

A Synopsis of the History of Dermatology

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It is my pleasant duty, as a member of the honorary medical staff, to extend to the students a very warm welcome at the beginning of this winter session. Some of you are approaching the final medical examination and are in familiar surroundings, while others are in the process of becoming acquainted with the mysteries that encompass us; but many of you, having completed your preliminary training, are about to commence clinical studies. To the latter in particular, therefore, I would offer this advice—observe and learn all you can, making the best of the numerous opportunities which will be set before you. The great reputation of this hospital, built up by the work and studies of a long line of able physicians and surgeons, is known not only in Ulster, but throughout the British Isles, and it will be your honour and duty to impart your knowledge and enhance the reputation of the hospital when later you take up your work in the various branches of our profession.

We are now in the sixth year of the world-wide war, and it is our fervent hope that recent victories will lead to the establishment of an enduring peace in the very near future. Many members of the honorary medical staff are still serving with His Majesty's Forces :—Surgeon-Captain R. S. Allison, Major C. A. Calvert, and Lieut.-Colonel J. T. Lewis, whose safe repatriation from a prisoner-of-war camp has caused much rejoicing among his many friends. Also the following members of the auxiliary staff :—Lieut.-Colonels T. H. Crozier and Ian Fraser, D.S.O.; Surgeon-Commanders H. E. Hall and W. Lennon; Majors D. H. Craig, J. C. Davison, D. J. C. Dawson, J. Houston, E. W. McMechan, and R. W. Strain. We honour them all, and hope the time is not far distant when they will be free once more to return and resume the work which they felt it their duty to lay aside in order to serve their country. Their absence has added a strain to the routine work and the clinical teaching in the hospital, but this has been mitigated by the excellent help so willingly given by the consultant members of the staff. These members :—Mr. J. A. Craig, Dr. V. G. L. Fielden, Mr. H. Hanna, Sir Thomas Houston, Mr. S. T. Irwin, Dr. J. C. Rankin, and Mr. Howard Stevenson—although they have officially retired from active service on the staff, have returned to duty in order to ease the burden. In this respect we welcome the recent return of Surgeon-Commander F. A. MacLaughlin, who has so ably served his country since the beginning of the war.

In delivering the opening address it has been the custom of many members of the staff to choose as their subject the special branch of medicine or surgery in which they were interested, but last year Mr. Woodside carried you forward and gave you an insight into the future of medical affairs in general. To-day, however, I intend to revert to the past, and in so doing introduce to you some celebrated men, and to recall the progress made through the centuries in connection with the particular branch of medicine in which I myself am interested.

From the beginnings of medicine skin diseases loomed large in the earliest literature of Egypt, and continued to be described right through Grecian, Roman, and Arabian medicine. This seems natural, because the earliest and most vigorous of man's medical efforts were made to relieve his itching and to rid himself of the sores, scabs, and parasites which afflicted his skin. This is supported by the emphasis given to skin diseases in ancient records of the seventeenth and sixteenth centuries B.C. For example, much space is devoted to cosmetics and diseases of the skin in the Ebers Papyrus, which was written in the sixteenth century B.C. This is the oldest complete medical book in existence, and is a compilation of medical lore going back to about three thousand years B.C. From this early antiquity to comparatively recent times dermatology was a part of general medicine, and it is only within the past century and a half that its study and literature have been the works of specialists. The history of dermatology, then, can only be divorced from the history of medicine since the end of the eighteenth century.

In ancient times nearly all diseases were thought to be due to the entry of demons into the body, and the humoral theory of pathology postulated by Hippocrates dominated medicine for more than two thousand years. So, we find skin diseases not described as such, but as manifestations of this or that humoral pathology. Nevertheless, certain skin diseases are recognisable in ancient literature on account of their striking characteristics, and are described repeatedly by various writers. Alopecia, leukoderma, cloasma, psora, and lepra; herpes, pruritus, and inflammations of various kinds, including impetigo, erysipelas, scabies, boils, sycosis, elephantiasis, etc. (There was a considerable nomenclature, but the terms were used loosely, and it is not always possible to identify diseases by their names.) Their descriptions were, unfortunately, usually short and inadequate, because the author's interest was centred more in their hypothetical humoral pathology than in the diseases themselves.

Some diseases are alluded to so vaguely that it is almost impossible to identify them with any latter-day equivalents. Modern dermatologists contend, for instance, that most cases of Biblical leprosy (Leviticus 13: 1-46) were psoriasis, but the leprosy of which Naaman was healed by "dipping himself seven times in Jordan, . . . so that he went out from his presence a leper as white as snow" (II Kings 5: 1-27), and which he passed on to Gehazi was, in reality, scabies.

