparently good; the catamenia were regular, the appetite was good, the skin natural, the pulse 72, soft and compressible: but the bowels were torpid. (*Haust. purg.* ℞ *Argenti Nitratis* ʒij. *Acidi Nit. dil.* fʒss. *Aquæ dest.* f℥j. *ope pencilli parti ulcer. applic.* ℞ *Iodidi Arsenici* gr. j. *Hydrarg. Biniodidi* gr. ij. *Ext. Conii* gr. xviij. *Ft. pil.* viij. *Sum.* ij. 4*tâ q. q. horâ. Milk and farinaceous diet.*) 18*th.* A fresh pimple has appeared on the upper part of the nose; and the ulceration has extended upwards within the left nostril. Bowels confined. (Touch the interior of the nostril and the pimple with the solution of the nitrate. *Haust. purg. statim. Perg. in usu pilulorum.*) 24th. The swelling much reduced; the ulceration is checked, and cicatrization proceeding favourably. (*Pergat in usu pilularum, addendo Ext. Conii* gr. ij. *sing. dosibus.*) *July* 5. Has continued to improve. (*Om. pil.* ℞ *Arsenici Iodidi* gr. jss. *Ext. Conii* gr. xxxvj. *Ft. pil.* viij. *Sum. una* 4*tâ q. q. horâ. Same diet as before.*) 9*th.* She has an attack of Tonsillitis, which she ascribes to sitting in a current of air. She is feverish, and the pulse, 90. (℞ *Pulv. Ipec.* ʒss. *pro emetico statim sumendus.* ℞ *Calomel.* gr. iv. *Mica Panis q. s. Ft. pil. h. s. sumenda. Haust. purg. cras mane.* ℞ *Liq. Ammoniæ* fʒiij. *Olivæ Olei* f℥j. *Ft. Linim. cervici app.*) 12*th.* The tonsils nearly well; fever abated; tongue moist; pulse soft and compressible. (℞ *Liq. Ammoniæ Acet.* fʒiij. *Pot. Nit.* gr. x. *Mist. Camph.* f℥j. *Haust.* 6*tâ q. q. horâ sumendus.*) 14*th.* The Tonsillitis cured. The ulcers of the nose completely cicatrized, with very little loss of substance. She was ordered a draught,

consisting of f℥ij. of decoction of yellow cinchona and ♏xvj. of nitro-hydrochloric acid, which she continued, three times a day, until the 18*th*, when she was discharged cured.

## Case 67.

### *Lupus.*

Sophia Basset, æt. 27 ; admitted into University Hospital, 8th July, 1844 ; florid complexion, stout, well formed; has enjoyed good health before the present attack. She is a nurse-maid, and is of a cheerful disposition. She is not aware of any hereditary predisposition in her family.

At the end of January last she had a " fever," which was followed by bleeding of the nose: and afterwards the nose swelled, became red, and very sensitive. She underwent some medical treatment, and was improved by it, but not cured. She now complains of great pain in the nose, the septum is inflamed, and the left ala partially destroyed by a corroding ulcer. She suffers pain and a feeling of constriction in the nostril. The discharge from the ulcer concretes into a thick crust of a greenish brown hue, which falls off daily, and is again renewed. Neither the bones of the nose nor the palate are affected. She has no cough ; the skin is moist, the pulse small and compressible, and the tongue slightly furred. The constitution is regular. No general remedies were employed: but the sore was touched daily with the following solution:—

℞ Argenti Nitratis ʒj.
Acidi Nitrici dil. ♏xij.
Aquæ Destillatæ f℥i.—M.
M. Ft. Lotio.

She was allowed full diet.

11*th*. The sore cleaner, but otherwise not improved. (℞ *Pil. Hydrargyri* ℈ss. *Ext. Colocynth. Comp.* ʒss. *Ext. Conii* ℈ij. *Ft. pilulæ* x. *Sum.* j. *h. s. quotidie.* ℞ *Sol. Calcii Chloridi* ♏xxij. *Infusi Quassiæ* f℥jss. *Haustus ter quotidie sumendus. Pergat in usu lotionis.*)

16*th*. The sore looks cleaner, and it is contracting. (*Pergat in usu Med. addendo Argenti Nitratis* gr. x. *lotionis.*)

20*th*. *Omittatur Mist.* ℞ *Syrupi Ferri Iodidi* ʒj. *Infusi Quassiæ* f℥jss. *M. Haust. ter quotidie sumendus.* She continued the same medicine, and improved greatly until the 6th of August, when, having caught cold, she complained of sore throat: and on examination the tonsils were found to be inflamed, but not much swelled. She was ordered to leave off her medicine, and the following was ordered in its stead. (℞ *Argenti Nit.* gr. x. *Acidi Nit. dil.* f℥ss. *Aquæ destillatæ* f℥vj. *Ft. garg. sæpe utendum.*

℞ *Liq. Ammoniæ Acet.* f℥ij. *Nitratis Potassæ* ʒj. *Mist. Camphoræ* f℥iv. *Sum. 4tâ pars 4tâ q. q. horâ. Low diet.*)

On the 8*th* the throat was well, and she returned to the use of the medicine she was taking before she caught cold. It was continued until the 13*th*, when, as she did not appear to be improving, it was changed for the following. (*Potassæ Bicarbonatis* gr. xij. *Liq. Potassæ Arsenitis* ♏iv. *Tinct. Cinch. C.* f℥i. *Aquæ destil.* f℥xij. *M. Haustus ter quotidie sumendus. Pergat in usu Sol. Argenti Nitratis.*)

Sept. 19th. — The same medicines were continued with decided improvement to this day; she was ordered to add to each dose of the mixture, f℥j of the syrup of iodide of iron. The external ulcer of the nose was cicatrized, the septum was still ulcerated.

Oct. 2nd. — Nearly in the same state. *Omittatur mistura.* ℞ *Liq. Potassæ Arsenitis* ♏v. *Liq. Potassæ* ♏xv. *Decocti Cinchonæ flavæ* f ℥ij. *Haust. ter quotidie sumendus. Pergat in usu Solutionis septo nasi.* — This medicine with an occasional purgative, and the solution of arsenite potassæ, increased to ♏xv for a dose, was continued until the 19th December, when she was discharged perfectly cured.

## Elephantiasis.*

More than 1800 years ago, one of those great observers who stamp their name indelibly on the records of medicine, commenced the description of a disease in the following words: — "There is a disease which has been compared to the Elephant; because there are many things in its kind, in its colour, and greatness, which cause it to bear a resemblance to that fierce animal. It is also called Leontiasis, from the lion-like folds of the forehead, and Satyriasis, from the livid cheeks, and from the unappeasable sexual desire. Great is indeed the force of this disease, most potent in dragging men to death, ghastly to the sight, and in all things terrible, as is the warlike elephant."

And at the close of his unrivalled description, Aretæus exclaims: "When thus its victims become, who would not fly them; who would not turn away, though he were son, or father, or even dearest brother? There is also dread lest the disease should pass from one to the other. For this cause, many go into solitudes, and into mountains: some bear with them the means of subsistence, others will not do so, preferring death rather than such a life."

Long before the time of Aretæus, or of Galen, who also described Elephantiasis, there can be little doubt that this terrible

* *Syn.* Elephantiasis of the Greeks; Leontiasis, Satyriasis, Lepra of the Greeks; Tsarath, or Leprosy, of the Jews; Black Lepra, Red Lepra, Tuberculous Lepra; Spédalsked (*Norw.*); Leuce, Vitiligo, Alphos, Baras (*Ebn Sindha*); Morbus heraclæus, Dsjuddam (*Arab.*); Murd-jeddem (*Hindustani*); Elephantenaussatz (*Germ.*); &c.

complaint was well known in many of those countries in which, from almost the earliest records of man, it appears to have been indigenous.*

Eighteen hundred years have passed since Aretæus marked with bold and graphic characters the complaint which was from its fearfulness, comparable only to the elephant, then the terror of the western world. Yet 1800 years have made no change in the features of this disease, nor have they much altered the localities it infests. It is true that in some favoured countries, as in our own and other temperate climates, the disease which an unusual period of misery appears to have fostered, has past through, and has disappeared, leaving its traces only in the record of those institutions which were made to restrain its ravages.† Yet in many other parts of the world, proofs yet unfortunately exist to show that the ancient physicians drew no over-coloured picture. On the plains of Egypt and Palestine, in the summer climates of Madeira, and the Crimea; on the cold hills and valleys of Iceland and Norway; among the cities of British Hindostan, and the villages of central Africa, the hideous victims of Elephantiasis may still be seen. Nor in those vast regions in which dwell the Mongolian tribes are its traces imperceptible. The northern nomadic Tartars do not escape it in their wandering life. It is common among the Malays of Java, and the Dyaks of Sumatra and the Indian Archipelago. It is frequent in China, and the traveller in Burmah may see in the neighbourhood of Ava one of those unclean villages of lepers, which the Burman turns from his path to avoid, lest its very air should blow upon him.

The confusion which at one time existed, on account of the translation from the Arabic, of the Greek "Elephantiasis" by the term "Lepra" has long since ceased. The word lepra is now restricted in the nosologies of Germany, France, America, and England to the scaly disease described in a former page. But some confusion does still exist from the use of the local names which have been applied to Elephantiasis, and which some writers have used instead of the ancient and classical title. Also the term Elephantiasis has been and is still frequently applied to the disease which was termed by the Arabs "Elephant Leg," and by Hillary "Barbadoes Leg." It is desirable, however, to apply to this latter disease the term Pachydermia, or Bucnemia, and to restrict the epithet Elephantiasis entirely to the disease now to be described.

Although the observations of Schilling, Winterbottom, Robin-

* It is impossible to enter into the arguments in favour of the identity of the disease described by Moses, and the modern Elephantiasis; but they appear to the Editor to be quite convincing.

† Vide Dr. Simpson's admirable papers in the Edin. Med. and Surg. Journal, on the ancient Leper hospitals. It is to be regretted that the limits and nature of this work prevent any account of these and many other interesting points connected with the disease.

son, Ainslie, or, more recently, of Kinnis, Fuchs, Simpson, Biett, Pruner, Danielssen, Boeck, and others, have accomplished this important step of separating Elephantiasis from all other diseases, and of describing systematically its course and symptoms, there remains one difficulty to be noticed before the description is commenced. Robinson, in a paper published in the tenth volume of the "Medico-Chirurgical Transactions," separated Elephantiasis into two varieties — the tuberculous and the anæsthetic. The grand distinction between these two forms was supposed to be, that in one case there was more or less complete early loss of sensibility of the affected portion of the surface, while in the strictly tuberculous variety sensibility was preserved. This division has been adopted and carried out still farther by several writers, who have also indicated other striking differences between the two forms, while it has been contested by several authors of great weight, who affirm that the two varieties are merely shades of the same complaint, and pass into each other. Whether there are sufficient reasons for allowing these two varieties will appear more clearly after the description has been given.* For the sake of convenience, the varieties will at first be admitted.

In both varieties the course is almost always chronic. The Elephantiasis tuberculosa is sometimes, but very rarely, acute, and is then accompanied by fever. Both varieties are also ushered in by nearly the same prodromata, of which the chief are — lassitude, mental and bodily drowsiness, which often becomes extreme, a remarkable stiffness of the limbs, slight shivering, oppression at the epigastrium, loss of appetite, nausea, and sometimes vomiting. There is generally great depression of spirits, and pallor of the face, which symptoms are more marked in the anæsthetic form.

These so-called prodromata may last a variable time, from weeks even to years. Then the more prominent and diagnostic marks of the disease appear.

### 1. Elephantiasis tuberculosa. — *Tsarâth Phymatode (Cazenave).*

After the above-named initiatory symptoms have lasted for a variable time, an eruption appears, which consists of yellow or deep brown or crimson spots, varying in size from a small point to that of the palm of the hand, and round or irregular in form. The varying colour of these spots has given rise to the names of red and black

* In this description, the chief authors followed have been Schilling, Robinson, Kinnis, Gibert, Simpson, Biett, Cazenave, Pruner, Danielssen, and Boeck. The Editor must express his thanks to Dr. Carpenter for the use of the French translation and the plates of the work on "Spédalsked" by the two last-named authors, an excellent analysis of the Danish original of which has appeared in the British and Foreign Medico-Chirurgical Review. (Traité de la Spédalsked ou Elephantiasis des Grecs, par D. C. Danielssen et W. Boeck. Ouvrage publié aux frais du Gouvernement Norvégien. Baillière, Paris: 1848.)

lepra, &c.; it disappears under pressure. The spots are slightly raised, and feel hard. The skin at these points preserves its sensibility, according to Danielssen; loses it entirely according to Schilling and Biett; loses it partially according to the majority of writers. After some weeks or months the patches fade, and slowly disappear, without leaving traces. Shortly afterwards they reappear on other parts, are of a deeper colour, often, indeed, almost black, and become more or less confluent. Then the eruption may slowly disappear again, again shortly to return; and this alternation may occur several times. According to Danielssen, the slight general symptoms disappear when the eruption comes out, and reappear when it retrocedes. Cazenave states that there is throughout a profound prostration, muscular cramps, and diminution, rarely augmentation, of sexual desire.

After a time the spots become permanent, and this occurs first chiefly on the face, as noticed by Aretæus, and on the backs of the hands, then, more or less, all over the body; the skin is more thickened, the colour deeper, and not effaceable by pressure. The hair of the brows fall out, the whiskers and beard, and the hair of the head become thin. The larger, darker, and irregular spots never occur on the face, and undergo no further change. The smaller spots thicken into smooth shining tubercles of greater or less size, which remain isolated, or more usually run together at their bases and become confluent. The tubercles now generally rapidly increase, and attain a variable size and form. Between them are deep furrows. The epidermis is little affected; but the true skin and the subcutaneous cellular tissue are both infiltrated. The hairs on all the affected parts become white and usually drop out. Darting pains are frequently felt in the extremities, particularly the legs, especially during the night. If the disease invades, as it frequently does, a great part of the leg or thigh, there may be temporary œdema. The lymphatic glands are often swollen, and, according to Pruner*, knotted cords may be felt running into them.

The tumours are not painful.† Sensibility is not lost, but may be obtuse. The sebaceous follicles on the sound parts of the skin appear too active. In a case mentioned by Kinnis, the skin between the tubercles was insensible. ‡

At a variable period after the cutaneous manifestation the mucous membranes are attacked, spots and patches form on the tongue, the inside of the mouth, and palate, hæmorrhages often occur, and tubercles speedily follow. The bronchial mucous membrane is also often

* Die Krankheiten des Orients. Erlong, 1847.

† Schedel (Library of Medicine, vol. iv.) states that the tumours in the early stages are often very painful when touched, though the preceding patches have been devoid of sensibility. In a case recorded by Kinnis, the tubercles, ordinarily insensible, occasionally became affected with a "burning pain."—*Edin. Med. and Surg. Journal*, vol. lii. p. 56.

‡ Edin. Med. and Surg. Journal, vol. lviii. p. 3.

covered with the commencing tubercles. The breath becomes short and fœtid, and the voice hoarse, from infiltration of the exuded material into the laryngeal mucous membrane. Finally, both on the skin and mucous membranes, the exudation softens, ulcerations occur at the summits of the tubercles, become encrusted with greyish-brown crusts, and spread under the crusts. Great part of the mucous membrane of the nose, mouth, larynx, &c., may be thus destroyed. At this time, or before, the eyes commence to undergo changes, which were described by Aretæus; the conjunctivæ are injected, muddy, and finally at one point, usually, according to Danielssen, at the external border of the cornea, a yellow spot appears, which becomes elevated, and spreads like a ring round the cornea. The eyelids now swell, the tarsi thicken, and tubercles form on them; the cilia fall. Then the cornea becomes affected by extension of the yellow rim upon it, and soon forms a large projection. The vessels are enlarged; the secretion of tears augmented; pain is felt in the eye. The tubercle of the cornea passes backwards, invades the anterior chamber and the iris; the pupil becomes angular; there is terrible pain, and complete blindness. At last the whole eye is infiltrated with the peculiar deposit; it is now nothing but a formless projecting mass, over which the thickened lids cannot close. Finally, the mass softens, is discharged, the orbit is more or less emptied, lachrymation and pain cease, and the eyelids can close. Sometimes the eye is affected somewhat differently; after the spot has formed on the sclerotic severe pain is felt, and the sight becomes extremely dim, and after a time it can be seen that filaments of exudation-matter have formed between the margins of the iris, and the uvea and the lens; the pupil becomes irregular; a spot forms on the iris, and projects into the anterior chamber; after a time it ceases to grow, and remains hard and stationary; rarely only it softens, and gives rise to hypopion. Taste is, of course, more or less destroyed by the affection of the buccal and pharyngeal mucous membrane. The external ear is frequently implicated in the swelling; the meatus is closed; and from this cause, or, perhaps from changes in the internal ear itself, hearing is deadened, or quite lost. The general symptoms are severe in proportion to the extent of the disease. Except in the slightest cases there is prostration, disturbed digestion, a small, slow, tardy pulse, which has been compared to "mud" flowing in the veins. Sometimes the matter infiltrated into the lymphatic glands softens, and they form large ulcers like the tubercles. Sexual desire is, for the most part weakened, often altogether destroyed. Occasionally, in the early stages, there is satyriasis; but this appears to be by no means the prominent symptom supposed by some authors. Even in advanced cases, however, Leper women have been known to become pregnant by men not less diseased than themselves. The vaginal mucous membrane often

suffers in the same way as the other mucous membranes. When the malady is fully formed, the distorted face, and the livid, encrusted, and ulcerated tubercles, the deformed, sightless, and uncovered eyes, the hoarse, whispering voice, the fœtid breath and cutaneous excretion, the contorted joints, which are often buried in or absolutely dislocated by tubercles, the livid patches on those parts of the body not yet tuberculous, all form a picture which is not exceeded in the horror of its features by any other disease.

After lasting usually for many years, diarrhœa and profound cachexia and marasmus terminate life.

Heberden first described the acute form of Elephantiasis tuberculosa, which he witnessed in Madeira. Danielssen and Boeck have lately given a fuller description of it. The disease commences suddenly with fever, violent delirium, insomnia, a dry reddish skin, a quick full pulse (120—130), dry and red tongue, constipation, scanty and pale urine. After from twelve to fifteen days, shining blueish patches appear suddenly all over the body, become elevated, and pass into large tubercles. The general symptoms diminish as the tubercles appear. In a few weeks the disease has arrived at a state which it ordinarily takes years to attain; after this it pursues its usual chronic course. Danielssen and Boeck have seen only four cases of this kind. Pruner appears to have witnessed it more frequently, and says the fever is sometimes periodic.

There are several variations in the physical appearances which the chronic tuberculous Elephantiasis presents during development, which depend upon the rapidity with which the tumours increase, upon their admixture with livid spots and patches, their form, their tendency to soften, &c. Sometimes the tubercles disappear by absorption, and leave behind them cicatrices and furrows, similar to those which are described in the chapter on syphilitic eruptions. New tubercles may appear on these cicatrices, as in lupus. Sometimes tubercles are completely destroyed by ulceration; the cicatrices then formed are elevated, hard, white, and unequal. Frequently the dark patches, which do not pass into tubercles, and never appear on the face, are so numerous as to give a special character to the eruption.* But this is merely a usual symptom, becoming unusually prominent, and is not of sufficient importance to constitute a distinct variety, as has been stated by some writers.

One variety is particularly described by the Norwegian writers so often quoted. In some rare cases certain tubercles of a particular kind appear on the extremities and on the face, and are attended by terrible itching of the whole body. They become covered with thick horny greenish brown crusts, which sometimes project like a scallop shell for an inch or two. When they have attained

* This has been supposed to correspond to the "Morphæa nigra" of the old writers.

such a size the crusts fall off, and the uncovered surface exudes a viscous fluid; with a lens a number of yellowish white points can be seen, and a new crust speedily forms. When a portion of one of the yellowish spots is put under the microscope, it is found to be made up of myriads of a species of acarus. Another and frequent modification occurs in the external form of the eruption, from the implication of the subcutaneous cellular tissue and superficial veins, the coats of which get thickened by the exudation of a lardaceous looking substance. The median basilic or cephalic attains sometimes the size of the little finger. This arises simply from external thickening; the cavity is of the natural size, the lining membrane normal. The external sheath of the nerves running in the subcutaneous cellular tissue is also thickened, and sometimes veritable neuritis follows, which occasions severe darting pains.

A new symptom of the advanced cases has been pointed out by Danielssen and Boeck, viz. that the urine is frequently highly albuminous and poor in urea. In some cases the nails, as the hairs, suffer, become bent and distorted, thickened, or thrown off.

*Morbid Anatomy.*—The anatomical signs of the disease are derived from the infiltration, into the skin, into the mucous membranes, the glands, the serous membranes, and the parenchyma of some organs, of a peculiar exudation.

In the cases which die early, the changes are chiefly confined to the skin and certain external organs, as the eye, ear, &c., or to the mucous membrane of the mouth, nose, pharynx, or larynx. But if the disease runs its complete course, the internal organs suffer more or less. The morbid appearances have been noted by Schilling, Raymond, Larrey, Biett, Pruner, Faivre (in Brazil), and lately most accurately by Danielssen and Boeck. As there is no doubt that the disease described by the last-named authors is pure Elephantiasis, the minute description given by them will be chiefly followed.

When a piece of skin is examined after death, it is found more or less thickened, according to the amount of deposit: at the time when the patches disappear periodically, there is only a slight red thickening, afterwards there is great thickening; on section the mass cuts firm, has a brown or red colour, and exudes, when pressed, a viscid and bloody fluid. Subsequently, when this infiltrated exudation softens, all vestiges of true corion disappear. The subcutaneous cellular tissue is condensed by pressure, and more or less infiltrated with a lardaceous, or often gelatinous, exudation; it adheres firmly to the corion, and is sometimes filled with serosity. It does not appear to soften; and it may be questioned whether the exudation is not altogether of a different nature from that which exists in the skin. The deeper layers of cellular tissue, the muscles, and the bones (in this variety) escape. The veins and nerves running through the lardaceous subcutaneous

mass referred to, are altered in the manner already described. Pruner states that enlarged lymphatics can be found passing from one tubercle to another.

All the mucous membranes present, according to the period of the case, more or less the same appearances. The first spots on the mucous membrane of the nose or throat, are caused by slight thickening of the basement membrane, from which the epithelium has been detached; then the thickening increases, the mass is less firm than in the skin, and, on section, has a yellowish white colour. The epiglottis is sometimes thickened and deformed in an extraordinary way. At a later date the deposit softens, ulcers are formed, and cicatrices, which may cause contractions of the palate, larynx, trachea, œsophagus, &c. may follow. In the intestinal mucous membranes ulcers form, as elsewhere, from deposition and softening of the deposit; they are often profound, and Danielssen has seen them destroy all the coats but the peritoneal. Biett found the intestinal mucous membrane, also, universally softened; in some places thinned, in others thickened; ulcers existed, both on the patches of Peyer and in other places of the small and large intestines. Biett appears to have looked upon these as *phthisical tubercles*, and to have regarded them as accidental to Elephantiasis; but they are formed exactly in the same way as the tubercles of the other mucous membranes, or of the skin.

The tubercles of the bronchial mucous membrane are often numerous, but generally small. *Phthisical tubercles*, situated in the pulmonary parenchyma, are rare; and when they do form, or have existed prior to the attack of Elephantiasis, they do not seem to advance. The tubercles of Elephantiasis are rarely found in the texture of the lungs. If the patients have been carried off by intercurrent pneumonia, Danielssen has found more or less of one or both lungs infiltrated with a greyish purulent-looking mass, which presented none of the appearances proper to the true deposit of Elephantiasis.

The serous membranes are often attacked, especially the pleura; an infinite crowd of tubercles form, which sometimes run together, and form an irregular thickening of the pleural surface, which may look even like the skin. These tubercles may soften here, as elsewhere, and form superficial ulcers, which may spread to an astonishing extent. The pulmonary substance below the pleura is perfectly sound. Often the thickened pleuræ adhere. The pericardium suffers in the same way. The peritoneum and the subperitoneal areolar tissue also are often implicated; the intestines and stomach adhere; the omentum may be entirely converted into a hard yellowish mass. The mesenteric and bronchial glands are swollen and infiltrated.

Infiltration, in a tubercular form, takes place also into the liver; these tubercles may soften and produce cavities, whose walls are

often formed by almost healthy hepatic tissue. When they soften the hepatic tubercles appear to do so at all points at once, not especially in the centre.

Tubercles form in the spleen, which is also large and softened; the bladder, testicles, vesiculæ seminales, ovaries, uterus, &c., may be all attacked, the deposition occurring however usually on the mucous or serous coat.

The kidneys are almost constantly diseased; sometimes they are entirely converted into yellowish masses, which have a granular cleavage; the kidneys are then usually increased in volume, but may be contracted and bossulated. At other times a part only of one or both kidneys suffers, and this is usually more or less of the cortical substance.

The subperitoneal vessels and nerves, like the subcutaneous vessels and nerves, may be surrounded by lardaceous-looking deposit; the vessels, though their coats are thickened, usually preserve their internal calibre, but the nerves often entirely disappear. Thus the cœliac ganglion is often indistinguishable, although the splanchnic nerve can be followed into the mass under which it has been buried.

In the head gelatinous and serous exudations are found in the pia mater. The cerebrum and the structures in the spinal canal are normal in this variety.

When the eye is examined the tuberculous infiltration is found to have penetrated here also, and to have invaded often all the textures.

Of all the organs in the body, the pancreas and the pulmonary substances, apart from the bronchial mucous membrane and the pleura, are the least affected. The pancreas, in fact, has never been recorded as diseased.

*Minute Anatomy and Chemistry of the Deposit.* — This has been investigated by Danielssen and Boeck, and by Gustav Simon. The former observers give the following account. The deposit in all parts of the body has the same microscopic and chemical composition, which, however varies, according to the stage. The newly formed and early cutaneous spots and tubercles are made up of a delicate fibrous network or stroma, in the meshes of which lie a great number of adherent whitish granules, which cannot easily be separated by washing; acetic acid renders the fibrillæ transparent, but increases the opacity of the granules. A little fat, some fibres which traverse the whole mass without affecting any special network arrangement, and some deformed blood globules, are the only other microscopical elements. The neighbouring skin is healthy, but the sebaceous follicles are enlarged. At a later date, when the tubercles are more advanced, and when the colour has become brown, the fibrous network and granules have disappeared, a great number of cells can be seen, which are rather larger than the so-called exudation corpuscles, are oblong in shape, and enclose a large nucleus, which leaves only a small space between itself and the

involucrum: this space resembles a shining ring; the nucleus is less transparent than the ring, is of a grey colour, and encloses from seven to eight well-marked brown granules; the outer cell-wall is rendered transparent by acetic acid; the nucleus is not much changed, is made only a little more transparent. The cutaneous texture of the vessels and nerves are all destroyed, and only a homogeneous mass is left, the sudoriferous glands have disappeared, their excretory canals in the epidermis only remaining; the hair follicles are in part destroyed; the sebaceous follicles are enlarged, and enclose the usual animalculæ. The tuberculous matter when it has still farther advanced, and has softened, gives under the microscope only an amorphous mass, and various remnants of cells and nuclei; the black prominent shell-like crusts which form on the tubercles already mentioned as giving a nidus for acari, are made up, according to Danielssen and Boeck, almost entirely of the *skeletons* of the acari, united by a viscous fluid. On injecting the skin in some very early cases there was found to be an unusual vascularity of the altered skin. When the tubercles had formed, they were traversed by large vessels, but the capillary network had disappeared.

The chemical examination of the exuded mass by Danielssen and Boeck gave the following results. — Before softening no effect was produced on test paper; after softening there was an alkaline reaction. The firm mass contained fibrine, albumen in large quantity, fat and salts. After softening there was less fibrine. These results are only approximative and qualitative, as it is almost impossible to obtain the exudation pure from surrounding textures.

Gustav Simon examined the skin of the head and face of a man who died in 1842, in Berlin, with well marked Elephantiasis.* When a section was made of any of the tubercles which covered nearly the whole face, the epidermis appeared not thickened, but softer than usual; underneath were two layers, the outer of which was one to three lines thick, yellow, and tolerably soft; the lowermost was much thicker (about half an inch), finer, of a more transparent yellowish grey colour, and formed the centre of the tubercle. The upper layer was composed of round corpuscles with one or more enclosed granules: they lay in a fine mesh of fibrous tissue, which was not abundant; the second deeper yellow layer was composed almost entirely of bundles of fibres, in which were found here and there yellow masses about the size of millet seeds, in which were enclosed corpuscles similar to those seen in the outer layer; the hair sacs could be seen imbedded in the mass, and appeared enlarged; sebaceous glands could also be seen apparently, but as the preparation had been in spirit this was not certain. If these bodies, taken to be sebaceous glands, were really so, they

* Op. cit. p. 266.

were enlarged. Immediately below the epidermis, and in the outermost layer, clear streaks could be seen, which were not the tubes of sweat-glands, or if so were two or three times as thick as usual.

Dr. Brücke, who examined some fresh pieces of skin of this case, found the sweat-glands much enlarged in some parts; very little or no fat was found under the cutis. Simon concludes that in Elephantiasis there is hypertrophy of the skin, and enlargement of the hair sacs, sweat and sebaceous follicles, and formation of little round corpuscles, deposited chiefly at that part of the tubercle immediately under the cuticle.

*Chemistry of the Fluids in Tuberculous Elephantiasis.*—Very little at present is known on this head. The urine, as already said, is albuminous in the last stages. Danielssen and Boeck have made some analyses of the blood, which are condensed into the following table*:—

Analyses of Venous Blood in Norwegian Tuberculous Elephantiasis by Danielssen and Boeck.

| No. | Sex. | Age. | Period of disease. | Sp. gr. of whole blood. | In 1000 parts. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fib. | Fat. | Album. | Globuline. | Hæmatine. | Salts and Extract | Water |
| 1 | M. | 24½ | Early precursory symptoms | 1·046 | 3·201 | 2·531 | 100·609 | 65·831 | 3·273 | 11·244 | 813·311 |
| 2 | M. | 26 | Advanced | 1·049 | 4·539 | 3·421 | 73·139 | 96·186 | 5·465 | 10·930 | 807·521 |
| 3 | M. | 38 | Do. (12 years) | 1·051 | 4·265 | 4·240 | 116·971 | 39·672 | 6·135 | 17·382 | 811·335 |
| 4 | M. | 36 | Do. (8 years) | 1·042 | 4·722 | 2·806 | 93·092 | 46·719 | 4·153 | 6·921 | 851·687 |
| 5 | M. | 29 | Do. (6 years) | 1·048 | 4·878 | 5·309 | 93·913 | 74·504 | 2·713 | 15·861 | 802·822 |
| 6 | M. | 22 | Do. (10 years) | 1·053 | 3·592 | 4.623 | 128·785 | 65·336 | 2·830 | 15·332 | 779·522 |
| 7 | F. | 34 | Do. (between 3 and 4 years) | 1·048 | 3·111 | 2·336 | 106·926 | 66·774 | 3·547 | 13·532 | 803·771 |
| 8 | F. | 43 | Do. 6 years, complicated with Anæsthetic Elephantiasis. | 1·052 | 4· | 6·1 | 113·6 | 68· | 4·1 | 1·4 ! ? | 802·8 |
| *Healthy blood analysed in the same method.* | | | | | | | | | | | |
| 1 | F. | 30 | Healthy | 1·051 | 2·205 | 2·129 | 79·353 | 94·437 | 3·299 | 11·339 | 807·228 |

The specific gravity of the whole blood appears to have been taken immediately the blood flowed into the vessel, and therefore at a temperature of from 86° to 94°, as the blood cools very rapidly, but the actual temperature is not given. It is to be regretted that the analyses were not made after the manner of Andral or of Becquerel, or the modifications of these, rather than after Simon's method. Some of the analyses *were* repeated in the method of Becquerel and of Scherer, and gave analogous results.

* The method employed was that of Simon.

When the blood was drawn the clot was voluminous and buffed. The serum was rather viscid, had a greenish colour, and was slightly milky. A drop of defibrinated blood constantly gave under the microscope a great number of irregular cells, large, and filled with granules. When these were very numerous the red particles were diminished.

Danielssen and Boeck consider these analyses prove, that a complete "dyscrasy" of the blood lies at the foundation of the malady. The first analysis indicates that before even spots have appeared the blood is altered. Even at this time, fibrine and albumen are in excess. On this abnormal constitution of the blood, ensue local congestion and hyperhæmia of the skin, and the peculiar exudation pours out from the vessels; then the precursory symptoms disappear, as if the blood were for a time in part restored to its normal standard. In the commencement of the disease, the exudation seems richer in fibrine than at a later period: it is then more organised. Afterwards, the blood is richer in albumen, and a less organisable effusion occurs. This destroys surrounding parts by its pressure, and ultimately undergoes the process of softening.

*Influence of Age on Tuberculous Elephantiasis.*—Danielssen and Boeck state, that from 10 to 20 years is the most frequent time of attack. The number decrease considerably after 40, and no case of attack is recorded after 60.

*Sex.* — Both sexes appear equally liable, or nearly so. Cazenave thinks men rather more liable than women.

*Duration.* — Tuberculous Elephantiasis is essentially chronic. Cazenave states, that its duration varies from 7 to 15 years, but may reach to 30 or 40 years. Danielssen gives the mean time, as 9½ years. The age at which the disease appears has no influence on its duration.

2. Anæsthetic Elephantiasis (*Robinson, Danielssen*). — *Tsarâth Aphymatode* (*Cazenave*). — *Leprosy of the Joints.*

This form in Brazil and in central Europe is much more uncommon than the tuberculous variety. In Norway it appears to be tolerably frequent. It commences by the same symptoms as the first form, which are, however, even more grave. The first local symptom consists in the appearance of large bullæ, like those of pemphigus, seated, according to Biett, on livid patches. The bullæ break, the cuticle detaches itself, and ulcers are left. These bullæ appear, according to Faivre, chiefly on the hands, arms, feet, and legs; then on the back, shoulders, and the thighs, near the trochanters. On the face, the nose, eyebrows, and ears are most frequently attacked. Crusts form over the ulcers.

Danielssen states that the bullæ and the ulcers form so rapidly, that he has never been able to determine the condition of the skin, prior to the appearance of bullæ. The ulcers heal in some parts; fresh bullæ rise in others; sometimes they disappear altogether for a time, and then return again.

Then after a variable length of time, a fresh order of symptoms appear, which is extremely distinctive, or these symptoms may appear at once without bullæ. Patches occur irregularly over the body, which first attract the patient's attention by moderate itching: they are of various sizes, whiter than the surrounding skin, above which they do not rise. At these points sensibility is diminished, and there is slight desquamation. These spots are not, according to Danielssen, a constant symptom, but when they occur they appertain always to this form: they constitute apparently the "morphea alba," of the ancients — the white leprosy of many writers. Then ensues, not only in these patches over a great or less part of the body, increased cutaneous sensibility, accompanied by periodic shiverings. The hyperæsthesia is compared by the patient to innumerable prickings of pins, or to electric sparks. It lasts for a variable time: sometimes for years, and then disappears. It is succeeded by loss of sensibility in the parts which had been attacked. This anæsthesia gradually becomes extreme; the skin grows pale, dry, hard, like parchment, and loses its elasticity. The affected parts are always dry, though the rest of the skin may perspire abundantly. The sebaceous secretion also ceases in the affected parts. The anæsthesia extends throughout the body; from time to time violent pains occur in the head, the face is pale or violet-coloured, emaciated, drawn, cadaverous, and suffering; some of the muscles of the face become paralysed. The conjunctivæ are injected, and vesicles form on them. The tarsi then become atrophied, and the conjuctivæ dull, and covered with thick mucus; at a still later date, the conjunctivæ become dry and pale, and resemble skin in appearance; the cilia fall out. Sometimes penetrating ulcers form on the cornea; but this is very rare. Frequently from paralysis the mouth becomes drawn to one side; the under lip falls, disclosing the teeth; saliva rolls constantly from the mouth, and is acrid, so that it sometimes blisters the skin; the buccal mucous membrane becomes pallid and shrinks. The nasal membrane becomes dry, ulcers form, and destroy the septum nasi. When this extreme state of things is reached, the anæsthesia is complete all over the body; incisions may be made, amputations even, may be performed, and the skin may be charred by heat without pain being felt. The fingers and toes, if not detached, are bent on themselves and distorted. Paralysis occurs in many of the muscles.

Another symptom, which often comes on at this late stage, is a very singular one. A spot, usually on the sole of a foot, becomes

bluish; after some days fluctuation can be felt, the skin bursts or sloughs, and a deep ulcer, laying bare the muscles, can be seen; soon the bones are laid bare. Such an ulcer hardly ever becomes cured; but if at any time it should appear to be about to heal, then Danielssen states, that the patient immediately perceives a profound pain in the head, feverish exacerbations, violent oppressions at the præcordia and vomiting, teasing and lacerating pains in the ulcer, and swelling of the inguinal glands. If the ulcer heals very rapidly, the patient frequently dies, with violent shiverings, and absolute paralysis of motion and sensation.

When the anæsthesia has become complete, the bones suffer, violent pains occur in them; livid swellings encircle a finger or a toe, or several fingers and toes; ulcers occur, and the fingers and toes drop off. Sinuous ulcerations form, and portions of carious bone are detached. Sometimes more important parts still are attacked; a whole foot, or more rarely a hand, are ulcerated and corroded through, and are detached. Mr. Robinson gives rather a different account from that of most writers as to the manner in which the fingers and toes are detached. After the patches have appeared on the skin, he states that the soles of the feet, and the palms of the hands, crack into fissures, which are extremely dry and hard. A furfuraceous substance forms under, and lifts up, the nails. The legs and arms then swell, and the skin becomes everywhere cracked and rough. An ulcer then appears, without previous tumour, suppuration, or pain, directly under one of the phalanges, or a tarsal or carpal joint; then this spreads completely through, eating away the muscle, and penetrating through the joint. Mr. Robinson never knew any joints but those of the hands or feet attacked. Kinnis states that frequently the phalanges are shortened by losses of pieces of bone, or by interstitial absorption of bone; thickened and twisted nails remain attached to the mutilated fingers or toes.

At the end of the disease diarrhœa occurs, and sometimes cramps, which may assume a tetanic character.

During the course of this fatal malady, there is great thirst, a pretty good appetite, and usually constipation. The patients feel cold; there are sometimes vomiting and pyrosis. There is a kind of torpor and drowsiness, which is sometimes extreme. Occasionally, œdema of the feet, or general anasarca, occurs; and in such cases the urine is rich in albumen. In women, the menses are irregular, and often cease; the hair is not so much affected as in the tuberculous variety. According to Danielssen and Kinnis, the sexual appetite is always diminished; yet men completely anæsthetic have impregnated healthy women.

*Morbid Anatomy.* — Danielssen and Boeck have chiefly studied this subject. They found the skin at the points, where the bullæ had been, pale and thin. In the advanced anæsthetic period, the skin was very thin and atrophied: the muscles were atrophied;

the fat had disappeared everywhere from the body. When ulcers had occurred in the skin, the cellular tissue below was infiltrated with serum or with a lardaceous mass. The nerves running through such a mass were affected, as in the tuberculous form. The lymphatic glands were swollen and sometimes suppurated. If the joints were examined from which the phalanges had fallen, the cartilage was found little altered, but adhering firmly to the skin. In the nervous system certain most important alterations were found. The vessels of the cord were injected, and an albuminous exudation was found in the arachnoid and the pia mater. This exudation covered more or less of the cord, was seated generally on its posterior surface, and surrounded the posterior roots of the nerves. The arachnoid adhered firmly to the pia mater, and the two membranes looked like the firm dura mater. Sometimes this exudation was from two to three lines thick. The substance of the cord was injected and extremely hard. When cut it often creaked under the knife; generally it was rather smaller than usual; sometimes much atrophied. The grey substance had a pale yellow colour.

The exudation often extended on the roots of the nerves, but only in the interior of the vertebral canal. The axillary plexus, the sciatic plexus, and other nerves, have been found atrophied by Danielssen, who also once found a portion of the spinal cord softened. Calcareous plates were once found by the same writer in the exudation, and were considered accidental.

The same changes occurred in the cerebral pia mater and arachnoid in a less degree. The Gasserian ganglion, the seventh pair, and all the other nerves, were sometimes surrounded and compressed by the exudation.

The alimentary mucous membrane was pale; a few ulcerations were found, usually in the nose; true *phthisical* tubercles were often found in the lungs; albuminous exudations on the pleura. The liver was often fatty, or had exudation-matter on, and in, it. The spleen was enlarged, the pancreas normal. The kidneys were very frequently diseased, and in the same manner as in the tuberculous form.

*Minute Anatomy and Chemistry of the Exudation.* — Danielssen and Boeck have alone examined these points.

Under the microscope the material exuded in the spinal sheath was yellow, diaphanous, and interspersed with numerous bright points, perhaps fatty; now and then delicate fibres could be seen. The spinal cord itself offered no very striking alterations, except in the nerve-tubes being extremely varicose in the hardened portions.

The chemical examination, by Danielssen, of the exudation was as follows: —

| | | | |
|---|---|---|---|
| Water | - | - | 80·45 |
| Albumen | - | - | 17·38 |
| Fibrine | - | - | Traces only. |
| Salts | - | - | 2·10 |

*Chemistry of the Fluids in Anæsthetic Elephantiasis.* — The only examinations yet made are by Danielssen and Boeck, and are of venous blood.

The blood clotted readily; the clot was small and often buffed. The serum was thick and viscid. The analyses were made in the method of Simon: —

Analyses of Venous Blood in Anæsthetic Elephantiasis, by Danielssen.

| No. | Sex. | Age. | Period of disease. | Sp. gr. of whole blood. | In 1000 parts. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fib. | Fat. | Alb. | Globuline. | Hæmatine. | Salts and Ext. | Water. |
| 1 | F. | 48 | Advanced (17 years) | 1·052 | 2·578 | 2·457 | 100·500 | 84·420 | 4·020 | 10·497 | 205·524 |
| 2 | M. | 29 | Do. (13 years) | 1·046 | 2·409 | 4·854 | 135·975 | 80·850 | 4·900 | 17·150 | 247·184 |
| 3 | M. | 41 | Do. (9 years.) | 1·045 | 6·027 | 3·440 | 104·649 | 62·189 | 7·077 | 14·582 | 199·010 |
| Same. Second analysis, Albuminuria (10½ years.) | | | | 1·042 | 4·361 | 3·567 | 66·733 | 72·209 | 4·449 | 6·844 | 159·205 |
| 4 | M. | 29 | Do. (12 years) | 1·058 | 3·092 | 2·777 | 52·221 | 139·404 | 5·089 | 8·851 | 212·492 |
| 5 | F. | 40 | Do. (24 years) | 1·052 | 2·967 | 4·662 | 60·150 | 121·652 | 6·757 | 9·011 | 199·251 |

*Influence of Age on Anæsthetic Elephantiasis.* — This appears to be the same as in the former variety.

*Influence of Sex.* — The disease appears to have no special predilection for either sex.

*Duration.* — According to Faivre (observations made in Brazil), the duration of this form is much shorter than in the tuberculous variety. Danielssen and Boeck, however, make it much longer, in fact, nearly double; the average in 24 fatal cases being $18\frac{1}{2}$ years. At any rate, it is always a very chronic affection.

*Comparison of the Two Forms.* — The two varieties of Elephantiasis present such extremely different and marked symptoms, that many may even question the propriety of referring them to the same disease. Yet all writers who have had an opportunity of studying the disease consider them as only modifications. This opinion seems to be grounded on three facts: 1st, the co-existence of the two varieties under apparently similar causes, and the non-existence of either form apart from the other; — wherever tuberculous elephantiasis is formed, there will also occur the anæsthetic form; 2d, the tendency which there is in the varieties to intermix: it is not at all uncommon to find persons affected with both forms at the same time; 3rd, and chiefly, instances are not infrequently seen in which one form changes into the other; that is

to say, being itself abolished. Thus the tubercles may form with the usual symptoms, and may continue for some years; the patient may then experience an attack of fever and hyperæsthesia; the tubercles diminish in volume, the colour fades, and the body generally becomes emaciated. Finally, the tubercles altogether disappear, and nothing is left but an extreme sensibility. Then gradually this disappears, and the usual anæsthesia and other symptoms supervene. In such a case the tuberculous form has never been known to re-appear. On the other hand, when all the symptoms of the anæsthetic variety are present, the tubercular development suddenly may come on and the anæsthesia may disappear.

*Complications of both Forms.* — As already said, the same subject often presents both forms; in such cases the tubercular development is dominant, so to speak, and the anæsthetic is little advanced. Danielssen states that this complication occurs once in twenty times. The confusion existing in the description of some writers is evidently due to the observation of such mixed cases.

Chronic cutaneous maladies, especially itch, eczema, lichen, prurigo, and ecthyma, more rarely, impetigo and pityriasis, are sometimes seen. The prurigo, lichen, and pityriasis are said to be most common in the anæsthetic variety.

The combination of small-pox and elephantiasis was noticed by Schilling. In 1845, an epidemic of variola at Bergen gave Danielssen the opportunity of observing the influence of this specific disease as Elephantiasis. The precursory symptoms were severe; the skin became greatly tumified in the tuberculous variety. On some parts the pustules appeared on the sound skin, and followed their ordinary march; in other places the tubercles themselves suppurated, and then ulcerated. In this way some tubercles were entirely destroyed. After the cessation of the small-pox the tubercles continued to increase as before.

Inflammations are extremely frequent, especially pneumonia and pleurisy. Catarrh and diarrhœa are very common; rheumatism very infrequent. Dropsy occurs in some cases with albuminous urine. It is an old opinion, probably without foundation, that persons with Elephantiasis cannot be attacked with the Oriental or bubo-plague.

*Causes.* — Its descent in families was strongly asserted by Schilling, and is admitted by most authors. From 213 cases observed by Danielssen and Boeck, it appears that 189 were derived from families in which one or more persons had suffered from the disease. In 24 cases only, did it appear to have arisen spontaneously. The hereditary influence was more marked on the maternal side (a fact observed also by Alibert), and more in a collateral than a direct line. It sometimes passed over one or two generations. In Iceland, in 1837, Hjaltelin, among 125 diseased persons, hardly found one who did not belong to a diseased family.

In addition to being derived, the malady can be acquired, though with difficulty. Ainslie never knew an European attacked in India. Kinnis only one, who was, however, born in India, at Bangalore, of English parents.* Three cases of persons born in countries, such as France, Holland, and Germany, in which Elephantiasis is very rare, acquiring the disease at the Antilles, at Surinam, and in Norway, are recorded by Danielssen. In Egypt some French military men were attacked; and in New Brunswick the descendants, both of French and English, have at times suffered.

The contagion of the disease has been asserted and denied. The question is still doubtful. The facts show, at any rate, that it is not virulently contagious. The influence of manner of living, habits, and external physical circumstances, have not been yet properly investigated. In Norway the barren and inhospitable eastern coast is most attacked, and the inhabitants are miserably lodged and badly fed. Yet the frequency of the disease in the tropics, and among even well-fed and well-housed Asiatics, forbid us to attribute too much influence to imperfect sanitary conditions. In the Middle Ages in Europe, it has been well proved that many persons among the wealthier classes, feudal lords, and even persons of royal blood, were attacked.

*Diagnosis.* — After the full exposition of the symptoms, little need be said. The dark, early spots may be confounded with syphilitic stains; the obtuseness of the sensation, which seems to occur in the majority of cases, will distinguish the two diseases.

Syphilitic or lupoid tubercles cannot be confounded if ordinary care be taken, as the tubercles of Elephantiasis never appear except in the order, and with the symptoms, laid down in the text.

Radesyge is the Norwegian name for a tubercular disease, which has been perfectly distinguished from Elephantiasis by Hjort and Danielssen. The term Radesyge has been applied, particularly by the French writers, erroneously, to designate Elephantiasis and some other affections.

*Pathology of Elephantiasis.* — The same slow, gradual, and uninterrupted process of exudation of a fibrinous or albuminous material from a diseased blood, seems to occur in both the varieties of Elephantiasis. But the causes which in one case localise this deposition in the skin, in the mucous membranes, and at a later period, in the serous membranes, and which, in the other case, throw in the exudation upon the posterior portions of the membranous sheath of the cord, from the pressure of which proceed the remarkable nervous symptoms, are of course unknown. Still, that the process is the same in both varieties, appears from their power of conversion into each other. The exudation which is pouring out into the skin, may be directed to the spinal cord, but still it

* Edin. Med. and Surg. Journal, vol. lxi. p. 54.

appears to be the same exudation, and is produced by the same abnormal condition of the blood. But what it is which produces this change in the blood, what singular alteration in nutrition can thus affect in this slow way the albuminous principles of the vital fluid, it is at present impossible to say.

Reflecting for a moment on the diseases whose chief symptom is an exudation of more or less organisable matter from the blood, we recognise that such complaints are chiefly owing to the action of a specific agent, which, acting acutely or slowly, at once modifies the blood, as in the case of variola, typhoid fever, or syphilis, or are attributable to some profound cachexia, which, as in the case of phthisis, of lupus, or of cancer, causes to be thrown out into special seats of election, a plastic matter, whose nisus towards future development, differs in each special case. Even in the instance of these diseases, there have not been wanting acute observers who traced their formation to special foreign agents or poisons. If this be incorrect, still to one or other of these classes, or perhaps to both, Elephantiasis is evidently allied — whether, as the older writers supposed, a contagious poison spreads in the air, or is transmitted by contact with a diseased person, or whether, as seems to be the general opinion of the modern authors, the disease springs usually from some taint transmitted from parents to children, which fatally forces aside the normal process of assimilation, is a subject of vast importance, which the facts at present known do not satisfactorily solve. If analogical reasoning were admissible, it might be suggested that the almost inevitable progress of the disease looks more like the effects of a special agent, than merely of some vitiation of the assimilating processes. For the disease once commenced, no change of climate, no diet and regimen, and medicine only in a slight degree, can arrest its fatal progress. In mere cachexia, in derangement of nutrition, however profound, such measures as these ought sometimes to succeed; yet, in developed, and particularly in hereditary, Elephantiasis, this is hardly, if ever, the case.

*Treatment.* — Mercury, arsenic, and iodine have been of late years much employed. Schilling strongly recommended mercury: none of these remedies has produced any decided good effect. Mercury, even when it produces troublesome salivation, seems to effect the tubercles very little. The iodide and bromide of potassium have been found more useful, especially in the anæsthetic form. Possibly the iodide of arsenic, so useful in Lupus, might be beneficial in Elephantiasis. The Asclepias gigantea, so strongly recommended by Robinson in the anæsthetic form, has failed entirely in Europe. Biett employed cauterisations with advantage in one case. Quinine, cod-liver oil, and a host of remedies have been used and lauded, but have not maintained their reputation.

## THE ALEPPO EVIL.

This disease, so well described by Russell, exists almost solely in a few eastern cities, such as Bagdad and Aleppo, and in the towns on the borders of the Tigris and Euphrates.

The disease commences by the appearance of one or more tubercles, most usually on the face. If the tubercle is solitary, it is called "the male tubercle;" if a large tubercle be surrounded by smaller ones, it is termed "the female tubercle." There is no pain, heat, or itching at first. After some months, severe pain ensues, the exuded matter softens, suppuration occurs, and finally an ulcer forms, which covers itself with a black crust. The ulcer is rather superficial, and spreads slowly; its crusts detach and reform continually for some months. At last the ulcer commences to heal, the crust dries and becomes hard, and finally falls off, leaving a depressed, irregular, white, indelible cicatrix. The usual period of the disease is said to be about a year.

The disease attacks all ages and both sexes. It does not appear contagious, and Russell could not inoculate it. It attacks strangers as well as natives; but then less frequently fixes on the face. It is said to develope itself sometimes years after a stranger has quitted the places where it is endemic. It occurs only once during life. The dogs at Aleppo are subject to the same disease.* The cause is obscure. It has been attributed at Aleppo to the bad water of a little river from which all the drinking water is obtained. But this leaves, unexplained, the causes of its appearance at Bagdad and elsewhere.

*Treatment.*—Emollient poultices are usually employed. Cauterisation has been used. The natives employ little treatment.

## HÆMORRHAGIC DISEASES OF THE SKIN.

In various diseases circumscribed effusions of blood, or of dissolved colouring matter, take place into the true skin, or between it and the cuticle. In the majority of cases, the cutaneous affection is but a more or less important feature of a deeper-seated malady. The characteristic features of the hæmorrhage may, in such cases, simply be described, the causes being left unnoticed. In two diseases, however, the cutaneous affection is a more prominent and important symptom; and the general affection, of which it is a sign, must, in one case, receive a more attentive, though necessarily a still brief, consideration.

* Cazenave, op. cit. p. 533.

## PETECHIÆ, ETC.

Effusions of blood into the cutis, or between it and the cuticle, are called petechiæ or vibices.

The most simple form of petechiæ are small round darkish spots, like flea-bites, only without the central puncture; they are not raised, and are ineffaceable by pressure. As they disappear, they assume a yellow brownish, and, finally, greyish colour. Sometimes a little desquamation attends their disappearance.

When petechiæ run together, or appear under the form of long, and sometimes broad, patches of a livid colour, they are often called vibices. Ecchymoses are simply extravasations of blood, of greater or less extent, developed from the effect of blows or pressure, and never, as in the case of petechiæ or vibices, being independent of external violence.

Sometimes the cuticle is raised by the effusion of a sanguinolent or sanious serum.

*Changes in the Blood after Effusion.* — When blood is effused, in the majority of cases it speedily coagulates; according to its bulk it forms coagulated masses of various size. Immediately after effusion it commences to undergo changes, which can be most perfectly traced in the red particles. These changes have been studied by Scherer, Günsberg, and Rokitansky, and lately very perfectly by Virchow.*

After the coagulation, the hæmatine remains attached to the blood corpuscle, or not; if not, the corpuscle becomes pale and much smaller, and at last disappears. The fibrine coagulating forms irregular little flakes. The exuded hæmatine mixing with the serum dyes the surrounding parts, and then gradually forms into granules and little masses of pigment of various sizes. If the hæmatine has not oozed from the red particles, these become smaller, thicker, and darker; they remain separate, or sometimes unite and form round or angular heaps, which are made up of from five to fifteen aggregated corpuscles. These heaps become darker, the corpuscles gradually dissolve or fuse away, and after a time form a single pigment-grain, or mass. The same metamorphose occurs in the little masses formed by the exuded hæmatine. The form of the grain formed in either way is seldom perfectly spherical: the larger kinds have the most extraordinary shapes, while the smaller look like grains of fine powder. In the skin these masses are orange or brown red. They sometimes keep permanently their form; but sometimes a few gradually pass into another form, and assume the shape of peculiar rhomboidal crystals of variable size, (some being

* Archiv für Pathol. Anat. u. s. w., von Virchow u. Reinhardt, Berlin, 1847, Bd. i. S. 379. Quoted by Simon, op. cit. p. 68.

hardly visible, others as large as urinary triple phosphate,) and of variable colour, but usually red or yellow. These crystals are free, or are enclosed in little flocks, or sometimes in cells. They are not peculiar to the extravasations of blood in the skin. They were noticed long ago by Sir Everard Home.

In some cases the hæmatine is completely absorbed, and leaves no traces.

The fibrine and albuminous coagula are absorbed or become indistinguishable.

## PURPURA.

In this disease dark hæmorrhagic spots appear on the skin, especially of the lower extremities; they will appear over any part of the body, even on the face, though they are less common here: they form also on the mucous membrane of the mouth, palate, and, in bad cases, on the other mucous membranes, or in various parts of the body. They are of various sizes; the smallest round, the largest more or less irregular. At first very abruptly defined, their margins after a time fade away into the surrounding skin; sometimes little vessels can be seen running into them; at other times the skin around them is normally or unusually pale; generally they are not raised above the surface, sometimes are very slightly raised. They are unaltered by pressure. They begin to fade in a few days and slowly disappear, in a variable time becoming orange-coloured and yellowish. Fresh crops continually appear as others die away.

Frequently the colour of the small round spots is at first almost black, or of a deep port wine; at other times it is lighter, of a dark livid yellow colour; the patches are then often large, irregular, subcuticular, and more or less confluent. This occurred apparently in the disease described by Werlhoff as the "Morbus Maculosus."* These two forms often occur together. Sometimes in persons of fair skin and in vigorous health the colour is lighter, at any rate when the spots first appear, at which time they may be of a brightish red.

Examined after death, extravasation of blood is found in the superficial layer of the derma or throughout its whole thickness. In the last case the subcutaneous areolar tissue is often dyed by the escaped hæmatine. But it does not appear that extravasation of blood particles commonly occurs in the subcutaneous areolar tissue independent of cutaneous hæmorrhage. The purpuric spots are in no way connected with the hair sacs or the sebaceous glands.†

* In his account of one case, which is manifestly identical with the common Purpura hæmorrhagica of later writers, Werlhoff calls the spots "maculæ." "Accedebant statim circa collum et in brachiis maculæ partim nigræ, partim violaceæ aut purpureæ, quales in malignis variolis sæpe videntur."— *Op. Om.* tome ii. p. 148.

† The Editor makes this statement from his own observations in one case after death, and in several during life. Simon refers to an observation of Virchow, which seems to imply that the hæmorrhage does sometimes occur into the hair sacs.

Occasionally vesicles are formed by subcuticular sanguineous effusion. Frequently there are ecchymoses from pressure or blows.

*Varieties.* — There appears to be no good reason why a distinction should be drawn, between Purpura *simplex* and Purpura *hæmorrhagica;* the last is merely a higher grade of the first, and the hæmorrhages, instead of being confined to the skin, occur from mucous membranes, especially from the membrane of the nose, the throat, the intestines, uterus, stomach, and urinary passages, and in other parts, as into the lungs, the arachnoid cavity, &c.*

Some other varieties, are, however, better founded. Thus occasionally little dark swellings or papulæ are intermixed with the usual flat spots forming the Purpura *papulosa* of Hebra.† Occasionally, also, in addition to the hæmorrhagic spots there appears to be a kind of local congestion, without absolute extravasation: the congestion causes little swellings and wheals, which resemble somewhat the wheals of urticaria, and led Willan to call this variety Purpura *urticans.* Some writers state that there is tingling and itching with these wheals; but Bateman expressly states the contrary.

Under the term Peliosis, or Purpura rheumatica, Schönlein‡ describes a disease which has been termed by others Roseola rheumatica. In this disease local extravasations occur in the skin, and erythematous patches about the joints, which are swollen and painful. The purpuric spots are small, usually on the lower extremities, below the knees. The Purpura senilis of Bateman appears to be either purpura attacking old people, or simply ecchymoses occurring readily in aged persons. By the term "Purpura *contagiosa*" Willan and Bateman merely designate the petechiæ which appear in certain adynamic fevers.

In India the Editor has seen Purpura assume an extremely chronic and enduring form; the spots appear rather sparingly at first, and chiefly on the lower extremities; then one of the extremities becomes quite covered with livid purpuric and maculiform spots and patches, which may almost or quite obscure the natural colour of the leg. There are rheumatic-like pains in the limb, and after a time stiffness in the knee and ankle-joints, pain on movement, and general hardness and slight swelling of the whole limb. The other leg may be attacked, but generally is so to a less extent. The purpuric spots, if they have existed on the trunk or upper extremities, may now disappear, and the skin of all these parts appears healthy. The gums are sound, and hæmorrhages

* In some very rare cases it is stated that hæmorrhages occur only from the mucous membranes, and do not take place into the skin. The accuracy of those observations may, perhaps, be doubted.

† It may be doubted whether the *Lichen lividus* of Willan, corresponds completely to the Purpura papulosa of Hebra.

‡ Pathologie und Therapie, zweiter Theil, 1839, S. 42.

seldom occur from the mucous membranes. After a variable time, sometimes after many months, the lividity of the extremity and the stiffness and hardness disappear. For a long time the limb feels weak, and there are occasional pains.*

The general symptoms attending Purpura vary greatly. In mild cases the health seems scarcely at all affected. In severe cases, there are often antecedent feverish symptoms with pains in the loins, the præcordia and abdomen. In some cases, however, hardly any constitutional symptoms are present, and yet profuse bleedings will occur from the mucous membrane. The bleeding may be a mere continual oozing, or, on the contrary, may occur in active but intermittent gushes of blood. The blood particles are said, in bad cases, to be serrated and broken up, but frequently there is certainly no microscopic change in them. In bad cases death occurs from lobular pneumonia, from hæmorrhages into the cerebral meninges, or into other parts, or from exhaustion and syncope.

*Composition of the Fluids.*—The blood which escapes from mucous membranes often or generally remains fluid; sometimes it coagulates. It is stated also by several writers—Biett and Rayer among the rest—that in their cases the blood drawn from a vein did not coagulate. On the other hand, Albers† states that he found the blood in one case perfectly coagulated, and like inflammatory blood. Dr. Copland refers to observations made by Duncan, Jeffreys, and others, in which the coagulum was pale, like jelly, and separated no serum.

The blood has been analysed by several observers: by Routier, Legrand†, Frick, Garrod, and by the editor.

*Routier's Analysis.* ‡

| | | | |
|---|---|---|---|
| Water - - - | 795·244 | Solid Constituents | 204·756 |
| Fibrine - - - | 0·905 | | |
| Red part - - | 121·701 | | |
| Residue of Serum | 83·405 | | |

Dr. Garrod in one case, in a girl, found the blood buffed, and cupped; the proportion of fibrine was 5 parts per 1000. In

* This form of disease was witnessed by the Editor in India, at Moulmein, and the description in the text is taken from these cases. One case proved fatal, apparently from syncope. Nothing was found to account for death; but there were enormous and firm fibrinous clots in all the cavities of the heart. Coagulated blood was effused not only into the skin, but into the areolar tissue and muscles of the leg. A case or two of scurvy, which were seen at the same time in men who had been for a long time in prison, contrasted remarkably with this disease, which the soldiers called "Black Leg." It was not at all benefited by fresh vegetables, or by salines. Turpentine and creosote were the most useful remedies.

† Gustav. Simon, op. cit. p. 74.

‡ Simon's Chem., by Day, vol. i. p. 319.

another case, in a boy aged 10, the proportion of fibrine was 2·52 per 1000. *

*Analyses by Dr. Frick.*† —Both analyses were in men; the first patient anæmic. The purpura in both cases slight.

| | No. 1. | No. 2. |
|---|---|---|
| Water - - - | 844·299 | 802·985 |
| Solids - - - | 155·771 | 197·015 |
| Fibrine - - - | 4·047 | 2·324 |
| Red particles - - | 82·276 | 124·521 |
| Solids of the Serum - | 69·448 | 70·165 |
| Iron - - - | ·467 | ·895 |
| Lime - - - | ·053 | ·083 |
| Chlorides - - | 5·544 | 5·332 |
| Phosphates - - | 3·088 | 1·743 |

*Analyses by the Editor.* —The cases were well marked, but without hæmorrhage from mucous membranes. The third case was very severe, and had lasted for more than a year; the other two lasted only a few days each. In no case was there any complication at the time, but the woman had articular rheumatism a few days after bleeding.‡

| | No. 1. Male, Æt. 23. | No. 2. Female, Æt. 18. | No. 3. Boy, Æt. 12. |
|---|---|---|---|
| Specific gravity of the defibrinated blood - - - - | 1055·5 | 1050·5 | 1048·75 |
| Specific gravity of the serum - | 1028·5 | 1028·6 | |
| Coagulating point of the serum - | 165° (Fah.) | 162° (Fah.) | |
| Water - - - - - | 779·03 | 819·4 | 804 |
| Solids - - - - - | 200·97 | 180·6 | 196 |
| Fibrine - - - - - | 2·088 | 5· | 2·88 |
| Red particles - - - - | 119·611 | 93·66 | 118·3 |
| Coagulable organic matters of serum - - - - - | 67·103 | 75·31 | 67·871 |
| Incoagulable organic matters of serum - - - - - | 5·304 | | |
| Salts of the serum - - - | 6·864 | 6·63 | 6·949 |
| Chloride of sodium - - - | 2·938 | 2·530 | |
| „ „ potassium - - | ·811 | | |
| Phosphate of soda - - - | ·625 | 1·088 | |
| Sulphate of soda - - - | ·363 | | |
| Peroxide and phosphate of iron - | 1·296 | ·602 | |
| Lime - - - - - | ·077 | ·08 | |

None of these analyses point to any thing determinate; but those

* Lancet, 1848, p. 142.

† American Journal of Med. Science, Jan. 1848, p. 34.

‡ The boy had also articular rheumatism and endocarditis about a year subsequently. All the cases were in University College Hospital.

of Frick, Garrod, and the Editor, prove incontestably that the fibrine may be even in excess, and that there is not necessarily any deficiency in the coagulation of purpuric blood.

The urine is said by Dr. Copland to be of a dark colour, to emit an ammoniacal odour, and to be alkaline, or speedily to become so. In a case of morbus maculosus Werlhofii, in a girl, Simon found the urine of a dark brown colour, of a disagreeable ammoniacal odour, and with an alkaline reaction. It also contained a little bile. In this case blood came from the palatal mucous membrane. Heller and Martin have also analysed the urine in this disease. In Heller's two cases there was an augmentation of uric acid, and of ammoniacal compounds, and a diminution of chloride of sodium. In Martin's case, three analyses were made: the quantity of urine excreted was small; but the specific gravity was low; the reaction was once faintly acid and once neutral; a green matter was thrown down by hydrochloric acid in place of uric acid; the urea was in small quantity; the chloride of sodium not diminished. In the cases noted by the editor, the urine was acid: nothing unusual was observed, except that the daily amount excreted of solids in one case seemed to be increased. Careful analyses were not made.

The examination of the urine has at present led to no certain conclusions.

*Morbid Anatomy.* — The only appearances found after death, which are proper to Purpura, are hæmorrhagic effusions in various situations in the mucous membranes, in serous sacs, or into the parenchyma of organs. There is said to be a want of cohesion of the tissues, incidental diseases, as lobular pneumonia, and softened spleen, are often found.

*Diagnosis.* — 1. Scurvy is absolutely distinguished from Purpura by the affection of the gums, in the first named disease, by the yellow sallow hue of the skin, and by the locality of the hæmorrhage, which in scurvy has a tendency to affect the hair sacs especially, though it may occur in other parts of the skin.

2. The petechiæ which occur during fevers, the exanthemata, &c., are known generally by their smaller size, their less marbled and mottled aspect when large, and by the concomitant circumstances of the case.

*Causes.* — Little at present is known on this subject. Numerous statements have been made, but hardly any are based on good evidence. It appears, however, that the disease is not connected with want of fresh vegetables, as is the case in scurvy.

*Pathology.* — Nothing certain is known respecting the cause of the hæmorrhage. As yet, the analyses of the blood have thrown no light on the matter; if any thing, they tend to undermine the opinion of Purpura being simply, or only, a blood disease. The state of the vessels has not yet been made out. There must be capillary rupture as blood particles escape from them, but whether

this depends on mere congestion, or on disease of the coats, or on other causes independent of the vessel is not known.*

*Treatment.* — The treatment of Purpura varies in almost every case, and requires to be regulated by the general symptoms. There is no remedy known which has a specific effect on the hæmorrhage, unless, perhaps, in some cases the preparations of turpentine and creosote exert such a power. The strong astringents, such as gallic acid, ergot of rye, and acetate of lead, are sometimes useful, but more often fail. Consequently, it is necessary to treat entirely according to general symptoms. If the habit be feeble, stimulants and tonics are to be used; if, on the contrary, as sometimes happens, there are inflammatory tendencies, or evident plethora, blood must be taken. Often large quantities of blood may be taken from robust individuals with benefit. In a case of Dr. Elliotson's, a patient with Purpura simplex was treated with creosote; as the legs became more painful under this treatment, and the eruption brighter coloured, he was bled between the 25th April and the 22d of June fifteen times, and lost 150 ounces of blood, with apparent benefit.†

In low feeble habits, the tincture of the sesquichloride of iron and the mineral acids have been much praised. In some cases brisk purgatives have been of great use, and were much extolled by Dr. Harty, of Dublin. Salines have been recommended. Their utility is doubtful. Turpentine is an old remedy, and is certainly often beneficial, in doses of from 5 to 30 minims, according to circumstances. Creosote has been employed in the same way, in doses of from 2 to 10 or 15 drops. Dr. Williams‡ considers that Purpura is often connected with hepatic congestion and imperfect excretion of bile, and is most effectually removed by remedies which promote the restoration of the proper secretion.

## SCURVY — *Scorbutus.*

This disease is seldom included by writers on skin diseases. The skin affection is, comparatively speaking, but a small part of the disease. Cases of scurvy, perfectly characterised by fungous gums, pains in the limbs, hardness of the hams, and ecchymoses, may indeed occur, without any hæmorrhage, into the skin. In this place, the characters only of the cutaneous affection, when

* The term Purpura has been used by Hebra, almost in a general sense, to include many cutaneous hæmorrhages. Thus he speaks of Purpura scorbutica, Purpura typhosa, exanthematica, &c. But there is no doubt that there is a special disease, having its own causes and its own pathology, whose symptoms, as far as the skin is concerned, are above detailed, and which is distinguishable easily from scurvy and from all other affections: therefore this disease should have a special term; and if the application of the word Purpura cannot be restricted to it, it would be perhaps advisable to use the word Porphyra (employed by Good), or Peliosis, as used by Schönlein.

† Lancet, Aug. 19th, 1837. ‡ Principles of Medicine, 2nd Edit. p. 107.

present, will be alluded to. In fully formed scurvy, six different phenomena, presented by the skin, may be frequently noticed: — 1. A peculiar sallow or yellow discolouration, which appears first about the eyelids, and is often not observable elsewhere for a long time. 2. Hæmorrhages into the hair sacs: these may be known by their small size, their regular distribution, and by each of them being traversed by a hair, which often becomes broken off. 3. Hæmorrhages into the derma generally, taking the form of spots, as in purpura, or of maculæ, blotches, more or less yellow, brownish, violet-coloured, or dark and livid, extending over one or both lower or upper extremities, and, in bad cases, even over the whole body, except usually the face. 4. Ecchymoses from pressure. 5. Desquamation of the cuticle over the hæmorrhagic spots, or elsewhere. 6. General hardening of the substance of the skin in common with hardening of the parts below it, with or without hæmorrhage.

It is unnecessary to enter into the other symptoms of scurvy.*

---

## CHAP. VI.

### DISEASES WHICH COULD NOT BE INCLUDED IN THE FORMER DIVISIONS.

THERE are a few diseases whose exact position cannot be very well determined, and which may therefore be provisionally placed in a separate chapter.

PELLAGRA — *Pellarina: Mal rosso: Mal de Misère: Elephantiasis Italica.*

Under these and various other names has been described a disease which has been more or less endemic in Lombardy and Northern Italy, annually, for a long period, but which has been only described by writers during the last 140 years. It is a true scourge in the districts referred to; and, although a chronic and slowly developed disease, is gradually reducing the population of the localities in which it chiefly prevails. The cutaneous affection

* To the analyses of venous blood which have been made in Scurvy, the Editor may be permitted to add the following. A well-marked but not severe case of Scurvy was admitted into University College Hospital. The patient was a man (an Albino) aged about 50, who had undergone great privations. The blood was drawn before treatment. The clot was not buffed or cupped. Serum alkaline in the usual degree.

is only a symptom, and not the most important one, of a general constitutional disease.

*Description.* — Pellagra commences very frequently by precursory symptoms of gastro-intestinal disorder. The two most important symptoms are an insatiable appetite and diarrhœa, which resembles lientery, and seldom, if ever, passes into true dysentery. There is seldom any uneasiness or pain in the stomach, or flatulence or pyrosis after eating; the stomach seems to digest rapidly, and then the food passes into the intestines, and is hurried along them. Constipation may alternate with the diarrhœa. In a few cases there is no diarrhœa at all. The evacuations are watery, yellow, greenish, or black, and are sometimes accompanied by melœna. The mucous membrane of the mouth and palate is livid, and often ulcerated. Sometimes there is salivation. After these symptoms have lasted for some time, and occasionally without them, an eruption appears. The first point of manifestation appears to be on the parts exposed to the sun; such as the back of the hand and the fore arm, especially on the back part, and the dorsum of the foot. Slight desquamation of the cuticle occurs first of all: the separating scales become dry and dark, like chocolate, sometimes almost of a brownish-black; there is no itching or pain. Frequently with this there is an erythematous blush, and then there may be smarting. In early cases, the erythema after a time disappears: the blackened cuticle falls off, and the skin becomes natural. The improvement is only temporary; the same phenomena reappear; and, after successive desquamations, the skin is left dry, shining, and hard, but is not thickened. It does not become much thickened, callous, and cleft, as some writers have stated.* There are no tubercles, as stated by other writers; and there is not the slightest analogy between Pellagra and the Greek elephantiasis. According to Calderini there is a kind of degeneration of the skin, and loss of its normal appearance, and this is perceptible under the microscope, before the naked eye can perceive any change.†

---

Analysis of venous blood of Scurvy — *continued.*

| | |
|---|---|
| Specific gravity of serum | 1025·83 (Temp. 68° Fah.) |
| Coagulating point of serum | 156° to 160° |
| Fibrine | 3·69 |
| Red particles | 116·78 |
| Albumen (pure) | 61·05 |
| Incoagulable organic matters of serum | 8·89 |
| Salts of the serum | 7·13 |

The quantity of potash in the serum was determined by the chloride of platinum. There were ·2896 of potash per 1000 of serum; about ·457 of chloride of potassium.

* Cazenave states that Gaetano Strambio, the great authority on Pellagra, who has seen the disease for more than thirty years, expressly informed him that these symptoms hardly ever occurred. The skin is more often thinned than thickened.

† Notizie medico-statistice sulla Pellagra, &c. abstracted in C. und E. Jahresbericht, 1849, dritter Bd. S. 132.

Occasionally there are blebs and phlyctenæ; and frequently after the second appearance of the erythema, there are dark-brown circular, irregular, permanent patches (Pellagra *orbiculare*, Alibert). In chronic cases, more or less of the skin of the whole body may be involved.

The erythema and the cuticular affection chiefly appear first in the spring, and disappear in the autumn and winter to reappear the following spring. They are manifestly increased by exposure to the sun; and it would even seem as if, at first, the sun's rays were the determining cause of the eruption in a diseased habit.

Sometimes before the eruption, and even before the digestive derangement, but generally after its appearance, certain peculiar nervous symptoms show themselves. They are of various kinds. A case is given by Strambio, in which a man, not evidently pellagrous, was seized with violent vertigo, which obliged him, as he believed, to run forward to save himself from falling. Pellagra came on afterwards. Extreme feebleness of the limbs and profound sadness are mentioned in another case, in which Pellagra shortly afterwards appeared. The usual nervous symptoms are, vertigo, tinnitus aurium, dimness of sight, muscæ volitantes, severe pains passing from the head to the cord, and thence to all the limbs, cramps, tetanic spasms, involuntary movements, and tendencies to rush forward. Afterwards, or mixed up with one or more of these symptoms, occur epileptiform attacks, convulsions, feebleness of the lower extremities, or even paraplegia, delirium or insanity; a desire to commit suicide, particularly by drowning, or to murder children, especially by drowning, is a peculiar and strange symptom in many cases.

In addition to all these symptoms, derived from the skin, the digestive organs, and the cerebro-spinal centres, the lungs often suffer. Tubercles often form, and are attended by the usual signs; tuberculous laryngeal disease is a frequent complication in such cases. The mean duration of Pellagra in men is between nine and ten years, and in women between ten and eleven, according to Calderini.

*Morbid Anatomy.* — In cases which die early, nothing is found. In advanced cases the following is given by Strambio (quoted by Cazenave): Frequent effusions of fluid in the peritoneum; marks of chronic peritonitis — black patches on the peritoneum; the alimentary mucous membrane thickened, injected; general ulcerations or softening of the stomach, and ulcerations in the intestines, of Peyer's patches, as well as of other parts. Carswell in one case found the mucous membrane of the stomach in a state of gelatinous softening. The cerebral spinal organs are injected; the arachnoid often adherent; there is occasional softening, or, on the other hand, induration of the substance of the cord. Mottoni says that

a constant appearance, is softening of the intestinal mucous membrane.*

*Composition of the Fluids.*—Analyses of the blood have been made by Calderini of Milan. They show a diminution of red particles.†

*Causes.* — It is said that Pellagra may be hereditary: it is said not to be contagious: it attacks all ages and both sexes. It appears more common in women than men. In 725 cases noted by Mottoni, there were 335 males, and 390 females; in 1005 cases seen by Calderini, there were 449 men and 556 women. Cazenave enumerates the five following chief causes which have been assigned: — 1st, Insolation; 2nd, The use of indigestible food; 3rd, The exclusive use of aliments not sufficiently azotised; 4th, The habitual use of maize; 5th, An endemic and special influence of soil. Some observations lately made by Girin‡ seem to show that it is not the mere use of maize which is hurtful, but its use under unfavourable conditions. Maize appears to be sufficiently rich in nitrogenous principles, and in some hamlets, even in the districts where maize is so extensively used, Pellagra is unknown. In years in which the maize does not ripen well, or when it is attacked, as it often is by a species of fungus, (Sporiosorium maydis,) the Pellagra increases, as if it were dependent, or at least influenced by, disease of the grain. So also the Pellagra is always most severe where the soil is silicious and where the maize does not ripen well. Girin seems to doubt whether good ripe maize can produce the disease. He attributes some accessory influence to insolation, and also to the exposure to the occasional cold Alpine winds from the north-west, which dry the skin. The conclusion from his observations seem to be that two causes principally favour the development of Pellagra, viz. the peculiarity of the country, and the general deleterious nutriment used by the inhabitants. As respects the use of maize Mottoni has come to the same conclusion as Girin. It may be added that maize is used extensively in America, and there is no evidence at present of any bad effects having followed such use.

*Treatment.* — The hygienic treatment is extremely useful and successful in the early stages; and, among the means employed, the use of cold water externally is much praised. When the nervous symptoms are predominant, local bleedings, opium, and anti-spasmodics, have been employed it is said with benefit.

## Ichthyosis — *Fish Skin Disease.*

Instead of including Ichthyosis under the diseases of the glandular apparatus, or of the superficial layer of the derma, or of the

* Canst und Eisenmann, Jahres-bericht, 1849, dritter Bd. S. 133.

† Canst und Eisenmann, Jahres-bericht, 1849, dritt. Bd. S. 132.

‡ Betrachtungen über die Ætiol. des endem. Pellagra, Canst. und Eisenmann, Jahres-bericht, 1849, Viert. Bd. S. 152.

cuticle, it appears advisable, as there is some doubt as to its mode of formation, to place it in the present chapter.

*Description.* — In icthyosis, dry, hard, greyish, or brownish-grey or slate-coloured scales form on various parts of the body. Most frequent on the extremities, and on the external surfaces and articulations, they may form all over the body, but are uncommon on the face*, the palms of the hands, and the soles of the feet. They vary in size and in arrangement, being sometimes confusedly heaped together, at other times being more or less regularly imbricated. Sometimes they are collected at special points, and form small horn-like processes or round shield-like isolated projections. The scales are continually dropping off or breaking up into powder, and are as constantly renewed. Sometimes the separate scales cannot be seen, but the skin appears covered with a dense, hard, dry, dark coating, like shagreen, which is divided by deep interlacing furrows into small quadrilateral or angular compartments or masses. The surface of the skin, when it can be exposed, appears paler than usual, and is rough and rather hard. The masses seem sometimes to be narrower at their roots, and overhang, as it were, the intervening furrows.

Sometimes icthyosis is partial,—is limited to an extremity, or part of one, the rest of the skin being entirely free. In such a case, the density of the scaly mass is often very great.

*Varieties.* — Varieties of icthyosis are made by writers, which appear to be founded only on differences of grade and on accidental varieties of form. Thus, Willan speaks of Icthyosis simplex, and Icthyosis cornea, varieties which are termed by Erasmus Wilson, I. squamosa and spinosa. Schönlein and Fuchs speak of I. scutellata, and Fuchs of I. cornea accuminata, the I. hystrix of many writers. The I. spinosa of Wilson seems to differ from I. squamosa only in the new formation being accumulated in spots, so as to form projections of greater or less size, instead of being more uniformly distributed over the surface. Probably common hardened sebaceous secretions, forming squamous layers or horns, have been sometimes confounded with Icthyosis squamosa and spinosa.

*Nature of the Scaly Masses and Condition of the Skin.* — Very considerable differences of opinion still exist on this point, which will be best understood by a brief detail of the observations which have been made.

For a long time the scales were supposed to be produced by an unusual formation of altered cuticle. This implied, of course, corresponding alterations in the superficial layer of the derma. It was also stated by Good, that there was an increased excretion of chalky salts, which formed scales with the cuticle. Subsequently

* Erasmus Wilson says the scales are most common on the face, abdomen, and flexures of joints. As far as the face is concerned observation is opposed to this statement.

Gluge, on microscopic examination, found the scales to be formed by epidermic cells, between which was a foreign substance of some kind.* Erasmus Wilson, from several examinations, concluded that the scales are not at all made up of epidermis, but are composed of hardened sebaceous substance.† The ducts of the sebaceous glands and the hair follicles, in a case referred to in his work, were distended with inspissated white secretion. Willan and Bateman, and subsequently Rayer, state that the papillæ of the cutis are enlarged, and the furrows between them deeper. The cutis, also, is said to be thickened. Hebra states that the orifices of the hair follicles are closed.‡ Martin, on the contrary, found both follicles and openings larger than usual.

Gustav. Simon has examined several preparations. In one case the Icthyosis was hereditary; the child died soon after birth. The body of the child was covered over with a hard horny brown mass, which, after a careful examination, Simon found to be epidermis. It was composed of cells entirely similar to those of epidermis. A great number of furrows divided this into scaly divisions, the smallest of which were a line or two, and the largest an inch broad. On section, the epidermis was found to be a line thick, brown coloured externally, whiter below. The cutis was also thickened, and covered with enlarged papillæ. The hair sacs were seen covered by the thick cuticle. The sebaceous glands were not very visible, yet appeared to have their usual form. In the cuticle on the sole of the foot, the sweat-canals were easily seen, proving also that the horny mass could only be cuticle. No foreign element could be found in this case. In another case the skin from the foot of a man was examined: the scales consisted entirely of epidermic scales, without foreign addition. The papillæ of the skin were not enlarged.

Gustav. Simon § appears decidedly to consider that icthyosis is to be considered as an hypertrophy or increased development of the cuticle, and not as any excretion spread over the derma from the sebaceous glands. Whether the sebaceous glands are enlarged, as has been asserted, or not, cannot yet be determined. Simon's observations leave it doubtful. The hypertrophy of the papillæ does not appear necessary.

If these observations be sufficient, the old view must be admitted to be the correct one; and the cases which Erasmus Wilson examined must have been a kind of spurious icthyosis, in which thickened secretion imitated the epidermic scales.

*Pathology.*—The cause of the great hypertrophy of the cuticle remains unexplained. It is necessarily to be looked for in some change of the cutis, but the nature of this is quite unknown. It

* Simon, op. cit. p. 45.
† On Diseases of the Skin, 2d edit. p. 356.
‡ Simon, op. cit. p. 47.
§ Ibid. p. 49.

is not, according to Simon, always connected with enlargement of the papillæ.

*Causes.*—Icthyosis is frequently hereditary, and may be congenital. Five successive generations are known to have suffered. Biett states that women are much less frequently attacked than men, not in a higher proportion in fact than 1 in 20. The other causes of the disease are quite unknown.

*Treatment.*—All kinds of treatment have been used, but the disease is refractory in the highest degree. Internal remedies have little or no effect. Arsenic has been tried, both in large and small doses, unsuccessfully. In his edition of Bateman, Dr. Thomson mentions a case much benefited by the internal use of a decoction of the Rumex acutus; and in some cases, in University College Hospital, the Editor saw him use, with apparent advantage, a decoction of the Rumex obtusifolius. In a case lately under the Editor's care, however, this medicine failed entirely.

Local applications are more useful. Alkaline and sulphureous baths will occasionally bring off the scales rapidly, but they usually form again. Mercurial and iodine ointments are useful when the scales have been detached.

## PACHYDERMIA.*

The disease which has received the various names enumerated below consists, apparently, of an hypertrophy of the skin, of the subcutaneous cellular tissue, and perhaps of the subcutaneous fat, with the development of bundles of areolar tissue under the skin, and occasionally between the muscles. It is not, as some appellations imply, confined to the lower extremities, but may affect an arm, a hand, the scrotum, the chest, the mammæ, and even the face. It most usually appears, however, in one leg, or, much less frequently, in both legs. It more frequently affects the leg than the thigh or foot.

*Description.*—The disease commences frequently by acute symptoms (described first by Hendy), which have been supposed to indicate inflammation of the lymphatics. Thus there are darting pains, and a feeling of tension in the course of the superficial lymphatics, which soon swell and form hard nodulated cords. Frequently the inguinal or other lymphatic glands enlarge and grow painful. General symptoms of feverishness, shiverings, thirst, vomitings, &c., also occur. Occasionally there is redness, even erysipelas, of the skin, of the part or member which is about to suffer. The superficial veins sometimes become hard and corded. All these symptoms may disappear, and no further

* *Syn.* Pachydermia (*Fuchs*); Bucnemia (*Good*); Barbadoes leg; Elephant leg; Elephantiasis of the Arabs; Hypersarcosis, &c.

consequences ensue; but usually after a certain length of time they recur again. The part now swells; it is not painful, and is uneasy only from the tension of the skin. A remission may again occur; but there is seldom a complete disappearance of all symptoms as at first. The glands, if enlarged, remain hard, and the limb or affected part slightly swollen. After several of these relapses the swelling is found to have gradually increased to a considerable degree; it is soft and pits on pressure. It increases in size in the same way; as it were *per saltim*, every now and then a fresh impetus being given to the affection. At length the swelling attains a prodigious size; the skin is stretched, white, and shining, or it is dark, thick, and with projecting veins. The swelling is now hard, and resists the finger. If it has taken place in the leg it often overhangs and conceals the foot, which may be little affected, but appears disproportionably small, and produces the resemblance to the leg of an elephant. Generally the swelling tends slowly to spread.

Various accidents may occur; the swollen lymphatic glands may suppurate or become gangrenous; the joints may be affected by chronic inflammation; the skin may become covered with scales, as in ichthyosis, or unhealthy ulcerations may occur which are difficult to heal.

Frequently, however, none of these complications happen; the general health remains good; and inconvenience is felt only from the bulk of the swelling, which may be enormous. The disease is in fact chronic and benignant.

*Minute Anatomy.* — An excellent abstract of all the observations hitherto made is given by Gustav. Simon, from whom the following description is chiefly taken.