Leprosy is frequently mentioned in the Ebers Papyrus, but the famous Egyptologist, Elliot Smith, in his extensive examination of Egyptian mummies, found no evidence of this disease earlier than the Christian era. It may be added incidentally that he did not find any evidence of syphilis until modern times.

This Papyrus devotes a considerable amount of space to cosmetics and the treatment of skin diseases, and numerous remedies were prescribed for the purpose of driving away the demons. Grey hair and baldness appear to have exercised the minds of the ancient Egyptian physicians, and the same frenzied and fruitless efforts seem to have been made to cure them as are carried out at present. One of the oldest remedies for baldness was an invocation to the sun spoken over a bolus of iron, red-lead, onions, alabaster, and honey, which was then to be taken. Thus to-day, in a similar manner we invoke the sun's rays or ultra-violet light to restore the hair in alopecia. A favourite Egyptian pomade for baldness consisted of "equal parts of the fats of the lion, hippopotamus, crocodile, goose, serpent, and ibex." On the contrary, there were remedies recommended for removing the hair, not, however, for beauty's sake, but for revenge; in these cases the instructions for use were:—"To be poured over the head of the hated woman."

Most of the Egyptian remedies were amazing concoctions, many of them containing nauseating and disgusting animal substances, but among the rational remedies used we find antimony, calamine, sulphur, lead, wax, oil, goose-grease, and many others. Bandages were used, and the remedies were incorporated in plasters, poultices, ointments, and lotions. The really useful internal drugs were compounded in various kinds of absurd mixtures, hence treatment was more by magic than by intelligent use of the remedies.

Records of Assyrian and Babylonian medicine show that similar importance was attached to the same skin diseases, the remedies resembling those used in Egypt.

The next advance in medicine occurred in Greece, and, as elsewhere, it began in magic and superstition. Æsculapius, son of the great physician Apollo, became so skilful in healing that he interfered with the population of Hades, was destroyed by a thunderbolt of Zeus, and became the patron of medicine and of physicians. Fortunately, many temples of Æsculapius were founded and maintained by groups of physician-priests called Asclepiades, for the cultivation of medicine and the healing of the sick. These Asclepiades began to study the physical factors of disease and to treat maladies according to their findings, thus sowing the seeds of scientific medicine. The healing art in these temples was, to a great extent, a matter of propitiation of the demons, aided by elaborate deceptions to affect the imagination of the patients, but there are also many records of active treatments. Extracts from records of the temple at Epidaurus give accounts of many patients treated there for skin diseases. For example, one record states:—"Pandaros had a mole on his forehead. The gods commanded him to place a cloth over the mole, and remove it when he left the temple. When he removed the cloth the mole was gone. Pandaros' companion, on the other hand, was tricky with the gods about money matters, and instead of removing his mole they gave him another one. A man had the twin afflictions of no hair on his head and too much in his beard; the gods gave him a good balance by the use of a salve which made hair grow on his head. A boy had an ulcer on his ankle which was cured by the temple dog licking it." Licking of wounds by the dogs of the temple was a common method

of treatment in those days. Another man who was afflicted with a great number of lice slept in the temple, and went away clean the next morning.

Hippocrates (460—370 B.C.), the "Father of Medicine," was an Asclepiad of the temple on Cos, an island in the Dodecanese which came into prominence during the fighting there last year. To him medicine owes, among many other things, the art of clinical inspection and observation, accomplishments which I would recommend to you all. There is no other field in medicine, by the way, better adapted to these arts than that of dermatology, because here the disease and its causes lie open in many cases for your observation and deduction.

The Hippocratic Collection, a group of medical books edited at Alexandria about a hundred years after the death of Hippocrates, bulks large in the history of dermatology on account of the great attention given to skin diseases. Of this collection of sixty books, however, only a few are the works of Hippocrates himself. In these we find comments on perspiration and its metabolic function, and on the relation between the glands and the skin in health and disease, showing that some consideration was given to the anatomy and physiology of the skin. Case histories and symptoms of skin diseases were carefully detailed, the important ones emphasised, and an effort made to interpret their significance and to discover their causes. In depicting symptoms and in clinical description the Greeks were unsurpassed; for example, the description by Hippocrates of clubbed fingers and their association with chronic pulmonary and cardiac disease is well known; also that of the Hippocratic facies of impending death. The list of cutaneous afflictions recorded in Hippocrates' works, together with the vocabulary used, does, in fact, constitute a short catalogue of modern skin diseases. In those days skin disease was regarded as a manifestation of general disease, the veracity of which we know in many cases at the present time.

The Greeks devoted great attention to athletics, hygiene, and the care of the human body, all of which, fortunately, lent themselves to the relief of skin diseases. Their emphasis upon baths and cleanliness, their massage and unctions with fresh oil, their application of the therapeutic influences of sunlight, fresh air, and salubrious surroundings were invaluable not only in prophylaxis, but in treatment. Otherwise, their remedies and methods of application were similar to those of the Egyptians, their greatest virtues being, first, to treat patients as sick individuals rather than examples of disease; and second, the realisation of the healing powers of nature and a consequent withholding of heroic methods of treatment. The actual contribution to specific knowledge given to medicine by the Greeks is small, however, compared with the example of originality of mind which they showed in their scientific spirit and method.

In the next four hundred years, between Hippocrates and Galen (A.D. 130—200), power moved from Greece to Alexandria, during which period there was a gradual accumulation of clinical knowledge. This added much to the symptomatology and diagnosis of skin diseases, as is evident in the works of Celsus (30 B.C.—A.D. 50), and many important clinical observations were made during that time. For example, the sixth book of Celsus is devoted chiefly to skin diseases, of which he described

forty, the terminology being the same as that used by Hippocrates. He called attention to the dangers of carbuncle of the face, and was the first to describe kerion ringworm of the scalp in children, now known as Kerion Celsi. He considered a number of eruptions under the heading of "scabies," but gave the first recognisable description of psoriasis. Among many other conditions, he described erythema multiforme and connected it, as we often do to-day, with rheumatism.

Galen, however, developed an ingenious metaphysical theory of disease, which was based on the pathological humours of Hippocrates and combined with the theory of the four elements—earth, air, fire, and water. He thus offered a ready explanation for all pathological processes and supplied a working theory for treatment. So, unfortunately, he substituted a philosophy of medicine for the rational explanation of disease based upon careful clinical observation. Although the sixth book of Celsus was chiefly on skin diseases, Galen was the first to write a book entirely on this subject. He classified skin diseases into "those of the hairy parts of the body and those of the non-hairy parts," a classification which persisted until the eighteenth century. His speculative pathology, however, gave his book a newness and originality, with many theories regarding etiology. Many of his views were speculative and erroneous, but the same can be said of our own to-day; for example, his explanation of baldness as being due to thinning of the scalp is no more fantastic than other theories which are seriously entertained now.

After the fall of the Roman Empire, intellectual activity gradually diminished until about the tenth century, when it was at its lowest. In Europe, Grecian and Roman medicine was preserved only in Arabic versions and copies of early writings. Byzantium, fortunately, preserved the original works of the great masters in its libraries, but contributed practically nothing else to medicine. The Arabs, however, contributed a considerable amount of scientific knowledge, Arabic medicine being really monopolised by the Persians and Jews. They were careful observers, discriminating diagnosticians, and as great alchemists were the true founders of pharmacology. Rhazes, the Persian of Baghdad (860-932), one of the great clinicians of that time, is of interest to dermatologists for his studies of the exanthemata. His classical description of smallpox, which had apparently been recognised by the Byzantines as early as the fourth century and had later been termed *Varcola* (and *Djidri*), established it definitely in medical literature. Its contagious nature, however, was not recognised for hundreds of years, and the name of smallpox was only introduced in the sixteenth century, in order to distinguish it from syphilis, the pox. Avicenna (980-1037), also of Baghdad, gave good descriptions of anthrax, carbuncle, and diseases of the head, and was an authority on skin diseases through the middle ages.

Between the years A.D. 500 and 1500 the institution of hospitals and nursing had gradually taken place, and the study of leprosy had aided dermatology. References to leprosy are as old as civilisation itself, and, as I have mentioned previously, many other diseases were included under this heading. It became pandemic in mediæval Europe between the eleventh and fifteenth centuries, and then gradually died away. Its great prevalence during the later Middle Ages was

thought to be due to infected Crusaders returning from the East, and the attention of European medicine was focused upon it. It was recognised as contagious and was treated by segregation, but it is possible that a relative immunity was developed, thus accounting for its decline after 1450. This study of cutaneous leprosy was of great value to dermatology, not only because of the added interest it gave to skin diseases, but it also developed habits of careful observation and recording symptoms.