The epidermis is frequently, but not always, thickened; sometimes it is unchanged. The cutis is also thickened in very various degrees: in many cases it is only a little thicker than in health; in others there is extreme swelling. Deep furrows mark the cuticle and cutis, and sometimes give the surface a nodulated look. Between the deep furrows the surface of the cutis is smooth, or is covered with a multitude of protuberances. These are sometimes small, and look like moderately-enlarged papillæ; sometimes they are broad bunches or long slender cones, which are often cleft at their apices. They are compared by Henle to syphilitic condylomata. The subcutaneous cellular tissue is always thickened, sometimes from an increase of fat (as observed by Rayer, Henle, and Sinz), but more generally by a tissue, which, to the naked eye, looks like condensed areolar tissue; it is sometimes so firm as to be comparable with fibrous tissue, is sometimes lardaceous looking, and adheres firmly to the skin. Fibrous-looking filaments pass through it, between which there is a more spongy substance. In this mass fat may exist in lumps or be altogether wanting. The deep areolar

tissue, and the other deep structures, appear in many cases undiseased; yet occasionally the intermuscular areolar tissue is affected, and the muscles may be shrunken and atrophied, or have undergone the fatty degeneration. The bones are occasionally diseased, thickened in some cases to a great degree, and nodulated. The changes in the lymphatics are differently described. An old observer, Hendy, describes them as enlarged, but so brittle that they could not be injected with mercury. Other observers have found no change. The veins and small arteries were found enlarged by Hendy and Rollo. Rayer in one case found no change in the arteries, but the veins were clogged with fibrinous coagula. Bouillard, also Fabre, have also found them obliterated. On the other hand, Stannicus in two cases, and Pucheltz in one case, found the veins pervious. Mr. Southam found the veins very large, with thickened or altered coats, but mostly patulous. The arteries were small and the coats thin: the nerves could not be seen.

Microscopic observations have been made by Sinz, Henle*, Lebert†, Southam, and Simon. Henle and Sinz found fat cells and areolar tissue, mixed with a fibre, looking something like unstriped muscular fibre, broad, flat, straight, or bowshaped, and splitting at the end into fine fibrillæ. Lebert found fibres and bundles of white fibrous or areolar tissue, with fat cells and exudation corpuscles lying in the meshes. Simon also found only fibres of areolar tissue perfectly formed, or in process of formation. He could not see the flat fibres described by Henle. Southam found nucleated fibres, fat globules, and granules.

Occasionally fluid in considerable quantity is found in the meshes of the newly formed tissue, or oozes from the skin; it appears to contain sometimes both fibrine and albumen, and has often a milky appearance. In two analyses reported by Wiedel‡, a milky fluid contained, as solid ingredients, fibrine, much albumen, fat, chloride of sodium, phosphate, and carbonate of lime. In a case recorded by Fuchs, casein and sugar, in small quantity, were found as in true milk. In a case reported by Mr. Southam§, a fluid oozed from the sudoriferous ducts; it had a slight acid reaction, and contained a little fat and chloride of sodium with epithelium.

*Causes.*—Pachydermia is endemic in the tropics. It attacks all ages, but is most common in adults. It is perhaps more frequent in men than women. Its predisposing causes are obscure.

The immediate cause of the exudation, which subsequently organises itself into white fibrous tissue, is also obscure. It has

* Zeitschrift für rationelle Med. Bd. 1. Heft 1. 1842, S. 84.

† Physiologie Pathologique, tome ii. p. 47.

‡ Ueber *Elephantiasis scroti* mit Ergiessung lymphatischer Flüssigkeit. Wurzburg, 1837. Quoted by Gustav. Simon.

§ Med. Chir. Trans. vol. xxx. p. 70.

been attributed to inflammation of the lymphatics, or of the small veins or arteries, or to local obstruction in the venous circulation. In Bouillaud's case, already referred to, the veins were obliterated even up to the vena cava. But why such an obliteration should give rise to this infiltration, in such a case, rather than to dropsy, is not to be understood. Bellingham has lately ascribed much influence to the erysipelas which usually attends the progress of the disease.

*Treatment.*—Iodine, frictions, and compression, are the measures which have been chiefly useful. In the case of scrotal affection the mass is often removed. Amputation is also occasionally performed; but unless the leg be of most inconvenient size, this should be avoided. Cazenave mentions a case in which the leg being amputated the disease appeared in the arm.

---

## CHAP. VII.

### Syphilitic Eruptions.— *The Syphilides.**

The propriety of separating, in description, those cutaneous eruptions which are consequent on the action of the poison of Syphilis, has been long admitted. Abstractedly, their derivation from a specific cause, and practically, their treatment by special methods, are sufficient grounds to justify such a separation.

Syphilitic eruptions may assume the form of any of the cutaneous eruptions, which do not spring from specific causes. They may present the physical characters of roseola or erythema, of various papular, vesicular, pustular, scaly, or tubercular eruptions, such as lichen, eczema, impetigo, ecthyma, rupia, lepra, psoriasis, lupus, &c.; but they never assume the forms of the true exanthemata, or of the other eruptions which spring from specific agents. The eruptions of variola, scarlatina, typhus or typhoid fever can never be imitated by the effects of the syphilitic poison. Possibly, an eruption owning another specific cause may happen to develop itself in the system of a person who has become tainted with the syphilitic diathesis, and may be more or less impressed by the presence of the preexisting constitutional disease. But even this is uncommon. The only specific eruption, which the Syphilides ever imitate at all

* The term "Syphilide" was employed by Alibert to designate all cutaneous eruptions consequent on syphilis. The word has passed into French medical nomenclature, and has also been used by several English writers. It is a most convenient word, and worthy of general adoption.

closely, is varicella, and even here the distinction between the eruptions can be easily drawn by a practised eye.

Although many eruptions arising from specific agents, such as small-pox, measles, scarlatina, typhus, typhoid fever, &c., present characters which are sufficiently uniform to permit a diagnosis to be made in almost all instances, from the eruption alone: this is not the case with the eruptions consecutive to Syphilis. These eruptions may present various appearances, from a mere efflorescence, to a pustular crust or a serpiginous ulceration. Yet although the syphilitic poison can thus manifest itself in so great a variety of ways, and in forms which bear no external resemblance to each other, there is evidence that even this comparatively irregular manifestation, has, as in the case of the acute specific diseases, such as variola or measles, a certain order and method of appearance. The mode of succession of the phenomena is nevertheless easily disturbed by modifying circumstances of age, health, occupation, treatment, &c. The slow acting syphilitic poison does not, like the agents of the more acute specific diseases, level, to a certain extent, all differences of constitution before its own subjugating power. On the contrary, it is continually undergoing modification, and the results consequent on its own action, and the changes produced in this action by the condition of the system it has invaded, are necessarily complex and changeable. The study of the secondary effects of the syphilitic poison is therefore, unusually difficult; and there are yet many points which can hardly be said to be at all understood.

Although the syphilitic cutaneous eruptions do not present any constant specific form, but are sometimes scaly, sometimes vesicular, pustular, or tuberiform, they present certain common characters which are more or less distinctive of their specific origin, and by which their diagnosis, for the most part, is made.

*Common Characters of the Syphilides.* — 1. The most constant, most striking, and, as far as diagnosis is concerned, the most important of the common characters, is the brown, or brownish-grey, or copper-colour, which syphilitic eruptions generally present. The tint of a well-marked case is unique, peculiar, and hardly possible to be overlooked, but is not easily described. In addition to the mere colour there is something dull about it, as if there were some greater opacity than usual, both of the epidermis and the derma. The colour becomes fainter, but does not disappear altogether on pressure. It exists round the bases of vesicular and pustular eruptions, and round the margins of ulcers.

(*a*) This colour varies in depth and in shade according to the original colour and conformation of the skin of the patient. It is lighter in individuals with white fine skins; sometimes, in such persons, it can hardly be said to approach to the lightest copper tint, yet if it can be compared with non-syphilitic eruptions occur-

ring in the same individual, it is found to be relatively as dark in them as in other persons. In dark skinned individuals, the colour is much more marked, and presents various shades of grey and brown rather than of true copper red. In aged persons with dusky and brownish coloured skins it is still more marked, and the dullness and opacity are also greater. It appears then that the colour of syphilitic eruptions bears a relation to the natural colour of the skin of the individuals in whom they appear, in other words, to the quantity of pigment contained in the tissues of the skin. Consequently it is referred by Cazenave to alteration in the chromatogenous apparatus, but its true cause is considered still doubtful by Gustav. Simon.

(*b*) This colour also varies according to the general health of the individual. In persons of weak and cachectic habit, it becomes more livid, and sometimes approaches even a blackish tint.

(*c*) It varies according to the part on which the eruption appears, in conformity, probably, with two circumstances, viz. the natural depth of colour, and the natural or accidental and transient vascularity of the affected part. A high degree of congestion often increases the depth of the red tint, but conceals the true coppery or dull brownish hue.

(*d*) It varies, lastly, according to the type of the eruption, being most marked in the case of those eruptions, which, even when they do not own a syphilitic origin, have frequently a darkish red or even slight copper tinge, as is seen not infrequently in non-syphilitic pityriasis, lepra, and psoriasis.

2. Syphilitic eruptions have frequently a tendency to assume a circular shape. This is not always the case, nor is it distinctive, since various non-syphilitic eruptions, as psoriasis guttata, lepra vulgaris (these two forms being distinguished by the rules assigned by Biett and Cazenave), some varieties of herpes, &c., assume circular shapes as perfect and as constant as are ever observed in syphilitic eruptions.

3. Syphilitic eruptions, as a general rule, tend to effect more deeply and more permanently the derma and the subcutaneous tissue, than the non-syphilitic eruptions of the same class. This can be seen by comparing common papular eruptions with the most usual form of syphilitic papulæ when the latter will be found to be larger, more prominent, and to affect frequently nearly the entire thickness of the skin. Lepra vulgaris, or psoriasis guttata, are, so to speak, more superficial, — and affect less profoundly the skin than syphilitic lepra and psoriasis. The same fact is still more evident on comparing ordinary and syphilitic rupia.

4. In consequence of this profounder implication of the skin and, in some cases, subjacent structure, a greater destruction of tissue is produced by syphilitic than by the analogous non-specific eruptions. Hence, ulcerations, extending sometimes through the whole thick-

ness of the cutis, are more common in the Syphilides; and hence, too, these ulcerations often leave marked, permanent, and irreparable indications of the destruction which has taken place. In other cases, destruction of the deep layers of the cutis is caused by exudation deposit, which, subsequently being absorbed, or leading by pressure to absorption of the cutaneous elements themselves, produces a depressed, seamed, and as it were cicatrised surface, although the surface of the skin has not been affected.

5. The ulcerations of secondary Syphilis have a tendency, like the eruptions, to assume a circular form. This is most marked in ulceration commencing extremely early,—that is to say, almost as soon as the eruption it follows,—and extending, not by a repetition of eruption, but by true ulcerative destruction of the skin and, perhaps, of the sub-cutaneous cellular tissue. In such a case, the ulcer is often perfectly round; its depth is considerable; its edges are regular, sharp, yet hard; the colour of its floor is greyish red; it may have a darkish zone round its indurated margins; it extends itself regularly at all points of its circumference, and consequently, till reparation begins, always maintains its circular form. In some cases the ulcerations follow a different rule, and form parts of the peripheries of circles, which, joined together at their extremities, necessarily assume a sinuous, winding, and serpiginous shape. Ulcers of this kind are more common in the tuberiform Syphilides, at the bases of which they often occur, than in the pustular and vesicular forms, and they are not usually so deep as the circular ulcers.

6. The progress, maturation, and repair of the Syphilides, is for the most part slower and more tedious than that of the non-syphilitic eruptions. There is a kind of inherent chronicity in the action of the poison, which is best seen in the cases which have been undisturbed by treatment. During the progress of eruptions there is often an entire absence of heat, burning, or itching; feverish symptoms are slight (although before the appearance of the eruption they may have been severe); or if they are present, are often referable to the presence of other syphilitic complications. The crusts of the moist eruptions are often thick, dark-coloured, and very adherent, so that fresh laminæ are formed in succession, without the first-formed being detached. The scales in the dry eruptions are thinner and drier than in non-syphilitic lepra and psoriasis.

7. The vestiges of healed eruptions and the cicatrices of ulcers present, generally, characteristics which are strongly-marked, and which can be referred to the colour of the cicatrix, to its form, and to the methods in which the destruction of tissue has originally taken place, and the cure eventually brought about. Thus, the *colour* of a recent cicatrix is generally dark, somewhat of a bronze or port wine tint; subsequently the colour becomes lighter, and after

a considerable length of time may be even more pallid than that of the surrounding skin. There is about such an old cicatrix a character extremely definite from the entire absence of the natural flesh tint, and from a kind of deadness and opacity which seems to affect the whole thickness of the skin at this point. If the cicatrix have succeeded ulcers, or the crusts of large pustular and vesicular eruptions, as of ecthyma and rupia, the *form* is nearly or quite rounded; if the cicatrix, so to call it, has succeeded destruction of tissue without ulceration, or has followed the serpiginous ulceration, the form is irregular; sometimes in lines, curved or straight, sometimes in irregular patches, joining here and there with each other. Hence arises, if the patches are numerous, seams and furrows, which may be intermingled with circular cicatrices. It has been already stated that the Syphilides are remarkable for the destruction of tissue. Such destruction arises from two peculiarities; from a proneness to ulceration, that is, to loss of substance by absorbtion implicating the surface, — and from a tendency to the deposition of exudation-matter of some kind in the thickness of the skin. When this exudation is deposited, as it often is, under the vesicles or pustules, or, more often still, in and under tubera, which in fact it often constitutes, it seems to press on and kill the adjacent tissues, which are removed by absorbtion, *i.e.* by a kind of intra-dermoid ulceration; the exudation-matter then contracting produces ridges, bridles, and prominent frænа running in various directions, and giving a depressed, rough, and irregular character to the patch. At first such exudation is copiously supplied with vessels, but subsequently they become more or less obliterated. It is probable, also, that in the tuberiform eruptions, the exudation may sometimes soften and be absorbed, as in lupus. After ulcerations, the exudation-matter which is deposited appears often very contractile, and for this reason, and on account of the great destruction of tissue, there is considerable depression, roughness, and bridling of the surface of the healed ulcer. The union of these three conditions of *form*, *colour*, and *mode of repair*, impresses a character on syphilitic cicatrices, which is not imitated by anything seen in this country. The healing of small-pox presents the nearest, but yet not very close similitude.

*Period of first Evolution, i.e. of first Appearance of Eruption after primary Symptoms.* — The time at which the Syphilides appear after the primary symptoms, has been variously stated. Ricord gives a decided opinion that "more than six months never elapses between the contagion and the manifestation of secondary symptoms," unless the ordinary sequences have been disturbed by treatment.* The earliest eruption is said to appear often in six weeks, and three months may be taken as the average time.

* Lancet, 1848, p. 384.

If a year elapses without any signs, in a patient who has undergone no specific treatment, Ricord considers that person safe. Cazenave draws a distinction between primitive and secondary Syphilides. The primitive ordinarily appear in a month or six weeks after infection. The secondary Syphilides, which Cazenave refers to the same epoch of development as the affections of the fibrous and osseous tissues, will appear after six months, after a year, or even after thirty or forty years, without any symptoms between their manifestation and that of the primary symptoms. On the other hand, Ricord believes that whenever a pustular or tuberculous eruption appears after the lapse of a year, a slight scaly or roseolous eruption must have been overlooked. This question, so important in a practical point of view, has been brought to the test of numerical analysis by several observers. M. Martins* states the mean time for appearance of eruptions, after simple chancres, to be 5 years; after gonorrhea†, 11 years; after chancres, bubo, and gonorrhœas, occurring together, 20 months. The two extremes of gonorrhœa were 4 months and 42 years. M. Legendre‡ makes the mean time after chancres, 6 years; after gonorrhœas, 7 years and 4 months; after chancres and buboes, 13 months. M. Martins' analysis was made from 60 cases; M. Legendre's from 63. Cazenave's analysis of his own cases is as follows: mean time after chancres, 4 years and 3 months; after gonorrhœas, 5 years and 6 months; after chancres and buboes, 3 years and 1 month. Speaking in general terms, from 1 to 10 years is the usual interval according to Cazenave. There were 54 cases under 1 year; 69 over 1 and under 10 years; 20 between 10 and 30 years; and 3 over 30 years. The difference between the numbers of the three observers is very considerable, but they all agree in assigning extremely long periods between the infection and the appearance of secondary symptoms. Singularly enough, an analysis of Cazenave's cases, recorded in his "Traité des Syphilides," can be made to differ in toto from the statement above given. Thus, in this excellent work, 89 cases are recorded. Only 86 are actually numbered, since the numbers of two cases (pages 474 and 615) are omitted, and the number 85 is given to two cases.§ Of these 89 cases, only 47 are available for the determination of the question of time. These were cases of chancres, buboes, or gonorrhœa, or of all together. In one case the eruption appeared at once with the primary symptoms; in another it appeared after 15 days. Excluding these two cases, the mean time in the remaining 45 for the appearance of syphilitic eruptions, after the period of first infection, was

* Quoted by Cazenave, op. cit. p. 507.

† The question of eruptions secondary to gonorrhœa is discussed in a subsequent page.

‡ Op. cit. p. 508.

§ M. Cazenave's numbering is adhered to for the convenience of reference.

2 years, nearly. Of the 45, 29 were under, and 16 over, 12 months: the average time for the 29 was 5½ months, nearly: of the 16, ten had been treated with mercury; six not; four are noted at 2 years; four at 3 years; one at 4 years; one at 5 years and 3 months; two at 6 years; one at 7 years; one at 8 years; one at 10 years; and one at 12 years. The other 42 cases cannot be used for the following reasons: in ten of these cases (viz. cases 10. 15. 26. 33. 53. 55. 76, 77. 85, 86.) the time is not given at all; in three (viz. cases 3. 8. 57.) the time is not definitely given; in one (viz. case 11.) there is an error as to date, the admission being dated prior to the illness: in five (viz. cases 6. 12. 21. 32. 80.) there were no primary symptoms, or none were owned to, and therefore no time can be fixed; in three (viz. cases 40, 41, 42.) the only disease was "plaques muqueuses" about the genitals, coming on, with or without blennorrhagia, 3, 2, and 5 days respectively after impure connexion; in two (viz. cases 43. 46.) "tuberculous syphilide" occurred as the first symptom; in four (viz. cases 81, 82, 83, 84.) the disease was hereditary; in one (case 64.) pustules on the face are said to have been communicated directly by kissing; and in one (case 65.) an eruption occurred on the hand of a medical student after attending an infected woman in labour, and an eruption on the body a month afterwards. In the remaining twelve cases, so much uncertainty from some cause or other exists, that it appears impossible to use them with any degree of safety. As, however, this may not be the opinion of every one, an abstract is given of them in the note below, so that if any case appears to have been wrongly excluded from the calculation, it can be added to the 45 cases of which use has been made.*

* The twelve cases referred to are the following: —

*Case* 17. — A man, when young, had blennorrhagia, chancres, and buboes. No treatment. Married, and had three healthy children: his wife did not suffer. Remained in perfect health for fourteen years, when a pustular eruption appeared, the syphilitic nature of which, as given by Cazenave, may be doubted. The treatment was also opposed to the hypothesis of syphilis, as Biett cured him in a month with alkaline baths and carbonate of ammonia.

*Case* 19. — A man, when young, had, once only, a simple and very slight discharge (un simple écoulement, très léger). Thirty years afterwards an eruption appeared, which was diagnosed as syphilitic.

*Case* 20. — A singular story of a man whose wife is said to have been affected with sores on the nipple from suckling an infected child (not her own). She then communicated gonorrhœa (!) to her husband, who also suffered from swelled testicle. Three years afterwards the husband had impetigo of the lower extremities, termed syphilitic.

*Case* 23. — A young man had chancres and bubo. Afterwards he remained perfectly well for twenty-eight years. He then had ecthyma, which appears to have been truly syphilitic.

*Case* 28. — A man had chancres cured simply by dressing with the cinders of tobacco. Remained perfectly well for nineteen years, when he was seized suddenly with pains in the limbs, and an eruption, termed syphilitic.

*Case* 29. — Apparently syphilitic eruption fourteen years after chancres, and seven after gonorrhœa: diagnosis may be doubted.

*Case* 37. — A man had gonorrhœa, which was severe for eight days. After being

The difference between these results, and those arrived at by Cazenave himself, from the analysis of a larger number of cases, is easily explained by the differences of method which have been adopted in the two cases. Which results are the most correct, future observations can alone determine; but at any rate it may be fairly doubted whether the great advocate of the "sommeil du virus," as the presumed latency of the syphilitic poison has been termed, has given proof of his position, which can be considered satisfactory.

The inference drawn from the analysis of the forty-five cases, which alone it has been considered proper to use, approaches then

cured, he married, and had seven non-infected children. He had perfect health for thirty-three years, when he began to suffer from exostoses and serpiginous syphilide.

*Case* 38. — A man had gonorrhœa; then perfect health for fifteen years; then he had what is termed serpiginous syphilide.

*Case* 54. — A man had slight gonorrhœa, lasting only five days. Twenty years subsequently he had symptoms termed secondary, and referred to the gonorrhœa.

*Case* 66. — A man suffered from very slight gonorrhœa (un très léger écoulement). Thirty-three years afterwards he had an eruption of large, flattened, humid tubera seated on the head, and diagnosed as syphilitic by their copper tint.

*Case* 67. — A man had a gonorrhœa so slight that it disappeared in eight days under simple emollient treatment. Thirty-five years afterwards he suffered from an eruption diagnosed as syphilitic.

*Case* 68. — A man had a gonorrhœa which lasted a month. Forty-two years (!) subsequently, he had an eruption on the face, diagnosed as syphilitic, and referred to the gonorrhœa.

In a strict inquiry like that debated in the text, the cases ought, undoubtedly, to be as free from ambiguity as possible. If a case does not square with our experience, there is certainly no reason for at once rejecting it; but, if there be evident and incontestable sources of fallacy, it certainly ought not to be admitted at once among more certain facts. The following exceptions may be taken to the rule, adopted by Cazenave, of referring an eruption to simple gonorrhœa which had occurred ten, twenty, or even more than forty years before, although in these long intervals of time no symptoms had appeared which could show any connection between the two events:

1. It may be denied that non-virulent gonorrhœa (which was the primary lesion in most of these cases of supposed delayed manifestation of secondary symptoms) can produce the syphilides. This point is discussed in a subsequent page.

2. Among all classes, especially among the lower orders, the memory cannot be trusted for such long periods as ten, twenty, or forty years. The first attack of syphilis or gonorrhœa generally makes a deep impression; but subsequent attacks, if slight, are often forgotten. The experience of most military surgeons will bear out this assertion. Soldiers are often found to have forgotten, after the lapse of years, even tolerably severe illnesses which are recorded in the hospital registers. This want of information from defective memory is, in a subsequent page, alluded to by M. Cazenave himself.

3. A man or woman may have chancres, and not know it. It has occurred to the writer, in examining soldiers, frequently to detect chancres which had not been noticed by the men themselves, and yet must have been four, five, or six days old. Such sores may get well without ever being detected, and may be followed by secondary symptoms.

4. There is probably no man in Europe of higher authority on syphilitic eruptions than M. Cazenave; and yet every one who knows the difficulty of distinguishing between some non-syphilitic eruptions and true syphilides, will understand that it is no disparagement to the best physician living, to doubt the diagnoses that are made, in obscure cases, from external characters which are decidedly not constant nor without fallacy. At any rate, if any certainty is to be introduced into medicine, such cases must be excluded from numerical analysis.

much more nearly to the opinion of Ricord than of Cazenave. Of the sixteen cases in which the time of the evolution was over one year, no less than ten had undergone mercurial treatment, which Ricord admits may modify and delay the appearance of Syphilides. And speaking generally it may be considered probable, from Cazenave's cases, that when the action of the syphilitic poison is undisturbed by treatment, eruptions occur (if they occur at all) in more than two-thirds of the cases within one year.

This inference is strongly supported by the admirable statistical observations of Mr. Lee.* In 1838 and 1839, one hundred and sixty-six cases of secondary Syphilis were observed at the Lock Hospital, being *all* the cases that presented themselves during that time. Of these cases one hundred and twenty-eight presented eruptions, the time of which could be accurately determined. The mean time of appearance of the whole number after primary symptoms is only 13½ weeks. The longest time noted is 72 weeks, and the shortest (a case in which the eruption appeared in 11 days, being excluded), is 2 weeks.

M. Leudet, a pupil of Ricord, has lately made some observations at the "Hôpital du Midi,"† and has given an analysis of 95 cases of syphilitic eruptions. The mean time for the appearance of the eruption after the primary symptoms was 67 days, *i.e.* 2 months and 6 days; the longest time was 150 days, *i.e.* 5 months, in the case of an ecthyma; the shortest time was 15 days, the disease being a roseola.

In an elaborate paper by Dr. Suchanek, of Prague‡, the times of appearance are given in a considerable number of cases, and the following mean times have been calculated from the whole number of cases. The mean time in 34 cases of "macular syphilide" (roseola), was 72·5 days; the shortest time was 8 days; the longest 1½ year. Another case, not included in these, occurred 19 years after primary symptoms; if this case is added to the others, it of course augments, to a great degree, the mean time. In 10 cases of ecthyma, the eruption appeared in 7 cases while the chancres were still unhealed; in three cases after 30, 34, and 35 days respectively. The mean time for the appearance of lichen, in ten cases in which it came on with primary symptoms, was 34 days after the commencement of the disease; in six cases, in which the eruption came on after the healing of the primary symptoms, the mean time was 110 days, the longest time being 1 year. In another case, the time was 12 years. In eight cases of psoriasis, appearing during primary symptoms, the mean time was 40 days; in 15 cases, in

* London Journal of Medicine, Sept. 1849.

† Arch. Générales de Méd., Jan. et Mars, 1849, pp. 26. 287.

‡ Bericht über die Abtheilung für Syph. in Prager K. K. allg. Krankenhause für die Jahre 1846—8. Vierteljahrschrift für die prak. Heilkunde, Prag, 1849, vierter Band, S. 97.

which the eruption came on after the healing of the primary symptoms, the mean time was 115 days, the longest time 1½ year. In another case, which has been excluded, the time was 18 years. Four cases of rupia appeared during the presence of primary symptoms; in four other cases the time of evolution was 6 and 14 months in two cases, and 2 years in the other two. In six cases of impetigo, the eruption appeared immediately after the healing of the chancres. In the tuberculous Syphilide the time was determined only in 23 cases out of 62. In these cases the times were, in two, 9 months; in two, 1 year; in three, 2 years; in two, 3 years; in one, 4 years; in one, 5 years; in one, 6 years; in one, 7 years; in one, 9 years; in two, 10 years; in one, 12 years; in one, 13 years; in two, 15 years; in one, 17 years; in one, 18 years; and in one, 38 years. The mean time for the appearance of this Syphilide was about 7½ years. It would seem that Dr. Suchanek has, like Cazenave, noticed the appearance of almost all varieties of Syphilide many years after primary symptoms; but the antecedent to such eruptions appears to have been chancre, and not gonorrhœa, as in most of Cazenave's cases. It would be erroneous to include these exceptional cases among the more common examples, which seem to come on (except in the tubercular variety) very speedily.

The different varieties of the Syphilides, considered as the first symptoms of secondary lesion, appear at variable times after the primary symptoms. The statements made on this point as to time, are to be received with great caution, as the mean time of appearance of the whole class has been shown to be so uncertain. Almost all observations give to the tuberiform or tuberculous Syphilide the longest period; the mean time given by Martins and Cazenave is 6 years and 9 months. The papular eruption has the shortest period, viz., according to Legendre, 6 months, and to Cazenave 4 months and 16 days. Martins, from three cases only, thought the pustular Syphilide was the first to appear. The so called exanthematous eruption, according to Cazenave, appears subsequently to the papular, and the vesicular soon afterwards. The squamous is later, and approaches in point of latent period to the tuberculous.

Mr. Lee's observations differ necessarily from these on account of the very much more rapid appearance of the eruptions in his cases. It is not very easy to determine the exact kind of eruption, as in many cases it is not very clearly defined. But of the one hundred and twenty-eight cases before referred to, the mean times for the appearance of the papular, the mottled, the tubercular and the scaly are nearly the same, being between 12 and 14 weeks. Four cases noted, as rupia, had a mean time of 11·2 weeks; the pustular eruption had a mean time of nearly 24 weeks.

*Method of Evolution.* — Different forms of syphilitic eruptions are known sometimes to succeed each other in the same subject.

It becomes then a matter of enquiry, whether such succession follows any definite order, and seems therefore to obey any special law, to use the common expression of the day. That the succession has a certain order appears likely from the facts already mentioned, regarding the relative times at which different Syphilides appear after primary infection, and is to a certain extent sanctioned by observations. We may state as a general rule, that the diseases involving the superficies of the skin come first, and the deeper-seated affections subsequently appear. Ricord, who has attributed to the syphilitic virus, when present in a system not repellant to it from constitutional peculiarities or from treatment, a very regular mode of development, gives the following as the general order in which the eruptions successively appear, in cases in which the virus produces what seems to be its regular, and so to speak, normal effects. The earliest eruptions are roseolous, exanthematous, or papular. The papular may run together, forming the "mucous tubercles." The vesicular, scaly, and somewhat later, the pustular eruptions appear, and are succeeded by rupia. The true "syphilitic tubercle," seated in the thickness of the skin, is the latest manifestation. Cazenave does not enter into this point with his usual minuteness, but does not appear to allow the comparatively regular progressive evolution, taught by Ricord. Mr. Lee states that the papular and scaly are observed in relatively greater proportion after cure of the primary affection, by local means, and the pustular and tubercular after the administration of mercury. He has indicated a curious relation in the appearance of eruptions after indurated chancres treated by mercury; the papular bears the same relative proportion to the pustular, that the scaly does to the tubercular, and the converse. So that if three quantities are known, the fourth may be determined by calculation.

Leudet states that the most usual form of the early eruption is exanthematous. An eruption, which is usually later, such as ecthyma, may, however, appear first. In such a case he agrees with Ricord, that the exanthemata do not follow; the early eruptions appear to have been, as it were, passed over, and the time for their manifestation cannot return. The roseolous eruption is the only one which Leudet saw relapse among the 95 cases.

*Relative frequency of the varieties of Syphilides.* — Dr. Suchanek, in his able paper, has given a full account of the number and combination of the Syphilides, from which the following is an abstract:

In 203 cases (viz., 56 men and 147 women) there occurred —

| | Cases. |
|---|---|
| 1. *Macular Syphilide*, alone - - | - 47 |
| ,, ,, with lichen and psoriasis | - 3 |
| ,, ,, ,, lichen - - | - 8 |
| ,, ,, ,, vesicular eruption | - 1 |

| | Cases. |
|---|---|
| *Macular Syphilide*, with rupia | 1 |
| „ „ „ erythema | 1 |
| „ „ „ psoriasis | 9 |
| „ „ „ psoriasis and rupia | 1 |
| „ „ „ tubercles | 1 |
| 2. *Erythema nodosum*, alone | 8 |
| „ „ with lichen | 1 |
| „ „ „ macular syphilide | 1 |
| 3. *Lichen*, alone | 6 |
| „ with psoriasis | 15 |
| „ „ macular syphilide | 8 |
| „ „ psoriasis and macular syphilide | 1 |
| 4. *Psoriasis*, alone | 30 |
| „ with rupia | 3 |
| „ „ vesicular-like exanthema | 1 |
| „ „ tubercles | 1 |
| 5. *Vesiculous form* | 1 |
| 6. *Pemphigus* | 1 |
| 7. *Rupia* (alone) | 8 |
| 8. *Pustular Syphilide* (alone) | 8 |
| 9. *Tubercles* (alone) | 52 |
| *Lupus Syphiliticus* | 6 |

In Leudet's cases the following is the order of frequency: —

| | |
|---|---|
| 1. Simple erythema (including roseola ?) | 35 |
| 2. Papular | 13 |
| 3. Erythemo-papular | 5 |
| 4. Psoriasis | 6 |
| 5. Herpes | 2 |
| 6. Lichen | 2 |
| 7. Varioliform (varicelloid ?) | 7 |
| 8. Acne | 3 |
| 9. Pemphigus (in adult, aged 24) | 1 |
| 10. Impetigo | 2 |
| 11. Ecthyma | 7 |
| 12. Rupia | 7 |
| 13. Tuberculæ* | 6 |

*Essential Causes of the Syphilides.* — The doctrine of a special cause or of special causes of venereal diseases is so generally admitted, that it is not advisable to enter into any controversy on the point.

* It would seem that Leudet's observations, collected during a short period, and probably on the cases he had himself treated for primary symptoms, do not express properly the relative frequency of the tuberculæ.

Every syphilitic phenomenon, primary, secondary, or tertiary, may be with certainty assumed as the sign of the immediate or remote action of a definite virus. A different opinion has indeed been maintained, even in the present day, by some able writers, among whom Jourdan may be mentioned, but his arguments, ingenious though they are, have shown only the weakness of his cause.

Nor is it necessary to occupy space in a practical treatise like the present, with an account of that ingenious doctrine, which sought to connect the varieties of secondary and tertiary symptoms, with corresponding varieties in the primary syphilitic lesions. This doctrine of a great diversity of syphilitic poisons, which was proposed and supported by one of our own great surgeons, has not sustained the rigid ordeal of accurate observation. The cases collected by Biett in reference to this point, those of M. Martins and of Cazenave, have clearly proved that all varieties of eruption may occur after any kind of chancre, and even after urethral discharges without known chancre, and also that the secondary manifestations bear no relation to the severity of the primary accidents.

Another question, however, which connects itself with Mr. Carmichael's opinion, and which has been long discussed, but never more keenly than at the present moment, has an immediate and important practical bearing. It is this. There are several independent affections which are entitled to be termed venereal, as appearing after intercourse with infected persons, and as being capable of inoculation, or transmission within certain periods, to other individuals with whom the diseased person may cohabit. These affections are purulent discharges from an unulcerated surface, ulcerations, and specific adenitis.* Certain peculiar forms of eruption on the skin, said to arise primarily from the action of the virus, and not as secondary to other forms, are also included by some writers. The most important of these eruptions is that which presents the peculiar flat tubera, which are known in France by the names of "tubercules plats, pustules muqueuses ou plates." According to some observers, among whom appears Cazenave and Baumés, these "mucous tubercles" are sometimes the primitive and only symptom; are capable of being communicated by contact to others; and can be antecedent to true secondary symptoms.

It becomes at once a subject of inquiry, whether these several diseases arise from a single virus, whose action is modified by quantity, by admixture with secretions, or by peculiarities of system on the part of the recipient; or whether, for every form of primary venereal disease, there is a separate and distinct cause. Some of the debate on this subject has been drawn from the phenomena of

* Ricord has very lately again asserted his opinion respecting gonorrhœa, which he looks upon as an affection altogether non-specific. Any discharges from the genital organs in a woman may, he contends, give a man a blennorrhagia, yet this is not true contagion; it is, in fact, common inflammation of the urethral mucous membrane. — *L'Union Med.* Fev. 10. 1850.

syphilitic eruptions; and it is from this restricted point of view alone that we can now venture shortly to consider it. Admitting that the Syphilides are the marks of a contamination of the system, do they follow any one of the primary venereal diseases to the exclusion of the others? or do they follow one more readily than the others? or do they follow all indifferently?

In this country, the statement made by John Hunter, viz., that for one example of secondary symptoms after gonorrhœa, there are a hundred after chancre, will probably meet with strong support. In France, however, in spite of the strenuous opposition of Ricord, a contrary opinion appears, at present, to be most commonly adopted. Thus Cazenave, who may be taken as the organ of a party which numbers many eminent men in its ranks, believes that gonorrhœa, chancres, and "tubercules plats" arise from a single virus, and that syphilitic eruptions, and other consecutive constitutional symptoms, may follow indifferently in the train of any of these affections. Cazenave even goes so far as to assume that gonorrhœas are more frequently the antecedents to eruptions than chancres.

On the other hand, a party, which may be represented by its ablest advocate, Ricord, maintains opinions which differ *toto cælo*. According to this creed, there is but one true virus, and of this but a single manifestation, — viz., the chancre. The chancre is the necessary antecedent of all constitutional symptoms.* Of all varieties of chancre, the indurated is considered to be the most likely to be succeeded by the Syphilides; to use the expression of Ricord himself, constitutional Syphilis follows "fatally" the indurated chancre. The "tubercules plats" are not primary effects of this poison, but are merely secondary symptoms appearing unusually early. They can neither be communicated by direct contact, nor can matter taken from them produce results by inoculation. Gonorrhœas, when non-virulent, — *i. e.* not dependent on a chancre concealed in the urethra, — are held to be incapable of giving rise to any constitutional taint. They are supposed to be, in point of fact, altogether non-specific, — *i. e.* owning no definite and single cause. Those examples in which syphilitic eruptions and other accidents have followed discharges from the urethra, are supposed to be consequent, in reality, on a hidden chancre.

Between these two extremes, there have not been wanting those who adopted some of the doctrines of each. The general doctrines of Ricord have been maintained by some who have nevertheless abandoned his fundamental test of inoculation. On the other hand, some observers, who have admitted that secondary symptoms can occur after gonorrhœa as after chancre, have yet denied that the one disease can produce the other, and have, indeed, fallen back upon, and have in part or wholly adopted, Benjamin Bell's theory of a double virus. In Germany, as far as can be guessed from the

* See Appendix.

numerous translators and annotators Ricord has found, the stricter doctrine seems to be most popular. At the present moment it is not easy to say on which side the balance of evidence rests. It appears to be admitted by all parties, that secondary symptoms will appear after urethral discharges considered to be of the nature of gonorrhœa. It has also been stated by Baumés, Lagneau, and Reynaud, that such secondary symptoms have succeeded inflammations which were entirely præputial,—in fact, examples of the balano-posthitis of Ricord. If those observations could be considered free from fallacy, they would give a complete answer to Ricord, as, in such cases, there could be no "chancre larvé." But a question of such importance can be determined only by numerous facts; for, from the very nature of the subject, the observations are surrounded with unusual difficulties. Putting aside, then, these cases, there has certainly yet been no valid answer given to the argument of Ricord, that, since he has demonstrated concealed chancres in the urethral canal, therefore, in those cases in which secondary symptoms followed urethral discharge, similar concealed chancres may have existed.

If turning to the point more immediately connected with syphilitic eruptions, it is enquired what per centage of such cases is traceable to urethral discharge, whether connected with concealed chancre or not, even this comparatively simple question can receive no satisfactory answer. This will appear at once from the following table copied from Cazenave.* From an analysis of 157 cases, Cazenave states that the antecedents to the eruptions were:

| | | |
|---|---|---|
| In 42 | cases, | chancres with or without buboes. |
| „ 60 | „ | gonorrhœa, with or without buboes. |
| „ 48 | „ | chancres, gonorrhœa, and buboes. |
| „ 5 | „ | buboes (bubons d'emblée) without chancres. |
| „ 2 | „ | primitive syphilides, that is, eruptions usually secondary occurring at once after infection, without primary symptoms. |

From this table Cazenave concludes that, "so far from blennorrhagia never giving rise to secondary symptoms, it seems, on the contrary, to determine them more frequently than chancre."

It is at once apparent that this statement is not warranted by the table from which it is supposed to be an induction. The demand is, in how many cases are urethral discharges *per se* followed by Syphilides? and Cazenave answers it by classing together urethral discharges with another symptom, which, in a great majority of cases, is a primary one, viz., bubo. It does not appear from the table how many cases of urethral discharge were uncomplicated with bubo. Therefore, as the bubo, and not the urethral discharge, might be held to be the real antecedent to the consecutive eruption, M. Cazenave's inference that in the 60 cases the urethral discharge, and not the bubo, was the antecedent, is clearly an

* Op. cit. p. 516.

error in logic. And this objection is apart altogether from that which might be urged against the method of collecting the facts, viz., that the assertions of the patients themselves that they had never had chancres, are assumed as sufficient evidence of the absence of chancre.

For the purpose of studying this question from Cazenave's own point of view, the 89 cases of secondary eruption recorded in his work have been carefully analysed. Of these 89 cases, 21 are not available, being cases in which there were no primary symptoms, or in which the disease was hereditary, or was said to have been communicated by suckling, kissing, or examination *per vaginam* *, or the cases were examples of the "plaques muqueuses" coming on a few days after coitus.

Of the other 68 cases, 44 are reported as having had chancres, with or without bubo or gonorrhœa; 7 are cases of buboes, with or without urethral discharges; and 17 are said to have had gonorrhœa only. Of these 17, the abstracts of 7 (viz., Cases 19. 37, 38. 54. 66, 67, 68.), have been already given at pp. 356. and 357.; and these include those remarkable and doubtful cases in which secondary symptoms are said to have appeared twenty, thirty, or even forty years after slight gonorrhœa. The abstracts of the remaining 10 cases are given in the note below.† Of the whole

* These cases, of course, were examples of ulcerations, and not of discharges.

† *Case* 13. — A man of weak intellect, who stated that he had had a slight gonorrhœa, for which he had taken mercury. Three years afterwards he received an injury which still further impaired his intellect; so that he could give no good account of himself, except that, soon afterwards, an eruption appeared, for which he entered "L'Hôpital Saint Louis." It was diagnosed as syphilitic eczema and lichen, and was cured by emollients only.

*Case* 26. — A man stated he had had many gonorrhœas, but never chancre or bubo. Syphilitic ecthyma.

*Case* 39. — Gonorrhœa, with "plaques muqueuses" of the vulva, cured by local application of pure aromatic vinegar (This case may undoubtedly be left out of consideration.)

*Case* 44. — Severe gonorrhœa, with chordée. Coitus, after the first month, followed by copious urethral hæmorrhage. Two years and nine months afterwards, slight gonorrhœa. Five months subsequently, a pustular eruption, followed, a month afterwards, by "flat tubercles" at the anus. Cured by mercury.

*Case* 47. — Gonorrhœa. Three months afterwards, an eruption taken at first for small-pox, afterwards diagnosed as syphilitic lichen. Cured, in fifteen days, by carbonate of ammonia internally, and cinnabar fumigations.

*Case* 50. — Gonorrhœa twice; twelve and three years before the appearance of syphilitic papulæ. Pains in bones, and iritis, with irregular pupil. (The occurrence of iritis in this case would make the presumed absence of chancre very doubtful.)

*Case* 52. — Gonorrhœa. Two months afterwards, psoriasis guttata, diagnosed as syphilitic.

*Case at* p. 475. (not numbered). — Gonorrhœa. Two years afterwards, a mixture of syphilitic and of simple psoriasis. The former cured by mercury; the latter unaffected by this treatment.

*Case* 63. — Gonorrhœa. Five days afterwards, syphilitic ecthyma and lichen appeared.

*Case* 71. — Gonorrhœa. Four years afterwards, syphilitic tubercular eruption.

Of these cases, it seems but right to doubt whether Cases 13. 39. 47. 50. and 63. are sufficiently definite to be used.

17 only 5 (viz., Cases 26. 44. 52. 71. and the unnumbered case), are sufficiently free from ambiguity. The seven cases recorded at p. 363. may undoubtedly be rejected. Therefore, omitting the bubo cases, in 49 cases of syphilitic eruptions recorded by Cazenave himself, and which are all that can fairly be used out of the 89 cases he has recorded, there were only 5 cases unpreceded by chancre. The per centage, then, of cases having a gonorrhœal origin is only 10·2; the per centage of cases following chancres being 89·8. Or, if the whole 17 cases are used, the per centage of gonorrhœal secondary eruptions is only 27·7; that of chancrous syphilide being 72·3. So that the statement of Cazenave, that gonorrhœas are more frequently followed by the syphilides than chancres, is not in the least borne out by his recorded cases. On the contrary, the cases following gonorrhœa alone are so few that the partisans of Ricord might assert the existence of urethral chancres.

In making this analysis it has been assumed* that when chancre and gonorrhœa have preceded an eruption, the chancre is the real cause of the eruption. It is altogether a different question, if still deeper ground be taken for the inquiry, and if proof be demanded of the reality of the influence ascribed to chancre, apart from gonorrhœa. Such proof can only be perfectly given by the analysis of a series of cases of chancre, with or without bubo, but without gonorrhœa, and of gonorrhœa without chancre or bubo. Such series do not exist; as, in most of the cases of chancre, gonorrhœa has at some time or other been present. But in this country, at any rate, general experience, since the time of Hunter, has been in accordance with the statement made by him, that chancre is the almost invariable, and gonorrhœa the infrequent and exceptional, antecedent of secondary eruptions.† In 131 cases of maculæ and psoriasis, Suchanek states that there were only three in which chancre could not be proved to be immediately antecedent; and in 203 cases of Syphilides of all kinds, there were only seven cases in which chancre had not pre-existed.‡

Since the exact influence of urethral discharges *per se* cannot yet be numerically determined, it is almost a necessary consequence that the effect which such discharges, when present with chancre, have in increasing the tendency to secondary eruptions after chancre can also not be determined. The elementary conditions of the problem are unsettled, and the composite inquiries cannot, therefore, be otherwise than in the same case. From a table given

* The same assumption has, singularly enough, been made in the Table by Cazenave himself; although, with his opinions about gonorrhœa, he might have attributed more effect to the gonorrhœa in the cases in which there were chancres also.

† Mr. Hunter did not attempt to reconcile this fact with his hypothesis of a single poison producing syphilis and gonorrhœa.

‡ Op. cit. p. 109.

by Cazenave, it appears that the Syphilides appear most rapidly after chancres and bubo, than after chancre alone; or after chancres with urethral discharges (the time being the same in these two cases), than after buboes (d'emblée), and than after urethral discharges. So that the presence of gonorrhœa with chancre did not increase the rapidity of the appearance of secondary symptoms over those cases in which chancres existed alone. This would imply, indeed, that the effect of combined as of separate gonorrhœas was very slight.

A general statement may, perhaps, be made respecting the essential causes of the Syphilides, in the following terms: — Although the action of specific causes in the production of syphilitic eruptions cannot be doubted, it remains uncertain whether these causes have a single mode of primary manifestation or several. But whether they have or not, it seems extremely probable that the secondary eruptions follow, in the vast majority of cases, one particular primary manifestation, viz., the chancre. In a small number of instances they may follow another primary symptom, viz., urethral discharge; but it has not yet been accurately proved that such discharge may not be attributed in these cases to hidden chancres. It is impossible to give a numerical statement of these facts from the want of definite observations, and from the extreme difficulties which necessarily encompass a question of the kind.

Some points, still more obscure and difficult, still remain unnoticed. It has been asserted that not only may the well-known primary symptoms, — chancre and gonorrhœa, — give rise to secondary eruptions, but that such secondary eruptions may themselves be communicated, *i. e.*, may arise in one person from contact or coitus with another suffering from secondary symptoms, without the first person being affected by any primary symptoms.*

It has also been supposed that an individual having connection with a person labouring under primary symptoms, may manifest the symptoms usually termed secondary without passing through the stage of primary and local manifestation. In this case the Syphilide is, to use the expression of Cazenave, primitive. Such primitive syphilitic eruptions may be roseolous, vesicular, or pustular, and appear most usually, according to Cazenave, a month or six weeks after connection. Sometimes the sole expression

* The observations of Calderini and Rizzi, at the Hospital at Milan, seem to put beyond all question, not only the possibility but the frequency with which infected children give the disease to wet-nurses, and these to their husbands. Of 1050 syphilitic women, 266 gave birth to infected children. The disease most frequently communicated to the nurses was "tuberculous syphilide" of the mammæ. In 100 cases, this occurred alone in 34, with angina in 19, and with other symptoms in 47 cases. Of these 100 women, 19 infected their husbands, chiefly with tuberculous syphilide of the penis, scrotum, and perinæum. — *Gaz. Med. di Milano*, April, 1846, quoted in *Graevell's Notizen für Praktische Arte* for 1848, p. 292.

of the infection, they are at other times combined with gonorrhœa or chancre, to which, however, they are not supposed to be consecutive, but are simply concomitant. Among such eruptions, Cazenave reckons the "pustule plate," "ou tubercule muqueux," which he contends to be both contagious and primitive.

Another point connected with the essential cause which yet remains very obscure, is the mode of hereditary transmission of Syphilis. Children born of an infected mother present, if syphilitic, the signs, usually, of secondary eruptions. Such a case may be understood. But can a father, who is or has been infected, and is with or without constitutional symptoms, and who gives to his wife no local or general disease, transmit to the offspring, by some wonderful alteration of the semen, a tendency or liability to the production of Syphilis; or not merely this, but positively the disease itself? Several cases of this kind are recorded in the older writers, and a few in recent publications; but they do not seem to have been scrutinised with the exactitude which would be advisable.*

These and questions of the like kind have, indeed, a practical bearing, if observations were sufficiently numerous or accurate to allow of their discussion. But as this is not the case, it is needless to dwell more fully upon them here.

Although there is no doubt that the Syphilides are the expression of the constitutional effects of a morbid poison, it is quite certain that the primary action of this morbid poison is not always followed by secondary diseases. It is also neither the severity nor the repetition of the primary, which determine the appearance of the secondary, symptoms. The Syphilides may appear after a first chancre so slight as to be cured in a few days without bubo. There must be then in addition to the primary and essential cause, certain determining or accessory causes of syphilitic eruptions, whose influence must be now briefly alluded to.

*Accessory Causes of the Syphilides.* — 1. It appears necessary to admit that, from causes which science does not recognise, some constitutions are predisposed, and others are indisposed to the production of secondary, after primary symptoms. A good state of

* Cazenave has the following case (p. 135.): — A lady who had never had any syphilitic complaint gave birth to a healthy child. Her husband then contracted Syphilis, and was cured. His wife in no way suffered; but four successive children all died at the same age (18 months). Cazenave saw the two last: they had syphilitic roseola, and, subsequently, ulcerations at the nails, and caries of the nasal bones. The following statement is given by Cazenave (p. 136.) on a friend's authority: — A young man contracted a gonorrhœa, which he did not treat, and which disappeared without leaving apparent traces. He then married. His first child was born dead; the second, at the age of two months, presented all the symptoms of Syphilis. Put out to nurse, the child infected the nurse, who infected her own child, which died. The mother remained perfectly well. As singular a story has been lately quoted in the English journals.

general health is supposed to be unfavourable, and bad health favourable to the appearance of Syphilides. Ricord remarks, that in good constitutions, the eruptions are dryer than in persons in good health. In other words, there is less tendency to unhealthy suppuration. But there appears to be something deeper than this, as it is a matter of common observation that in some persons, whose health appears in all respects perfect, the Syphilides develop themselves rapidly and extensively, while in others apparently less vigorously made, constant attacks of primary symptoms, leave no secondary disorders. In his remarkable work* Parent Duchatelet alludes to the fact, that many "filles publiques" never presented primary or secondary symptoms, while others were continually in hospital from some disease or other. There appeared in some to be an extreme susceptibility not obviously connected with impaired health.

2. Whether any particular age is specially liable to secondary symptoms is not yet determined. The general result of the observations is, that most cases of secondary symptoms occur from 20 to 40, when the primary accidents are most common; but whether there would be any distinction between the per-centage of Syphilides to primary symptoms between 20 and 30, and 60 and 70, or whether there would be any difference in the form of the eruption has yet to be made out.

3. Sex appears to be quiescent in the production of Syphilides.

4. The question of temperament has been examined by Martins and Legendre without certain results. It is a curious subject for inquiry whether those who are disposed to any form of non-syphilitic eruption, as lepra or eczema, would exhibit, in case of being attacked with secondary symptoms, any special tendency to the production of the form of eruption which they had previously suffered from.

5. The influence of previous syphilitic, or non-syphilitic diseases, has been opened by Cazenave, but negative results only have been attained.

6. The influence of season and climate is not well marked, but contrary to the general opinion, Cazenave's observations, if correct, would show that heat has no effect in favouring the appearance of syphilitic eruptions. It has been supposed that the roseolous syphilides are more common in hot climates.†

7. Irregular and intemperate habits, extreme bodily fatigue, vivid moral emotions, unfavourable hygienic conditions of habitation, &c. &c. are assigned, by Cazenave as accessory causes.

8. When after the occurrence of primary symptoms, the con-

* Sur la Prostitution de Paris, vol. ii. p. 142.

† The writer is inclined to question this assertion, which is not backed by any strong evidence. Among English soldiers in India, the eruptions appear to take, indifferently, all forms, as in England.

stitution has become impressed by the influence of the toxic agent, and the syphilitic diathesis has become established, the local manifestation on the skin or the mucous membranes of the throat, &c. may be determined by any cause which deranges the general health. Thus, even a severe catarrh, an attack of dyspepsia, a debauch, bodily fatigue, or even, according to Cazenave, the application to the skin of blisters, the use of warm water, vapour, or sea baths, may, as it were, develop the diathesis into higher activity. Among the whole number of his cases Cazenave found thirty-seven in which a determining cause of this kind was assigned by the patient as the immediate forerunner and producer of the eruption.

9. The exact influence of treatment in the stage of primary symptoms, as preventive of secondary disorders, has been and is yet under discussion. The remarkable variations in public opinion on the value of mercury, need not be more than alluded to here. It is now sufficiently evident that the facts available in the discussion, did not warrant the strong conclusions which were reached on either side. They were neither sufficiently numerous, nor were they collected with sufficient care. Consequently, on most unstable grounds, mercury was at one time considered as the sole remedy for Syphilis, as an agent capable of preventing secondary symptoms; afterwards, on grounds even more questionable, mercury was accused of producing the secondary lesions, or of giving to the syphilitic virus the development and force by which they were produced.

It seems to be, however, now tolerably clear that mercury, well and skilfully used, has no effect in favouring the development of secondary symptoms, but on the contrary delays their appearance, breaks the regular order of their manifestation, and in a few, but undetermined number of cases, actually prevents their manifestation. But mercury does not possess any certain prophylactic power, and its employment in the primary stage is no safeguard against the future appearance of Syphilides.* The influences of other modes of treatment as preventive of secondary symptoms are doubtful. The observations, if fully accepted, of Rose, Hennen, and other English army surgeons, would indicate merely that after the antiphlogistic and simple plan of treatment, eruptions were not more common than after mercury.

*Syphilitic Lesions coincident with the Syphilides.*—The Syphilides are among the earliest secondary symptoms. Some others may however precede or accompany them, or though normally posterior

* Several recent eminent writers rank the prophylactic power of mercury, *when properly administered*, higher than has been done in the text. In fact, it is considered that, if no causes tending to counteract the action of mercury are in operation, the instances in which secondary symptoms follow such mercurial treatment are very rare. It is to be hoped that this opinion is correct; but, unfortunately, it is opposed by daily experience, which shows us constantly secondary eruptions, even after mercury has been administered as *artistically* as possible.

to them in point of development may anticipate their usual time, and appear with them. Among the first order are syphilitic stomatitis, ulceration of the tonsils, or pharyngeal or rectal mucous membrane, and alopecia. Syphilitic pains in the bones (ostalgia), are also very common.* At a somewhat later period occur the ulcerations of the laryngeal and nasal mucous membranes, iritis, and onychia, depending on inflammation and ulceration of the matrices of the nail. At the same time may occur that singular and rare phenomenon noticed by Hunter and Cullerier, viz. the detachment of the teeth.

The affections of the fibrous, muscular, and bony tissues, and of the testicle, which form the tertiary symptoms of Ricord, usually appear late, and may or may not be mixed up with Syphilides of long standing. Cases are on record, however, in which exostoses and caries of various bones occurred very soon, and were coincident with the eruptions of the earlier forms. For this reason Cazenave and others have denied the possibility of separating the consecutive symptoms into secondary and tertiary.

The elastic "gummy tumours" of the subcutaneous cellular tissue, or of internal organs, which Ricord regards as always tertiary, generally occur at a late period.

The syphilitic affections of the lungs, liver, kidneys, heart, brain, &c., which M. Ricord has described and referred to the tertiary period, are not admitted by many authorities, except as non-specific affections consequent on the debilitating effect of true secondary lesions, such as extensive necrosis or abundant suppurations. If these affections have however a true syphilitic origin, they occur generally after the Syphilides.

*Precursory Symptoms of the Syphilides.* — Syphilitic eruptions sometimes appear without any noticeable previous derangement of the health. But frequently, and particularly in the case of the erythematous or profuse papular eruptions, certain general symptoms precede for a few days the cutaneous disease. The precursory symptoms appear to assume two forms, which are not, however, always clearly defined. In one form they resemble the ordinary sickening symptoms of the exanthemata — shivering, pains in the limbs, and headache, lassitude, anorexia, &c., and after these symptoms have lasted two, three, or four days, the eruption appears. Consequently during the first days of the eruption the diagnosis is sometimes difficult, as the precursory symptoms may have led to the idea of small-pox or even of scarlet fever. It is also a singular circumstance that syphilitic eruptions, preceded by a definite febrile period, usually run a short course, as if, like the exanthemata, their period of evolution were limited, and then make room for other

* The writer has ventured to use the term ostalgia, or syphilitic ostalgia (suggested by Dr. Sieveking), as a convenient and short phrase for the well-known secondary pains in the bones. The term osteoscope is used often for the same purpose.

and more chronic forms. This does not hold good universally, however, for such eruptions when they have appeared may be usually chronic and durable. In the second form, when well marked, the precursory symptoms are of longer continuance, and may be more significant of their origin. They have been minutely described by Ricord. At first there is a feeling of undefined indisposition, with mental and bodily lassitude, headache, and vertigo; then ensue pains in the head, which may exactly simulate hemicrania, or neuralgia, of the fifth pain generally, or brow ague. The pains are, however, less severe than in these cases, give rise to little soreness of the skin, and are remarkable for periodical return or increase at night. This nocturnal exacerbation depends upon the recumbent position, and the warmth of the bed; and also, as believed by many, though denied by Ricord, on some special tendency to manifestation at this period of the day. Then ensue peculiar pains in the neck; and, according to Ricord, in persons under forty, swelling of the lymphatic glands at the back of the neck, between the ear and the mastoid process and spine, is a common and important diagnostic symptom. Peculiar substernal pains may be now complained of, and circa-articular pains, which simulate rheumatism, but are distinguished by the pain not being *in* the joint, nor attended by redness and swelling. The portio dura is said by Ricord to be sometimes paralysed. The skin of the whole body becomes gradually discoloured and earthy-looking, the eye is dull, the hair gets dry, and in persons under forty often falls out. Then in some cases a certain amount of anæmia comes on; the lips are blanched, arterial and venous murmurs are heard in the neck, and, according to L'Héritier and Ricord*, the red particles of the blood are below the average in 1000 parts.† Becquerel and Rodier in many cases found no alteration, unless the disease was of very long continuance. The cutaneous eruption then appears in greater or less abundance, and with more or less rapidity. It assumes the erythemo-papular, scaly, and pustular form, in preference to the small or large vesicular or tuberiform. The eruptions at first affect the face, chest, and the flexure surfaces of the joints. At a later period the extensor surfaces are implicated. Ricord has denied that the face is more liable to be affected than other parts; but the implication of the face seems to vary with the kind of eruption.

*Special Symptoms of the Syphilides.* — The description of the several forms of the Syphilides would be most properly based upon the order of their appearance, that is, upon the mode of gradual

* Gazette Med. 1844, quoted by Hoefle.

† L'Héritier's analysis (mean of 8) gives: fibrine, 2; red particles, 89; solids of serum, 74, and water 835, in 1000 parts. — *Traité de Chim. Path.* p. 277. Majendie described peculiar corpuscles in the blood; but this has not been confirmed. — *Hoefle, Chimie und Mikroscop.* Zweite Ausgabe, S. 251.

unfolding, so to speak, of the special virus. But as this order has not been definitively settled, it is necessary to adopt at present the usual method by which the Syphilides, like the non-syphilitic eruptions, are arranged according to the elementary characters of the eruption itself.

## 1. Exanthematoid Syphilides.*

### (a) *Roseolous Syphilides.*

Occasionally, according to Cazenave, this affection is primitive, *i. e.* not consequent on perceptible primary symptoms, or it accompanies primary symptoms, and especially gonorrhœa. Whether primary or secondary, it is preceded, for three or four days, and more rarely accompanied at its outset, by general febrile symptoms. The eruption consists of large, irregular, little elevated patches, running into each other, seated on the neck, chest, face, and upper extremities principally, and having at first a reddish copper tint, which after some time becomes more coppery, and, finally, greyish. Sometimes the eruption is confluent over almost the whole body. The colour disappears with difficulty under pressure. Cazenave has observed that a peculiar angina often accompanies it; there is a red violet tint of the mucous membrane of the mouth, palate, and pharynx, with a remarkable dryness of these parts, and a sense of unusual heat and difficulty of deglutition. Sometimes Cazenave has seen on the tonsils in such cases characteristic, shallow, and small ulcerations, with perpendicular borders and greyish floors. In such a case a diagnosis of scarlatina might easily be given. If syphilitic roseola appears early, as the only symptom of infection, with primary symptoms, its course may be subacute, and it lasts for three or four weeks. But when it occurs as a truly secondary phenomenon, it is almost always chronic, and it lasts sometimes even for months. When the chronic patches are small they are sometimes called maculæ syphiliticæ.† Roseola is followed by slight desquamation.

*Diagnosis.*‡—1. Roseola simplex is known by the light rosy tint

* The objections which may be made to the use of the term exanthema, which is now limited to designate a small number of special diseases, have suggested to the writer the term exanthematoid, as marking at once resemblance, yet not identity.

† Stains of the skin resembling pityriasis rubra or versicolor, are often called maculæ syphiliticæ. But true maculæ syphiliticæ, not being the remnants of roseola, are excessively rare. When they do occur the patches are perfectly round, are copper-coloured, and have a margin of peculiar earthy-looking cutis; there is no itching or desquamation. Other symptoms of Syphilis can usually be found. If dark-coloured spots on the skin do not present these positive characters, they must be pityriasis rubra or nigra, or ephelis hepatica, or the stains which appear often during pregnancy.

‡ In the diagnosis, to avoid repetition, the positive characters of the non-syphilitic eruptions are, for the most part, given. The positive characters of the syphilitic eruptions are in the text.

which has nothing in it approaching to copper, nor becomes grey, by its total and easy disappearance under pressure, and by its acute course.

2. The exanthemata may be confounded at the outset, but not beyond the second or third day. Scarlatina can usually be known by the greater fever, by the more severe angina, and by a lighter colour of the eruption in the more active forms; the adynamic and malignant forms present nothing in common with syphilitic roseola.

3. When chronic roseolous syphilide is disappearing, and the stains alone remain, it may be confounded with ephelis or chloasma (pityriasis versicolor). But the former cannot be mistaken on examination, and the latter is distinguished apart from the history of the case, by its yellow not grey colour, by itching, and sometimes by considerable desquamation. True chloasma is never syphilitic.

### (b) *Erythemo-papular Syphilides.*

This eruption is occasionally, but seldom (or never, Cazenave), preceded by febrile symptoms. It presents small flat patches of redness, mixed up with dark red elevations of various sizes. The papulæ are sometimes as much as one or two lines above the surface, and one, two, or even four lines in diameter. The red patches are ephemeral, the papulæ more permanent; the patches are continually leaving one part of the body to appear on another; the papulæ sometimes remain throughout, or die away, and are followed by fresh crops. The colour is usually rather dark, and fades only on pressure; after a time it becomes grey. The eruption is frequently less apparent on the face than other parts: it may cover the whole trunk and part of the extremities, while there are only one or two small pale papulæ on the forehead. There is no heat, and scarcely any itching of the skin; and at the close of the eruption scarcely any desquamation. The duration is shorter than the roseola, often being not more than two or there weeks. Cazenave states, that he has only seen this eruption as a primitive symptom, or as occurring immediately after primary symptoms, when these had been repressed. It is this eruption which appears sometimes during gonorrhœa, and has been attributed to copaiba, which Cazenave, however, considers can be only its determining cause. It has been seen by the writer six weeks after chancre without bubo or gonorrhœa, and preceded by febrile symptoms.

*Diagnosis.* — 1. Simple erythema, even when mixed with papulæ, is distinguished by its lighter colour, by its complete disappearance under pressure, by the smaller size of its papulæ, and by the severe itching.

2. The papulæ of lichen agrius are sometimes seated on an erythematous base, but the papulæ are very small, are attended with great heat and itching, emit a sero-purulent fluid from their

scratched summits, which form black crusts of greater or less size, desquamation is abundant, and ulceration, and in chronic cases thickening of the skin is common.

## 2. Papular Syphilides.

The papular eruptions, unaccompanied by erythema, present two chief forms.

### (a) *Small Papular Syphilide — Lichen syphilitica.**

This affection is generally acute or subacute. In Dr. Thomson's case-books, however, are several cases in which it had lasted three and four months. The papulæ are very small, often excessively numerous, indeed, almost or quite confluent, and then present a kind of shining copper tint, which is very characteristic. There is no itching. The papulæ usually appear rapidly, and run an acute course. Febrile symptoms frequently precede their appearance, and from this reason, and the generally acute course of the lichen, it is frequently mistaken for some one of the specific exanthemata. Sometimes a succession of papulæ occur, and in such a case the febrile symptoms often attend each successive crop. This is questioned, however, by Cazenave. The papulæ appear especially on the face and neck. Generally they disappear, with little desquamation, or with a slight scurfiness; but Carmichael† describes them as sometimes becoming scaly, and then resembling small patches of lepra, only with a raised instead of a depressed centre. This is more true of the next variety. It has been said that ulcerations will follow the papulæ, but this is probably erroneous. If the papulæ are very numerous, the skin between them has sometimes a decided copper tint.‡

*Diagnosis.* — 1. The papulæ of simple lichen are even more confluent than the syphilide; there is great itching usually, and heat. The colour is much lighter, and, in the chronic form, may be that almost of the skin itself.

2. The papulæ of lichen agrius have been alluded to in a previous page.

3. In lichen urticatus there is intense itching, and considerable inflammation about the papulæ; and the disease is often, as urticaria itself, migratory and wandering.

* The editor has ventured to use these terms, "small and larg papular eruptions," as convenient and expressive phrases.

† An Essay on Venereal Diseases, 2d edit. Lond. 1825, p. 91.

‡ Carmichael noticed that lichen syphilitica is the eruption which often succeeds gonorrhœa; but he did not limit it to gonorrhœa, as inferred by Cazenave. He states that it may follow a simple, non-indurated, and non-elevated ulcer, or a patchy excoriation of the glands and prepuce, with discharge, *or* gonorrhœa virulenta. — *Op. cit.* p. 72.

### (b) *Large Papular Syphilide.*

In this form of papular eruption, which Biett and Cazenave have especially described, the papillæ are of unusual size, are always isolated and discreet, are preceded by small yellow spots, on which they form, and appear in successive crops. In the same case papulæ may be seen at all stages: 1st. the yellow or reddish-yellow spots; 2d. the large, firm, well-defined, copper-coloured, developed papulæ; 3d. the smaller, softer, less red, fading papulæ; and, 4. the greyish, comparatively depressed, marks of the expiring eruption. The skin, apart from the papulæ, is said to have a peculiar "earthy" tint, which, with the other characters, gives a pathognomic character to the eruption. The papulæ are most common on the extremities, the shoulders, and the face, and may appear also on the hairy scalp. There is sometimes moderate itching, and then scales may form on some of the papules. This eruption is always consecutive, to use the phrase of Cazenave, *i. e.* appears only long after the primary symptoms have been cured; it has an essentially chronic course. It is often mixed up with different Syphilides, and various other secondary diseases.

*Diagnosis.* — 1. The papulæ of all species of lichen are much smaller than those of the eruption just described, and are distinguished also by the characters formerly given.

2. In simple psoriasis guttata with small patches, the colour is different, the patches are flatter; and when the scales have separated there is a white border of cuticle, which is never seen in the "large papular syphilide."

3. Syphilitic psoriasis is distinguished at once by its own positive characters, given in a subsequent page.

## 3. Vesicular Syphilide.

This form presents five varieties — herpes, eczema, varicelloid vesicles, pemphigus, and rupia.

### (a) *Syphilitic Herpes.*

This affection is distinguished by small patches of vesicles, somewhat larger than those of ordinary herpes, reposing on a copper-coloured base, which may be slightly raised. The fluid in the vesicles, at first transparent, becomes slightly opaque, and, after a short duration, the vesicles dry up and form, with the epidermis, a thin exfoliating plate, or central scale, which adheres for some time and then finally separates, and leaves a white border round the patch. The vesicles on each patch run almost always a very rapid course.

A varieties of herpes (the "scaly herpes") is described by Cazenave as very common, yet as being little known. There are extremely numerous, perfectly annular discs, usually spread over the front of the chest and on the limbs; the vesicles rise rapidly and as rapidly disappear; they are very small, they may therefore be overlooked, and as they give rise to desquamation and the formation of scales, the true vesicular nature of the disease may be overlooked. There appears to be some inflammation in the centre of the patch, and the effusion of a fluid, which is again absorbed; in consequence, perhaps of this, the scale adheres tolerably firmly to the centre.

*Diagnosis.* — 1. Herpes circinatus runs a course equally rapid with syphilitic herpes; its vesicles, although rather smaller than those of the Syphilide, yet both vary in size so much as to render this character useless in diagnosis. The absence of copper tint is the best guide; and also, in simple herpes, the colour in the centre of the disc is that of the skin nearly; in syphilitic herpes the colour is as dark in the centre of the patch as at the periphery. In addition to this sign, which is given by Cazenave, another is given by the same observer, viz., the absence in common herpes of the central scale.

2. The positive characters of the scaly Syphilides (which sometimes resemble desiccated and scaly herpes) are given subsequently.

### (b) *Syphilitic Eczema.*

Vesicles in groups or irregularly distributed. In this last case it can be seen that each vesicle has a copper-coloured base; the vesicles are larger than in common eczema, and alter slowly; the liquid remains clear for a long time and then is gradually absorbed; a little desquamation occurs, and the copper colour changes to grey, and then slowly disappears. Sometimes if the patches have been rubbed there occur crusts, as in ordinary eczema, or eczema impetiginodes, which are, however, usually thicker, darker, rougher, and more adherent, than in this latter disease. Ulceration does not usually take place under these crusts; but Cazenave relates one instance of such an occurrence.

*Diagnosis.* — 1. In simple eczema the vesicles are smaller, less persistent, and more confluent. These characters, with the absence of the copper colour, easily distinguish them.

2. The second variety, with the dark crusts, may be confounded with common eczema impetiginodes. The crusts in the latter disease are less thick, less dark, and less unequal. There is an absence of copper colour; and it may also assist the diagnosis that the syphilitic eczema impetiginodes is exceedingly rare.

3. Syphilitic or common herpes can never be confounded with eczema. The form, arrangement, and course of the vesicles are quite dissimilar.

### (c) *Varicelloid Syphilide.*

This rather rare affection was first noticed by Biett, and has since been described by Cazenave as syphilitic varicella. There are a few large, round, voluminous, isolated vesicles, at first filled with transparent contents, which slowly become opaque; the vesicles are seated on a copper-coloured base, which assumes a grey tint after the desiccation and absorbtion of the fluid, and the detachment of the small black crust which is then formed. Febrile disturbance for two or three days often precedes this eruption, and this heightens its likeness to varicella. The eruption is often accompanied by the kind of angina already noticed, under the head of exanthematoid syphilide, and by ostalgia.

*Diagnosis.* — True varicella is distinguished by its quicker and more regular course, by the occasional umbilication, by the speedy turbidity of the transparent fluid, by the absence of copper colour, and by the yellowness, rather than the blackness, of its crusts.

### (d) *Syphilitic Pemphigus.*

This rare disease was first noticed by Dubois, who observed it only on new-born children, and considered it to be always a manifestation of hereditary Syphilis. Cazenave seems to adopt this opinion, and remarks that pemphigus is a special eruption, even among the Syphilides, which are themselves special. It has, however, been witnessed several times on the adult. Ricord has seen one or two cases. In Leudet's paper, already referred to, a case in a man aged 22 is given at length. Suchanek has observed also one case. Waller* has also seen one case; and no doubt others are on record. It has, in fact, been recorded as often, or nearly so, in adults as in children; but it is extremely uncommon in both. It consists of moderate-sized bullæ, situated most usually on the palms of the hands and the soles of the feet, surrounded by a violet-coloured base, and containing a turbid fluid. After the absorption of the fluid ulceration may occur, which is said never to be the case after simple pemphigus.

It should be remembered, that non-syphilitic pemphigus may appear in the infant at birth or shortly after; therefore the mere appearance of the eruption is no proof of its syphilitic origin. Waller states that many cases of non-specific pemphigus among new-born children have been held to be syphilitic, merely because one or other parent had at one time been syphilitic.

### (e) *Syphilitic Rupia.*

This Syphilide always appears at an advanced period of the case, and often when the constitution is considerably broken. The

* Prague, Vierteljahrschrift, 1849, Dr. Bd. S. 174.

vesicles are generally few in number and irregularly distributed, and are surrounded by a reddish zone. The contained fluid is even at the first opaque, or becomes so very rapidly. When the vesicle has attained a certain size it dries and forms a black crust. At the borders of this forming crust, the vesicle continues to extend, but after passing for some little distance dries up and forms a second crust below the former and extending beyond it. Beneath this double crust fluid is poured out, and a vesicular elevation occurs at the base and proceeds for some extent; this then dries up and a third crust is formed, which is below the two former and larger than either. Beneath this crust a succession of others gradually form in the same way, until the crust has attained a considerable size; it is black, firmly adherent, and, from the mode of its formation, conical, and as it were in strata. Round the borders of the crust ulceration then sets in, and after a time the crust is loosened, is detached and leaves a rather deep circular ulcer, with perpendicular borders and grey floor, which generally heals up tolerably easily and leaves a reddish or violet-coloured, depressed, irregular, rough cicatrix, which in the course of years becomes grey. In some instances, however, while the crust has been separated by ulceration, and even while the ulcer is healing in the centre, the vesicle forms at the edge of the ulcer, and, as before, extends and covers itself with crusts.

*Diagnosis.* — The only possible error is with non-syphilitic rupia, and especially simple rupia prominens, which is, however, a very rare disease. The absence of copper tint, and the comparative slightness of the ulceration, are the only positive marks on the side of the simple rupia. Rupia syphilitica, however, by its own characteristic marks, by its concomitant symptoms of syphilitic disease of the throat, bones, or of other, and especially of tuberiform syphilides, and by the history of the case, is easily known.

### 4. Pustular Syphilides.

There are three forms of this eruption, which, when pure, are easily distinguished. Occasionally the admixture with other forms may render the diagnosis difficult. According to Cazenave, any of the forms may be primitive, but far more commonly they are consecutive, and are accompanied by other secondary symptoms, especially by ulceration of the throat and ostalgia.

#### (a) *Pustulo-lenticular Eruption* (*Cazenave*), *Syphilitic Acne.*

This eruption may appear on any part of the body; frequently on the face, the shoulders, and the arms. It is the most common of the pustular Syphilides. It commences by scattered, round,

sometimes conical, pimples of various sizes, which are prominent, hard, of a dull red colour, and are often seated on a copper-coloured indurated base; they slowly and partially suppurate and form yellow crusts, which detach themselves and form little ulcers at their summits; these heal up quickly, and the pimples diminish in volume and look like papulæ, for which they are sometimes mistaken. They then disappear altogether, leaving a small white depressed cicatrix. On the face they closely resemble acne, and are larger there than on other parts. They appear in succession, so that in different parts of the body they are found in all stages, and are in this way easily diagnosed. They are very seldom, if ever, followed by ulceration; but on the body, when they are small and have not suppurated freely, there are often small dark-coloured indurations, which are very persistent.

*Diagnosis.*—1. All papular diseases are at once distinguished by the suppuration of the syphilide just described. This partial suppuration in the centre of the pimple, surrounded by the hard red border, is quite distinctive.

2. Acne indurata sometimes approaches very closely to acne syphilitica in its colour, its suppuration, and its subsequent assumption of a small, persistent, papula-like induration. The cicatrices are however somewhat smaller, are more usually oblong, and less depressed. Sometimes, when the characters or the Syphilide are not very strongly drawn, the diagnosis must be made from the presence of other secondary symptoms, and from the history of the case.

3. Cazenave states that this Syphilide has been mistaken for scabies. A little care would, of course, prevent such an error.

### (b) *Syphilitic Impetigo.*

This eruption affects two forms,—distinct, and confluent. In the first case the pustules are somewhat larger than in the second; in both instances they are small: they appear at once, rising on a red base; but are not preceded, as in the case of acne, by an indurated pimple. In the second, or confluent form, which is the most common, the contents of the pustules are at once yellow and purulent: they remain unaltered for some days, and then dry up, forming hard, unequal, greenish, or yellowish-black crusts, harder and thicker than in ordinary impetigo. Beneath these crusts superficial ulcerations form, but frequently heal under the crusts; and the cicatrix is then merely seen when the crusts are detached. Superficial ulcers will form also under the blackish-yellow crusts of the solitary pustules. Impetigo syphilitica appears frequently on the face. From its appearance, it is termed, by Cazenave, pustulo-crustaceous syphilide.

*Diagnosis.*—1. Simple impetigo seldom presents the non-confluent form: when it does, it has no copper colour about it; the crusts are more yellow than greenish or black; ulcerations are very rare; and there are no true cicatrices. The duration is also shorter.

2. The confluent Syphilide can be mistaken only with confluent simple impetigo. The diagnosis must be drawn from the absence of the positive marks of the Syphilide, or from concomitant symptoms. It is often very difficult.

### (c) *Syphilitic Ecthyma.*

The pustules of syphilitic as of common ecthyma are, for the most part, isolated, and few in number. They appear principally on the extremities, and especially on the legs, but are not confined to these parts. A darkish-red or livid patch first appears, which reaches the size of a shilling or more: this is unattended by heat, itching, or pain of any kind. Then a pustule rises, the fluid of which, from the first, is sero-purulent, and of a greenish-yellow tint. As this rises, the base gets thickened and indurated, and the dull red copper tint more strongly marked. A large copper-coloured areola generally surrounds the fully-formed pustule. After some days the pustule breaks; the liquid escapes, dries up, and forms a black, extremely hard, persistent crust, which is very regularly rounded. When this crust detaches itself, a rounded, rather profound ulcer, with perpendicularly cut borders, is seen, which slowly heals up, and forms a rounded, white cicatrix. The skin round the areola often presents a dull, earthy, and withered look.

Sometimes this Syphilide assumes a form which Cazenave has designated "superficial ecthyma." In this case the base is less or not at all indurated; the pustule is smaller, the crust thinner, the ulceration less profound. The pustules are also often spread over a considerable extent of the body, and frequently appear on the hairy scalp. They may, in some rare cases, run together, and form large crusts which might be confounded with those of confluent impetigo.

Sometimes the pustule and the ulceration which succeeds it take an oval form; the crust is convex, and black. Ecthyma is a frequent Syphilide on infected new-born children.

*Diagnosis.*—1. Ecthyma cachecticum resembles closely the Syphilide of the same class; but the base is less indurated: the areola may be dark red, but is hardly ever copper-coloured, as it is invariably in the syphilitic disease, the skin around the pustules does not present the peculiar dull earthy tint. The ulcerations are more superficial, and the cicatrices are irregular in shape, not round, and are depressed in the centre, and deep. In addition, in

the Syphilide, other forms of secondary disease are almost invariably present.*

2. Cazenave states that the smaller and more superficial ecthyma may be confounded, at first, with mild small-pox. The diagnosis is corrected as soon as the eruption has fairly appeared. Acton mentions a similar mistake which had come to his knowledge.

### 5. Tuberiform or Tuberculous Syphilides.

This is a very common Syphilide. It has been excellently described by Cazenave, from whom the following account is chiefly taken. It commences by the appearance of solid, resistent little tumours, which are seated in the thickness of the the skin, and are more or less elevated above the surface. They vary infinitely, in form, being rounded, conical, oval, or flattened, and in colour, from a rather bright red to a strongly-marked copper tint. They enclose no fluid of any kind; but, after a time, the summit becomes covered with scales, which disclose, if they drop off, a moist surface. The fluid exuding from this surface is mixed up with imperfectly-formed epidermic scales, and gives rise to crusts of varying degrees of thickness. When these are detached, the form of the eruption cannot, however, be mistaken. These little tumours may gradually and totally disappear by absorption, or, more frequently, leave an indelible cicatrix. They may occur on all points of the body, but have a decided preference for the face.

They may be scattered or agglomerated: hence, two varieties are frequently made by systematic writers. When in groups, the collections have often a rounded, disc shape. They appear sometimes slowly, sometimes rapidly, and, in this last case, may be preceded by feverish symptoms. Sometimes there is a little itching, and frequently some amount of pain, which may, indeed, be severe.

These tumours may disappear without ulceration; but frequently ulcerations occur, and present two marked and characteristic forms. In one case (the perforating ulceration, of Cazenave) the ulceration is profound, and supervenes on large, indurated tumours. The ulceration is preceded by dark, erythematous redness, and is very painful: it penetrates to the very bottom of the tumour, and covers itself with a black crust. When it heals, it leaves a violet-coloured cicatrix, which is often perfectly rounded.

* Even the presence of concomitant symptoms cannot, however, be always made the basis of diagnosis. Mr. Acton relates a case (Lancet, 1845, p. 255.) in which a gentleman was covered with phlyzacious pustules, surrounded with "genuine copper-coloured stains," and suffered also from conjunctivitis, sclerotitis, and iritis. Yet the patient had never had syphilis or gonorrhœa, nor had he three syphilitic symptoms on which Mr. Acton places great reliance,—viz., condylomata, psoriasis palmaria, and sore throat. He had been reduced in health by a constitutional disease. Ecthyma cachecticum, looking very much like the syphilide, will appear in persons badly fed, or with a taint of scurvy from deficiency of fresh vegetables, as noticed by Mr. Busk.

It is this form of ulcer which may destroy, very rapidly, the side of the nose or the lobe of the ear: it is almost always seated on the face. These ulcerations sometimes commence when it might be supposed that the tumours were about to disappear by absorption, having become grey and soft: it seems, however, as if, at this time, an unhealthy inflammation attacked them. Occasionally when a tumour is thus attacked by inflammation, it does not ulcerate deeply, but seems to soften at many points of the summit, and gives rise to several little purulent collections, which become each encrusted over. Then the same softening goes on in the part below; and thus the tumour is gradually, and without much pain, destroyed.

Another form of ulceration is still more characteristic. In this case large, red, hard tubera appear: they may be few in number at first, but soon increase, and sometimes cover the whole body except the palms of the hands and the soles of the feet. They never become scaly, and are generally darkly coloured. After a variable time they seem to become inflamed, and ulcerate at their apices; the tuber is destroyed, and the ulcer is covered by a black crust; new tubera now rise at the borders of the ulcer, and pass through the same phases: thus a number of superficial ulcers are formed, which run irregularly into each other, and produce serpiginous, sinuous ulcerations, which furrow the skin, sometimes to a great extent. The ulceration never occurs except a tuber precedes it: it heals at one point, while, in its special mode, it spreads at another. Therefore, in the same person, all grades may be seen, — unulcerated tubera, ulcerations, encrustations, and cicatrices. This form is always very chronic; and, like the perforating, ulcerating Syphilide, is one of the eruptions which appear at the longest intervals after the primary symptoms.

*Diagnosis.* — 1. Acne indurata, or sycosis of large size, may be mistaken for the small tubera, or the reverse. But the Syphilide is much more profound, ulcerates, but is never pustular, and its cicatrix is quite dissimilar.

2. Lupus, before ulcerating, might be mistaken for this Syphilide, if it is not remembered that, in lupus, the tubera are flat, soft, ridged, of a yellowish colour, and frequently covered with crusts of cuticle; while the Syphilide has tumours which are hard, round, prominent, copper-coloured, and with the cuticle, possibly, little changed. The ulcers of lupus have a violet-coloured, fungus-like surface, and are not clearly defined, but, as it were, die away into the tissues around; while the ulcerations of the Syphilide are deep, have sharply-cut and defined borders, and generally greyish floors. Then other symptoms almost always accompany the Syphilide; and sometimes these only can decide the diagnosis.

3. The profound ulcer has been confounded with cancerous ulcer; but a little care could hardly permit such an error.

## 6. Scaly Syphilides.

Adopting the diagnostic marks laid down by Biett, between lepra and psoriasis, viz. the depressed and healthy centre and extending scaly periphery of the former, the syphilitic as the non-special, scaly diseases may be divided into lepra, psoriasis, and the disease of the palm of the hand, approaching to psoriasis palmaria, which, after Biett, may be termed the horny Syphilide.

### (a) *Lepra syphilitica.*

The discs of syphilitic lepra are smaller than those of lepra vulgaris; the centre is depressed, copper-coloured, and either perfectly scaleless, or covered over with light grey scales; the borders are raised and rounded, and covered with adherent grey scales, which are continually dropping and being renewed; the first appearance of the disc is in the form of a copper-coloured papula, which enlarges at all sides, and, as it does so, heals in the centre. The discs are seldom larger than from the size of a sixpence to that of a shilling. The course of the disease is always slow: ulceration never occurs; but, after remaining without much change for a long time, the scales fall off finally, the raised circumference becomes flattened, and a violet-coloured stain marks, for a longer or shorter time, the original point of disease.

Lepra generally appears a considerable time after the primary symptoms; but this does not always hold good: it has been known to occur very early, to exist with a chancre, and, even according to Biett, it may exist as a primitive and only token of a syphilitic contamination. But, in the only case which supported this last inference, there were unusual difficulties about the point, as not only was there the remarkable circumstance of the absence of all common primary symptoms, but the patient, a young women, was supposed to have been infected with an old vegetation, which the husband had on the penis.

*Diagnosis.* — 1. Lepra vulgaris is known by the patches frequently attaining a very great size, breaking up as they increase into segments of circles, by the centre being healthy skin, by the lighter coloured scales, sometimes by the absence of copper colour. This last, however, is not always a diagnostic mark, as common lepra has occasionally an exceedingly dark colour. A dark variety was described by Willan under the name of Lepra nigricans, which was at one time regarded by Biett as a Syphilide; but subsequently to the expression of this opinion, two cases occurred to him of this rare disease, in which no syphilitic taint was demonstrable.*

* Cazenave states (p. 412.) that he has seen common lepra with black discolouration, without any suspicion of syphilis. He says, afterwards, that it is not positively established whether the black lepra of Willan is a syphilitic affection or not.

2. The "scaly herpes" of Cazenave may be easily mistaken for lepra: the detection of the vesicles is perfectly diagnostic; but apart from this, the centre is generally covered with scales, and there is not the tendency to marked elevation of the circumference and the breaking up into portions of circles which occur in lepra.

### (b) *Psoriasis syphilitica.*

In this case, either the form of psoriasis diffusa, or more often guttata, is assumed, or both are mixed up together. In both cases the colour is frequently exceedingly dark; if the psoriasis be in the form of "guttata," the patches are often on the extremities, on the palms of the hands, or on the soles of the feet, or on the ancles and wrists, or, in other cases, all over the body. The centre is elevated, not depressed, as in lepra, and is as dark as the circumference; the base is surrounded by a narrow white rim of cuticle, to which Biett attaches great diagnostic value. No ulceration ever occurs; but when it heals, the spot becomes flatter, its colour fades, becomes brown, and then grey, and finally disappears, leaving a stain which is also evanescent.

*Diagnosis.*—1. Psoriasis guttata (non-syphilitic) is more covered over by scales than the Syphilide, the centre is less elevated, the scales are whiter, thicker, and less adherent, and the colour is frequently less dark. Yet in some cases psoriasis guttata is very dark coloured, and cannot be distinguished in this way from the Syphilide. Sometimes, in such cases, the eruption is very abundant, and takes on the characters of psoriasis inveterata, the whole of the leg or the fore-arm being encased, as it were, by the thickened cutis and the abundant scales."* The Syphilide does not so often assume this intense form. It has appeared to the writer, from one or two cases only, however, that there is less symmetrical arrangement about the Syphilide than the simple psoriasis.

2. Small flat tubera covered with scales, can only be momentarily mistaken for psoriasis; the form of the swelling, degree of elevation, deep implantation in the skin, kind of scales, and want of white rim, taken with the several grades of development, which can always be found, in the tuberiform eruption, are sufficient diagnostic marks.