In the sixteenth century began the most intellectual period in history. The study of skin diseases was more than ever a subject of major interest in medicine on account of the cutaneous manifestations of syphilis, a disease which had made its sudden appearance at the beginning of this period. The first reference to the supposed West Indian origin of this disease is contained in a work by Diaz de Isla, written about 1510, in which it is described as an absolutely new and unheard-of affection in Barcelona, brought from Hayti by Columbus' sailors in April, 1493. Syphilis is supposed to have first appeared in epidemic form at the siege of Naples in 1495, and to have been communicated to the French invaders by the occupants, who had contracted it also from Columbus' sailors. In favour of its West Indian origin, Hutchinson contended that, if transmissible syphilis existed in Europe before 1492, it would have been mentioned by Chaucer and Boccaccio, while it was found in Hayti and San Domingo after Columbus' second voyage. That sporadic syphilis existed in antiquity, and even in prehistoric times, is quite within the range of probability. Virchow, however, maintained that the "caries sicca" of prehistoric and pre-Columbian skulls was not true syphilis, but either arthritis deformans or caused by plants or insects, a theory which would eliminate the question of prehistoric syphilis in Europe. It was not until four centuries later (in May, 1905) that the organism which causes this disease was discovered by Schaudin and Hoffman.

The history of dermatology during the period between 1500 and 1750 is that of rapid increase in knowledge through the investigations of great men like Paracelsus, Fernel, Falloppio, Ambroise Paré, and others. Many monographs were written on skin diseases, some of them important, but all significant of the intense interest taken in dermatology. Various efforts were made to classify skin diseases and to study cutaneous anatomy, considerable knowledge being gained in therapeutics. It was in the seventeenth century that the microscope came into use, hence the minute anatomy of the skin became a subject of intensive study by men such as Malpighi, Vater, Pacini, and others. Perhaps the greatest worker in this field was Jean Astruc (1684-1766), who differentiated mucous membrane, epidermis, corium, sebaceous glands, hair follicles, and nerve papillæ; not only did he make a modern effort to relate cutaneous lesions to the anatomical structures involved, but also indicated the pathology of certain affections in the light of that knowledge.

About the same time Daniel Turner (1667-1740) of the College of Physicians, London, wrote two books, one on skin diseases and the other on syphilis. These were the first comprehensive publications on these subjects in English, and gave a good summary of the knowledge of that period. Turner should be regarded, in

a minor way, as the founder of British dermatology, although Willan, who followed at the end of the eighteenth century, is the accepted holder of this title.

The first work relating to industrial and occupational dermatitis was published in 1700 by Bernardino Ramazzini (1633-1714), an outstanding physician of his time in Italy. He investigated every occupation with which he could come into contact, and described accurately most of the skin diseases which we find to-day in industrial workers. His interest in industrial diseases was not accidental, but was due to his recognition of their importance. From Hippocrates' time occasional notice had been taken of occupational affections, but Ramazzini was the first systematic student of this interesting subject, which is one of the foremost problems in the minds of dermatologists and many employers of labour at the present time. Since then frequent references to occupational dermatoses have been made; for example, Percival Potts' celebrated observation of cancer of the scrotum in chimney-sweeps, Rayer's description of anthrax in hair workers and nail changes in leather and acid workers. Many others have made observations on this subject, but it was Hebra who finally made dermatologists really conscious of its importance, and Prosser-White's recent monumental work on industrial dermatoses is the most modern treatise on this subject.

During these two hundred and fifty years dermatology had, therefore, gained momentum, and considerable knowledge was gleaned in pathology, etiology, and treatment. The great Robert Willan (1757-1812), the accepted founder of British dermatology, now comes into prominence. His studies led to a clearer conception of most dermatoses which, until then, had been rather vague and indefinite, his greatest achievement being the new classification of skin diseases which he presented before the Medical Society of London in 1785. Not only this, but he was a clinician of outstanding ability, few of the masters having given us more original observations in dermatology than he. His grouping of various forms of dermatitis under the term Eczema, gave us our modern conception of this disease, and it was largely due to Willan's teaching that skin diseases began rapidly to be described and named in the terms which we now employ.

On the basis of his new classification, Willan undertook the production of a treatise "On Cutaneous Diseases," the first volume of which appeared in 1808. His untimely death, however, prevented his issuing the second volume, but, fortunately, his famous pupil, Thomas Bateman (1778-1821), continued and elaborated the teaching of his master. This one work of Willan's exerted an enormous influence in dermatology, and was translated into most European languages, one of the chief reasons for its success being the fact that Willan introduced for the first time many coloured plates, a feature which was adopted by the majority of his successors.