### (c) *Horny Syphilide.*

This is merely a variety of psoriasis palmaria, with the discs small, and the scales exceedingly numerous and adherent, possibly in consequence of the increased thickness of the cuticle on the

* It has occurred to the writer to see Psoriasis guttata, Psoriasis inveterata, and Lepra vulgaris on the same person; and from the characters of none of the eruptions could it be positively affirmed whether the disease was syphilitic or not.

points of election of this Syphilide, viz. the palms of the hands and the soles of the feet. Patches of psoriasis often exist on other parts of the body.

The scaly syphilides were supposed by Carmichael to be consecutive only to the true Hunterian chancre; and, although this opinion has not been confirmed by observation, it would really appear that there is a tendency in them to follow this form of primary disease. Hunter, Willan, and more lately Carmichael, state that a roseolous eruption frequently immediately precedes scaly Syphilides.

### 7. Mucous Tubercles.

Under the head of tuberculous Syphilides Cazenave describes the "mucous tubercles."* It has been deemed advisable to separate them from the true tuberiform Syphilides.

This eruption consists of round flattened bodies of various size, from a pea to the size of a shilling, which are formed by the coalescence of numerous small elevations: they seem, as it were, to arise at once out of the skin, above which they do not project generally more than a line or two; they are dark coloured, are often rough, divided on the surface, are rounded, and have overhanging sharp edges; they are seldom covered with scales, and, in the later stages, emit a thickish peculiar smelling fluid from their surfaces; at other times they are dry. They occasionally ulcerate, or superficial ulcerations wind between them if they are near each other. They will occur on any part of the body, but are least common on the upper parts of the trunk; they are very common about the organs of generation, on the scrotum, in the perinæum, and round the anus, where they are often confounded with vegetations, and conical pointed condylomata. They are less frequently found on the face, at the alæ of the nose, the angles of the mouth, on the buccal mucous membrane, &c., or on the folds of the axillæ. The swellings are usually separate, but may be confluent about the scrotum, anus, &c.; still, however, here the elements of the patch can be made out.

These bodies are particularly interesting, on account of the debate as to whether they can communicate true Syphilis, or other diseases resembling themselves. Certainly the fluid taken from their surfaces is not inoculable by the lancet. Cazenave has strongly advocated their primitive nature, and their contagion. Ricord considers them always consecutive, and as quite incapable of communicating any disease. They will decidedly appear a few

* Syphilides à tubercules plats (*Rayer* and *Cazenave*); Pustules plates (*Cullerier the Elder*); Papules muqueuses (*Ricord*); Pustules muqueuses (*Devergie*); Syphilomykes planus (*Fuchs*); Condylomata lata (*Gustav. Simon*).

days after impure connection, and may be attended or not with blennorrhagia. They have been said to arise simply from want of cleanliness as well as from specific causes.

### 8. Ulcerations independent of Eruptions.

It has been supposed that syphilitic ulceration of the skin can commence primitively, — this is, however, at present unproved. Ulcerations seem always to follow other manifestations, although in some constitutions, the tendency to ulceration may be so great, as to cause the early stage of eruption to be unusually short.

### 9. The Subcutaneous Tumour.

The elastic gummy tumour has its seat, in the first instance, in the subcutaneous areolar tissue, and only secondarily involves the skin. Its description does not belong to the true Syphilides.

## GENERAL REMARKS ON THE DIAGNOSIS OF THE SYPHILIDES.

The extreme importance of distinguishing between a syphilitic and a simple eruption on the skin, is incontestable. The treatment in the two cases would probably be altogether different, and the adoption of the right treatment, if the eruption be syphilitic, may break the chain of events which denote the evolution of this singular poison, and save the patient from long sickness and possible deformity. In many cases of syphilitic eruption no aid is given to diagnosis by the history of the case, as the primary symptoms may not be confessed to, may have been overlooked, or may have been forgotten. No other secondary symptoms may exist in such cases to testify as to the origin of the eruption, and it is therefore often necessary to rely entirely upon the character of the eruption, as furnishing the most constant diagnostic marks. It is for this reason that the symptoms of the several forms of syphilitic skin disease have been detailed at length.

In obscure and difficult cases it will be found that the portraits above given, which have been drawn as minutely as the compass of the work would permit, will afford most valuable aid towards forming an accurate diagnosis.

The first rule in forming a diagnosis is to observe how many of the common characters of the Syphilides the eruption presents; such as its colour, and the colour of the parts around it, its form, presence or absence of itching, &c. The elementary lesion must be next determined, whether vesicular, papular, tubercular, &c. When the elementary form of the eruption has been determined, it may be compared with the description given of the simple, or of the

syphilitic form. If in any case the eruption decidedly possesses the common characters of the Syphilides, and the special characters of a particular form, the diagnosis may in most cases be considered almost certain, although there may be no anterior history of Syphilis, and no other secondary symptoms. The cases in which the diagnosis cannot thus be safely made, have been previously indicated.

The occurrence of a previous primary taint, and of other secondary symptoms, are accessory means of diagnosis, which ought never to be too much insisted upon, as the antecedence or existence of such diseases, and the cutaneous eruption, may be a mere accident or coincidence. An example of this kind has been already referred to. A very singular case occurred to Biett. He was consulted by a patient arriving from the tropics, who had some patches on the leg; they did not agree strictly with the diagnostic marks of the Syphilides, they were yellow and shining, and on examining them carefully Biett found that the sensibility of the skin was abolished at these points. He then diagnosed the spots as the commencement of tubercular elephantiasis. Several other eminent physicians were however consulted, and as the patient had had Syphilis, the eruption was considered by them to be a secondary symptom. The patient was therefore put on a treatment founded on this view of the case; and a year subsequently returned to Biett with developed elephantiasis.* The effect of treatment can also sometimes afford a diagnostic mark of moderate value.

*Treatment of the developed Syphilides.*† — Mercury and iodine are the principal, and iron, quinine, the mineral acids, sudorifics and baths, are the accessory measures in the treatment of the Syphilides. Of these remedies, mercury is the most serviceable, both in temporarily curing any special eruption, and in altering the syphilitic diathesis, which is the root and originating basis of the secondary symptoms.

When administered in syphilitic eruptions, mercury seems to act most promptly on the scaly and the early tuberculous forms. It acts also often rapidly in the vesicular and pustular eruptions. But it seems to be comparatively useless in the febrile exanthematoid Syphilides, which often disappear as rapidly without its use. It is to be employed however in these cases, for the remote, if not for the immediate, benefit derived from its action. In the chronic exanthematoid and in the chronic papular eruptions, mercury is very useful, although the rapid and almost marvellous effects witnessed in the cases of the scaly and tubercular eruptions, are not so often seen. In the eruptions of the later periods, such

* Cazenave, op. cit. p. 577.

† The *prophylactic* treatment of the Syphilides belongs properly to works on Syphilis.

as rupia, or deep ulcerations under unhealthy tubercles when the constitution has been materially impaired, and when the accidents, of what Ricord has termed the tertiary period come on, viz. affections of bones, muscular and fibrous tissues, mercury is less efficacious than iodine, and sometimes cannot be safely employed.

In administering mercury it is never necessary to excite profuse salivation. The mildest action on the mouth is sufficient, and if mercury has not commenced to act beneficially when this evidence of its systematic influence is present, it may be doubted whether it will prove at all useful. Frequently in scaly diseases the eruption has commenced to fade, long before the least sign is given by the gums. The object in giving mercury, is to administer it so gradually, that the exact quantity necessary to cure the eruption may be taken into the system. This quantity can never be foretold, and can be judged of only from the evidence afforded by the eruption itself, and not from any signs derived from the mouth.

Of the different preparations of mercury, calomel is the least efficacious and the most difficult to manage. If used it should be in very small doses, not more than $\frac{1}{4}$ to $\frac{1}{3}$ of a grain, two or three times a day. In addition to its administration by the mouth it has been applied as a local application to the gums, tongue, and pituitary membrane. These methods, however, are seldom now employed. In certain of the Syphilides, viz. obstinate psoriasis, or tubercles without ulceration, Dr. Thomson used it is an ointment, a quantity adapted to each particular case being rubbed up with lard, and topically applied.

The mercurial inunction is sometimes used, but possesses no special advantage, and is occasionally followed by sudden, severe, and unnecessary ptyalism. Sedillot and Cazenave have administered the ointment internally in grain doses; but salivation is readily produced without any decided and prompt effect on the eruption. The bichloride and the protoiodide of mercury are the two preparations which have the strongest evidence in favour of their speedy and safe action. The blue pill is less efficacious than either, but more useful than calomel. Of the three preparations, the protoiodide of mercury, so largely used by Biett, is, without doubt, the best. Administered in doses of one third to one half of a grain* three or four times a day, it seldom produces salivation; and if occasionally a little diarrhœa supervenes, this can be always checked by the suspension of the remedy for a day or two, or by the addition of opium. It can be administered for a long time,

* The formula given by Ricord is,—protoiodide of mercury, and extract of lactuca sativa, each 45 grains, extract of opium 15 grains, extract of conium one drachm and a half, made into five-grain pills, of which six or eight are to be taken in 24 hours. (Lancet, 1848, p. 544.) Every five grains contain rather more than a grain of the protoiodide, and rather less than half a grain of opium. The same formula is given at p. 682.; but the mass is ordered to be divided into 60 pills.

and, if watched, never produces any deleterious influence on the constitution. It is a matter of daily observation that improvement in the symptoms occurs sometimes in a few days; and it is singular enough that patients whose complaints have resisted the action of other mercurials, have sometimes yielded at once to the proto-iodide. Cazenave relates a well-marked case of this kind. If the protoiodide cannot be borne, or, for some other reason, is not used, blue pill and iodide of potassium may be combined together, so as to form an extemporary compound. Dr. Thomson not infrequently used the biniodide of mercury, in doses of from one twelfth to one sixth of a grain, taking care to omit it immediately there were any signs of gastric derangement. It was chiefly useful in the tuberculous forms, without much ulceration. Biett found its action too uncertain. It may be used topically as an ointment to large indolent tubercles, 8 to 12 grains being mixed with 1 ounce of lard. The bichloride is best administered in the form of the Liq. hydrarg. bichlorid. of the London Pharmacopœia. The biniodide may be administered in the form of pill with bread. The cyanide and the ammonial protonitrate of mercury (the soluble mercury of Hahnemann) have been also used; but no special benefit is derived from their employment.

It is a doubtful point how long mercury should be administered after the disappearance of the eruption. About a month or six weeks is the usual time, but no rule can be laid down.

In addition to mercury, it is advisable always to administer, for some days after mercury, the iodide of potassium, in doses of from nine to fifteen grains in the twenty-four hours. In the later stages of the Syphilides, when the constitution appears too much broken for mercury, or when the tertiary symptoms appear, iodide of potassium is recommended by Ricord in very large doses, viz., ʒi to ʒiij in the course of twenty-four hours. Small doses, according to Ricord, are not to be trusted.

In many cases of secondary Syphilis, iron is of decided and great benefit. In fact, as already mentioned, there is frequently more or less anæmia, and a deficiency in the amount of the red corpuscles. Iron may be given, in such cases, at the same time as mercury; and of its different forms, the iodide, or the potassio-tartrate are the best. If the potassio-tartrate be given, its doses should be pushed to from 80 to 100 grains in 24 hours.

Quinine, also, is often useful in secondary symptoms, and should be employed in cases of rupia and in enfeebled constitutions, with iodide of potassium. Cod liver oil is also beneficial in such cases.

Biett employed the mineral acids, especially the nitric and the hydrochloric, in the exanthematoid and papular Syphilides, and with some success. They may always be advantageously used after mercury.

Opium, in some cases of ulceration, administered in one quarter grain up to two grain doses every four hours, acts very beneficially. Iodine and iron may advantageously be combined with it.

Local applications are of little use. In some cases of indolent tubercles, or of indolent ulcers with callous edges, the application of the milder ointments of mercury prove beneficial. The nitrate of silver may also be sometimes used.

Baths, especially vapour baths, are decidedly of great benefit, and should always be used. Alkaline baths, as in almost all diseases of the skin, are useful in the Syphilides.

Cazenave advises that, if none of the above means are useful, arsenic be employed; but most decidedly this powerful medicine possesses no marked power over the Syphilides, and should never be permitted to supersede or anticipate other remedies.

Syphilitic pregnant women should be treated in the usual plan, with great care. Mercury should be given very slowly, and for a long time. Then iodide of potassium, with sarsaparilla, should be used.

In the case of children born with secondary symptoms, no treatment should be used for some days, or even weeks, according to the strength of the child; then the child should be affected through the system of the mother, to whom successively mercury and iodine should be gradually given. Cazenave generally assists this action by acting directly on the child by rubbing the gum with calomel or protoiodide of mercury mixed with honey. The quantity should be small, and proportioned to the age of the child.

By the means now indicated, many of the syphilitic eruptions may be rapidly removed, and the syphilitic diathesis more or less perfectly eradicated. Yet it cannot be denied that sometimes one eruption is removed only to make room for another, and occasionally we have the mortification of finding all remedies incapable of curing even the eruption for which our aid is first sought. When this occurs, the state of the organs and of the nutritive functions should be examined as minutely as possible, and then it will sometimes be found that the eruption has been kept up by some disease impairing the general health, which may or may not be capable of removal. And, speaking generally, in all cases the constitution of the patient, and the exact state of the general health, independent of the Syphilides, must be taken into account in treating the specific disease. Thus, it may not be impossible that one man may have to be bled or purged before commencing mercury, and another be fattened up with cod liver oil and iron before beginning the same mercurial agent, for a similar eruption. But the general principles of treatment sufficiently indicate these auxiliary measures.

# CHAP. VIII.

## NON-ERUPTIVE MORBID STATES OF THE SKIN.

### Hypertrophy of the Cutis and Epidermis.

Under this title various affections may be included, of which a short account only is necessary.

#### 1. Clavus. — *Corns.*

Corns are local thickenings of the epidermis, which imbed themselves in the cutis.* When detached, it can easily be seen that a corn consists of two parts: a kind of central axis or kernel, and an enveloping mass. At the outer end of the corn, the axis can be seen more plainly, as the softer surrounding substance is often broken away. The outer mass consists entirely of epidermic cells, arranged in the ordinary way; the sweat-canals can be seen easily. The axis also consists of epidermic cells, which, according to Gustav. Simon, are of usual form, but have a peculiar arrangement. They are placed with their long diameters obliquely, or perhaps nearly at a right-angle to the surface of the cutis.

The depth to which the corn penetrates into the derma varies. Sometimes the papillæ can be seen in the depression; at other times these have disappeared under the pressure; and occasionally, in very old corns, the derma is almost thinned through, and, according to Ruckert, the fat disappears from under it at the point of pressure.

Extravasations of blood, and local inflammations, frequently occur from pressure; blood particles, exudation, and even pus corpuscles, may then be mixed up with the cuticular elements.

Corns occurring between the toes become mixed with secretion, and are whiter and softer than elsewhere. Frequently under corns about the toes little synovial bursæ exist. They may inflame and suppurate, and give rise to severe pain. They are supposed by Sir Benjamin Brodie to be new formations; but this is doubted by Gustav. Simon, who questions also the fact of the frequency with which they are said to be found.

Erasmus Wilson describes corns as formed by hypertrophy of the dermoid papillæ, and the axis as being produced by the sheath

* If thickening of the cuticle does not pit into the derma, then the term callosity may be applied. Corns are sometimes combined with callosities, that is to say, covering the corn is a laminated mass of compressed and hardened epidermis.

with which the elongated papilla clothes itself. This is altogether denied by Simon.

Mr. Wilson*, under the term "*soft corns*," describes a formation as follows: — From the usual cause of corns, viz., pressure, a portion of cuticle becomes thickened; then occurs effusion of a serous fluid beneath this mass, and imbibition of this by the cuticle, which becomes soft and white. A small aperture may form in it, which allows the serum to escape. In this way things may go on for a long time; fresh scales being added to the mass, fresh serum being secreted by the cutis, penetrating the epidermic cells, and escaping by the little opening.

### 2. Horns. — *Cornua.*

Growths from the skin resembling horns, and projecting for one, two, or even more inches, conical, or divided at the apex, straight or curved, are not uncommon, and proceed from various causes. Sometimes, as afterwards stated, they arise from changes in the sebaceous glands, but often they originate from diseased conditions of the epidermis. When examined, the substance of these epidermic horns appears, from the observations of Rokitansky, Vogel, and Simon, to be composed of epidermic cells, firmly adhering and hardened. In one case Simon† found a peculiar arrangement. On section, the horn appeared to consist of two substances, — marrow and rind. In the outer substance, the "rind," there were longitudinal, oval-shaped, or rounded canals, filled with a structureless mass, which was deficient here and there. The rind-like mass was marked with lines, concentrically disposed round the canals; these were formed by the application to each other of lamellæ, which were themselves made up of adherent epidermic cells.

Klenke describes a species of horn as being formed of adherent hairs, which are sometimes so thoroughly intermixed that their true nature cannot be made out.

### 3. Hypertrophy of the Cutis, or of its Papillæ.

The cutis is frequently hypertrophied, when other changes take place in it, such as congestion, exudation, enlargement of the sebaceous glands. By such complications are produced fleshy excrescences and swellings.

Sometimes, however, there is a true hypertrophy either of the outermost layer of the derma, or of the papillæ, or of the whole cutis. The epidermis is also generally thickened. The affection is generally very partial. The papillæ, in a case examined by

* Op. cit. p. 311. † Ibid. p. 37.

Simon, were from half to a line thick, many lines long, and thickly crowded together. The cutis, otherwise, was merely congested. The papillæ were covered with thick cuticle. Erasmus Wilson proposes the term "pachulosis" for this affection. Rayer says it is sometimes congenital.

### 4. Verrucæ. — *Common warts.*

The appearance of a common wart is too well known to need description. It is produced by the aggregation of a number of papillæ, which are covered by thickened cuticle. The several papillæ are connected together by the adherent epidermis, are tapering or cone-like, or cleft at the apex, or clubbed-shaped. They are easily separated, according to Simon, from the cutis by maceration; according to Rayer, Vogel, Erasmus Wilson, and others, they are the true papillæ of the derma. They are vascular, and a vessel enters the base of each. Vogel says they are hollow but this is denied by Simon. Under the microscope, the substance of the papillæ is stated by Simon to be never fibrous, but a white homogeneous mass, having, under high powers, a granular appearance.

Ascherson has described, under the term "verruca plana," a flat and rather diffused swelling, which presents elements similar to those of the common wart, but smaller, and rather differently arranged.

The "white warts" will be presently described.

## CUTANEOUS PIGMENTARY ALTERATIONS.

### 1. Ephelis Lentigo. — *Sunburn; Freckles.*

On the skin of certain persons, yellowish-brown, round, or irregular spots and patches are induced by exposure to the sun. They usually appear on uncovered parts, but sometimes, during summer, arise on parts covered by clothes. When spots of this kind are much more permanent than usual, and do not disappear in the winter, they are sometimes called lentigo, or ephelis lentigo. But there is no real difference between lentigo and ephelis.

### 2. Moles. Colour of Cicatrices.

Under the term moles, or liver stains, or nævus lenticularis, little round yellow, brown, or black spots are designated, which are always congenital; the cutis is sometimes raised and thickened, and the spots may be covered with hairs. On the cicatrices of some ulcers, or on the spots where exanthematous eruptions have

occurred, the colour of the skin is often permanently, or for a long time, more or less yellow or brown. In such cases, granules, or little irregular-shaped bodies, are found on the deep surface of the epidermis, which resemble common skin-pigment. In one case Simon found the whole cuticle of a yellow colour. Rokitansky* and Virchow believe that the colour may arise in several ways: from the change in the hæmatine, already described; from the dying of the epidermis with hæmatine; and from the development of new pigment corpuscles, which may arise from blood corpuscles as already noticed.

### 3. Melanosis.—*Melasma* (Fuchs); *Nigrities* (Rayer).

In old persons especially, brown or bluish spots and patches sometimes appear, which may become almost black, and produce a mottling of the skin. These are most common on the legs. They will occur in children, and were described by Willan under the term of *Pityriasis nigra*. Rokitansky and Fuchs ascribe the colour to a layer of black pigment under the cuticle, or in the outermost layer of the cutis. Occasionally the pigment collects into masses which may even cause swelling of the skin. This forms, apparently, the rare disease, termed by Fuchs, *Melasma granulatum*.

### 4. Chloasma (Fuchs); Pityriasis Versicolor (Willan).

This affection has been already described at page 304., under the second title. It is not simply pigment disease, for there is extensive cuticular desquamation, and secondary formation of a species of confervus.†

### 5. Silver Stain.

The use of nitrate of silver for a long time produces, as is well known, a peculiar livid colour, which is supposed to depend on the oxide or the chloride of silver. Nothing certain is known on the condition of the skin.

### 6. Want of skin-pigment.—*Chloasma album: Leucopathia: Vitiligo: Achroma: Albinismos.*

This disease may be congenital, and partial or universal. In the last case the pigment is usually deficient in the hair and the uvea, and there is perfect albinism. When not congenital, it is

* Handbuch der Pathol. An. 1846, book i. s. 17.
† See Appendix.

usually only very partial, except in negroes, in whom the colouring matter may gradually disappear from an extremity, or from part of the trunk, or from irregular large patches of skin, or over the body. The causes of this singular complaint are very obscure. Sometimes pressure developes the patches; sometimes the disappearance of the colour has commenced round the cicatrix of a burn, and spread from thence. The examination of the skin of albinos has shown only the want of pigment grains. It has been supposed that the cutis is thinned, but this is doubtful.

### 7. Oozing of Pigment from Surface.

Some very remarkable cases are on record in which a black pigment oozed from some part of the surface. Black and blue perspiration is also spoken of by some of the older writers. The condition of the skin in these cases is quite unknown. Erasmus Wilson appears to connect the former affection with a diseased state of the sebaceous follicles.

## ABNORMAL CONDITIONS OF THE SWEAT GLANDS.

It would be impossible to take up in this place, the consideration of the great subject of augmentation, diminution, or alteration of the perspiratory fluid. Almost all diseases would have to be passed in review even to give a summary of the subject. The anatomical changes in the glands are at present little known. Enlargement has been observed, as already said, in the Greek elephantiasis, and in some other diseases. Atrophy of the glands has been recorded*, and apparently there is occasionally an obliteration of the orifices, or of the excretory ducts.

## ABNORMAL CONDITIONS OF THE SEBACEOUS GLANDS.

The changes in the secretion of these glands, and in the structure of the glands themselves, constitute several very important diseases.

### 1. Increased Secretion.—*Steorrhœa: Fluxus sebaceous.*

Increased, and at the same time altered secretion occurs most commonly on the face. But it may occur over the whole body, and is then usually moderate in amount; the skin has a greasy or oily feel, but not necessarily any particular odour. When the affection is partial, the glands are often distended, the orifices large, the secretion spreads over the face, or the affected

* Simon, p. 317.

part, whatever this may be, dries, forms scales, and produces a spurious ichthyosis. In many cases it can be distinctly seen that the scales are accumulated round the orifice of a sebaceous gland.

### 2. Diminished Secretion.

Occasionally the skin is found dry and harsh, and rough with fragments of broken up cuticle. This has been supposed to arise from a want of secretion in the sebaceous follicles, but this is not certain. Three marked cases are referred to by Erasmus Wilson, who treated two of them successfully, with sulphur internally, and frictions of olive and croton oil, with wax and honey externally.

### 3. Altered Secretion.

Under the terms steorrhœa flavescens and nigricans, Erasmus Wilson describes changes in the secretion of the glands, the nature of which is not understood, but whose characters are indicated by their names.

### 4. Retention of Secretion. — *Comedones: Mitesser (Germ.). Molluscum. Concretions.*

*Comedones.* — The common passage of the sebaceous gland and hair sac often becomes closed, and gives rise to distension of the end of the duct, and gradually of the whole gland. The exposed point gets blackened. If the little tumour be pressed, a cylinder of white sebaceous matter is expelled. According to the length of time during which it has been retained, this cylinder, is white, and soft, or yellow and hard. Under the microscope the cylinder is found to be made up of epithelium and a little fat, with minute hairs, and crystals of cholesterine.* Erasmus Wilson has noticed that the epithelium cells sometimes are not seen, but are replaced by granular cells. The cause of the external black point is not understood. It has been supposed by some to be owing to pigment, by others to simple blackening from exposure. An acarus (A. folliculorum) can be usually detected in the white mass, and has been described by Henle and Simon. It may be found in the healthy secretion.

Comedones appear to arise, both from changes in the sebaceous glands, and the hair bulbs.

*Molluscum (contagiosum (?)).* — In extreme cases of comedones, the sebaceous glands may acquire considerable size. Still their real nature is never doubtful. Not so, however, with the disease, described first by Tilesius, in 1739, — termed lupra by Sauvages,

* Simon, op. cit. 320.; Hoefle Chemie und Mikroscop, &c., Append. pp. 12, 13.

molluscum by Bateman, — and which was defined by the latter, to be "a moveable tumour, little sensible, often elastic to the touch."

In this disease small tumours exist over a variable extent of surface. They are seated in the thickness of the cutis, projecting to a certain extent above it, or stand out from the surface of the skin, being constricted at their bases, and forming pediculated tumours of greater or less size, from a small pea to a hen's egg. The skin covering them is white and unchanged, and usually displays no trace of orifice. When first formed they are soft, and somewhat elastic; afterwards they generally become hard. Occasionally a minute aperture exists, and a milky fluid flows, or is discharged by pressure, or a mass is pressed out like that from comedones.

The contents of these tumours are often milky or pultaceous, or firm like sebum. They are made up of epithelium, round and oval cells, with crystals of cholesterine.

In the cases recorded by Paterson*, the tumours had central apertures, and emitted a milky fluid when pressed; in one case in a child the tumours, as they enlarged, suppurated and fell off. Each tumour contained numerous quadrilateral shaped cells, arranged round a central cavity, and secreting a milky fluid which escaped from the interior of the cells into the central cavity, by which it was conducted to the opening. The milky fluid contained nucleated cells, about three and a half times as large as blood corpuscles, and having no resemblance to the contents of sebaceous follicles in health or disease. These tumours commenced as minute pearly granulations; the opening afterwards formed; the fluid was not inoculable. Dr. Henderson† states that, in his cases, every tumour, even the smallest, had an opening; the entire mass was lobulated; in the interior there were cells arranged round and projecting into a common centre. Dr. Cotton has lately given a description of four cases (viz. in a mother and three daughters).‡ The tumours appeared to him to have arisen in sebaceous follicles, but the contained substance was not common sebaceous matter, but had undergone a peculiar change; it consisted of a stromal element apparently of white fibrous tissue, with spherical or elliptical non-nucleated (for the most part) cells in the meshes. This secretion sometimes became very hard and constituted a "permanent wart." Erasmus Wilson describes some cases in which the tumours presented all the characters of small conglomerate glands, consisting of several lobules, held together by areolar tissue. The contents of these tumours consisted of "cells heaped together like a pile of eggs, and intermingled with a large quantity of epidermal scales in flakes." The cells were variable in form and size, some contained

* Edin. Med. and Surg. Journal. vol. lvi. p. 279.
† Ibid. p. 213.
‡ Ibid. vol. lxix. p. 83.

granules, some a nucleus; others an homogeneous substance, separating into masses of a cuboid shape, others contained oil globules.

These swellings in all probability arise from altered sebaceous glands; in many cases it is however difficult to determine this positively. As Simon remarks, the peculiarity of the disease is the general production of these tumours over such a vast extent of surface.*

The first describer of molluscum, Tilesius, appears to have believed that the disease might be contagious. This opinion was adopted by Bateman, and expressed by the affix of the specific name. It has been supported by others since that time, and the cases recorded by Paterson seem to show that it is not destitute of foundation. It is denied altogether by others, among whom may be named Hebra and Wilson.

It seems probable that there is an hereditary tendency to the manifestation of molluscum, at least several members of the same family have been known to suffer.

*Cystiform Glands.*—Besides molluscum there are certain cysts developed in the skin which are decidedly merely enlarged glands. The walls are however shining and smooth, and the cavity rounded on account of the pressure to which they have been subjected. The orifice on the surface can always be seen. The contents, which are of variable consistence, are found to be made up of epidermic cells, which often look exactly like plaster epithelium from a mucous membrane, fats, cholesterine, various salts of lime, magnesia, potash and soda, albumen and extractive matter. Sometimes accumulations in the sebaceous glands, becoming dry and hard, are pressed out by the continual secretion going on beneath them, and produce horns, which can attain a length of from half an inch to two inches. Occasionally these formations rise from the bottom of old enlarged sebaceous follicles. Horns also form, as before said, from other causes.

*Concretions in the Sebaceous Glands.*—Several cases of this kind are on record. The concretions consist usually of phosphate and carbonate of lime, with perhaps a little chloride of sodium, fat and extractive matter. In a case recorded by Dalrymple†, concentric layers of adherent epithelium cells surrounded a mass of phosphate of lime. Bärensprung states that fine needles of phosphate and carbonate of lime lie between the cells and in the walls of the cyst. This was found also in a case which occurred to Vögel.

* In addition to tumours arising in this way, it seems probable that other forms of disease have been included under the term molluscum. "Multiple tumours" of the skin are therefore alluded to in a subsequent page.

† Simon, op. cit. p. 327.— *Med. Gaz.* June, 1843.

## ACNE.*

Acne is characterised by a chronic eruption of conical-shaped, slowly-suppurating, tubercular pustules. They are usually distinct; but occasionally two or three rise, close together, upon the same base. They are hard, inflamed; and, after remaining in this state for a considerable length of time, they suppurate slowly and imperfectly, and leave behind them a hardened base, which gradually subsides. They rise in successive groups; so that they are seen, at the same time, in the state of their first appearance, their increase, suppuration, and decline, and mixed with the vestiges of those that have run their course, and disappeared. They occupy the face, the neck, sometimes the shoulders; but most commonly the forehead, nose, and chin. They are never seen on the lower portion of the trunk of the body, nor on the lower extremities.

Acne is common to both sexes at the period of life between puberty† and forty, and equally in those of a sanguine and a melancholic temperament. It is always preceded or accompanied with some constitutional disease.

According to Willan and Bateman, there are four species of Acne; but as the three first indicate merely three degrees of severity of the same species, and the fourth only differs from the others sufficiently to entitle it to be regarded a distinct species, I shall treat of it as consisting of two species only:‡

1. Acne *simplex.*
2. Acne *rosacea.*

### 1. Acne *simplex*§

in its mildest form (Acne *punctata*, Willan‖), is characterised by the appearance of a number of black specks, surrounded by a narrow border of slightly-raised cuticle, on the forehead, cheeks, and nose. They generally remain stationary for a long time without inflaming; or they inflame, and, partially suppurating,

* *Syn.* Ἰονθος (*Auct. Græc.*); Varus (*Auct. Lat.*); Ακνη (*Ætius*); Acne (*Willan, Bateman*); Couperose (*F.*); Finnen (*G.*). The term Acne seems to have originated from ακμη, from the disease appearing at the period of the completion of the growth of the body; and the Greek term Ionthus, from its appearance during the first growth of the beard.

† Some writers deny that it is symptomatic. Lory says, "Ægritudinem vix constituunt illi, cum possit homo cum iis recte valere, et functiones quaslibet fortiter exercere."—*Tractatus de Morb. Cut.* 4to. 1777, p. 539.

‡ The chapters on Acne and Sycosis were written by Dr. Thomson.—Ed.

§ *Syn.* Psydraica acne (*Sauv.*); Phyma faciei, Phyma nasi (*Swed.*); Phymatosis acne (*Young*); Ionthus varus (*Good*); Bourgeons, Bouton, Saphir, Couperose (*F.*); Rothgesicht (*G.*); Vinnen, steenpuistjes (*D.*); Acne (*Ital.*); Acne (*Span.*). Stone-pock, Maggot-pimple, Whelks.

‖ Punctæ mucosæ (*Darwin*).

discharge their contents. In the former state, by pressing on each side of the black speck, a small worm-like portion of hardened sebaceous matter is forced out from the excretory duct of the sebaceous gland, in which it is moulded to this form, and its outer extremity blackened by exposure to the air and smoke.* When it is not removed in this manner, the enlargement of this concretion, distending the duct, induces inflammation of the gland, which, after suppurating and throwing out the sebaceous matter, becomes purplish, diminishes in size, and gradually disappears. The eruption sometimes consists of small tubercular pustules, in which no black points are perceived, although frequently appearing at the same time with those in which they exist, indicating a more inflammatory form of the disease (Acne *simplex*, Willan). The tubercles are distinct, hard, and red, but unaccompanied by any local heat or any intermediate inflammation of the skin. They are of various sizes, and rise gradually; some subsiding without suppurating, others suppurating slowly, and discharging their contents, which concrete into a yellowish crust or scab. Both leave behind them a purplish-red spot, which continues for some days, and then disappears. They are at first felt under the skin, like hard bodies, about the size of a small pin's head; but, after five or six days they enlarge, become prominent and inflamed; and in ten or twelve days more—during which time they remain hard, red, smooth, shining, and painful to the touch—they suppurate at the apex, and terminate as already described. In a still more severe, although more indolent form of the disease (Acne *indurata*, Willan), the tubercles are considerably larger than in the former variety, in greater numbers, oblong-conoidal in shape, hard, and of a bright rose colour. Some of them, however, are of a conical form, and acuminated, as if about to suppurate; yet the greater number continue hard and prominent for a considerable length of time, without displaying any tendency to suppuration. Even when suppuration commences, it progresses so slowly for several weeks that the pus is seldom perfectly matured; and when the pustule bursts, only a portion of the tubercle is destroyed by that process. The tubercles on the cheeks and the neck are larger than those on the forehead and chin; but, on these parts, often two or three coalesce, forming one irregular tubercle, which either suppurates at the apex of the largest of the aggregate tubercles, or at their separate apexes. The discharge concretes into rough but slight crusts, which, on falling off, leave scars on the hard, dark-red bases, which either gradually subside, and livid-coloured spots, with sometimes slight depressions, remain, and are long disappearing; or, occasionally, they again suppurate. Whether they remain entire or suppurate,

* These are vulgarly considered small grubs or worms: hence the name *Maggot-pimple*, applied to this form of the disease.

the tubercles are so extremely tender to the touch as to prevent shaving, and even to cause pain in washing the face. When they occupy the breast, shoulders, and upper part of the back, which is not very uncommon, the patient suffers from the friction of the glottis. Besides these tubercular pustules, the parts of the skin where they appear are sometimes covered with small white points, resembling miliary tubercles. There is scarcely any pain attending Acne, unless when it appears in the forehead.

Although the eruption usually occupies the face, neck, breast, and shoulders, yet Bateman informs us that in a few instances, in young men, he has seen it "affecting the covered parts, while the face remained nearly free from it."* When the eruption appears in the back and shoulders, the face is generally free from it; and when it appears on the face, the back is free. It sometimes, but rarely, affects the back part of the arms. On the back, the pustules suppurate sooner than when they are on the face. The nose is seldom the site of the tubercles, although it is always covered with the black specks; while the face is thickly studded with tubercles, yellow crusts, suppurating points, purple blotches, and depressions. When they appear on the face, the temples, the sides of the lower jaw, the nose, and the forehead are the sites chiefly affected. In even the slightest form of the disease the face is sallow, and always feels greasy.

Such are the characters of the eruption in this species of Acne. They vary in their features, progress, and termination, according to the degree of severity of the constitutional condition with which they are associated. In the mildest form of the disease, the general health is so little affected that the eruption is most commonly regarded as a local disease; but, if the condition of the patient be closely investigated, there will always be found indications of some derangement of the system. The skin is thick, ill-coloured, greasy, and deficient in the ruddy hue characteristic of good health; the disposition is apathetic; indolent habits are indulged; the bowels are torpid; the urine displays the presence of oxalates; the extremities are usually cold; and that energy of character peculiar to the period of life in which the disease appears, is absent. The milder form of the disease (Acne *punctata*) is often an accompaniment of chlorosis. The more inflammatory form (Acne *simplex*) appears often in young women when the menses first appear. In the more severe forms of the eruption the general health does not appear to suffer much; and the eruption seems almost a safety-valve for its preservation.† The pathological derangement, how-

* Synopsis, 7th edit. p. 395.

† This seems to have been the opinion of the ancients. Lory says,—"Imo multi sunt auctores qui illos (*vari*) pro roboris signo habuerint, inter quos numerandus est ingeniosissimus Medicus Cassius (*Cassii Probl.* probl. 33.). *Iatrosophista*, qui quærit

ever, which it appears to ward off, remains latent in the system. The mucous membrane is in an irritable condition, indicated by the tongue being clean, but redder than natural, especially at the apex; the appetite is fastidious; the bowels irregular, and the evacuations slimy, pale, and frothy; and the urine deposits a yellowish or whitish sediment, indicative of indigestion. The breath is often offensive, and the pulse is slow and weak. Still, however, the health does not seem very materially deranged, independent of the eruption. This condition of habit accounts for the indolent character of the tubercles, their tardy suppuration, and the livid marks they leave behind them.

*Diagnosis.* — The diagnosis of Acne simplex is not difficult, as the eruption resembles no other pustular disease affecting the face. The conoidal form of the tubercles, their tardy increase, slow suppuration, and the livid base left behind, are sufficient to distinguish Acne from ecthyma. When suppurating syphilitic tubercles, however, appear exclusively on the face, they might be mistaken for the tubercles of Acne; but, independent of the history of the disease, the large, soft, flattish form, and dull-red or copper colour of the tubercles, their more rapid suppuration, and their appearing always in clusters close to the nose, sufficiently distinguish secondary syphilis from Acne.

*Causes.* — Various opinions respecting the cause of this species of Acne have been advanced. It occurs equally in both sexes, and the predisposition to it is so strong in some persons that it not only frequently recurs, but never altogether disappears. This predisposition approximates closely to the strumous diathesis; hence it may be regarded as hereditary, or, in other words, associated with the congenital constitutional structure of the body or temperament. The person appears in good health, but is easily affected by whatever deranges the stomach or secreting organs. In such persons the eruption appears after irregularities of diet, excesses in either eating or drinking, or as a symptom of indigestion from many other causes; such as rich food, hard, crude, or imperfectly boiled vegetable, the use of much pork, either fresh or salted, or much fish. Among other exciting causes, also, may be mentioned, excessive indulgence in sleep, sedentary habits, overwatching, mental anxiety, and consequent depression of spirits, irregular and defective uterine secretion, and violent exercise in hot weather, followed by taking copious draughts of cold liquors. The eruption has occasionally appeared critical in severe attacks of dyspepsia and long continued anomalous pains of the stomach, which have

cur vari in ipsi ætatis flore vigoreque nascantur, putatque id indè pendere quod plurimum alimentum illudque benè concoctum ad ultimas hasce partes confluat, ibique coagulatur atque concrescat."— *Tractatus de Morb. Cut.*, Paris, 1777, 4to, p. 539

been relieved after its appearance. In a few words, the exciting causes appear to be whatever exerts a morbid influence on the mucous membrane, under certain conditions of the system, sufficient to set up chronic inflammation in the sebaceous follicles. The large red tubercles may be regarded as the result of a salutary inflammation, excited by the irritation of the enlarging, condensed, sebaceous matter, and necessary to free the skin from these concretions; hence, on the cheeks, where the capillary vessels are most numerous, the tubercles are larger, and suppurate sooner, than those on the other parts of the face. Dr. G. Simon* regards it as a disease of the hair follicles, and Mr. Plumbe held the same opinion; but it appears on places devoid of hairs; and the eruption is evidently the result of some general affection, which alters the character of the excretion and gives it solidity sufficient to fill up, and consequently obstruct, the excretory duct of the gland. The suppuration, in truth, is the method which nature adopts to get rid of the obstructing agent.

*Treatment.*—Acne is always under the control of medicine in the young, unless the disease is of long standing. But in adult age, especially when there is hereditary predisposition, the disease sometimes resists every mode of treatment, and continues during life.

In the slightest form of the disease, the solid sebaceous matter which fills up the excretory ducts, may be pressed out, either by the nails placed on each side of the speck, or by means of a pair of forceps, invented for the purpose. The formation of the tubercles is checked by immediately applying some of the topical applications about to be mentioned, as proper in the more severe forms of the disease. The local treatment, however, is not sufficient, alone, to cure even this slight form of Acne *simplex*. The state of habit which induced it, and the irritable condition of the mucous membrane, which is the exciting cause of the eruption, must be removed, before we can leave our patient without an anticipation of its return. Except in females, this form of the local affection, were it not likely by the continued influence of the exciting causes to pass into the more severe forms, would require no medical treatment. Light cooling diet, especially such as is not likely to pass into acetous fermentation in the irritable condition of the stomach, gentle aperients, and daily exercise in the open air, to an extent sufficient to equalise the circulation and remove cutaneous capillary congestion, are all that is demanded. When dyspeptic symptoms are obviously present, I have found nothing more useful than a combination of liquor potassæ, hydrocyanic

* In his latest work, Simon regards Acne as an inflammation occurring round the hair follicles and sebaceous glands.

acid, and some unstimulating tonic.* The potassa does not operate by merely neutralising the acid, but as a sedative, aided by the hydrocyanic acid, which, by allaying the irritability of the organ, enables the gastric juice to be more slowly secreted, and consequently in a state better fitted to promote chymification.

In the severer forms of Acne *simplex*, the constitutional symptoms, notwithstanding the opinion of Bateman, that "internally, medicines effect little," must not be neglected. It is never necessary to bleed from the arm; but when the larger and much inflamed tubercles are present, leeches behind the ear, or cupping, may be necessary. Gentle alteratives, such as Plummer's pill, or the hydrargyrum cum creta, in doses of from three to four grains, must be taken in the morning and at bed time, for ten or twelve successive days; at the same time, giving twice a day an alkali, either the bicarbonate of potassa or soda, or the liquor potassæ, with hydrocyanic acid, in infusion of gentian, or some other simple bitter infusion.† As the disease yields, the alkalies may be superseded by the nitro-muriatic acid, or a chalybeate‡, with the view of augmenting the general tone of the habit, and diminishing the excitability of the skin. In obstinate cases, where the tubercles have suppurated very slowly, I have found benefit from the addition of one-eighth of a grain of the iodide of arsenic to three grains of Plummer's pill, taken at bed time, and the addition of cantharides, in doses of ten or twelve minims to the alkaline mixtures. The torpid state of the bowels, which is a frequent attendant of the severer forms of Acne, is best managed by a combination of from ℥xx. to ♏xxx. of liquor potassæ, in an ounce of infusion of senna, and half an ounce of the compound of gentian, taken the first thing in the morning, daily, as recommended by Dr. Powell.§ Strong or drastic purgatives are injurious, but it is often beneficial fully to evacuate the bowels before administering alteratives and tonics. I have seen the greatest benefit result from a combination

* The following is a combination I frequently employ:—

℞ Zinci Oxidi gr. xxiv.
Acidi Hydrocyan. dil. f℥ijss.
Liquoris Potassæ f℥xxj.—Solve.
Sumantur ♏xxxvj. ex cyatho decocti ulmi bis quotidie.

† ℞ Potassæ Bicarbonatis ℈j.
Acidi Hydrocyanici diluti ♏iv.
Infusi Gentianæ f℥xij.—M.
Fiat haustus, bis terve quotidie sumendus.

‡ The following is a useful form of chalybeate:—

℞ Syrupi Ferri Iodidi f℥j.
Acidi Nitrici diluti ♏viij.
Infusi Gentianæ comp. f℥iss.—M.
Fiat haustus ter quotidie sumendus.

§ Medical Transactions, vol. vi.

of one-eighth of a grain of iodide of arsenic, and three grains of Plummer's pill, taken three times a day, for five or six successive days.

With regard to local treatment in the two tuberculous forms of Acne *simplex*, gently stimulating lotions are useful. It is unnecessary to enumerate the various combinations recommended, both by the ancient and some modern writers; that which I have found most useful consists of a solution of three grains of bichloride of mercury in six or seven fluid ounces of bitter almond emulsion, with the addition of a fluid drachm of dilute hydrocyanic acid. It is not easy to make out the reasons for the following opinion, delivered by Dr. Bateman, respecting this lotion. After speaking of Gowland's lotion, which consists of a solution of the bichloride in bitter almond emulsion, he says: — "And where its strength happens to accord with the degree of irritability in the eruption, and *is not applied to the other varieties of it*, it is doubtless beneficial.* It is unnecessary in the simplex, the punctated form of Acne, but in the second variety, as well as in the most severe, I have always found it extremely beneficial." After washing the face in the morning, with warm soap and water, this lotion should be applied by means of a soft sponge, and allowed to dry on the parts; and after washing it off in the evening, the face should be dusted with a powder, consisting of equal parts of precipitated sulphur and magnesia. Upon the forehead and chin this powder should be retained by means of a linen or calico bandage, which should be worn during the night. Lotions, also, consisting of three to four fluid drachms of spirit of wine in seven and a half fluid ounces of rose-water, aid the suppuration of the indolent tubercles; and, when the inflammatory action subsides, two or three grains of the bichloride of mercury, or a fluid drachm of liquor potassæ, may be added to the spirituous lotion. A useful stimulant is also obtained from a combination of a fluid ounce of liquor ammoniæ acetatis, a fluid drachm of spirit of wine, and five fluid ounces of water. Dr. Clarke, of Dublin†, suggested a lotion, formed by infusing an ounce of bruised sulphur in a quart of boiling water for twelve or fourteen hours, for the cure of scabies in children; and Bateman recommends it as useful "in slight cases of Acne simplex, and especially in removing the roughness and duskiness of the skin connected with it."‡ I have had no experience of its value; but any moderately stimulant lotion is useful; and, in using them, it is only necessary to bear in recollection that their activity or strength must be augmented in the progress of the treatment; and especially when the tubercles are very indolent.

When the disease, in its most severe form, begins to subside, a

* Synopsis, 7th ed. p. 397. † Med. Facts and Observ. vol. viii. p. 275.
‡ Synopsis, 7th ed. p. 392.

tonic is necessary; and it is better to employ one which combines an excitant with its tonic power. I have found none answer this purpose better than the bicarbonate of soda or potassæ, in doses of a scruple in two fluid ounces of infusion of cascarilla, with the addition of a fluid drachm of compound tincture of cinchona, taken twice a-day. The irritability of the stomach is allayed at the same time that its tone is augmented.

The diet in Acne should be generous, but at the same time light, and not stimulating. It should consist of plainly-dressed animal food, with well-boiled vegetables; milk; and the farinacea. All raw vegetables should be avoided, as well as all matters likely to prove ascescent, and the free use of vegetable acids. Shell fish, indeed almost every kind of fish, and pork in every form in which it is used, fresh or salted, or as bacon, should not be eaten. Whatever has the smallest tendency to favour indigestion should be avoided; the deranged condition of the stomach, as it calls forth the eruption, must be rigidly attended to, and corrected, before improvement can be expected to result from any plan of medical treatment. As beverage, water is the best; and unless the patient has been accustomed to the daily use of wine and fermented liquors, they should be forbidden; and even by those accustomed to their use, they should be taken with the greatest moderation. Biett recommends butter-milk, and the infusion of Cichorium *Intybus*, instead of coffee, which he condemns.* The object of the treatment is to restore the digestive and assimilative functions; and, through them, the normal condition of the skin. Baths, under every circumstance, at a temperature of 96, used in the morning, and brisk exercise taken after them, aid greatly the restoration of the normal action of the skin; and, at the same time, in giving, lessen the irritability of the mucous membrane. The sulphureous mineral waters, such as those of Harrowgate and Moffatt, in this country; Barèges, D'Enghien, and D'Aix en Savoy, &c.; — these waters may be taken internally, and also used as baths.

When the eruption disappears, Biett strongly recommends the sulphureous waters to be used as a cold douche.

### 2. Acne *rosacea*.†

This species of Acne differs from its congener in the eruption being confined chiefly to the nose and a part of the cheeks, on each side, in the skin being streaked with minute red lines,

* Abrégé Pratique des Mal. de la Peau, par A. Cazenave et H. E. Schedel, 1828, p. 217.

† *Syn.* Bacchia (*Linn.*); Gutta rosea (*Sauv. Darwin*); Gutta rosea Œnopotarum (*Plenck*); Ionthus corymbifer (*Good*); Couperose, Rougeurs, Goutte Rose (*F.*); Roth-gesicht, Roth-nase, Kupferbandel (*Germ.*); Rosy drop, Carbuncled face (*Eng.*).

varicose veins, and the intervening skin being inflamed. The affected parts are covered with small slowly-suppurating tubercular pustules; which, after discharging their contents, leave a livid spot, that is long of disappearing. The eruption is usually preceded by redness at the end of the nose, which swells, becomes livid as the inflammation extends, and, after some time, the cuticle thickens, its surface feels granulated, and the cutaneous veins, becoming congested, and displaying a reticulated appearance, stretch out in small red lines; whilst tubercular pustules arise on the parts, and the eruption extends to the cheeks. The redness of the nose is increased after taking food, or after taking wine or spirits, or any fermented liquor; or, when heated from exercise, or by sitting near a fire, and is itchy. It is paler in the morning. In young persons, hereditarily predisposed to the complaint, the eruption sometimes appears in the form of smooth, red, irregular-shaped patches, free from the tubercular pustules; and occasionally the face becomes so covered with the patches as to assume a general redness, intermixed with slight exfoliating scales.

This species seldom occurs before the age of forty. When, after this period of life, the disease occurs in intemperate persons, it sometimes extends to the forehead and the skin; and, as life advances, the nose swells to a great size, acquires a fiery redness, the nostrils become distended and patulous, and the ala divided into lobes, and so disfigured as to hang down, not unlike the appendage over the beak of the turkey-cock. Under such circumstances the tubercular pustules become darker red, and more livid; and, when they suppurate, ulcers, difficult to heal, are formed.

*Causes.* — Acne rosacea is supposed to be hereditary, but this opinion is not satisfactorily made out. The same habits which induced it in the parent, may be continued in the son. As in the case of former species, it originates from some derangement of the gastro-intestinal or digestive organs, producing great irritability of the stomach; and some morbid change in the portal circulation, which, after a certain age, always affects the vessels of the nose. For example, few cases of epistaxis occur in adult age, that cannot be referred to some hepatic derangement. The habits of those in whom the disease is most frequent, are also favourable to such an opinion. This cause is favoured by certain occupations in which the head is constantly inclined as in shoemakers; but more especially in artizans who are not only obliged to incline the head, but are, at the same time, exposed to much heat.

*Treatment.* — When Acne rosacea has attained its utmost height, it may be regarded as incurable, both on account of the change of structure of the parts affected, and the almost impossibility of restraining the habitual intemperance, which is its chief exciting cause. When in an earlier stage, the object is to allay the irritability of the stomach, and improve the hepatic secretion. For this

purpose, the hydrargyri iodidum, in doses of a grain, in combination with half a grain of ipecacuanha, and three grains of extract of conium, administered every night at bed-time; and a draught, consisting of thirty minims of liquor potassæ, four minims of hydrocyanic acid, and two ounces of decoction of taraxacum, are admirably adapted. As I have elsewhere stated*, I am of opinion that in Acne rosacea the liquor potassæ has never been carried to the extent of the dose, which is fitted to allay permanently the irritability of the stomach. I have frequently gradually carried it to sixty or eighty minims, in the bitter-almond emulsion; or, in conjunction with the diluted hydrocyanic acid, in the decoction of elm-bark, or of taraxacum.

With respect to topical treatment, mild astringents are very judiciously recommended by Bateman: "Such very dilute spirituous or acetous lotions, with or without a small proportion of acetate of lead; or simple ointments combined with alum, acetate of lead, &c. in small quantities."† I know nothing better; but I have sometimes seen benefit result from dusting fine pulverized precipitated sulphur over the affected parts at bed-time, and washing it off with a weak solution of mild soap in the morning.

The diet should be light and nutritious, not wholly free from stimulants; but the use of these should be gradually diminished, until they are altogether discontinued. Indeed the treatment must be chiefly hygienic: every excess should be avoided; and the whole tenor of life regular and temperate. While daily exercise is essential, it should not be carried to fatigue; and hot rooms especially should be shunned. The nitro-muriatic foot-bath may prove useful, when the liver is affected.

## SYCOSIS.‡

Sycosis is characterised by the eruption of firm, acuminated, small pustules upon the chin, and the lower portions of the face, wherever it is covered by, or wherever the beard reaches. Bateman has classed it as a tubercular affection; but it is essentially pustular. The latter author also has described, under the same genus, an affection of the hairy scalp; which, however, in my opinion, is a different disease, having more affinity with porrigo than with

* Bateman's Synopsis, 7th edit. p. 402. † Ibid.

‡ The term Sycosis is derived from the appearance of the discharge, as it concretes, resembling the inside of a fig. "Est etiam ulcus quod à fici similitudine συκωσις à Græcis nominatur."—(*Celsus*, lib. vi. cap. 3.) The same author makes two species of the disease. "Sub eo vero duæ sunt species. Altera ulcus durum et rotundum est; altera humidum et inequale. Ex duro exiguum quiddam et glutinosum est; ex humido pus, et mali odoris. Fit ulcum in iis partibus quæ pilis conteguntur; sed id quod callosum et rotundum est maxime in barba; id vero, quod humidum, præcipue in capillo."—*Ibid.* l. c.

Sycosis. I shall treat the disease as one species only, under the name

## Sycosis Barbæ.*

The disease seldom appears before adult age; and, indeed, it is more common in advanced life. It shows itself first in the form of a few small, yellowish pustules, which are evanescent, seated chiefly on the upper lip, and the part of the face covered by the whiskers and the beard. These pustules discharge, pour out their contents, and concrete into crusts in a few days; and in this form the disease may continue for a considerable time, without being sufficient to attract the attention of the patient. It then appears in the forms of acuminated larger pustules, more or less numerous, either distinct or in groups or clusters. They first appear like hard tubercles, of a conoidal form, about the size of a pea; and progress slowly until they attain their full size, which usually occurs in a week or ten days. They then suppurate slowly and partially; and discharge a thick, viscid, whitish-yellow pus, which concretes into a thin, spongy, yellowish-brown crust: but, in the meantime, the hairs of the beard are matted together, and the parts become so irregular in the surface, the crusts being mingled with fresh crops of red tubercles, and so tender, as to render shaving impossible without the greatest pain. The appearance of the chin and bearded parts of the face, at this time resemble the pulp of the fig, whence the name of the disease originated.

The appearance of the pustules is always preceded by heat, and tingling, with a sensation of painful tension on the chin; this is followed by small red points, which rise into pustules and run the course already described, and produce a most disgusting aspect of the face.

The extent of the eruption varies: it is sometimes confined to the upper lip, sometimes solely to the chin; at other times to the lateral bearded parts of the face; and again the whole lower part of the face, from ear to ear, is thickly studded with the eruption. The pustules frequently appear in successive crops, some appearing whilst others are disappearing. In debilitated individuals, in old people there is a constant tuberculous engorgement, the disease assumes a chronic character, and inflamed tubercles, pustules, crusts, and exfoliating scales are present at the same time, on the affected parts. In old chronic cases bullæ are mixed with the pustules, the hair follicles are destroyed, so that the hair can be detached with the slightest touch; and temporary baldness, if such a term can be applied to the chin, takes place; but in general

* *Syn.* Sycosis barbæ (*Celsus, Vogel, Swed.*); Mentagra (*Plenck*); Boutons bilieux (*M. Retz*); Phyma, Sycosis barbæ (*Good*); Herpes pustuleuse Mentagre (*Alibert*); Sycosis menti (*Bateman, Rayer*); Mentagre (*F.*); Felgwazen (*G.*); Fyggewel (*Dutch*).

the destruction is not such as to prevent the hair from again growing when the disease is cured.

When the inflammatory action is severe, and the eruption has frequently recurred, the skin becomes much thickened, and the disease extends to the subcutaneous tissue.

When the disease terminates favourably, either spontaneously or by the means of art, the pustules appear only at a distance from one another, are smaller than before; the crusts fall, and the skin regains its smoothness, but it remains for a long time of a livid or dull red colour.

The duration of the disease varies. In some individuals it can be removed in a few weeks; in others, especially those of intemperate habits, it resists obstinately every plan of treatment; and after being removed, it is very apt to return. Although it may be regarded as a disease of the male sex, yet it occasionally occurs in women in a slight degree, but only in those who have hair on the upper lip and chin.

*Causes.*—The predisposing cause of Sycosis is connected with the sanguine and bilious temperament, in persons who have firm coarse beards. Change of season seems to influence its appearance; it is more common in spring and autumn than at the two other seasons. It is not uncommon in artizans who are exposed to the heat of furnaces. I have seen several cases of it in the firemen on railroads, in cooks, iron founders, and in blacksmiths. But the exciting causes, although apparently of the most varied kind, yet all tend to weaken the circulation and derange the digestive functions; hence the objects of extreme poverty, the slovenly, the dirty, the debauched, and the intemperate are very commonly its victims; but occasionally it appears in the better ranks of life, without any obviously assignable cause.

Although Sycosis is generally regarded as non-contagious, yet M. Feville asserts that he has seen it communicated by using the razor employed by a person labouring under the disease. This must have been the disease mentioned by Dr. Gruby.*

*Diagnosis.*—The diagnosis of Sycosis is of some importance. In some respects it resembles severe cases of acne, but this eruption is never so exclusively confined to the bearded part of the face†:

* M. Gruby has described a disease which he regards as a variety of Sycosis. The symptoms differ scarcely at all from those of ordinary Sycosis, except that the crusts are all traversed by hairs; and, in removing the crusts, the hairs come away with them by the roots. He affirms that the disease is *contagious*; and he ascribes it to cryptogamic plants, (similar, in some respects, to those observed in the crusts of Porrigo favosa,) which form a vegetable layer between the sheath of the hair and the hair itself. I have never seen the disease; but, as in P. favosa, the presence of the cryptogamic plant may be regarded rather as the effect of the existence of the disease than as its cause. M. Gruby thinks that all the diseases in which such cryptogamia are found should form a distinct class under the name of *Nosophyte*.

† "Certe inter præcipuas morbi causas sordities et impexa negligentia aut barbæ, aut capillarum numeranda."—*Lory, de Morbis Cutaneis*, 4to. Paris, 1777, p. 428.

the pustules of Sycosis are not seated on such hard bases as those of acne, they suppurate more rapidly, and the crusts they form are more of the honeycomb-character than those of acne. From impetigo, which sometimes attacks the chin, it may be distinguished by the more acuminated form of the pustules, their more frequent isolation, their slower suppuration, their bursting between the fifth and seventh day instead of the third and fourth, their drier and browner colour, and their tuberculated bases, which do not occur in impetigo. The pustules of ecthyma which also occasionally attack the chin, are larger and more inflamed, and the crusts more spread out, thicker and more adherent than those of Sycosis. It is also said, that it may be confounded with porrigo favosa, affecting the face, but this eruption rarely attacks the chin, and the lupine form of the crusts at once distinguishes it from Sycosis. Besides, Sycosis is not contagious. It is scarcely necessary to notice the possibility of its being mistaken for a pustular syphilitic eruption. The history of the case, the copper coloured or livid bases on which the syphilitic pustules rise, their flattened form, their glossy surface, their position, when they attack the face being seldom confined to the chin, but appearing chiefly on the alæ of the nose, the forehead, and the angles of the mouth, their being generally accompanied with periostitis and sore throat, are features amply sufficient to distinguish syphilitic pustules from Sycosis.

*Prognosis.*—The prognosis in Sycosis can have reference only to the duration of the disease, which is often tedious. It sometimes disappears during the warmth of summer, and reappears when cold weather sets in. But, however tedious and troublesome it may prove, it is never hazardous to life.

*Treatment.* — In the treatment of Sycosis, our first object should be the removal of the patient from the influence of the exciting causes, when they are obvious. Intemperate habits must be checked; and artisans, who are exposed to much heat, should be removed, for a time, from its influence; and the use of the razor should be discontinued. When the eruption is attended with much inflammation, leeches behind the ears, and poultices will be found useful. Biett recommends poultices of potatoes; Celsus recommended elaterium*; but the nature of the poultice is of little consequence provided it is fitted to operate as an emollient. I have seen much benefit derived from cataplasms of well-boiled conium and poppy heads, beaten into a soft pulp. The general treatment, at this time, should be antiphlogistic. Calomel, in doses of three or four grains, with the same quantity of true James's powder, and half a grain of extract of aconite, given at bed time; and in the

* "Super utrumque oportet imponere elaterium, aut lini semen contritum et aqua coctum, aut ficum in aqua decoctum."—Loc. cit.

following morning a saline purgative, should be given, for three or four successive days, or until the inflammatory symptoms are abated. When this takes place, the tone of the habit, and the condition of the digestive organs should be attended to; and decoction of cinchona, with tincture of serpentaria and liquor potassæ prescribed with that object in view. When the disease has been of long standing, the vapour bath is lauded by Cazenave; he says, "We have observed the happiest effects from it in a series of cases in the hospital of St. Louis."* He also adds, that among other tonics, the chloride of gold has been followed by decided success; Biett, who prescribed it, administered it in doses of a third and half a grain, applied by friction on the gums, and upon the tongue. As topical applications in these cases, various stimulent ointments, such as the Ung. hydrargyri nitratis, diluted with three or four parts of lard; or the Unguentum hydrarg. ammonio-chloridi, combined with an equal portion of the Ung. zinci, have been employed; but I have found no topical application equal in its beneficial influence, to an ointment composed of a scruple of the iodide of sulphur, and an ounce of cetaceous ointment, or lard, applied after the hairs have been removed from the inflamed pustules.

## Case 68.

### *Sycosis Menti.*

James Fearn, æt. 30. — Engine driver on the Birmingham Railway. His occupation has obliged him to lead an irregular life, but his habits are temperate; indeed he has never drank to excess. Eighteen months ago, without any previous disease, tubercles rose on the upper lip, and rapidly spread over the entire region of the beard. They were at first red, smooth, of a conical form, about the size of a pea, suppurating slowly, and discharging a thick viscid matter: they are accompanied with itching. He does not feel otherwise ill. He attributes the disease to his exposure to the heat of the furnace. (℞ *Hydrargyri c. Creta* gr. iij. *Muc. q. s. Ft. pilula maneque nocte quotidie sumenda.* ℞ *Liquoris Potassæ* ♏xx. *Acidi Hydrocyan. dil.* ♏iij. *Infusi Quassiæ* f℥jss. *Ft. haust. ter quotidie sumendus.* ℞ *Iodidi Sulphuris* gr. xv. *Unguenti Cetacei* ℥j. *Ft. unguentum bis quotidie utendum.*) He continued this plan till the 24*th*, when he was discharged cured.

* Abrégé Pratique des Mal. de la Peau, par A. Cazenave et E. Schedel, 1828, p. 129.

## ABNORMAL CONDITIONS OF THE HAIR FOLLICLES AND THE HAIR.

### 1. Increased Development of Hair.—*Hypertrichosis* (*Fuchs*).

Increased formation of hair may take place, on those parts which are always more or less clothed with hair, as the head, genitals or axillæ, or on other parts of the body, from which hairs, in any quantity, are usually absent. Hypertrichosis may be congenital, and then the hair is often spread over the whole body. More often hair arises on unusual parts of the body after birth. Degner saw a case in a child three years old, in whom the skin over the spinal cord became covered with hair.*

Bricheteau has recorded a case, in which during convalescence from fever, long hairs appeared over the whole body of a woman, with the exception of the hands and face.†

Very frequently the upper lip and chin in women become abnormally hairy. This is observed sometimes in young women, in menstrual irregularities. It is however more common after the catamenial period. Hair has been known to develop itself on places which have been irritated by blisters, or stimulating ointments. It is not very uncommon to find premature appearance of the hair in children, on the genital organs or other parts where it should have appeared only at a later period.

Many curious examples of increased development of hair on the normally hairy parts are recorded by Fuchs. ‡

### 2. Diminished Formation of Hair.—*Alopecia adnata: Atrichia.*

In some cases there is a congenital deficiency or total want of hair; and this want continues throughout life. At other times, at the age of puberty, or it may be before this, a normal development of hair occurs. This is a very rare affection.

### 3. Falling of the Hair.—*Alopecia acquisita: Alopecia circumscripta: Porrigo decalvans.*

Two separate affections are included under the term Alopecia acquisita; viz., an uniform detachment, more or less complete, of the hair of a certain part, as the scalp, face, &c.; or the complete detachment of a portion of hair, the adjoining parts being as thickly clothed as usual. The former variety is often called Alopecia præmatura; the latter Alopecia circumscripta.

* Simon, op. cit. p. 339.

† Rayer records several similar cases.

‡ Krankhaft. Veränd. d. Haut.

Alopecia præmatura is, for the most part, unpreceded by any change of colour in the hair. The hair simply detaches itself, or, rather, is thrown off, and may, or may not, be subsequently renewed. The affection is usually only partial, — that is to say, affects only one locality; and this is, in the majority of cases, the scalp.

The causes of Alopecia præmatura are very obscure. It has been referred to alterations in the nervous system, or in the blood, from poisons or deranged nutrition. Thus it has been observed by Rayer, that in a case in which a violent concussion was given to the body, which produced amaurosis, the hair of the head, of the brows, and of the eyelids fell out. Similar cases are on record. The influence of diseased blood is supposed to be shown in the influence of the syphilitic poison, of some medicines, of fevers, &c. Another cause of Alopecia has been alleged by Gruby; viz., the development of cryptogamic plants in the hair bulbs. This is extremely doubtful. A deficiency of fat, and an obliteration of many of the small capillary networks, have also been advanced as possible antecedents.

In Alopecia circumscripta, — the Porrigo decalvans of Willan and Bateman, — patches of hair fall off, for the most part rapidly, and without previous change of colour. The patches have generally a circular shape; the skin is very smooth over them, or clothed with a very fine down, and is not apparently altered in structure. The cause of this complaint is unknown.* Gruby refers it to the development of conferva, and proposes to call it "Phyto-alopecia." The plants have been found by Malmsten also, but not by many other observers. Günsberg calls the plant "Trichoma phyton." The hair usually returns after a time. Medicines appear to have little effect on the disease.†

Falling of the hair occurs also after and during many diseases

* Erasmus Wilson believes that there is atrophy of the hair follicles at the part affected.

† The affection described by Mahon, under the name of "Teigne tonsurante," and lately by Cazenave under the name of "Herpes tondens," is an entirely distinct disease from Porrigo decalvans. The skin is not smooth as in this latter disease, but is rough and red; the hairs are scanty, and break off when they have attained a growth of from two lines to half an inch in length. Sometimes they become whitish or grey. The patches assume a round shape. The affection is never pustular, and by this character those who assign a pustular origin to Porrigo scutulata profess to distinguish it from this disease. There is little doubt but that Willan included it in his Porrigo scutulata. It is identical with the Trichoses furfuracea of Erasmus Wilson, who uses this title as a synonyme for Porrigo scutulata. Wilson describes the hairs as being thickened from the deposition of "nucleated granules" between the fibrous and cortical portions. He terms the disease a "granular degeneration" of the hair. Gruby calls the affection "Rhizo-phyto-alopecia," and describes cryptogamic plants, as developed within the matrix of the hair. Malmsten has also described this plant (Canst. und Eisenm. Jahresbericht, 1849, Dritt. Bd. S. 134.), and states that it is developed in the hair itself, and is quite different from the plant in Alopecia circumscripta. It is extremely probable that the "nucleated granules" of Wilson are the structures described as vegetable growths by these observers.

of the scalp itself, as erysipelas, impetigo, porrigo. In these cases the hair bulbs may or may not be destroyed, and therefore the hair may or may not be subsequently renewed. In erysipelas, with formation of pus in the skin, the bulbs are often destroyed.

E. H. Weber and Simon have carefully examined the skin of the head in bald persons. On fine sections being made, the sebaceous glands are to be seen plainly, and very small hair sacs in contact with them, each of which encloses a minute downy hair. This reaches through the common opening of the hair sacs and the sweat glands to the surface. Simon saw only few glands which were not thus connected with hair sacs. The mouths of the hair sacs are often as closely together in a state of health; sometimes they are few in number and wider apart. In very old persons both hair sacs and sweat glands altogether disappear. There is a tendency, therefore, in baldness, to atrophy of the hair follicles; but whether this is cause or effect is unknown.

*Treatment.* — Alopecia, of all kinds, is little benefitted by treatment. Probably a course of alterative medicines is more efficacious than mere local applications.

### 4. Alterations of Hair Pigment.

The hair pigment may be totally wanting; this may be congenital, as in perfect albinism, or may occur at any period of life, and is then often partial.

Whitening of the hair, *Canities*, is a normal change in old age. Two varieties are mentioned by Wilson: in one case the hair is snowy white; and of natural thickness; in the other it is silvery and thinner than usual; the former kind of hair contains a much larger proportion of calcareous salts.*

The hair may assume other colours than those which are natural to it. Thus a case is quoted by Wilson, in which the white hair of an old woman became jet black before death. Rayer relates a case in which a woman, after puerperal fever, lost her blond, and acquired black hair. Sometimes, without obvious cause, the hair on the head becomes white and brown, and these changes may occur in rings, so that there are patches of white hair and patches of brown hair, which, with the remaining natural hair, make a great mixture of colours. When a single hair is examined it is found often to be of two or three colours, that is, to be different at the root, point, and centre. Richelot records a singular case, in which the hair of a chlorotic girl became grey for two or three inches at the roots, the parts beyond being unchanged. The chlorosis being cured with iron, the hair pigment was again secreted, so that the patient after a time had hair which was brown

* Op. cit. p. 412.

at the root and end, and white in the centre. Sometimes half a hair is secreted half brown, half white. This is, however, very rare.

Changes in the pigment can be rapid, even sudden. There seems no reason to doubt that hair will become blanched occasionally in a few days, not only from severe grief, as stated by writers, but sometimes from unknown causes, but certainly not moral ones.

### 5. Alterations in Consistence and Form of the Hair.

Occasionally, as observed by Eble, Rokitansky, and Simon, little swellings or knobs form on the hair, sometimes the hairs become deeply cleft, into one or many fine fibres; on the other hand, hairs occasionally thicken, uniformly along the shaft, and this may proceed to a great extent. Attenuation of the hair is a more frequent change, and appears to be consequent on atrophy of the matrix. It is only necessary to allude to such changes.

### 6. Diseases of the Hair Bulbs and Hair.

Excluding the Trichoses furfuracea of Wilson (Porrigo scutulata), which has been already noticed, and Favus, which is also elsewhere considered, the only remaining diseases are the following:—

#### Plica Polonica—*Trichoma. Weichselzopf* (*Germ.*).

As its common name implies, this disease is an endemic in certain countries, Poland, Livonia, some parts of Russia, and Tartary, beyond which it is very seldom seen. Although much attention has been paid to the disease, its real nature is still doubtful.

In a fully formed case of Plica the hairs are usually long, often of very great length, are intercoiled, split, and are matted together by a reddish viscid fluid, which, with effused blood, inflammation-products, and cryptogamic plants, forms at the roots of the hairs a more or less thick stratum.* The disease is frequently confined to the head, but may affect the hair on the breast, in the axillæ, &c. Considerable pain and soreness is felt in the scalp, and the hair follicles bleed with extreme facility, often, indeed, on the slightest touch. Whence the sticky fluid proceeds which thus mats the hair is doubtful. Fuchs believes that it comes from the mouths of the hair follicles.

* The statement of some writers, that the scalp and roots of the hair are undiseased, is no doubt erroneous, or has been derived from the examination of cases in which cure was going on.

According to Günsberg, Plica arises from the development of a confervus within the hair follicles, which produces the splitting and subsequent interlacement of the hair. Walther has found cryptogamic plants between the hairs, but not in the follicles, and is inclined to consider them merely as effects. Several writers regard the Plica as simply the result of matting of the hair from want of cleanliness, and retention on the skin of the products which should be thrown off. Many Poles believe that the Plica is a cure for other diseases. It has also been considered contagious, and is said to affect the lower animals — horses and dogs especially.

The hairs and intermediate substances have been carefully examined, and the following summary is given by Gustav. Simon.*

The older writers described the hairs as thickened, swollen at the roots, and infiltrated there with a clammy, reddish, or reddish-white fluid. Several old authors also state that this fluid, and even blood, exists throughout the length of the hair, and issues out on section. More modern inquirers have not noted the same changes. The consistence of the hair has been found unaltered; its colour, however, has been observed to be somewhat changed, — usually lightened, particularly in old cases, — by Hünfield, Beschorner, and Weese. With these observations Simon agrees. In examining specimens of hairs in Plica he could find no change in the hair, either at the root or in the shaft. The hair did not appear brittle. He never found plants in the hair substance. Münter also states that he found no plants in the hairs themselves, but many between them, as Walther had already pointed out.

The substance between the hairs is usually a clammy glue-like fluid, which dries into a horny mass. When this mass is examined, it is found to be made up of epidermis, threads of cotton, silk, insects, sandy particles, &c., mixed up with a fine granular amorphous substance.† In old cases Walther, as already said, found also cryptogamic plants, but these were by no means always present.

On chemical examination, the mass has been found to consist of fats and fatty acids, extractive matters, with ammoniacal compounds, and some salts, viz. carbonate of soda, chloride of sodium, phosphate and carbonate of lime, with a little iron. These analyses throw no light on the nature of the substance, nor on the cause of the malady. Perhaps the most probable opinion is one advanced by Simon, that there is really an abnormal secretion thrown out from the substance of the skin, not especially implicating the hair follicles.

Violent headache, tinnitus aurium, and feverish symptoms, are said to precede the disease, and to disappear when it is fully formed. The nails are often affected, and split longitudinally, or become bent and distorted.

* Simon, op. cit. p. 359.

† Ibid. p. 362.

### Inflammation of the Hair Follicles.

The hair follicles are occasionally inflamed, the hairs fall out, there is evident slight projection and redness at their bases, with more or less itching and smarting. The surrounding skin even, may be a little red. The sebaceous glands are usually affected also; and altered sebaceous matter may exude in considerable quantity, and form crusts on the scalp. The disease should be treated antiphlogistically, with purgatives, cold sedative local applications, followed up by weak alkaline solutions.

Changes in the sebaceous glands frequently induce disease of the hair bulbs, and temporary falling off of the hair. If steorrhœa occur on the scalp, it necessarily implicates the hairs which are matted together by the secretion. There may be increased scurfy desquamation of the cuticle, with stearrhœa and inflammation of the follicles. A compound and very obstinate disease is thus produced, which often depends on constitutional causes.

---

## CHAP. IX.

### NEW FORMATIONS ON THE SKIN.

The greater number of the new formations on the skin originate from causes which affect the skin only in common with other parts, such as scrofula, cancer, &c. Even in cases in which it is particularly affected, as in epithelial cancroid, in the so called cheloide of Alibert, &c., the description of the appearances does not properly belong to the present work. The same may be said of lipomatous tumours, and of nævi (telangiectasia). The only new formations which need be alluded to here, are the following:

#### 1. Cystic Cutaneous Tumours.—*Wens.*

It is generally supposed that these tumours are follicular growths, that is to say, arise from an abnormal development of sebaceous glands. As doubts are still entertained on this point, it has been considered expedient to consider them apart from the more certain abnormal conditions of the glands. If these tumours do not arise from

diseased glands, they are cystic growths, commencing either in the corium itself*, or more frequently in the subcutaneous areolar tissue. Frequently no orifices can be seen, or traces of gland ducts; if these ever existed they have totally disappeared. The tumours frequently grow to a great size, are round or conical, soft or hard, according to their contents. The lining membrane is smooth and polished, and lined with plaster epithelium. They contain various ingredients: cells, oval, angular, or flattened, often with nuclei; epithelium generally of the flat kind, occasionally cylinder; crystallized fats, elein, margarine, &c. and cholesterine; sometimes fat in the form of oil globules, sometimes, according to Vogel, in cells; salts, especially of lime, which in old cysts are often very abundant; and hairs standing out from the lining membrane into the cavity, or lying loose. When the hairs are thus planted in the walls, hair sacs can sometimes be found, and, adjoining them, sebaceous glands. Even sweat glands are said to be also seen sometimes, or at least glands which perfectly resemble them.

### 2. Multiple Tumours. — *Mycosis* (Alibert); *Molluscum Simplex.* (*?*)

In some rare cases, numerous small tumours, the nature of which has not been accurately fixed, arise in the skin, or in the subcutaneous cellular tissue, and implicate the skin. Simon has alluded apparently to tumours of this uncertain description, under the term *Molluscum simplex*, a title which has been given to them also by other writers.† They are solid, hard, of variable size, but seldom bigger than a large marble, generally with a broad base, but capable of becoming pedunculated. They are generally numerous, and frequently spread over the whole body. The skin covering them is often red, and is firmly attached to them, but they are moveable with the skin. Occasionally they undergo absorption and slowly disappear, and occasionally pass into ulceration. According to Cazenave they are of fibrous nature; Rokitansky also states that they are made up of areolar tissue. In a case (apparently of this disease) recently reported by M. Lucian Corvisart‡, the tumours were microscopically examined by Lebert. Between the normal elements of the skin, in the sites of the tumours, were a number of cells, in size about $\frac{1}{100}$ of a millimetre, with regularly spherical defined nuclei, about $\frac{1}{200}$ of a millimetre in diameter, and showing sometimes two or three nucleoli, sometimes granular matter. Adjoining these cells were

* Rokitansky states, that if these cysts do not arise from glands, they originate from beneath the skin, and never in the skin itself. — *Path. Anat.* 1844, Band ii. S. 98.

† It has been supposed that Bontius referred to this disease in his well-known description of a tuberiform disease, prevalent in Amboyna and the Molluccas. Others have believed the disease noticed by Bontius to be a form of Elephantiasis.

‡ Archiv. Générales, 1849, vol. xix. p. 316.

fibroplastic fusiform bodies, showing every phase between an ovoid cell and a long fusiform body; nuclei were seen also here. In a case referred to by Gustav. Simon, the tumours consisted of areolar tissue covered by thickened epidermis. A case of a similar kind has been recorded by Dr. Atloe*: — "The tumours consisted of an elastic, homogeneous, semisolid, gelatinaform substance, not liable to be disintegrated by pressure, and of a yellowish-white colour. The skin covering them was smooth and of the natural appearance." A similar case is detailed by Mr. Worthington.†

Whatever may be the morbid anatomy of these multiple tumours, and it is evident the subject requires greater research, there can be no doubt that this affection is altogether distinct from the "Molluscum" of Tilesius, Bateman, Paterson, and Wilson, and cannot be properly included under the same name. The "Multiple tumours" are neither derived from altered sebaceous follicles, nor do they present any anatomical resemblance to the tumours described by the above named observers, whether these tumours be of glandular origin or not.

### 3. Verruca mollis seu carnea. — *Weichen Warzen: Verrues Charnues: Fleshy Warts.*

Under this title are usually described little projections with broad or pediculated bases, much softer than common warts. They are covered with epidermis, which may be thickened, but is never so much as in common warts. They are often covered with hairs, and are sometimes coloured yellow or brown from deposition of pigment. These warts are composed of subcutaneous areolar tissue, with interspersed cells; the pedicle is composed always of areolar tissue, covered of course by skin. These tumours are generally congenital.

### 4. Condylomata Elevata. — *Vegetations Dermiques.*

The bodies described in the section on syphilitic eruptions as "mucous tubercles," or "pustules plates," are often named also "flat or broad condylomata" (*condylomata lata*). It would be advisable, however, to restrict the term condyloma to the conical or pointed formations now to be described.

The condylomata elevata arise chiefly at points where mucous membrane and skin are in opposition, and in the vicinity of these points. They are frequent on the prepuce, at the margin of the anus, the

* Amer. Journ. of the Med. Scien. 1844, p. 297. † Ibid. 1845, p. 285.

vagina, the mouth, and nostrils, &c. If seated on mucous membranes they are red and soft; if on skin they are harder, dryer, and with a reddish or white colour. They resemble common warts in structure, in so far that they are made up of a number of projections or papillæ, whose free extremities are rounded, club-shaped, or divided as in warts; the papillæ run together, and form a broad base. Occasionally, however, they project; the base gets constricted, and they become pediculated. The condylomata are of all manner of shapes, simple projections, elevated patches, pediculated and mulberry-shaped, divided like cauliflower excrescences, &c. Their structure has been especially investigated by Simon. When a piece of skin and a condyloma is placed in water, so as to macerate for a short time, the growth can be easily examined. The outer layer is seen to be composed of flattened cells, joined to each other like plaster epithelium. More internally the cells are smaller, but still flat. In the centre of the condyloma there are little round cells, with a large nucleus, reaching nearly to the involucrum; there are also pointed cells and fibres, and many blood-vessels. The fibrous, or elongated pointed cellular elements, are, according to Simon, sometimes in great excess, and there are few round or flattened cells. Lebert, on the contrary, could never find any fibres at all.*

Hauck and others have seen growths like those of condylomata elevata springing up in the cavities of enlarged sebaceous glands; these have been termed condylomata subcutanea.†

As to the formation of condylomata, Gustav. Simon believes them to be new growths. Round cells, then cells divided at their ends into fibres, then complete fibres; such are the elements he finds in condylomata; and these elements are almost universally considered as the usual products of exudation-matter. Rokitansky‡ includes condylomata, from Simon's description, under the head of new formations of areolar tissue. Lebert, on the other hand, considers them as epidermic or epithelium formations, while Kramer deems the papillæ, or projections, to be merely the common papillæ of the skin greatly hypertrophied. Simon's opinion appears to be the most correct; but it is not improbable that in many cases there may be also hypertrophy of the papillæ, or increased epidermic or epithelial formation.

* Physiologie Pathologique, tome ii. p. 8.

† Quoted by Simon, p. 224. Kramer has seen common warts develop themselves in similar places.

‡ Path. Anat., Bd. ii. S. 96.

# CHAP. X.

## DISEASES OF THE NAILS.

The more important diseases of the nails are so fully treated of in surgical works, that it is unnecessary to discuss them here.

It may be merely mentioned that the nails may be abnormally increased in number, two or more exist on the same finger, &c. Or they may be inserted in unusual places, as on the palm and surface of a finger or in the palm of the hand.

Nails may become hypertrophied or atrophied, or the form may become changed. The changes in form are very interesting. The tendency to convexity in Phthisis is well known: as yet no satisfactory explanation has been given of it. Simon has examined such convex nails without determining any change in structure. In cyanosis the nails also become convex. In lepra, psoriasis, and other chronic diseases of the skin, the nails sometimes become implicated, deformed, bent, thickened, &c.; this is the case, according to Fuchs, sometimes in Plica polonica. In anæsthetic and tuberculous Elephantiasis the nails become altered, as noticed previously.

The nails undergo changes in structure; sometimes they become very soft, or the reverse.

The white spots occasionally seen on the nails arise, according to Valentin, from an imperfect development of the cells.

# APPENDIX.

Pages 8. 28. and 49.

*Minute Anatomy of the Eruptions in Scarlatina, Measles, Smallpox, Varicella, and Vaccina.*

Since Dr. Thomson finished the chapters on the Exanthemata, the excellent observations of Gustav. Simon have been collected by himself, and published in the work so often referred to in the previous pages. A brief abstract of the statements contained in this work may be useful: —

(a) *Scarlatina.* — The red colour of the skin fades after death, in the majority of cases of scarlatina; the skin then presents no appreciable alteration. In some cases the colour remains after death, and then, according to several writers, the vessels of the cutis are found distended with blood. No other change can be found. It is stated by Noirot that after some days the epidermis detaches itself more readily from the parts on which the eruption has appeared than from other points.

(b) *Measles.* — The projection, which can be felt and seen, is caused by swelling of the cutis, and not by any exudation between the cutis and cuticle, which are normally adherent to each other. The cause of the projection appears to be the congestion of the vessels and the presence of a foreign exudation; which is not, however, easily seen. The only abnormal ingredients which are perceptible are a small number of round molecules, insoluble in acetic acid. The hair sacs are unchanged; the condition of the sebaceous follicles attached to them has not yet been determined; but it may be concluded that they have nothing to do in causing the swelling: 1st, since the papulæ of measles are as large and as numerous on places where the sweat glands are almost wanting as on other parts; 2dly, since to cause such large swellings as those in measles the glands must be enlarged beyond the bounds of credibility; and 3dly, since the papulæ of small-pox in the first day or two, when they may be compared to those of measles, are in no way dependent on alterations of the glands.

(c) *Small-pox.* — The pustules in small-pox are, according to Simon, not formed always in the same way. In many cases the cuticle and cutis are entirely separated, except at the umbilicus, where there is a thin whitish cord, manifestly a hair sac; sometimes under the depressed spot are many approximated hair sacs. On the under surface of the cuticle, and frequently on the upper surface of the cutis, is found a thin whitish layer, which, to the naked eye, possesses the characters assigned by Rayer to the pseudo-membrane he described as existent in the pock-pustule. The two layers, or the cuticular layer and the skin (if this is

not covered with a layer), are not connected, except by the hair sacs. In pocks of this kind the hair sacs are the causes of the umbilicus.

Other pustules have a different formation. Under the epidermis lies the usual white substance, which adheres, however, to the cutis at one point, producing thus an umbilicus. Sometimes in such cases neither hair sacs or sebaceous glands exist which could cause the umbilicus, which really does appear to be owing to adherence of the white mass to the cutis. The reason of the adherence is not obvious.

Possibly, also, the umbilicus may be caused sometimes by the adhesion of a sebaceous follicle; but Simon has not examined this point sufficiently.

The white layer, or mass, existing between the cuticle and the cutis, is not a pseudo-membrane,—i. e. a consequence of exudation material,—but is composed of the deeper, softened layers of the cuticle. Proceeding from without inwards, large flat cells are first seen, then others less flattened, and with evident nuclei; then, nearest to the cutis, are the cells and nuclei of the so-named Rete Malpighii. Besides these elements, others are found; viz. pus-cells, which appertain to the fluid, little granules of various size, round, or irregular, yet still with a tendency to a round form, and which are insoluble in acetic acid; they are supposed by Simon to be new formations, like the pus-cells, and are sometimes imbedded in little flakes, which look like fibrine, and dissolve in acetic acid.

The adherence of this altered cuticle to the cutis at some points, and its separation at others, produces the little compartments or dissepiments spoken of by some writers. These cavities are usually irregular in shape, yet sometimes affect a regular arrangement. The white mass may extend from the adherent centre to the raised circumference in diverging rays, so as to form six or eight chambers of nearly equal size. Often, however, there are no chambers of this kind, but round a central, thin, white, connecting cord a canal exists, which is bounded by the adherent white substance.

The sebaceous glands remain in connection with the hair sacs, or are sometimes torn through, if the hair sacs are elevated by the detached cuticles. The sweat orifices can be seen on the raised epidermis, and the sweat canals can be seen on section.

When pustules occur on the palm of the hand or the sole of the foot, another variety is found. In adults such pustules are seldom umbilicated, but they are often so in children; which fact affords another proof, if such were needed, that the umbilicus cannot depend solely on the effect of hair sacs or sebaceous glands, since these structures do not exist in the situations referred to. When pustules in these situations are examined, there is often found to be an adherence of the cuticle to the cutis in the centre; yet there is no umbilicus. The cuticle adheres, in fact, to an elevation of the cutis itself; while all around this central projection the cutis is depressed. Under the microscope it can be made out that the central elevation is a swollen papilla, while in the depressed space around it the papillæ are flattened and pressed together. This condition may be seen sometimes on other parts of the body. The explanation of the appearance seems to be, that in such cases the cuticle remains, from some unknown causes, firmly adherent to the cutis in the centre; fluid pours out between the cutis and cuticle around this cent-

Through this collection of fluid, the cuticle, in most cases, would be elevated; but here it is so dense that the elevation can occur only in a moderate degree; so that, at last, instead of elevating the cuticle, the effused fluid compresses, and finally depresses, the cutis itself.