The first part of the nineteenth century was the threshold of modern medicine, but it was not until the middle of the century that Hebra was able to make his celebrated classification of skin diseases on a pathological basis, and thus inaugurate the modern period of dermatology. This was partly due to the fact that about this time marked improvements were made in the microscope which

overcame many defects and transformed it into an instrument of precision. Discoveries, inventions, and advances in science, together with numerous investigations, now paved the way for greater development. The French Revolution, in spite of atrocities, such as the murder of Lavoisier, was, in reality, favourable to the cultivation of science, and during the following years France became a theatre of scientific activity. Pre-eminence in dermatology also went to France; this may have been in part due to the old St. Louis Hospital in Paris becoming a dermatological hospital, thus furnishing a centre for the study of skin diseases which French medicine was at that time in the right spirit to utilise. From this centre emerged a group of masters such as Alibert, Bielt, Rayer, Cazenave, Gibert, Devergie, and Bazin, who followed the road indicated by Willan, and achieved outstanding fame. Baron J. L. Alibert (1768-1837), one of the brilliant physicians of his time, was the founder of dermatology in France, and so occupied the same position there which Willan enjoyed in Britain. It was he who was chiefly responsible for the establishment of the St. Louis Hospital as a dermatological centre, and one of the wards in the hospital bears his name. One of the curiosities of medical history in his "Dermatological Tree," which grew out of his passion for the classification of skin diseases. In Ernest Bazin (1807-1878), however, French dermatology reached its zenith. He, with Gibert, recognised the important rôle played by parasites, and by his revolutionary work in the treatment of scabies and fungus infections established himself chief of the St. Louis school.

In Germany Willan's work was spread and patterned by many celebrated men, their studies and efforts tending mainly towards classifications. Since the days of Morgagni and Malpighi knowledge had been gained in anatomy and pathology, but with better technical facilities at the beginning of the nineteenth century, a more rapid development took place. An advance in etiology was the discovery by J. L. Schönlein (1790-1864), in 1839, that favus was caused by a fungus. It had been known for centuries that scabies was caused by the acarus, and that pediculi and other vermin caused skin diseases, but a fact difficult at that time to appreciate was that diseases could be produced by fungous parasites which were almost structureless. Schönlein's discovery, therefore, was revolutionary, and led to investigations which revealed many other pathological fungi. Pioneer investigators in this field were Remak, Bassi in Italy, Audouini, and Gruby (1810-1898). The brilliant work of the latter, which was carried out in Paris under the ordeal of poverty and religious prejudice, was practically forgotten until Sabouraud called attention to it half a century later.

The Allgemeines Krankenhaus, the general hospital of Vienna, is a good illustration of the important part played by great institutions in fostering medicine. It was the home of a group of masters, such as Skoda and Rokitansky, which made Vienna famous as a centre of medical teaching, and from this group emerged Ferdinand von Hebra (1816-1880), the most brilliant dermatologist of his time. Hebra's reputation was made not only in pathology, but also in clinical dermatology, to which he contributed many monographs and an atlas of skin diseases. He gave the first descriptions of several skin diseases, and his classical exposition

of the essential nature and treatment of eczema was masterly. Hebra's ability as a teacher must have been unique, his clinic being famous and his course of lectures the most popular of the time in Vienna, probably on account of his genial off-hand style of lecturing and his keen, often sarcastic, humour. Proof of this was the fact that his disciples became the next group of leaders in dermatology throughout the world.

In Vienna, the Hebra dynasty was continued by Kaposi, Auspitz, Neumann, and their successors. Moritz Kaposi (1837-1902) directly succeeded Hebra's chair of dermatology, and continued to spread the traditions and teachings of his father-in-law. His book on "Diseases of the Skin" was translated into French and English, and his atlas is one of the recognised collections of illustrations in dermatology.

Under the influence of these leaders, numerous other centres of dermatology developed in Berlin, Budapest, Breslau, etc., but mention must be made of Scandinavia, where, from the days of Carl W. Boeck (1808-1875) and D. C. Danielssen (1815-1894), centres of much importance have been established, especially for the study of tuberculosis and leprosy, which at that time were both common and severe. The work carried out by these two men on leprosy and parasitic diseases of the skin and their classical description of "Norwegian scabies" ranks high in the progress of dermatology. The most spectacular contribution, however, was the discovery of the bacillus of leprosy by G. A. Hansen (1841-1912) in 1871, eleven years before Koch discovered the tubercle bacillus. Hansen's discovery, therefore, was one of the earliest observations of pathogenic bacteria.