Simon considers that the central attachment of the cutis and cuticle in the palms of the hands and the soles of the feet does not depend on the sweat canals, which are found equally distributed over the raised cuticle, and are not especially collected in the centre. The cause, then, of this adherence remains undetermined. When the pustules become very full, the umbilicus often disappears. The cuticle is uniformly elevated; and the cutis itself is often more or less destroyed.

The contents of the pustules, besides pus-cells, show a number of the granules which are insoluble in acetic acid. Gluge, also, has described corpuscles which were two or three times as large as pus-cells, and are probably epidermis-cells. Gruby saw white corpuscles five times as big as blood particles, and not round, but fringed on one side. These were, perhaps, granular-cells.

According to Lassaigne, the contents of the pustule have a composition of water, 90·2; albumen, 6·0; fatty matters, 2·5; chloride of sodium and lactate of ammonia, 1·2; phosphate of soda and phosphate of lime, 1 in 100 parts. Tremoliere found, besides pus, fibrine, mucus, chloride of sodium, sulphate of lime, phosphate of lime, and water. Animalculæ are also often found in the pus.

The minute anatomy in some of the varieties presents some differences. Thus, in the *Variola verrucosa*, there are hard, knotty prominences, which do not further develope into vesicles or pustules, but often remaining stationary for some time, at last slowly disappear, partly by absorption, partly by detachment of a crust. In such cases, in all probability, inflammatory exudation thickens the derma itself. In the *variola crystallina*, or *lymphatica*, the contained fluid, instead of being purulent and thick, remains clear and transparent, sometimes yellowish or brown. In some cases, also, blood may appear in the pustules forming the *V. cruenta* of the old writers.

*Modified Variola. Varioloid Eruption.* — The minute anatomy is, according to Simon, the same in this case as in fully developed variola. The contents of the pustules are not so thick, and Gluge states that there are fewer granules. Gruby has described animalculæ in the fluid.

(d) *Varicella.* — In varicella the most noticeable difference, besides the variation of contents, from the pustules of small-pox, is the frequent want of an umbilicus, which depends, probably, on the rapidity with which the fluid is poured out, destroying all organic connection between the cutis and cuticle. The contents show pus corpuscles, and, according to Fuchs, have always an alkaline reaction. Canstatt has found them acid.

(e) *Vaccina.* — The umbilicus in cow-pox is considered by Simon as dependent on adhesion of the cutis and cuticle following inflammation round and at the place where the puncture had been made; and not as connected with hair sacs, or sebaceous glands, as has been supposed. The umbilicus assumes the form of the puncture. Many writers have described a "pseudo-membrane" in the cow-pox as in small-pox; but the white layer thus represented is composed of portions of cuticle, mixed with fat and granules.

## Page 28.

Under the terms *Rubeola,* or *Rötheln,* many German writers have described a disease which has been supposed to be different from morbilli (measles, the English rubeola), scarlatina, or roseola. Gustav. Simon believes that in this term merely modifications of scarlatina and of measles have been included. In the last case the eruption resembles scarlatina; but the general symptoms may be those of measles. Simon considers this to be measles, and describes it under the name of Morbilli confluentes.

## Page 112.

### *Porrigo favosa, lupinosa, and scutulata.*

Dr. Thomson, after full consideration of these diseases, decided not only on retaining the distinction drawn by Willan and Bateman between porrigo favosa and lupinosa, but also concluded that the evidence in favour of the pustular origin of these diseases and of P. scutulata was sufficient. This opinion is not, however, shared by many observers, who have classed together porrigo favosa and lupinosa as being different shades of the same disease, have denied their pustular origin, and have separated the affection, which, according to circumstances, is termed favus dispersus, or confertus, from porrigo scutulata altogether. Still very considerable differences exist in the use of the terms. Thus "porrigo scutulata" is, according to Gustav. Simon, a synonyme of favus confertus; "porrigo lupinosa" is a synonyme of favus dispersus; while the herpes tondens of Cazenave is not referred to as at all allied to porrigo scutulata, although many facts imply that both appellations designate the same disease. Erasmus Wilson refers porrigo favosa to impetigo capitis, and terms porrigo lupinosa, favus dispersus. He gives the phrase "porrigo scutulata conferta" as a synonyme of favus confertus; while, in another part of the work, the porrigo scutulata of Willan appears as synonymous with his trichoses furfuracea, or Tinea tondens, viz., the herpes tondens of Cazenave, the herpes capitis of Neligan. In the latest edition of his manual (1847) Cazenave adheres to the arrangement of Biett, and considers that there are only two well founded divisions of porrigo, viz., P. favosa (which includes the lupinosa of Willan), and P. scutulata, which Cazenave describes as a pustular disease, and consequently altogether different from the vesicular affection which he has named herpes tondens. In the case of both P. favosa and scutulata, Cazenave describes pustules. Gibert, as Erasmus Wilson, refers the porrigo favosa of Willan to impetigo. Hebra* has lately described a kind of impetigo capitis, which he terms "impetigo achor decalvans," and which appears to be very similar to the porrigo scutulata of Willan. Examples of such varieties of nomenclature might be adduced in great numbers, if there were any object to be gained in so doing.

This confusion of terms sufficiently proves that these diseases are not so simple as has been supposed. Some observations of Simon on "porrigo lupinosa" (favus dispersus) are of considerable importance,

* Quoted by Simon, p. 191.

as tending to clear up these difficult points. Favus is a disease which presents remarkable and easily recognisable physical appearances. Although it is very uncommon in London, and, indeed, throughout Great Britain, no one who sees a case even for the first time can mistake it. It consists of smaller or larger masses of yellow substance, which have a raised circumference, a depressed centre, are covered by cuticle, and lie in a depression of the true skin, which is also covered by cuticle; so that the "crust," so to call it, rests in a sort of cuticular envelope. The substance is greyish externally, yellow in its deeper layers, and consists, as mentioned in the text, of microscopic cryptogamic plants, mixed with debris of epithelium, and some fine granular matter. These granular or matted crusts were supposed by Willan to follow pustules; and the same opinion has been adopted by Rayer, Fuchs, and others, and has been in part supported by Dr. Bennett, of Edinburgh. This opinion was held by Dr. Thomson. Some very careful observations of Simon, however, throw great doubt on this opinion. The origin of the crusts is thus described. In the neighbourhood of the old crusts, Simon observed that a small portion of epidermis loosened itself from the corium; there was, however, no effusion of fluid. On the under surface of this loosened epidermic patch, neither by the eye or the microscope could any appearance of cryptogamic growth be perceived, but only epidermic cells; and on one examination some little molecules. On the point from which the cuticle had been detached was also no trace of favus formed. If the epidermis was left undetached for some days, the microscopic elements of favus gradually appeared. In no case could any exudation of serum, much less of pus, be found; and nothing like deposit of tubercle or of matter approaching to it is mentioned. Hoefle's observation, made in 1843, are to the same effect. In no case could any pus be observed as an antecedent of the parasitic growth.* Lebert's description† leads to the same inference; and in fact the observations of all those (Gruby, Malmsten, Robin, &c.) who have paid attention to this subject. It may then be considered absolutely certain that favus can originate without any kind of liquid effusion, and consequently that it must be separated altogether from the pustular eruptions, although doubtless, as appears from the observations of Bennett, pustules can occur as a secondary manifestation. Whether it should be described, as Simon has described it, under the head of "Parasitic Plants," is another question, which cannot, perhaps, yet be solved. This disease, "*Porrigo lupinosa*," or "*Favus confertus et dispersus*," is then well marked and characteristic. Another affection, which may be considered sufficiently well marked, is the "Herpes tondens" of Cazenave, although it may be disputed whether the name is a correct one. This has been already referred to at page 417. It is certainly different from porrigo decalvans, with which it has been classed by Hoefle‡, and appears to be a disease of the hair follicles. May it not sometimes be pustular? Impetigo and eczema of the scalp (the latter passing into and being at last indistinguishable from some forms of pityriasis), and pityriasis itself, are also affections whose diagnosis is not difficult.

* Chemie und Mikroskop, Zweite Ausgabe, p. 49.

† Phys. Path., tome ii. p. 478.

‡ Chemie und Mikroskop, am Krankenbette, Höfle, Zweite Ausgabe, Anmerk. S. 19.

Favus, porrigo scutulata, impetigo, and eczema capitis, pityriasis, and alopecia circumscripta, are all easily diagnosed diseases, and may be isolated from some other ill-understood affections. The exact nature of a pustular porrigo (a disease which appears certainly to exist), of Hebra's "impetigo achor decalvans," and perhaps of some other diseases included in Willan's porrigo scutulata, remain yet to be properly described.

## Page 190.

### *Minute Anatomy of Lichen.*

Considerable difference of opinion still prevails on this point. M. Baron*, in his late scheme for the anatomical arrangement of skin diseases, has not hesitated to class lichen among the affections of the hair follicles, thus adopting the views of Hebra as regards strophulus. But the evidence in favour of this view is by no means satisfactory, and some observations lately made by Simon go far to disprove it altogether. According to this excellent observer†, who regards lichen and strophulus as identical, the papulæ of lichen are caused by fluid exudation into the cutis; the cuticle is not separated from the cutis, nor in any way altered, except in some cases of lichen agrius, when it is thickened. Alterations of the papillæ of the skin, or changes in the hair sacs or sebaceous glands, have never been seen by Simon.

## Page 135.

### *Sarcoptes Scabiei*‡ (*wrongly called Acarus*).

Some interesting observations by Eichstedt on the development of this parasite. (Fror. N. Notiz. Bd. 38 and 39. 1846, and Höfle, Chemie und Mikroskop, Zweite Ausgabe, 1850, S. 41.) may be here given. The ovum is always single, according to this observer, though Bourgignon has observed three and four. Three or four or even six ova may be deposited and lie on the under side of the furrow, and to see them well, the whole cuniculus must be cut through. As this produces some pain, and a good preparation cannot therefore be made, Eichstedt recommends that the patient should rub the place which is to be examined with "green soap," which produces a little irritation and effusion of fluid between the cutis and the cuniculus. On the following day the cuniculus can be withdrawn almost in its whole length, and snipped off with a fine pair of curved scissors. In the cuniculus, besides the sarcoptes, are some oval darkish yellow bodies $\frac{1}{14}'''$ in length and $\frac{1}{110}'''$ in breadth, which Eichstedt and Keyland believe to be the excrement

* Gaz. Med. de Paris, No. 16, quoted in C. und E. Jahresbericht, 1849, Dritter Bd. S. 122.

† Op. cit. p. 168.

‡ Gustav. Simon, (op. cit. 286,) has adopted the opinion of those who consider the sarcoptes to be the cause of scabies, and the eruption to be consequent on the scratching. The first opinion is based on the facts that inoculation of the fluid of the vesicles or pustules, by Hebra, Kohler, and Eichstedt has never produced scabies. Yet Hebra, Bourgignon, and others have produced the disease by transferring the sarcoptes. Similar diseases in the lower animals have been inoculated in the same way.

of the sarcoptes. They are similar to the contents of the intestinal canal. The young sarcoptes is about $\frac{1}{14}$—$\frac{1}{16}'''$ in length, and $\frac{1}{20}$—$\frac{1}{27}'''$ in breadth. The head and fore feet (four in number) are the same as in the parent. There are only two hind feet until after the first casting of the skin, when there are four, as in the adult state. The process of throwing off the skin, which is repeated several times, is not only an exfoliation in patches, but is a complete casting off of the common covering of the body. During this process the sarcoptes is found, not in the burrow but at some little distance, between layers of the cuticle.

With reference to differences of sex, Eichstedt has distinguished male and female. The male is smaller; the divisions of the body are plainer; the hairs or bristles are longer; under the venter is a brown line, which is never so clear in the female.

## Page 304.

### *Pityriasis Versicolor.—Chloasma.*

Eichstedt* has described a microscopic plant in this disease, which forms between the cells of the exfoliating epidermis. Simon has confirmed this observation. The thallus threads are finer than in favus, are serpentine, or straight and forked. Eichstedt, finding this confervus constant in chloasma, regards it as the cause of the disease, and believes that it may be transferred from an affected person to others. Simon considers it quite as likely that the plant is secondary altogether, and developes after the exfoliation has commenced. The yellow colour of chloasma does not appear to depend on pigment formation, but on the confervus; some uncertainty, however, still exists on this point. Frerichs has also lately described† microscopic confervæ in chloasma; his description agrees with that of Eichstedt and Simon; he often found the spores situated at the extremity of a thallus thread. Also according to Hoefle, Gruby in his account of a parasite in a case of mentagra (mentagrophyta, *Gruby*) in reality mistook a case of pityriasis menti for mentagra.

## Page 365.

### *Ricord's Opinions respecting Chancre being the invariable Antecedent of Constitutional Syphilide.*

This indefatigable syphilographer has recently reiterated his well-known opinions in a series of interesting papers in *L'Union Medicale* (January and February, 1850). In one of these letters appears a dialogue, which so well expresses the opinions of Ricord, and exemplifies his general mode of expression, that the Editor has transcribed it.

"Two or three years ago," writes Ricord, "a most distinguished young *confrère* came to me, all bewildered. 'Till now,' said he, 'I have had faith in your doctrine, but now I find it erroneous; I am myself the proof of the error; this is, indeed, cruel.' So saying he took off his

* Frorieps Notizen, 1846; quoted by Simon.

† Häser's Archiv., Bd. x. in C. und E. Jahresbericht, 1849, Vr. Bd. S. 227.

clothes, and lifted up his shirt. 'What is that?' says he, showing me his chest and his back. I examine, and I reply —

" ' It is a splendid syphilitic roseola.'

" ' Syphilitic! do you say? Are you certain of that?'

" ' Perfectly certain.'

" ' Ah! you condemn yourself. I have never, in all my life, had any thing the matter with me but a blennorrhagia, and that was twelve years ago.'

" ' In your turn, are you certain of that?'

" ' As of my life.'

" I examine my ' confrère' from the head to the feet, and this examination completed I say gravely, and with a certain air of solemnity, ' Confrère, you have had *recently* a chancre on the right hand, and this chancre was seated neither on the thumb nor on the index, but on one of the three last fingers.'

" ' You are joking.'

" ' So little so, that I add you have a bubo at this very moment.'

" I shew him indeed an epitrochlean gland still swollen.

" Then my friend, recollecting himself, tells me that, in reality, some months before, he had attended a woman who had chancre, and had applied to her the necessary remedies, that an ulceration had occurred on the middle finger, that he had paid no attention to it, and that it had cicatrised.

" ' There is the cause of your roseola,' said I; ' treat yourself accordingly.' "*

If Ricord's opinion in this case is to be admitted as correct, it exemplifies the great difficulty of sometimes tracing the Syphilides to their true source; if it be incorrect, the extract shows at any rate the kind of evidence with which this eminent teacher is satisfied.

## Page 399.

The parasite which is found in the sebaceous follicles of perfectly healthy persons, as well as in comedones and acne, was named provisionally by Simon *Acarus folliculorum*. It has received since a variety of names: Demodex folliculorum, (Owen); Macrogaster platypus, (Miescher); Simonea folliculorum, (Gervais); Steazoon folliculorum, (Eras. Wilson);† It has been very perfectly examined by Wedl.‡ The animal varies much in figure and in length, being from $\frac{1}{12}'''$—$\frac{1}{12}''''$ long. About the twelfth part of the body is formed by the head; nearly one quarter by the thorax; and three quarters by the abdomen. On the head are two strong-limbed palpæ, between which lies a proboscis, which has an underlip with two bristle-like mandibles. On the thorax are four pairs of short strong legs or feet. Each foot is trifid and three-

* L'Union Médicale, Feb. 1850.

† Erasmus Wilson has given a minute account of this animal, for which reference may be made to his work on diseases of the skin (second edition, p. 472.). According to this observer the granular matter in the abdomen is cellular tissue in its most simple form. The large round cells are considered to be dilatations or convolutions of the alimentary canal. At the commencement of the abdomen is a dark brownish mass which Wilson considers to be the liver. He has also pointed out a broad œsophagus and muscular filaments. Owen refers the animal to the Arachnida.

‡ Ueber die Haarsackmilbe, 1847. C. und E. Jahresbericht, 1849, Vr. Bd. S. 225.

clawed, one claw being longer than the others. The abdomen is marked by cross stripes. It contains numerous little brownish granules and sometimes three or four round cells, which can be pressed out. The abdomen is longer and thinner in the early periods of development; this produces one modification of form.

In another form there are three instead of four pairs of legs; the abdomen is long, and without cross markings. The granular contents are much less deeply coloured. Frequently beneath the parasite a heart-shaped body is found. This is considered by Simon and Wedl to be either an egg or an ovum, or the first step of development. Wedl believes that he has traced this development, and has seen the thin part lengthened out and become the abdomen, the mouth to be formed, and, finally, feet to be produced.

Sometimes there are three or four, or even ten to thirteen animals in the same follicle. They can be found in the contents of the glands squeezed out during life, but better still by taking a piece of the skin after death and making a section. In acne and comedones they are not changed from the healthy state.*

### *Cholera Exanthem.*

During the stage of reaction of cholera, viz. in the period succeeding the cold stage, and generally in the advanced period of this reactionary stage, a peculiar eruption sometimes appears. An account of it has been lately given by Simon, and copied into the Prague *Vierteljahrschrift.*† According to Simon, the eruption may be said to have four stages, viz., the macular, the papular (or stage of exudation), the erythematose (or stage of absorption), and the desquamative. The course is as follows:— first appear little round red patches, which are isolated or confluent, and fade under the finger; they arise suddenly without premonitory symptoms, and frequently appear during the night; they show themselves usually first on the backs of the hand, then on the fore arms, the upper arms, the neck, breast, back, and abdomen, in the order here given, and finally on the lower extremities. In from twelve to sixteen hours this stage is completed. After two days the larger and redder spots pass into wheals something like urticaria, only there is no itching. After from twenty-four to thirty-six hours the wheals or projections flatten, and pass into a kind of erythema, or take again the form of spots. In another twenty-four hours the red colour disappears, and the epidermis begins to separate, and continues to separate for three or five days. The exanthem appears, according to Simon, only in persons who have passed through true cholera and cholera typhoid. Treatment, age, sex, and constitution have no influence on this eruption, which Simon considers as arising, like the several stases and inflammations of internal organs, from the changes which have been impressed on the blood by the previous enormous discharge of watery fluid. An elaborate and excellent account of this eruption is given also by Virchow and Leusbuscher.‡ In addition to the appearances noted by Simon, a diffuse general hyperæmia of the skin

* Simon, op. cit. p. 293. † Zweiter Bd. An. S. 32.

‡ Archiv. für Pathol. Anat., von R. Virchow und B. Reinhardt. Zr. Bd. dr. Heft, Berlin, 1849. P. 469.

was observed as preceding the exanthema in certain cases, chiefly in young and athletic persons.

The Editor witnessed this eruption, in 1849, in two out of thirty-four cases of cholera. Both patients were women, one thirty, the other fifty years old; one had been treated by salines, the other by calomel. In one case the eruption was confined to the hands and wrists, and lasted only two days, having an erythemo-papular form all the time. In the second case the eruption was very profuse; it assumed the form of light red papulæ and blotches, and occupied the whole body, but was most marked on the neck, where it appeared almost if not quite as soon as on the hands and wrists. It existed only slightly on the face; the anterior parts of the legs were the parts freest from it; its course and characters agreed tolerably well with those assigned by Simon. Its manifestation was increased by warmth; on the back it had a purple tint; it did not disappear on pressure. Contrary to Simon's and Virchow's observations, no desquamation, or but very little, followed it. The spots had altogether disappeared in five days, and many had commenced to disappear, or had disappeared in three.

# INDEX.

THE END.

LONDON:
SPOTTISWOODES and SHAW,
New-street-Square.

A CATALOGUE OF WORKS

IN THE VARIOUS BRANCHES OF

# MEDICAL, SURGICAL,

AND

# SCIENTIFIC LITERATURE,

PUBLISHED BY

## LONGMAN, BROWN, GREEN, AND LONGMANS,

**39, Paternoster Row, London.**

## Classified Index of Contents.

## MEDICAL LITERATURE.



## MIDWIFERY, ETC.



## NEUROLOGY.



## OPHTHALMOLOGY.



## PATHOLOGY.



## PATHOLOGY—*continued.*



## PHYSIOLOGY.



## STRUCTURAL DEFORMITY & FRACTURES.



## SURGERY.



## VETERINARY ART.

# MEDICAL, SURGICAL, AND SCIENTIFIC WORKS,

PUBLISHED BY MESSRS. LONGMAN, BROWN, AND CO.

---

## ANNESLEY.—RESEARCHES INTO THE CAUSES, NATURE,

and TREATMENT of the more prevalent DISEASES of INDIA, and of WARM CLIMATES generally. By J. ANNESLEY, F.R.S. F.S.A. late President of the Medical Board, Madras. 2d Edition. 8vo. 12s. cloth.

The object of the author has been to revise, correct, and condense the former edition, so as to present to the reader a Practical Manual, founded on personal experience, of the diseases of warm climates, and more particularly of India.

A few copies of the First Edition are left. 2 thick vols. imperial 4to. with numerous splendid coloured Plates of Morbid Structures, £14. 14s. boards.

## ACTON (ELIZA).—MODERN COOKERY,

In all its Branches, reduced to a System of Easy Practice. For the use of Private Families. In a Series of Receipts, all of which have been strictly tested, and are given with the most minute exactness. By ELIZA ACTON. New Edition, with Directions for Carving, and other Additions. Fcp. 8vo. with Plates and Woodcuts, 7s. 6d. cloth.

"The whole of Miss Acton's recipes, 'with a few trifling exceptions, which are scrupulously specified, are confined to such as may be perfectly depended on, from having been proved beneath our own roof, and under our own personal inspection.' We add, moreover, that the recipes are all reasonable, and never in any instance extravagant. They do not bid us sacrifice ten pounds of excellent meat, that we may get a couple of quarts of gravy from it; nor do they deal with butter and eggs as if they cost nothing. Miss Acton's book is a good book in every way; there is right-mindedness in every page of it, as well as thorough knowledge and experience of the subjects she handles. MEDICAL GAZETTE.

## BALMAIN.—LESSONS ON CHEMISTRY,

For the use of Pupils in Schools, Junior Students in Universities, and Readers who wish to learn the fundamental Principles and leading Facts: with Questions for Examination, a Glossary of Chemical Terms and Chemical Symbols, and an Index. By WILLIAM H. BALMAIN. Fcp. 8vo. with Woodcuts, illustrative of the Decompositions, 6s. cloth.

## BATEMAN.—A PRACTICAL SYNOPSIS OF CUTANEOUS

DISEASES, according to the arrangement of Dr. WILLAN; exhibiting a concise View of the Diagnostic Symptoms and the Method of Treatment. By T. BATEMAN, M.D. Edited by Dr. ANTHONY TODD THOMSON. 8th Edition. 8vo. 15s. cloth.

## BECK (T. R. & J. R.)—ELEMENTS OF MEDICAL JURISPRU-

DENCE. By Dr. T. R. BECK, and Dr. J. R. BECK, of New York. New Edition, revised and corrected by the Authors: with the Notes of Dr. Dunlop and Dr. Darwall. 8vo. 21s. cloth.

## DR. GOLDING BIRD.—LECTURES ON ELECTRICITY AND

GALVANISM, in their Physiological and Therapeutical Relations. By GOLDING BIRD, F.R.S. Fellow of the Royal College of Physicians; Assistant-Physician to, and Professor of Materia Medica at, Guy's Hospital. Fcp. 8vo. [*Nearly ready.*

## BIRKETT.—ON THE DISEASES OF THE MAMMARY GLAND,

Male and Female, and the Treatment thereof: being the Jacksonian Prize Essay for 1848. By JOHN BIRKETT, F.L.S. Assistant-Surgeon at Guy's Hospital. 8vo. with coloured Plates. [*In the press.*

## BOWMAN.—LECTURES ON THE PARTS CONCERNED IN

the OPERATIONS on the EYE, and on the STRUCTURE of the RETINA, delivered at the Royal London Ophthalmic Hospital, Moorfields: to which are added, a Paper on the Vitreous Humor; and also a few Cases of Ophthalmic Disease. By WILLIAM BOWMAN, F.R.S. Professor of Physiology and Anatomy in King's College, &c. 8vo. 6s. cloth.

"Having been prevented by a press of other matter from giving such an account of these Lectures as their merits call for, we must postpone to a future occasion our notice of some of the most interesting points of which they treat, and must content ourselves with recommending them to our readers as a most valuable contribution to ophthalmological science." MEDICO-CHIRURGICAL REVIEW.

"We seldom meet with so much matter in so small a compass and so unpretending a form..... We cannot conclude this notice without again expressing our high opinion of the author. He appears to be accomplished alike as an anatomist and microscopical observer. As a writer, he is plain, concise, and unassuming. He appears to possess the rare faculty of describing things as they exist, without being biassed by preconception, or by the theories of others; and we are therefore accustomed to hold his opinions in respect, and to receive his observations as trustworthy and accurate." MONTHLY JL. OF THE MEDICAL SCIENCES.

## BRANDE.—A DICTIONARY OF SCIENCE, LITERATURE.

and ART; comprising the History, Description, and Scientific Principles of every Branch of Human Knowledge: with the Derivation and Definition of all ne Terms in general Use. Edited by W T. BRANDE, F.R.S.L. & E. assisted by J. CAUVIN, Esq. The various Departments by gentlemen of eminence in each. New Edition. 8vo. with Wood Engravings.
[*Nearly ready.*

## BRIGHT.—REPORTS OF MEDICAL CASES:

Selected with a view of illustrating the Symptoms and Cure of Diseases by a reference to Morbid Anatomy. By RICHARD BRIGHT, M.D. F.R.S. Physician Extraordinary to Her Majesty, &c. 2 vols. 4to. with 54 coloured plates, £13. 13s. boards.

Separately { Vol. I. Dropsy, Inflammation of the Lungs, Phthisis, and Fever. £4. 4s.
Vol. II. Of the Brain and Nervous System. In 2 Parts, £9. 9s.

## BRODIE (SIR BENJAMIN C.)—LECTURES ILLUSTRATIVE

of various subjects in PATHOLOGY and SURGERY. By Sir BENJAMIN C. BRODIE, Bart. F.R.S. Serjeant-Surgeon to the Queen, Surgeon to H.R.H. Prince Albert, Foreign Correspondent of the Institute of France; Foreign Associate of the Academy of Medicine of Paris; Foreign Member of the Royal Academy of Sciences of Stockholm; of the National Institute of Washington, &c. 8vo. 12s. cloth.

## BRODIE.—LECTURES ON THE DISEASES OF THE URINARY

ORGANS. By Sir BENJAMIN C. BRODIE, Bart. F.R.S. Serjeant-Surgeon to the Queen. Surgeon to H. R. H. Prince Albert, Foreign Correspondent of the Institute of France; Foreign Associate of the Academy of Medicine of Paris; Foreign Member of the Royal Academy of Sciences of Stockholm; of the National Institute of Washington, &c. 4th Edit. with alterations and additions. 8vo. 12s. cloth.

## BRODIE.—LECTURES ILLUSTRATIVE OF CERTAIN LOCAL

NERVOUS AFFECTIONS. By Sir BENJAMIN C. BRODIE, Serjeant-Surgeon to the Queen, Surgeon to H.R.H. Prince Albert, Foreign Correspondent of the Institute of France; Foreign Associate of the Academy of Medicine of Paris; Foreign Member of the Royal Academy of Sciences of Stockholm; of the National Institute of Washington, &c. Post 8vo. 4s. boards.

## BRODIE.—PATHOLOGICAL & SURGICAL OBSERVATIONS

on DISEASES of the JOINTS. By Sir BENJAMIN C. BRODIE, Bart. F.R.S. Serjeant-Surgeon to the Queen, Surgeon to H.R.H. Prince Albert, Foreign Correspondent of the Institute of France; Foreign Associate of the Academy of Medicine of Paris; Foreign Member of the Royal Academy of Sciences of Stockholm; of the National Institute of Washington, &c. 4th Edition, with alterations and additions. 8vo. 10s. 6d. cloth.

## BULL.—HINTS TO MOTHERS,

For the MANAGEMENT of their HEALTH during the period of PREGNANCY, and in the LYING-IN ROOM: with an Exposure of Popular Errors in connexion with those subjects, &c.; and Hints upon Nursing. By THOMAS BULL, M.D., Member of the Royal College of Physicians; formerly Physician-Accoucheur to the Finsbury Midwifery Institution; and Lecturer on Midwifery, and on the Diseases of Women and Children. New Edition, carefully revised and enlarged. Fcp. 8vo. 5s. cloth.

## BULL.—THE MATERNAL MANAGEMENT OF CHILDREN,

In HEALTH and DISEASE. By THOMAS BULL, M.D. Member of the Royal College of Physicians; formerly Physician-Accoucheur to the Finsbury Midwifery Institution; and Lecturer on Midwifery, and on the Diseases of Women and Children. New Edition, carefully revised and enlarged. Fcp. 8vo. 5s. cloth.

"Such a work as this of Dr. Bull is the best possible substitute for medical aid where it is impossible to be had; and where it is at hand, it will exceedingly contribute to qualify parents for co-operating with the family surgeon or physician in preserving health or in curing disease." BRITISH BANNER.

## BURROWS (DR. G.)—ON DISORDERS OF THE CEREBRAL

CIRCULATION, and on the CONNEXION between AFFECTIONS of the BRAIN and DISEASES of the HEART. By GEORGE BURROWS, M.D. F.R.S. late Fellow of Caius College, Cambridge; Fellow of the Royal College of Physicians, London; Physician to, and Lecturer on the Principles and Practice of Medicine at, St. Bartholomew's Hospital, &c. 8vo. with coloured Plates, 10s. 6d. cloth.

"The work, taken as a whole, is excellent: it has the characteristics of an English production in an eminent degree; it is lucid, precise, practical; and will, we think, establish Dr. Burrows' reputation." BRITISH AND FOREIGN MEDICAL REVIEW.

## BURNS.—PRINCIPLES OF MIDWIFERY;

Including the Diseases of Women and Children. By JOHN BURNS, M.D. Regius Professor of Surgery, Glasgow. 10th Edition, revised and enlarged. 8vo. 16s. boards.

## CLARKE.—OBSERVATIONS ON THE DISEASES OF

FEMALES. Illustrated by Plates. By Sir C. M. CLARKE, Bart. M.D. F.R.S. 3d Edition. 2 vols. royal 8vo. 36s. boards.

## COLEY (DR. JAMES MILMAN).—A PRACTICAL TREATISE

on the DISEASES of CHILDREN. By JAMES MILMAN COLEY, M.D. Member of the Royal College of Physicians in London, &c.; Author of "A Treatise on the Remittent Fever of Infants," &c. 8vo. 14s. cloth.

"In his description of diseases and their treatment, Dr. Milman Coley has aimed much at brevity, and rendered his delineations and directions as brief as may be consistent with perspicuity. The book is well suited, by its practical character, for country practitioners, and those who have on their hand little spare time." EDINBURGH MEDICAL JOURNAL.

## COOPER (SIR A. P.)—ON THE ANATOMY OF THE BREAST.

By Sir A. P. COOPER, Bart. F.R.S., &c. 4to. with 27 Plates (several coloured), 63s. cloth.

## COOPER'S DICTIONARY OF PRACTICAL SURGERY;

With all the most interesting Improvements down to the present period; an Account of the Instruments and Remedies employed in Surgery; the Etymology and Signification of the principal Terms; and numerous References to Ancient and Modern Works, forming a classified Catalogue of Surgical Literature. 7th Edition. 8vo. 30s. cloth.

## COOPER.—THE FIRST LINES OF THE THEORY AND

PRACTICE of SURGERY; explaining and illustrating the Doctrines relative to the Principles, Practice, and Operations of Surgery. By the late SAMUEL COOPER, Senior Surgeon to University College Hospital, &c. 7th Edition, corrected and augmented. 8vo. 18s. boards.

## COPLAND.—THE CAUSES, NATURE, AND TREATMENT

of PALSY: the Forms, Complications, and Relations of Paralytic Diseases. By JAMES COPLAND, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. 8vo. [*In the press.*

## COPLAND.—DICTIONARY OF PRACTICAL MEDICINE;

A Library of Pathology, and a Digest of Medical Literature. Comprising—General Pathology: a Classification of Diseases according to Pathological Principles; a Bibliography, with References; an Appendix of Formulæ; a Pathological Classification of Diseases, &c. By JAMES COPLAND, M.D. F.R.S., Fellow of the Royal College of Physicians, &c. 8vo.

Vols. I. and II. 30s. each, cloth.
Parts I. to XIV.—ABDOMEN to SCIRRHOUS AND OTHER TUMORS.
Parts I. to IV, 9s. each; Parts V. to XIV. 4s. 6d. each.

*** Part XV. will shortly be published.—To be completed in *One* more *Volume.*

The PREFACE, with a Pathological Classification of Diseases, &c., forming a Key to the Systematic Study of Practical Medicine, as well as an arranged Table of the Contents of the Work, will accompany the last Part. An INDEX of the Individual Topics comprised under the various Chapters and Sections of each article will also be given in the last Part.

"In the parts now before us [XIII. and XIV.] we find articles extending, in alphabetical order, from Poisons to Scirrhous Tumors; and when we say that they are of such a character as to justify the description of the work which we have just quoted from the title-page, we have awarded praise of no ordinary kind. Dr. Copland is indeed one of the most remarkable of living authors: he not only brings to bear upon his subjects a vast—we had almost said an excessive—amount of erudition, but he illuminates and brings home all this learning to the mind of the reader, by the soundness with which he applies his personal experience. For one author, single-handed, to have undertaken this comprehensive 'Dictionary of Practical Medicine' is not remarkable, for perhaps there are many who think they could do it as well as, or even better than, Dr. Copland; but no one who understands the magnitude of the labour can collate this work with others of a similar kind, without being astonished at its general excellence, and its pervading superiority." LONDON JOURNAL OF MEDICINE.

"The publication of another part of this excellent work, after a comparatively short interval, is a most favourable augury for its early completion. This Part, which is the fourth of the Third Volume, extends from POISONS to RABIES, and comprises numerous subjects of great practical interest. There are several circumstances connected with a work of this magnitude and extent which cannot fail to attract the notice of a reader. The first of these is, that any single unassisted author should be able to write so well upon subjects differing so widely from each other as those contained in this Cyclopædia; the second is, that the space assigned to each subject should be so fairly proportioned; and the third, that the author should contrive to keep his object—namely, practical medicine—constantly in view, so that no reader can justly complain that the work does not strictly correspond to its title. The subscribers to this work will find that they have in this number another valuable addition to their libraries, and we hope before long to have occasion to announce the publication of another part of this most useful Dictionary." MEDICAL GAZETTE.

## CURLING.—A PRACTICAL TREATISE ON THE DISEASES

of the TESTIS, and of the Spermatic Cord and Scrotum. By T. B. CURLING, Lecturer on Surgery, and Assistant-Surgeon to the London Hospital, Surgeon to the Jews' Hospital, &c. Author of "A Treatise on Tetanus." 8vo. with Illustrations by Bagg, 18s. cloth.

## THE CYCLOPÆDIA OF PRACTICAL MEDICINE;

Comprising Treatises on the Nature and Treatment of Diseases, Materia Medica, and Therapeutics, Medical Jurisprudence, &c. &c. A new Edition. [*Preparing.*

## DE LA RIVE.—A TREATISE ON ELECTRICITY,

Its Theory and Practical Application. By A. DE LA RIVE, of the Academy of Geneva. Illustrated with numerous Wood Engravings. 2 vols. 8vo. [*Nearly ready.*

## DONOVAN.—A TREATISE ON CHEMISTRY.

By MICHAEL DONOVAN, M.R.I.A. New Edition. Fcp. 8vo. with Vignette Title, 6s. cloth.

## ELLIOTSON.—HUMAN PHYSIOLOGY.

With which is incorporated much of the elementary part of the INSTITUTIONES PHYSIOLOGICÆ of J. F. Blumenbach, Professor in the University of Göttingen. By JOHN ELLIOTSON, M.D. Cantab. F.R.S. New Edition. 8vo. with numerous Woodcuts, £2. 2s. cloth.

## ESDAILE (DR. JAMES).—MESMERISM IN INDIA,

and its practical Applications in Surgery and Medicine. By JAMES ESDAILE, M.D. Civil Assistant Surgeon, H. E. I. C. S.-Bengal. Fcp. 8vo. 6s. 6d. cloth.

"He (Dr. Esdaile) seems to have been a most daring, skilful, and successful operator in surgical cases; some of the cures related being perfectly astonishing..... We can recommend his work as a well written account of many curious mesmeric phenomena, likely to interest all who have devoted attention to mesmerism in any of its numerous phases." SCOTSMAN.

"This is a very able and interesting work. The author is a distinguished physician in the service of the East India Company, and the editor, his brother, is an eminent minister of the Church of Scotland..... And we are mistaken if any will peruse it with care and candour without being deeply impressed by it. The taste and talent which this little work displays will amply justify a careful perusal, and we cannot doubt that it will be soon read extensively both by the disciples and despisers of mesmerism." EDINBURGH ADVERTISER.

## FIELD.—POSTHUMOUS EXTRACTS FROM THE VETERINARY RECORDS

of the late JOHN FIELD. Edited by his Brother, WILLIAM FIELD, Veterinary Surgeon, London. 8vo. 8s. boards.

## GRAVES AND NELIGAN.—CLINICAL LECTURES ON THE PRACTICE of MEDICINE.

By ROBERT J. GRAVES, M.D. M.R.I.A.; Honorary and Corresponding Member of the Royal Medical Society of Berlin, of the Imperial Medical Society of Vienna, and of the Medico-Chirurgical Societies of Hamburgh, Tübingen, Bruges, Montreal, &c.; formerly Physician to the Meath Hospital and County of Dublin Infirmary; late Professor of the Institutes of Medicine in the School of Physic of Ireland; and one of the Presidents of the Pathological Society of Dublin. 2d Edition, edited by J. MOORE NELIGAN, M.D. M.R.I.A. Physician to the Jervis Street Hospital; Lecturer on the Practice of Medicine in the Dublin School of Medicine, &c. 2 vols. 8vo. 24s. cloth.

## HENSLOW.—THE PRINCIPLES OF DESCRIPTIVE AND PHYSIOLOGICAL BOTANY.

By J. S. HENSLOW, M.A. F.L.S. &c. Fcp. 8vo. with Vignette Title, and nearly 70 Woodcuts, 6s. cloth.

## HOLLAND.—MEDICAL NOTES AND REFLECTIONS.

By HENRY HOLLAND, M.D. F.R.S. &c., Physician Extraordinary to the Queen, and Physician in Ordinary to H.R.H. Prince Albert. New Edition. 8vo. 18s. cloth.

## HOOKER.—THE BRITISH FLORA,

In Two Vols. Vol. I.; comprising Phænogamous or Flowering Plants, and the Ferns. By Sir WILLIAM JACKSON HOOKER, K.H. LL.D. F.R.A. and L.S. &c. &c. &c. New Edition, with Additions and Corrections, and 173 Figures illustrative of the Umbelliferous Plants, the Composite Plants, the Grasses, and the Ferns. 8vo. with 12 plates, 14s. plain,; with the plates coloured, £1. 4s, cloth.

Vol. II., in Two Parts, comprising the Cryptogamia and Fungi, and completing the British Flora, £1. 4s. boards.

## HOOPER.—LEXICON MEDICUM;

or, a Medical Dictionary: containing an Explanation of the Terms in

| | | |
|---|---|---|
| Anatomy, Human and Comparative, | Forensic Medicine, | Physiology, |
| Botany, | Materia Medica, | Practice of Physic, |
| Chemistry, | Obstetrics, | Surgery, |
| | Pharmacy, | Toxicology, |

And the different branches of Natural Science connected with Medicine; together with a variety of Information on all these Subjects. By the late ROBERT HOOPER, M.D. A New Edition, revised, corrected, and improved by KLEIN GRANT, M.D., late Senior Physician to the Royal General Dispensary, and Lecturer on the Practice of Physic at the Aldersgate School of Medicine, Extraordinary Member, and formerly President, of the Hunterian Society of Edinburgh. 8vo. 30s. cloth.

"Compared with the early editions, it may, from the great increase of matter, be regarded as a new work. Dr. Grant has succeeded in preserving the plan of the late Dr. Hooper, and at the same time in giving to his labours that extension of detail which the recent progress of Medicine had rendered necessary.....This edition will be found more extensively useful than any of those which have preceded it." MEDICAL GAZETTE.

## HUGHES (DR. H. M.)—A CLINICAL INTRODUCTION TO

THE PRACTICE OF AUSCULTATION, and other Modes of Physical Diagnosis; intended to simplify the Study of the Diseases of the Lungs and Heart. By H. M. HUGHES, M.D. Fellow of the Royal College of Physicians, Assistant-Physician to Guy's Hospital, &c. Fcp. 8vo. 6s. cloth.

## HUMBOLDT.—ASPECTS OF NATURE, IN DIFFERENT

Lands and Different Climates. By ALEXANDER VON HUMBOLDT. Translated, with the Author's sanction and co-operation, and at his express desire, by Mrs. SABINE. Uniform with the smaller Edition of the authorised English Translation of "Humboldt's Cosmos," and with Mr. Murray's "Home and Colonial Library." 2 vols. 16mo.

## BARON VON HUMBOLDT'S COSMOS;

A Sketch of a Physical Description of the Universe. Translated, with the Author's sanction and co-operation, under the superintendence of Lieutenant-Colonel EDWARD SABINE, R.A. For. Sec. R.S. New Edition. 16mo. uniform with Murray's "Home and Colonial Library." Vols. I. and II., 2s. 6d. each.

*** The authorised "Library Edition," in post 8vo., Vols. I. and II., price 12s. each, may still be had.

## HUNT.—RESEARCHES ON LIGHT:

An Examination of all the known Phenomena connected with the Chemical Influence of the Solar Rays; embracing all the published Photographic Processes, and many new Discoveries in the Art, &c. By R. HUNT, Keeper of Mining Records, Museum of Economic Geology. 8vo. with Plate and Woodcuts, 10s. 6d. cloth.

## SIR ROBERT KANE.—ELEMENTS OF CHEMISTRY,

Theoretical and Practical; including the most Recent Discoveries and Applications of the Science of Medicine and Pharmacy to Agriculture and to Manufactures. By Sir ROBERT KANE, M.D. M.R.I.A. President of the Queen's College, Cork; Director of the Museum of Irish Industry; Member of the Society of Pharmacy, Paris, &c. New Edition, corrected and greatly enlarged; illustrated by 230 Wood Engravings. In One large Volume, 8vo. of about 1,100 pages, 28s. cloth.

"We possess at present no work which can come into competition with the one we have been reviewing as an ample, judicious, and independent summary of the progress of chemistry during the last ten years. As such, we recommend it to all interested in that science who are still willing, whatever amount of progress they may have made in it, to be styled students." MONTHLY JOURNAL OF THE MEDICAL SCIENCES.

"The general plan and character of this treatise are peculiarly suited, in our opinion, to the wants of the chemical student; for while it is constructed so as to avoid most of the questionable and unproven hypotheses of modern chemists, it omits none of their important discoveries; it dwells much more upon general principles and doctrines than upon the wearisome details with which most modern treatises are crowded; and it is written, moreover, in such an easy and familiar style, as to be adapted to the capacity of every reader of ordinary intelligence.....We cannot but regard Sir R. Kane's work as a wholesome check upon the too rapid course of modern speculation; and we can recommend it to our readers as one of the best introductions extant to the science of which it treats." MEDICO-CHIR. REVIEW.