In order to bring my remarks up to date, I must return to France, where the traditions of Bazin and Hardy had been upheld by a succession of able dermatologists such as Vidal, Besnier, Hallopeau, and Leloir. Of these, E. Besnier (1831-1909) appears to have been the most celebrated, and was considered to be one of the greatest leaders of dermatology in the world. His reputation was gained by his teachings and contributions during twenty-five years connection with the St. Louis Hospital, where he succeeded Bazin in 1872. An inspiring teacher and prolific writer, his papers were models in substance and form, and his translation of Kaposi's book is a classic of dermatological literature.

During the nineteenth century the French school gained distinction by the progress it made in the knowledge of syphilis, this knowledge being acquired, as far as was possible, before the discovery of the spirochæte. Foremost in this was P. Ricord (1800-1889) of Paris; but others outside France contributed to this, as for example, William Wallace of Dublin, who established the contagious nature of secondary syphilis in 1835. It was Wallace also who, in 1834, made the important contribution of the use of potassium iodide in its treatment; and Virchow, who, in mapping out the course of syphilis and establishing its distribution through the blood, gave us the first clear interpretation of its stages of activity and inactivity.

My remarks concerning the second half of the nineteenth century have so far been chiefly concerned with events in continental Europe, and I now turn to British

dermatology during this period. This was ushered in by the advent of Sir Erasmus Wilson (1809-1884), who, having first distinguished himself in anatomy, and on being elected a member of the Royal College of Surgeons decided to devote himself to dermatology, in spite of the prejudice against specialism in England at that time. By his writings on the care of the skin for laymen, he is credited with having made the bath more popular in England, and he established the first British dermatological journal in 1867 ("Journal of Cutaneous Diseases"). Through his comprehensive knowledge he attained a commanding position, became president of the Royal College of Surgeons, and early in his career was elected a member of the Royal Society. Through his practice and investments he amassed a large fortune, which provided him with the funds to carry out many benefactions. He made a gift of £5,000 to the College of Surgeons to establish a chair of dermatology, and founded a chair of pathology in Aberdeen University. His philanthropy extended to other cultural subjects; being an extensive traveller and Egyptologist, he brought back from Egypt the monument known as Cleopatra's Needle, and set it up on the Thames Embankment at an expense of £10,000. Altogether, his contributions to the arts and sciences must have reached £300,000—a truly unique accomplishment among medical men.

The next able dermatologist was Tilbury Fox (1836-1879), who clearly established impetigo contagiosa as a definite clinical entity. He also established, by experimental inoculation, the contagious nature of this disease, which from the earliest time had wandered through dermatology without definite recognition.

Sir Jonathan Hutchinson (1828-1913), primarily a surgeon, was famous both in dermatology and syphilology. In his study of clinical syphilis he called attention to a combination of three conditions known as Hutchinson's triad, which are pathognomonic of hereditary syphilis; i.e., peg-shaped notched teeth, chronic keratitis, and the deafness produced by syphilitic middle-ear disease. He described innumerable dermatoses, this being due to the fact that he gave a name to any dermatosis he saw which was unknown to him; indeed, he sometimes used the patient's name to designate the disease, such as Mortimer's Malady. For many years he was the leader of medicine in London, and in his later years his weekly clinical demonstrations were thronged with medical men.

During this period there were so many men, not only in Britain but on the Continent and in America, who studied dermatology and advanced its knowledge that it would be impossible here to mention them all. There are a few, however, whose work and investigations are important, and to whom reference must be made. Huxley in 1845, when a medical student and only twenty years of age, described the layer of the root-sheath of the hair which bears his name. Addison, in 1855, described the syndrome which is now known by his name, and in 1869 described scleroderma. In 1874 Sir James Paget described a "disease of the mammary areola preceding cancer of the mammary gland," now known as Paget's disease of the nipple. In 1876 Squire introduced chrysarobin for the treatment of psoriasis, a treatment upon which we still rely. "The British Journal of Dermatology" was established in 1888, and Radcliffe Crocker's book on skin diseases,

which went through several editions, was considered the best of its day. (Many authors produced useful monographs and books which contributed to the progress of our knowledge. The best-known of these are works by William Frazer and Austin Meldon of Dublin; John L. Milton, Thomas Hillier, and Robert Liveing. Also T. McCall Anderson of Glasgow, W. Allan Jamison of Edinburgh, Henry Radcliffe Crocker—the successor of Tilbury Fox at University College, London, Sir Malcolm Morris at St. Mary's Hospital, and J. N. Neligan of Dublin. Then came Colcott Fox and J. J. Pringle of London, and H. G. Brooke of Manchester; these, together with Radcliffe Crocker, Sir Malcolm Morris, and Sir Norman Walker, were the immediate predecessors of the present generation of British dermatologists.)

In Belfast there is no record of dermatology until 1865, when Henry S. Purdon started a dispensary for skin diseases at a house in Academy Street, and as the work increased, a small hospital with six beds was opened in Regent Street in 1869. Later, through the generosity of Edward Benn, Esq., a hospital for diseases of the skin was erected in Glenravel Street, a street which owes its name to Glenravel House, the home of J. F. Hodges, Esq., M.D., J.P., who was the first president of the hospital. The cost of the building was nearly £4,000, and, as Purdon stated in the preface to one of his books ("Cutaneous Medicine and Diseases of the Skin," 1875), it "contained thirty beds and a suite of baths of every description." Purdon was not only interested in dermatology, but was one of the physicians to the original Forster Green Hospital for Chest Diseases, which commenced its career at the corner of Great Victoria Street and Fisherwick Place (where the Ritz Cinema now stands). Amid a busy practice he continued active work at Glenravel Street Hospital until about 1900; his assistants were his son, Elias B. Purdon, and S. W. Allworthy, both of whom were appointed in 1893. The half-century of excellent work carried out at the Skin Hospital by these two physicians is well known, and only ceased there when the hospital was destroyed by an air-raid in May, 1941. It is surely fitting that Henry S. Purdon, together with his son and S. W. Allworthy, should be recognised as the pioneers of dermatology in Northern Ireland. This short reference to Belfast would be incomplete without mentioning William Calwell, who instituted a weekly skin clinic at the "Royal" about 1910.

In the United States dermatology was, until late in the nineteenth century, simply a reflection of European observations on this subject. Two events, however, should be mentioned: firstly, the establishment in 1837 by H. D. Bulkley (1804-72) and John Watson of the first skin department in New York City; and secondly, the publication of the first complete book on skin diseases in America by N. Worcester in 1845. (Bulkley and Worcester were ahead of the times, and the real development of American dermatology belongs to the ten-year period between 1866 and 1876, during which the influences of Hebra and the Viennese school were transplanted from Europe.) In 1869 the New York Dermatological Society was founded, and is now the oldest dermatological society in the world.

There were many outstanding men in the United States. James C. White

(1833-1916) was the strongest force in shaping the early course of American dermatology, and was influential in starting and advancing medical education at Harvard. Louis A. Duhring (1845-1913) was a student of Hebra, but his methods of approach to skin diseases suggest more the attitude of the French schools. His book ("Diseases of the Skin"), together with his firm establishment (in 1884) of a group of obscure itching eruptions under the name dermatitis herpetiformis, often called Duhring's disease, made him America's most famous dermatologist. He acquired a large fortune, and was second only to Erasmus Wilson in his benefactions.

In speaking of Duhring's disease, I am reminded of the Emperor Napoleon's supposed affliction with scabies. Reuben Friedman of Philadelphia, after careful consideration of the literature, comes to the conclusion that Napoleon's ill-health and cachectic appearance were, in fact, due to the association of active tuberculosis and uncured malaria, rather than to scabies. He states that Napoleon's skin disease was neither cured by sulphur treatment nor transmitted to the Empress Josephine, but maintains that this chronic itchy condition was dermatitis herpetiformis, a condition not recognised in Napoleon's time. He also regards the Emperor's characteristic pose of his right hand inserted into his waistcoat as merely a mannerism, and not placed in that position for the purpose of scratching.

Since 1880 our knowledge of the etiology of skin diseases has been enlarged by improvements in the technique of histopathology and bacteriology. During this period the revolutionary discoveries which have also been made in physics and chemistry, as well as in the biological sciences, have led to important advances in therapeutics. The leaders in these advances were Albert Neisser (1854-1916) of Breslau and Paul Gerson Unna (1850-1929) of Hamburg. Neisser's wide knowledge and comprehensive ability, together with his physical qualities, combined to make him a striking personality, and at the age of twenty-five he discovered the gonococcus and firmly established its pathogenicity. He set up a laboratory in Java, where, from 1904 until 1907, he carried out experiments on syphilis in apes; in his later life his contributions to the study of this disease were so important that his name is linked with that of Wassermann in the original designation of the Wassermann reaction.