## KNOWLSON.—THE YORKSHIRE CATTLE DOCTOR AND

FARRIER: a Treatise on the Diseases of Horned Cattle, Calves, and Horses, written in plain language, which those who can read may easily understand. The whole being the result of 70 years' extensive practice of the Author, JOHN C. KNOWLSON. New Edition, revised, corrected, and enlarged. Many of the Recipes in this book are worth 10 guineas each, and the whole are new to the world. 8vo. 7s. boards.

## LARDNER'S CABINET CYCLOPÆDIA;

Comprising a Series of Original Works on History, Biography, Literature, the Sciences, Arts, and Manufactures. Conducted and edited by Dr. LARDNER.

The Series, complete, in One Hundred and Thirty-three Volumes, £39. 18s.

The works, separately, 6s. per volume.

## LARDNER & WALKER.—A TREATISE ON ELECTRICITY,

MAGNETISM, and METEOROLOGY. By D. LARDNER, LL.D. F.R.S., and C. V. WALKER, Secretary of the Electrical Society. 2 vols. fcp. 8vo. 12s. cloth.

## LATHAM.—ON DISEASES OF THE HEART.

Lectures on Subjects connected with Clinical Medicine; comprising Diseases of the Heart. By P. M. LATHAM, M.D. Physician Extraordinary to the Queen; and late Physician to St. Bartholomew's Hospital. New Edition. 2 vols. 12mo. 16s. cloth.

## LEE.—LECTURES ON THE THEORY AND PRACTICE OF

MIDWIFERY, delivered in the Theatre of St. George's Hospital. By ROBERT LEE, M.D. F.R.S. Physician to the British Lying-in Hospital, and Lecturer on Midwifery at St. George's Hospital. 8vo. with nearly 70 Wood Engravings, 15s. cloth.

## LEVER.—PRACTICAL TREATISE ON ORGANIC DISEASES

of the UTERUS: being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for 1843. By JOHN C. W. LEVER, M.D. Member of the Royal College of Physicians, London, Assistant-Accoucheur at Guy's Hospital, &c. 8vo. 9s. cloth.

## LINDLEY.—AN INTRODUCTION TO BOTANY.

By JOHN LINDLEY, Ph. D. F.R.S. &c., Professor of Botany in University College, London. New Edition, with Corrections and copious Additions. 2 vols. 8vo. with 6 Plates and many Wood Engravings, 24s. cloth.

"We must here bring our notice of these interesting volumes to a close. Our readers will be able to judge from the extracts we have made, not only of the style of the author, but of the ready way in which he makes his own experience and that of others available for the purpose of rendering this a very useful work to students of botany." MEDICAL GAZETTE.

## LINDLEY.—FLORA MEDICA:

A Botanical Account of all the most remarkable Plants used in Medicine. By JOHN LINDLEY, Ph. D. F.R.S. L.S. &c. Professor of Botany in University College, London. 8vo. 18s. cloth.

## LINDLEY.—A SYNOPSIS OF THE BRITISH FLORA,

Arranged according to the Natural Orders: containing Vasculares, or Flowering Plants. New Edition, with numerous Additions, Corrections, and Improvements. By JOHN LINDLEY, Ph.D. F.R.S. L.S. &c., Professor of Botany in University College, London. Fcp. 8vo. 10s. 6d.

## LISTON.—THE ELEMENTS OF SURGERY.

By ROBERT LISTON, Surgeon to the North London Hospital. New Edition, almost entirely re-written. 8vo. with 3 Plates and upwards of 150 Woodcuts, 25s. cloth.

## THE LONDON MEDICAL GAZETTE;

Or, JOURNAL OF PRACTICAL MEDICINE. A new Series, under new Editors. In Weekly Numbers, demy 8vo. printed in double columns, 8d.; or 9d. stamped for transmission by post; also in Monthly Parts, 2s. 8d. or 3s. 4d. each. [*Published every Friday Morning.*

*** Subscription to the Stamped Edition, £1. 19s. per annum, or 9s. 9d. per quarter, payable in advance. Orders for the Stamped Edition received by all Newsvenders.

## LOUDON.—AN ENCYCLOPÆDIA OF PLANTS.

Comprising the Description, Specific Character, Culture, History, Application in the Arts, and every other desirable particular, respecting all the Plants Indigenous to, Cultivated in, or Introduced into, Britain. Edited by J. C. LOUDON, F.L.S. H.S. &c.: the Specific Characters by Prof. LINDLEY; the Drawings by J. D. C. SOWERBY, F.L.S.; and the Engravings by R. BRANSTON. New Edition, corrected. 8vo. with upwards of 10,000 Engravings on Wood, 73s. 6d. cloth.

## LOW.—AN INQUIRY INTO THE NATURE OF THE SIMPLE BODIES of CHEMISTRY.

By D. Low, F.R.S.E. Author of "Elements of Practical Agriculture," "A Treatise on Landed Property and the Economy of Estates," "A Treatise on the Breeds of the British Domesticated Animals," and "The Breeds of the Domesticated Animals of Great Britain Illustrated and Described." New Edition, enlarged and improved. 8vo. 9s. cloth.

## MACKENZIE.—PRACTICAL TREATISE ON DISEASES OF the EYE.

By W. Mackenzie, M.D. Surgeon Oculist to the Queen for Scotland, &c. 3d Edition, corrected and enlarged, with an Introduction, explanatory of a Horizontal Section of the Eye, by T. Wharton Jones, Surgeon; and an Appendix. 8vo. with Plate, and above 100 Woodcuts, 25s. cloth.

## MACKNESS (DR. JAMES).—DYSPHONIA CLERICORUM;

or, Clergyman's Sore Throat: its Pathology, Treatment, and Prevention. By James Mackness, M.D., Member of the College of Physicians, London; Consulting Physician to the Hastings Dispensary. 8vo. 5s. cloth.

## MATTEUCCI.—LECTURES ON THE PHYSICAL PHÆNOMENA OF LIVING BEINGS.

By Signor Carlo Matteucci, Professor in the University of Pisa. Translated under the superintendence of Jon. Pereira, M.D. F.R.S., Vice-President of the Royal Medical and Chirurgical Society. Post 8vo. 9s. cloth.

"We candidly state our opinion that this volume ought to be in the hands of every professional man who takes any interest in physiology. The lectures are so clearly and concisely written that they will be equally instructive to the practitioner and student."

Medical Gazette.

"We think it fortunate for Professor Matteucci that his treatise should be edited by one so highly qualified, both as regards literary attainments and practical knowledge of the subjects of which it treats, to do it full justice; and we cannot hesitate for a moment in assigning to the present Translation a marked superiority over those with which it has been contemporaneous. It is distinguished by its scrupulous rendering of the exact meaning of the original."

Medico-Chirurgical Review.

"We believe that all the accounts hitherto given of these valuable discourses will be superseded by the excellent Translation now published by Dr. Pereira. It is made from a copy furnished to the editor by the author, and contains a large number of additions and corrections. It also embodies his most recent investigations, and cannot therefore be regarded as a mere translation of any of the editions hitherto published. As a work of the greatest interest in every department of medicine, and one eminently qualified to induce reflection and reasoning in the reader, we cannot too highly recommend it. Every practitioner should possess a copy."

Monthly Journal of the Medical Sciences.

## MAUNDER.—THE TREASURY OF NATURALHISTORY;

Or, a Popular Dictionary of Animated Nature: in which the Zoological Characteristics that distinguish the different Classes, Genera, and Species are combined with a variety of interesting information illustrative of the Habits, Instincts, and General Economy of the Animal Kingdom. To which are added, a Syllabus of Practical Taxidermy, and a Glossarial Appendix. By Samuel Maunder. Embellished with Nine Hundred Engravings on Wood, from Drawings made expressly for this work. New Edition. Fcp. 8vo. 10s. cloth; or bound in roan, with gilt edges, 12s.

## MAYO (DR. THOMAS).—CLINICAL FACTS AND REFLECTIONS;

also. Remarks on the Impunity of Murder in some Cases of Presumed Insanity. By Thomas Mayo, M.D. F.R.S., Fellow of the Royal College of Physicians, and late Fellow of Oriel College, Oxford. 8vo. 8s. cloth.

## MOORE.—MAN AND HIS MOTIVES.

By George Moore, M.D. Member of the Royal College of Physicians, London, &c.; Author of "The Power of the Soul over the Body," and "The Use of the Body in relation to the Mind." New Edition. Post 8vo. 8s. cloth.

"The title 'Man and his Motives,' is sufficient to shew that the work is not strictly speaking medical, but of a mixed moral and theological character. The author, however, does not fail to make use of his professional knowledge; and in this he has considerable advantage over purely theological writers, in being enabled to support his views by facts derived from the study of the human organism. For this reason the book will deeply interest those medical men whose minds are given to metaphysical research; and it will be of especial utility to the junior members of the profession during their studies, by furnishing them with an antidote to those free-thinking principles which have led many to believe that we live, and move, and have our being from the mere result of a series of physical and chemical changes constantly going on in the system."

Medical Gazette

## MOORE.—THE POWER OF THE SOUL OVER THE BODY,

Considered in relation to Health and Morals. By GEORGE MOORE, M.D. Member of the Royal College of Physicians, London, &c. New Edition. Post 8vo. 7s. 6d. cloth.

## MOORE.—THE USE OF THE BODY IN RELATION TO THE

MIND. By GEORGE MOORE, M.D. Member of the Royal College of Physicians, London, &c.; Author of "The Power of the Soul over the Body." New Edition. Post 8vo. 9s. cloth.

## MORTON.—A VETERINARY TOXICOLOGICAL CHART;

containing those Agents which are known to cause Death in the Horse: with the Symptoms, Antidotes, Action on the Tissues, and Tests. By W. J. T. MORTON, Lecturer on Veterinary Surgery, &c. Price 3s. 6d. on a large sheet; 6s. in a case; or 8s. 6d. mounted on rollers.

## MORTON.—A MANUAL OF PHARMACY FOR THE STUDENT

of VETERINARY MEDICINE; containing the Substances employed at the Royal Veterinary College, with an Attempt at their Classification, &c. By W. J. T. MORTON, Lecturer on Veterinary Surgery, &c. New Edition. 12mo. 10s. cloth.

## NELIGAN.—MEDICINES;

Their Uses and Mode of Administration: including a Complete Conspectus of the Three British Pharmacopœias, an Account of all the New Remedies, and an Appendix of Formulæ. By J. MOORE NELIGAN, M.D. Edin.; Physician to the Jervis Street Hospital, Dublin; and Lecturer on Materia Medica and Therapeutics in the Dublin School of Medicine. New Edition. 8vo. 14s. cloth.

## ORMEROD (DR. E. L.)—CLINICAL OBSERVATIONS ON THE

PATHOLOGY and TREATMENT of CONTINUED FEVER, from Cases occurring in the Medical Practice of St. Bartholomew's Hospital. By EDWARD LATHAM ORMEROD, M.B. Caius College, Cambridge; Licentiate of the Royal College of Physicians; and Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital. 8vo. 8s. cloth.

"This work consists of a number of carefully-narrated cases, judiciously arranged, and interspersed with remarks on the more prominent features offered by each. The cases themselves, with the accompanying remarks, must be carefully read, and attentively studied, to be properly appreciated, and we may safely assert, that in the perusal of them, the student will be furnished with a valuable guide in his study of Continued Fever, while the practitioner will probably derive many useful practical hints in the management of this disease."

MEDICAL GAZETTE.

## ORMEROD (W. P.)—CLINICAL COLLECTIONS AND OBSER-

VATIONS in SURGERY, made during an attendance on the Surgical Practice of St. Bartholomew's Hospital. By W. P. ORMEROD, Fellow of the Royal College of Surgeons of England, and late House-Surgeon at St. Bartholomew's Hospital. 8vo. 10s. 6d. cloth.

## OWEN.—LECTURES ON THE COMPARATIVE ANATOMY

and PHYSIOLOGY of the VERTEBRATE ANIMALS, delivered at the Royal College of Surgeons in 1844 and 1846. By RICHARD OWEN, F.R.S. Hunterian Professor to the College. Vol. I. 8vo. with numerous Woodcuts, 14s. cloth.

## OWEN.—LECTURES ON THE COMPARATIVE ANATOMY

and PHYSIOLOGY of the INVERTEBRATE ANIMALS, delivered at the Royal College of Surgeons in 1843. By RICHARD OWEN, F.R.S. Hunterian Professor to the College. From Notes taken by WILLIAM WHITE COOPER, M.R.C.S. and revised by Professor OWEN. With Glossary and Index. 8vo. with nearly 140 Wood Engravings, 14s. cloth.

## PARKES (E. A.)—REMARKS ON THE DYSENTERY AND

HEPATITIS of INDIA. By E. A. PARKES, M.B. late Assistant-Surgeon, H.M. 84th Regt. 8vo. 9s. cloth.

## PERCIVALL.—LAMENESS IN THE HORSE:

with Plates illustrative of the different Species of Lameness. Being Part I. of Vol. IV. of the Author's "Hippopathology." By WILLIAM PERCIVALL, M.R.C.S., Veterinary Surgeon in the First Life Guards, and Member of the Apothecaries' Company; Author of "Veterinary Lectures," "The Anatomy of the Horse," &c. 8vo with 10 coloured Lithographic Plates, 21s. boards.

## PERCIVALL.—HIPPOPATHOLOGY.

A Systematic Treatise on the Disorders and Lamenesses of the Horse, with their most approved methods of Cure. By WILLIAM PERCIVALL, M.R.C.S., Veterinary Surgeon 1st Life Guards. 8vo. Woodcuts, Vol. I. 10s. 6d.; Vols. II. and III. 14s. each.

*** This work consists of 3 Volumes, which, though connected as a whole, may be consulted as distinct treatises. Vol. I. External Diseases; Vol. II. Internal; Vol. III. Lameness.

## PERCIVALL.—THE ANATOMY OF THE HORSE;

Embracing the Structure of the Foot. By WILLIAM PERCIVALL, M.R.C.S. Veterinary Surgeon 1st Life Guards. 8vo. 20s. cloth.

## PEREIRA.—THE ELEMENTS OF MATERIA MEDICA AND THERAPEUTICS.

By JONATHAN PEREIRA, M.D. F.R.S. and L.S.; Fellow of the Royal College of Physicians in London; Vice-President of the Royal Medical and Chirurgical Society; Honorary Member of the Pharmaceutical Societies of Great Britain, St. Petersburg, and Portugal; of the Medical and Physical Society of Erlangen; and of the Natural History Association of Hesse; Corresponding Member of the Society of Pharmacy of Paris; Examiner in Materia Medica and Pharmacy to the University of London; and Assistant Physician to, and Lecturer on Materia Medica at, the London Hospital. New Edition, enlarged and improved, including Notices of most of the Medicinal Substances in Use in the Civilized World, and forming an Encyclopædia of Materia Medica. With numerous Wood Engravings. Vol. I. comprising Psychical or Mental Remedies, and Physical but Imponderable Remedies. 8vo. 25s. cloth. [*Vol. II. is in the press.*

## PEREIRA.—A TREATISE ON FOOD AND DIET.

With Observations on the Dietetical Regimen suited for Disordered States of the Digestive Organs: and an Account of the Dietaries of some of the principal Metropolitan and other Establishments, for Paupers, Lunatics, Criminals, Children, the Sick, &c. By JON. PEREIRA, M.D. F.R.S. & L.S. &c. 8vo. 16s. cloth.

## PESCHEL.—THE ELEMENTS OF PHYSICS.

By C. F. PESCHEL, Principal of the Royal Military College, Dresden. Translated from the German, with Notes, by E. WEST. 3 vols. fcp. 8vo. with Woodcuts and Diagrams, 21s. cloth.

Separately
- Part I. The Physics of Ponderable Bodies. Fcp. 8vo. 7s. 6d.
- Part II. Imponderable Bodies—Light, Heat, Magnetism, Electricity, and Electro-Dynamics. 2 vols. fcp. 8vo. 13s. 6d.

"Mr. West has enhanced the value of this work by his notes, and the woodcuts and diagrams illustrative of the subject are very neatly and clearly executed. The body of information comprised in these three closely-printed volumes is enormous. The last portion is devoted to the investigation of the *Physics of Imponderable Bodies;* in the handling of which very difficult and delicate subject the author exhibits peculiar acumen."

CHURCH OF ENGLAND QUARTERLY REVIEW.

## PHILLIPS.—AN ELEMENTARY INTRODUCTION TO MINERALOGY;

comprising a Notice of the Characters, Properties, and Chemical Constitution of Minerals: with Accounts of the Places and Circumstances in which they are found. By WILLIAM PHILLIPS, F.L.S. M.G.S. &c. New Edition, corrected, enlarged, and improved, by H. G. BROOKE, F.R.S., and W. H. MILLER, M.A. F.R.S. Professor of Mineralogy in University of Cambridge. 8vo. with numerous Wood Engravings. [*Nearly ready.*

## THE POCKET AND THE STUD;

Or, Practical Hints on the Management of the Stable. By HARRY HIEOVER. Author of "Stable-Talk and Table-Talk; or, Spectacles for Young Sportsmen." Fcp. 8vo. with Portrait of the Author on his favourite Horse "Harlequin." 5s. half-bound.

## REES (DR. G. OWEN).—THE TREATMENT OF RHEUMATIC DISEASES by LEMON-JUICE: with Illustrative Cases from Hospital Practice.

By G. OWEN REES, M.D. F.R.S., Fellow of the Royal College of Physicians; Assistant-Physician to, and Lecturer on Materia Medica at, Guy's Hospital; Physician to the Pentonville Prison, &c. 8vo. 1s. 6d. sewed.

## REES (DR. G. OWEN).—ON THE ANALYSIS OF THE BLOOD AND URINE, AND ON THE TREATMENT OF URINARY DISEASES.

By G. OWEN REES, M.D. F.R.S. Fellow of the Royal College of Physicians, Principal Medical Officer to the Pentonville Prison, and Assistant-Physician to Guy's Hospital. New Edition. 8vo. with Plates, 7s. 6d. cloth.

## RYND.—PATHOLOGICAL AND PRACTICAL OBSERVATIONS

on STRICTURES, and some other DISEASES of the URINARY ORGANS. By FRANCIS RYND, Esq. M.A. M.R.I.A., Fellow and Member of Council of the Royal College of Surgeons in Ireland; Surgeon to the Meath Hospital, and County of Dublin Infirmary; Her Majesty's Medical Superintendent of Convicts in Ireland; Member of the Royal Medical Society of Edinburgh, of the Pathological Society, &c. 8vo. 7s. 6d. cloth.

"We know of no work that presents such comprehensive or such admirable rules on the subject of treatment." MEDICAL GAZETTE.

"We must conclude, expressing our opinion that there is much sound and valuable information in this book. It is well and clearly written, evidently by one who is a judicious and careful practitioner." LANCET.

"Mr. Rynd presents us in the present volume with a very clear and intelligent treatise, in which thought is blended with experience, and research with practice: and from the perusal of which, although we do not agree in all the opinions that are advanced, we have derived both profit and gratification ..... It is, without doubt, an able and thoughtful production, and has our cordial recommendation as one of the best of the modern contributions to this branch of surgery." MEDICO-CHIRURGICAL REVIEW.

"The selections we have given from Mr. Rynd's book are intended as specimens of his style and matter, and more for the purpose of inducing others to peruse his volume, than with the view of affording anything like a general analysis of it. The author has exhibited considerable industry and care in the arrangement of his work, and the practical precepts with which it is replete will amply remunerate the reader for the time expended in its study. We again repeat it as our deliberate opinion, that these pathological and practical observations on stricture reflect great credit upon the author." DUBLIN MEDICAL JOURNAL.

## SANDBY.—MESMERISM AND ITS OPPONENTS.

By GEORGE SANDBY, M.A. Vicar of Flixton, Suffolk. New Edition, considerably enlarged; with an Introductory Chapter on the Hostility of Scientific and Medical Men to Mesmerism. 16mo. 5s. cloth; or in 2 Parts, 2s. each.

## SCHLEIDEN.—PRINCIPLES OF SCIENTIFIC BOTANY;

or, Botany as an Inductive Science. By Dr. J. M. SCHLEIDEN, Extraordinary Professor of Botany in the University of Jena. Translated by EDWIN LANKESTER, M.D. F.R.S. F.L.S. Lecturer on Materia Medica and Botany at the St. George's School of Medicine, London. With Plates and Wood Engravings. 8vo. 21s. cloth.

"We congratulate our readers on the appearance of an English edition of this remarkable work, by a gentleman so capable to do full justice to it as Dr. Lankester. It cannot fail to interest deeply all true lovers of Botanical Science, and we believe it will be considered a valuable addition to our Botanical Literature." JAMESON'S PHILOSOPHICAL JOURNAL.

"Dr. Schleiden has long been known to European botanists as a highly successful cultivator of their favourite science. In the work before us, which is a translation of the second German edition, we have a complete illustration of the elaborate research which is so characteristic of the German mind. Although entitled 'Principles of Scientific Botany,' it must be regarded as a complete treatise on philosophical and physiological botany." MEDICAL GAZETTE.

"It demands something more than a cursory perusal. To be able to follow the author's path of thought and reasoning, a patient and careful study becomes necessary, which, however, is sure to be rewarded with an ample harvest of knowledge. We therefore are under great obligation to Dr. Lankester for having undertaken the arduous task of translating such an author, and thereby rendering his labours accessible to the English reader. He has performed the task in a very creditable manner, and has afforded satisfactory evidence of his ability to render justice to the author." LITERARY GAZETTE.

## SEYMOUR (DR. EDWARD).—THOUGHTS ON THE NATURE

and TREATMENT of several SEVERE DISEASES of the HUMAN BODY; including—1. Diseases of the Stomach.—2. Gout.—3. Melancholy (Mental Derangement).—4. Epilepsy.—5. Neuralgic Affections—Brow Ague, Sciatica, &c. By EDWARD J. SEYMOUR, M.D. F.R.S. late Senior Physician to St. George's Hospital. 8vo. 10s. cloth.

## SMITH.—AN INTRODUCTION TO THE STUDY OF BOTANY.

By Sir J. E. SMITH, late President of the Linnæan Society. New Edition, corrected, in which the object of Smith's "Grammar of Botany" is combined with that of the "Introduction." By Sir W. J. HOOKER, K.H. LL.D. &c. 8vo. with 36 Plates, 16s.; with the plates coloured, £2. 12s. 6d. cloth.

## SMITH.—COMPENDIUM OF THE ENGLISH FLORA.

By Sir J. E. SMITH. New Edition, with Additions and Corrections, by Sir W. J. HOOKER. 12mo. 7s. 6d. cloth.

THE SAME IN LATIN. New Edition. 12mo. 7s. 6d. cloth.

## SOLLY (SAMUEL).—THE HUMAN BRAIN: ITS STRUCTURE, PHYSIOLOGY, and DISEASES; with a description of the Typical Forms of Brain in the Animal Kingdom. By SAMUEL SOLLY, F.R.S. Senior Assist.-Surgeon to St. Thomas's Hospital, and Lecturer on Clinical Surgery; Senior Surgeon to the Aldersgate Dispensary. New Edition, greatly enlarged. 8vo. with numerous Wood Engravings, 21s. cloth.

"This very beautiful volume might almost be considered as a new work rather than as a new edition of the treatise published by Mr. Solly under the same title eleven years since. Its size has been greatly augmented; the whole of its matter has been remodelled; and the lithographic plates of the original have been superseded by no fewer than 118 wood engravings, many of them of the most elaborate character, and all executed in the first style of art. The work altogether reflects the highest credit on the author, and ought to find a place in the library of every medical practitioner." BRITISH AND FOREIGN MEDICAL REVIEW.

"The most complete account of the anatomy, physiology, and pathology of the brain that has hitherto appeared. Mr. Solly has enriched the descriptive portion of his volume with a large number of wood-engravings, many of them the product of his own pencil; and which, being intercalated with the text, give an increased interest and clearness to the details they so admirably illustrate. We earnestly advise all our professional brethren to enrich their libraries with this admirable treatise, which bears the stamp of extensive observation and careful research; and which has in addition this peculiar advantage, that it combines, in a moderate compass, a scientific and practical account of the anatomy, physiology, and pathology of the brain." MEDICO-CHIRURGICAL REVIEW.

"The reputation of the first edition of this treatise has been maintained up to the present time. Additions from recent observations by numerous anatomists have been amply supplied, to bring the work up to the standard of our present knowledge; and these, together with all that gave interest and value to the former edition, comprehend, we will venture to say, as nearly as possible the whole of the information of importance already established with regard to the anatomy, physiology, and diseases of the brain. The work is one which fully deserves, and will certainly obtain, a place among our medical classics. The subjects of which it treats, like almost all questions in anatomy and pathology, will doubtless, as science advances, receive numerous additions and modifications; but the scope of the treatise is so ample, and the arrangement of its various topics so judicious, that we believe it need never be superseded as a standard work of reference." MEDICAL GAZETTE.

## STAFFORD.—THE TREATMENT OF SOME AFFECTIONS of the PROSTATE GLAND. By R. A. STAFFORD, F.R.C.S. Surgeon-Extraordinary to H.R.H. the Duke of Cambridge, Senior Surgeon to St. Marylebone Infirmary, &c. New Edition. 8vo. 5s. cloth.

## STAFFORD.—OBSERVATIONS ON DISEASES OF THE URETHRA, and more particularly on the Treatment of Permanent Stricture. By R. A. STAFFORD, F.R.C.S. Surgeon-Extgaordinary to H.R.H. the Duke of Cambridge, Senior Surgeon to St. Marylebone Infirmary, &c. New Edition. 8vo. 9s. cloth.

## STANLEY.—A TREATISE ON DISEASES OF THE BONES.

By EDWARD STANLEY, President of the Royal College of Surgeons of England, and Surgeon to St. Bartholomew's Hospital. Accompanied by an Atlas of Plates illustrating the Diseases and Injuries of the Bones. 8vo. with folio Atlas of Plates, 42s. cloth.

*** The 8vo. volume may be had separately, price 10s. 6d.; the Atlas of Plates separately, price 31s. 6d.

"We are sure that the present works will be looked upon as filling up a hiatus in surgical literature; more especially as they are the productions of a gentleman who has possessed so many opportunities of gaining information respecting the pathology and treatment of these diseases..... We cannot but express our opinion, that this treatise is one of great merit, and that it will be appreciated as it deserves to be by those who make themselves acquainted with it. Some of the subjects are, perhaps, not treated so fully as they might be, but yet, taking the work as a whole, a large amount of valuable information will be found therein. The numerous cases related by the author form a prominent feature in the work, and shew that he has exercised great industry in collecting the proper materials, and that he has not thrown away the vast opportunities which he has possessed, as surgeon to one of the largest hospitals in London. We have no doubt that this treatise will be estimated in the same light as are the admirable works of Hodgson, Lawrence, and Sir Astley Cooper—works of which British surgeons may well be proud. With regard to the handsome folio volume of illlustrations, we can only say, without making particular mention of any delineation, that it forms an admirable companion to the practical treatise: the drawings are vivid and expressive, and we strongly recommend both works to be studied together." LANCET.

## THE STUD, FOR PRACTICAL PURPOSES AND PRACTICAL MEN: being a Guide to the Choice of a Horse, for use, more than for show. By HARRY HIEOVER, Author of "Stable Talk and Table Talk," and "The Pocket and the Stud." With two Plates, one representing "A pretty good sort for most purposes;" the other, "'Rayther' a bad sort for any purpose." Fcp. 8vo. 5s. half-bound.

## TAMPLIN (MR. R. W.)—LECTURES ON THE NATURE AND

TREATMENT OF DEFORMITIES, delivered at the Royal Orthopædic Hospital, Bloomsbury Square. By R. W. Tamplin, F.R.C.S.E. Surgeon to the Hospital. Fcp. 8vo. with Wood Engravings, 7s. 6d. cloth.

## TEALE (T. P. ESQ.)—A PRACTICAL TREATISE ON

ABDOMINAL HERNIA. By Thomas Pridgin Teale, F.L.S. Fellow of the Royal College of Surgeons, and Surgeon to the Leeds General Infirmary. 8vo. with numerous Illustrations, 15s. cloth.

## THOMAS'S MODERN PRACTICE OF PHYSIC:

Exhibiting the Character, Causes, Symptoms, Diagnostics, Morbid Appearances, and Improved Method of Treating Diseases of all Climates. By the late Dr. Robert Thomas. New Edition, thoroughly revised, and brought up to the present day, by Algernon Frampton, M.D. Fellow of the Royal College of Physicians, and Physician to the London Hospital. 8vo.

[*In the press.*

## THOMSON.—SCHOOL CHEMISTRY;

or, Practical Rudiments of the Science. By Robert Dundas Thomson, M.D. Master in Surgery in the University of Glasgow; Lecturer on Chemistry in the same University; and formerly in the Medical Service of the Honourable East India Company. Fcp. 8vo with Woodcuts, 7s. cloth.

"The book has a two-fold aim; viz. to furnish a text-book suitable for the instruction of the youngest persons at all competent to take an interest in chemistry, and likewise to supply a manual such as shall enable the professional student, and especially the student of medicine, to follow University lectures..... It discusses sufficiently and fully all the important departments of chemistry. The style is simple and perspicuous; the experiments suggested are well devised; and the mode in which they should be performed is made manifest by a plentiful use of woodcuts, illustrating apparatus and manipulation. In addition to its substantial merits as a text-book, its pages are lightened by a variety of curious and frequently amusing details, to be found in few other treatises on Chemistry."

Monthly Journal of the Medical Sciences.

## THOMSON (DR. R. D.)—EXPERIMENTAL RESEARCHES

on the FOOD of ANIMALS and the FATTENING of CATTLE; with Remarks on the Food of Man. By Robert Dundas Thomson, M.D. of the University of Glasgow. Fcp. 8vo. 5s. cloth.

## THOMSON (DR. ANTHONY TODD).—A PRACTICAL

TREATISE on DISEASES affecting the SKIN. By Anthony Todd Thomson, M.D. F.L.S. Fellow of the Royal College of Physicians; Physician to University College Hospital; and Professor of Materia Medica and Forensic Medicine in University College, &c. 8vo.

[*Nearly ready.*

## THOMSON.—CONSPECTUS OF THE PHARMACOPŒIAS.

By Dr. Anthony Todd Thomson, F.L.S. &c. New Edition, thoroughly revised and greatly improved; containing the alterations and additions of the last London Pharmacopœia and the New French and American Remedies. 18mo. 5s. 6d. cloth; or, with roan tuck, as a pocket-book, 6s. 6d.

## THOMSON.—THE LONDON DISPENSATORY:

Containing Translations of the Pharmacopœias of London, Edinburgh, and Dublin; the Elements of Pharmacy; the Botanical Description, Natural History, and Analysis of the Substances of the Materia Medica, &c. &c.: with a copious Index of Synonyms. Forming a Practical Synopsis of Materia Medica, Pharmacy, and Therapeutics: with Tables and Woodcuts. By Anthony Todd Thomson, M.D. F.L.S. Fellow of the Royal College of Physicians, Professor of Materia Medica, &c. in University College, London. New Edition, corrected throughout, and materially improved. 8vo. 21s. cloth.

## THOMSON.—ELEMENTS OF MATERIA MEDICA AND

THERAPEUTICS; including the Recent discoveries and Analysis of Medicines. By Dr. Anthony Todd Thomson, F.L.S. &c. &c. New Edition, enlarged and improved. 8vo. with upwards of 100 Wood Engravings, £1. 11s. 6d. cloth.

## THOMSON.—THE DOMESTIC MANAGEMENT OF THE SICK

ROOM, necessary, in Aid of Medical Treatment, for the Cure of Diseases. By A. Todd Thomson, M.D. F.L.S. &c. New Edition. Post 8vo. 10s. 6d. cloth.

## THOMSON.—ATLAS OF DELINEATIONS OF CUTANEOUS

ERUPTIONS; illustrative of the Descriptions in Dr. Bateman's Synopsis of Cutaneous Diseases. By A. Todd Thomson, M.D. &c. Royal 8vo. with 29 Plates, comprising 128 Illustrations, carefully coloured after nature, £3. 3s. boards.

## TODD (DR. R. B.)—THE CYCLOPÆDIA OF ANATOMY AND

PHYSIOLOGY. Edited by Robert B. Todd, M.D. F.R.S. Fellow of the Royal College of Physicians, Professor of Physiology, and of General and Morbid Anatomy, in King's College, London, and Physician to King's College, Hospital. Illustrated with numerous Engravings on Wood.

Vol. I. Abdomen to Death. 8vo. with numerous Wood Engravings, 40s.
II. Diaphragm to Insectivora. 8vo. with numerous Wood Engravings, 50s.
III. Instinct to Placenta. 8vo. with numerous Wood Engravings, 50s.

And Parts XXX. to XXXVI. Polygastria to Spleen, with numerous Wood Engravings. 8vo. 5s. each. Part XXXVII. is *nearly ready*.

*** The Cyclopædia is now in course of publication with as much regularity as the nature of the work will admit, seven Parts having appeared since Messrs. Longman and Co. became the proprietors of it: it is rapidly drawing to a conclusion, and Messrs. Longman and Co. are assured that it will be completed in four or five more Parts.

This work is especially dependent on the support of medical men, and of those who take an interest in anatomical and physiological science. It has greatly exceeded the extent originally assigned to it at its commencement, chiefly in consequence of the rapid strides which Physiology has made during the last ten years, which rendered it necessary to introduce many entirely new articles, and partly because a much larger number of illustrations has been given than was originally contemplated.

It is hoped that when completed the work will contain such a series of essays, anatomical, physiological, and zootomical, as is not to be found in any other publication, whether British or foreign; and as it had been commenced at a low price, and conducted with a liberality which precludes the possibility of remuneration without an extended sale, Messrs. Longman and Co. trust that they may look to the medical and scientific public to lend their patronage to this great and important work.

"We congratulate the profession that the Cyclopædia of Anatomy and Physiology is progressing so rapidly that we may fairly consider its early completion as a matter of certainty. Two numbers within three months, and a third within a couple of months of the last of these, have almost made us forget the slowness of the earlier Parts. This has been the only complaint against the distinguished Editor, and it has always struck us as being more of the nature of a compliment than the contrary. Dr. Todd has, indeed, very little to complain of in the way of criticism. All the ordinary praises of the reviewers have been bestowed so lavishly on the design and execution of this great work, that it has left nothing more for us do than merely to *announce* the later Parts. We have great pleasure in placing at the head of this article the last three Parts, (xxxi. xxxii. xxxiii.) We can give them no higher praise than that they sustain the character of those that have preceded them."

Dublin Medical Journal.

## TRANSACTIONS OF THE ROYAL MEDICAL AND CHIRUR-

GICAL SOCIETY of LONDON; comprising many valuable and important Papers on Medicine and Surgery. Vol. XXXII. (1850), or Vol. XIV. of the New Series. With Lithographic Plates and Wood Engravings. 8vo. 8s. 6d. cloth.

## TURNER.—A TREATISE ON THE FOOT OF THE HORSE,

And on a New System of Shoeing, by one-sided nailing; also on the Nature, Origin, and Symptoms of the Navicular Joint Lameness, with Preventive and Curative Treatment. By J. Turner, M.R.V.C. Royal 8vo. 7s. 6d. boards.

## URE.—DICTIONARY OF ARTS, MANUFACTURES, & MINES:

Containing a clear Exposition of their Principles and Practice. By Andrew Ure, M.D. F.R.S. M.G.S. M.A.S. Lond.; M. Acad. N.L. Philad.; S. Ph. Soc. N. Germ. Hanov.; Mulii. &c. &c. 3d Edition, corrected. 8vo. with 1,241 Engravings on Wood, 50s. cloth.

## URE.—RECENT IMPROVEMENTS IN ARTS, MANUFAC-

TURES, and MINES; being the 2d Edition of a Supplement to the 3d Edition of his Dictionary. By Andrew Ure, M.D. F.R.S. &c. 8vo. with numerous Wood Engravings, 14s. cloth.

## THE VETERINARIAN;

Or, *Monthly* Journal of Veterinary Science. Edited by Mr. Percivall, in communication with M. Leblanc, Editor of the "Clinique Vétérinaire," at Paris. 8vo. 1s. 6d. sewed.

## THE VETERINARY RECORD,

And Transactions of the Veterinary Medical Association. Edited by Messrs. Spooner, Simonds, and Morton. 8vo. 2s. 6d. sewed.

*** Published Quarterly—On the 1st of *January*, *April*, *July*, and *October*.

## VINCENT (J. P.)—OBSERVATIONS ON SOME OF THE PARTS of SURGICAL PRACTICE; to which is prefixed, an Inquiry into the Claims that Surgery may be supposed to have for being classed as a Science, By JOHN PAINTER VINCENT, late Senior Surgeon to St. Bartholomew's Hospital. 8vo. with Plate, 12s. cloth.

"A book which contains many valuable remarks, useful hints, and observations, which few engaged in the active duties of their profession can read and reflect on without profit. The whole tone of Mr. Vincent's treatise is characteristic of the gentleman and the scholar."
MEDICO-CHIRURGICAL REVIEW.

"Every page of this learned treatise bears the impress of the scientific surgeon and accomplished scholar. The introductory chapter upon the claims of surgery to be considered as a science, evidences an intellect of a superior order, and a highly cultivated and reflecting mind. The work is not the ephemeral production of the young aspirant who writes before he practises; on the contrary, it is the matured composition of the experienced surgeon and the well-informed man, who has practised long and extensively, both in public and private, before he has ventured to lay before the profession the results of his observations. We shall make but a few extracts from the work, for the entire treatise should be carefully read both by the student and the practitioner." DUBLIN MEDICAL JOURNAL.

## VON BEHR.—HAND-BOOK OF HUMAN ANATOMY,

General, Special, and Topographical. Translated from the Original German of Dr. ALFRED VON BEHR, and adapted to the use of the English Student, by JOHN BIRKETT, F.L.S. Assistant Surgeon at Guy's Hospital. 16mo. 10s. 6d. cloth.

"This is what its name implies—a hand-book of human anatomy. Its arrangement is simple, the facts stated are up to the time, and we think no student of anatomy will be disappointed with it as a dissecting-room companion." ATHENÆUM.

## WEST (DR. CHARLES).—LECTURES ON THE DISEASES OF INFANCY and CHILDHOOD. By CHARLES WEST, M.D. Fellow of the Royal College of Physicians, Senior Physician to the Royal Infirmary for Children, Physician-Accoucheur to the Middlesex Hospital, and Lecturer on Midwifery at St. Bartholomew's Hospital. 8vo. 14s. cloth.

"We take leave of Dr. West with great respect for his attainments, a due appreciation of his acute powers of observation, and a deep sense of obligation for this valuable contribution to our professional literature. His book is undoubtedly in many respects the best we possess on diseases of children. The extracts we have given will, we hope, satisfy our readers of its value; and yet in all candour we must say that they are even inferior to some other parts, the length of which prohibited our entering upon them. That the book will shortly be in the hands of most of our readers we do not doubt, and it will give us much pleasure if our strong recommendation of it may contribute towards this result." DUBLIN MEDICAL JOURNAL.

"In taking leave of Dr. West, we can scarcely do more than reiterate our former praise of him. We have given, we fear, but a very faint notion of the scope of his work, and of its excellent execution. It is one standing by itself upon its important subject, in our language—unapproached—unrivalled..... His knowledge of what others have done is equalled only by his own extensive experience; and the results of both are combined in his valuable practical lectures now offered for the guidance of others.....The works of Maunsell and Evanson, Rees, Underwood, and others, must now relinquish the field they have occupied for some time past. It will be long before that of Dr. West finds a rival in this country.....In conclusion, we may be excused if we say to the student and junior practitioner, let the pathology of children's diseases, and a treatment based upon that pathology, be your earnest study for the future, and let your guide be the lectures of Dr. West." MEDICO-CHIR. REVIEW.

## WHITE.—A COMPENDIUM OF THE VETERINARY ART;

Containing plain and concise Observations on the Construction and Management of the Stable; a brief and popular Outline of the Structure and Economy of the Horse; the Nature, Symptoms, and Treatment of the Diseases and Accidents to which the Horse is liable; the Best Methods of performing various Important Operations; with Advice to the Purchasers of Horses; and a copious Materia Medica and Pharmacopœia. By JAMES WHITE, late Vet. Surg. 1st Dragoons. New Edition, entirely reconstructed, with considerable Additions and Alterations, bringing the work up to the present State of Veterinary Science, by W. C. SPOONER, Veterinary Surgeon. 8vo. with coloured Plate, 16s. cloth.

## WHITE.—A COMPENDIUM OF CATTLE MEDICINE;

Or, Practical Observations on the Disorders of Cattle and the other Domestic Animals, except the Horse. By the late J. WHITE. 6th Edition, re-arranged, with copious Additions and Notes, by W. C. SPOONER, Veterinary Surgeon. 8vo. 9s. cloth.

## WILSON.—PRACTICAL AND SURGICAL ANATOMY.

By W. J. ERASMUS WILSON, F.R.S. Teacher of Practical and Surgical Anatomy and Physiology. 12mo. with 50 Engravings on Wood by Bagg, 10s. 6d. cloth.

*October* 1, 1849.

Wilson and Ogilvy, 57, Skinner Street, Snowhill, London.

# WORKS IN GENERAL LITERATURE.

9/d

I.

SOUTHEY's COMMONPLACE BOOK. Edited by the Rev. J. W. WARTER, B.D. FIRST SERIES—CHOICE PASSAGES, &c.; with medallion Portrait. New Edition. Square crown 8vo. 18s.

II.

SOUTHEY's COMMONPLACE BOOK. Edited by the Rev. J. W. WARTER, B.D. SECOND SERIES—SPECIAL COLLECTIONS. Square crown 8vo. 18s.

III.

SOUTHEY's The DOCTOR, &c. Edited by the Rev. J. W. WARTER, B.D.; with Portrait, Vignette, Bust, and coloured Plate. Square crown 8vo. 21s.

IV.

SOUTHEY's POETICAL WORKS. Complete in One Volume; with Portrait and Vignette. Medium 8vo. 21s.; morocco, 42s.

V.

MOORE's POETICAL WORKS. Complete in One Volume; with Portrait and Vignette. Medium 8vo. 21s; morocco, 42s.

VI.

JAMES MONTGOMERY's POETICAL WORKS. Complete in One Volume; with Portrait and Vignette. Square crown 8vo. 10s. 6d.; morocco, 21s.

VII.

THOMSON's SEASONS. Edited by BOLTON CORNEY; illustrated by the ETCHING CLUB. Square cr. 8vo. Woodcuts, 21s.; morocco, 36s.

VIII.

GOLDSMITH's POEMS. Edited by BOLTON CORNEY; illustrated by the ETCHING CLUB. Square crown 8vo. Woodcuts, 21s.; morocco, 36s.

IX.

MOORE's LALLA ROOKH. New Edition; with the Autobiographical Preface, and a Vignette by Maclise. 16mo. 5s.; morocco, 12s. 6d.

X.

MOORE's SONGS, BALLADS, and SACRED SONGS. First collected Edition; with Vignette by Richard Doyle. 16mo. 5s.; mor. 12s. 6d.

XI.

MOORE's IRISH MELODIES. New Edition; with the Autobiographical Preface, and Vignette by Maclise. 16mo. 5s.; morocco, 12s. 6d.

XII.

POETICAL WORKS of LETITIA ELIZ. LANDON (*L. E. L.*) New Edition, uniform with Moore's "Songs and Ballads"; with 2 Vignettes by Richard Doyle. 2 vols. 16mo. 10s.; morocco, 21s.

---

LONDON: LONGMAN, BROWN, GREEN, AND LONGMANS.