Unna was no less distinguished. His original and ingenious investigations in histology and pathology were so startling that they were slow of acceptance, but were provocative of study and research. His book ("Histopathology of the Diseases of the Skin"), which embodied his investigations and views, was a landmark in dermatological history. This monumental work of twelve hundred pages was translated into English in 1896 by Sir Norman Walker, the celebrated Edinburgh dermatologist. It is an interesting and remarkable fact that Unna's career was worked out with his own independent resources, unaided by university or other support. Early in his career he established a private clinic near Hamburg, which grew into a large institution, and which for a generation was the centre for students of every nationality.

In bacteriology, during the period between 1880 and 1910, the important rôle

played by fungi had been demonstrated, and the investigations of Raimond Sabouraud (1864-1938) of Paris revived discoveries which had been made by Gruby half a century before. Since then much important work has established these organisms in the etiology of familiar eruptions, the prevalence of these diseases, and new methods for their treatment. Again, through the studies of Theobald Smith, Albert Neisser, Von Pirquet, and others, came our knowledge of anaphylaxis and allergy, which has thrown a new light on the pathology of many toxic dermatoses.

The application of the knowledge of physics to dermatology has also had far-reaching results, especially in therapy. Although from ancient times the invigorating effects of sunlight have been recognised, it was not until between 1894 and 1897 that Niels R. Finsen (1860-1904) of Copenhagen, through his researches on tuberculosis placed ultra-violet light treatment upon a scientific basis. He devised efficient apparatus for the production and application of this light, and in giving us the first satisfactory treatment of lupus vulgaris, opened up a new field in therapy. It is interesting to note the first Finsen lamp in Great Britain was acquired by the London Hospital through the interest shown in him by his countrywoman, Queen Alexandra.

About the same time Röntgen discovered X-rays (1895), and it was soon found, through unfortunate experience, that as well as their penetrating powers these rays had actinic properties on living tissues. The inevitable therapeutic trial of X-rays was carried out by Freund in Vienna (1897); not only did he design the apparatus and offer a careful technique for its safe employment, but also, on the basis of the action of X-rays upon the skin, established therapeutic indications for its use.

In 1898 Madame Curie discovered radium, her experiments and disappointments being well known. Three years later Becquerel, through carrying a forgotten tube of radium in his waistcoat pocket for two weeks, developed an area of severe dermatitis on his abdomen. Besnier promptly suggested its therapeutic use, and it was found to have effects similar to those of X-rays. The earliest experiments with radium were carried out in Paris at the same time as Freund was developing his X-ray therapy in Vienna.

The therapeutic effects of excessive heat and intense cold have also been utilised in dermatology during the past forty years. The actual cautery has been used for many years for the purpose of destroying various skin lesions, but more recently this form of treatment has been replaced by the high-frequency electric current in the form of diathermy. Intense cold was first applied as liquid air in 1899, but being inconvenient and not readily obtainable, it was superseded by solid carbon dioxide in 1907.

With the discovery of Penicillin by Fleming in 1928 and its therapeutic elaboration by Florey ten years later, a new era in bacteriology is being established. The sodium and calcium salts of this mould have already been used with success in the treatment of several types of skin disease, so that when it becomes generally

available, Penicillin will provide a valuable addition to our improving methods of treatment.

Since 1900 a rapidly increasing number of able physicians, whose names and researches it would be almost impossible to enumerate, have interested themselves in the many problems of this branch of medicine, with the result that a vast literature has accumulated and our knowledge has steadily increased. There is still, however, as in all other branches of medicine, a multitude of unsolved problems, and it will be the duty of ourselves and future generations to endeavour to unravel these mysteries.

For the student I would emphasise the unique opportunity which skin disease offers, in the fact that normal and pathological conditions may be studied on and in the skin without difficulty. Indeed, the whole course of a skin disease can be seen either with the naked eye or under the low power of the microscope. Experience will probably show in the future, as it has done in the past, that the living skin is the best field for the study of many important problems in medicine. From this point of view, therefore, dermatology is immensely instructive, in that it teaches the student to observe for himself and form his conclusions from his own discoveries.

We are living in an age of great progress, drawing plans and laying foundations for a future we can but try to envisage, and although the cloud of war may appear to shorten our vision, many brilliant discoveries are being made in the fields of science and medicine which will come to light when the cloud has passed, and which will make our task less difficult.

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