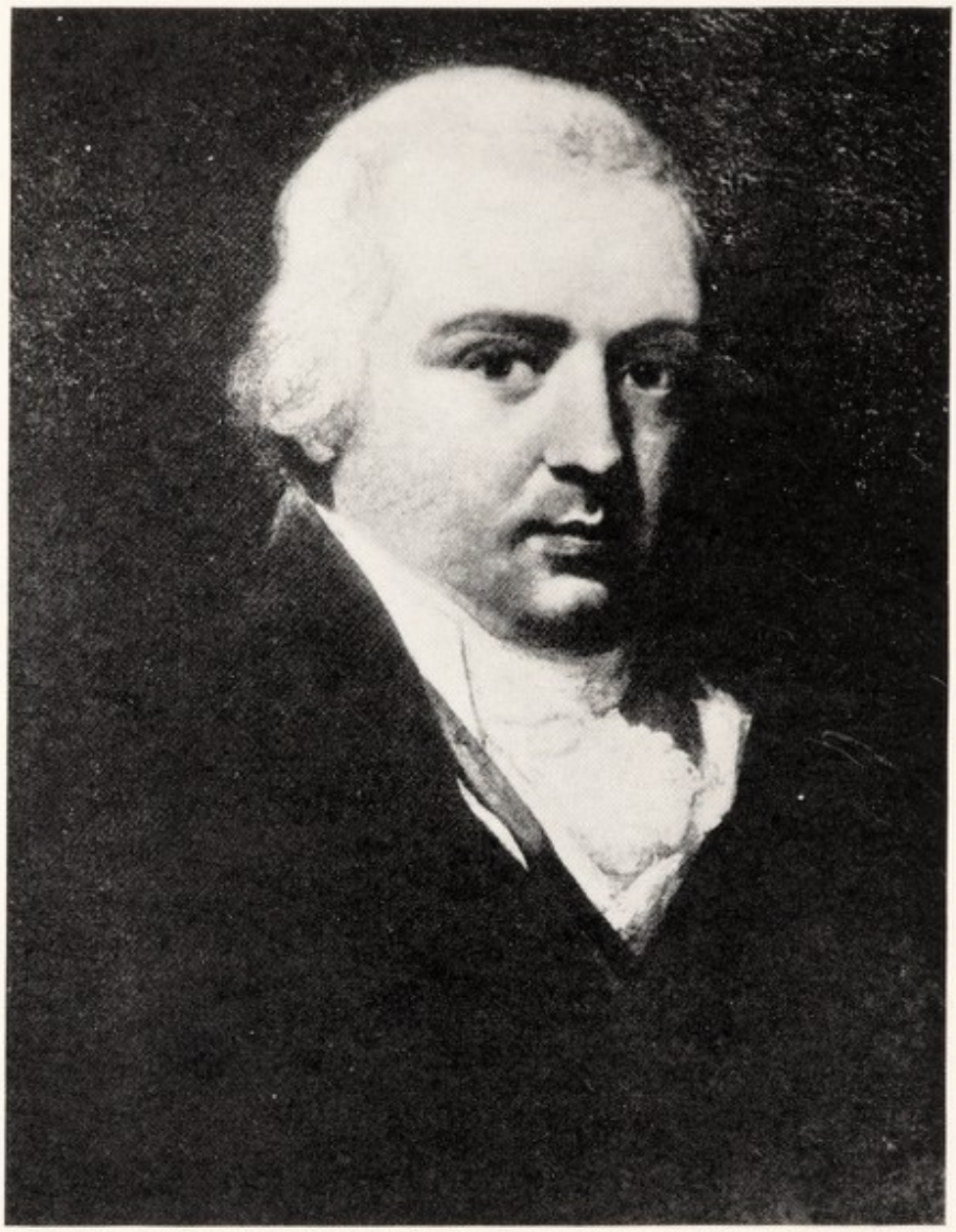
The history of dermatology / by Wm. Allen Pusey.

The History of Dermatology

Pusey

THE HISTORY OF DERMATOLOGY



ROBERT WILLAN

THE HISTORY OF DERMATOLOGY

BY

WM. ALLEN PUSEY, A.M., M.D., LL.D.

PROFESSOR OF DERMATOLOGY EMERITUS, UNIVERSITY OF ILLINOIS;
SOMETIME PRESIDENT OF THE AMERICAN DERMATOLOGICAL ASSOCIATION AND OF THE AMERICAN MEDICAL ASSOCIATION

ILLUSTRATED

SPRINGFIELD, ILLINOIS BALTIMORE, MARYLAND

CHARLES C THOMAS

MCMXXXIII

PRINTED IN THE UNITED STATES OF AMERICA

TO

THE YOUNGER GENERATION

In whose hands lies the future of Dermatology

THE HUMAN MIND *has then been built up through hundreds of thousands of years by gradual accretions and laborious accumulations. Man started at a cultural zero and had to find out everything for himself; or rather a very small number of peculiarly restless and adventurous spirits did the work. The great mass of humanity has never had anything to do with the increase of intelligence except to act as its medium of transfusion and perpetuation. Creative intelligence is confined to the very few . . . .*—JAMES HENRY ROBINSON.

PREFACE

THERE is no history of dermatology in English, and I have undertaken in this work to supply that lack. It has been necessary, of course, to summarize the subject, but I have recited the story in sufficient fullness to include most of the significant details. The history of dermatology is more interesting because it is an intimate part of the history of medicine in general. I may seem perhaps to have gone somewhat out of my way in tracing this relationship, but it is this relationship that gives the subject a living historical interest, and without constantly bearing it in mind the story would become a dull recital of dead facts. And that is not the true story at all. A summary, however detailed, can only indicate the real interest of the history of dermatology. The greater pleasure comes from a fuller acquaintance with some of its notable personages and important episodes. The mathematical genius, Abel, when asked how he had done so much in the few years of his working life, answered: "By studying the masters." I commend in dermatology this advice of Abel's, to read the works of the masters.

Germany is where the history of medicine is regarded as a field worthy of serious professional pursuit and of university support, and it is in Germany that the history of dermatology has been written. If I can claim to be the disciple of anyone in this field

it is Iwan Bloch. In his "Geschichte der Hautkrankenheiten in der neueren Zeit," a part of Puschmann's *Handbook der Geschichte der Medicin*, he achieves the end of telling the story of dermatology in interesting narrative form. Richter's "Geschichte der Dermatologie," a part of Jadassohn's *Handbuch der Hautkrankheiten*, is another mine of information. For the history of skin diseases two of the most valuable sources are Hebra's *On Diseases of the Skin*, and Rayer's *Treatise on the Diseases of the Skin*, both of which fortunately are available in English. In considering most diseases these two writers give at the beginning a valuable historical summary. Garrison, in his *History of Medicine*, that wonderfully rich collection of historical facts, has done full justice to dermatology. Also useful is Baas' *History of Medicine*. To all of these I acknowledge my indebtedness. I am, of course, indebted also to many other works and especially to many articles upon various topics in dermatology; I have referred to many of these in the text. To freshen one's orientation of the history of medicine generally let me recommend reading some of the shorter histories of medicine such as Cumston's *An Introduction to the History of Medicine;* Seelig's *Medicine, An Historical Outline;* Oliver's *Stalkers of Pestilence;* Stubbs and Bligh's *Sixty Centuries of Health and Physick*.

In a task of this sort one accumulates an almost incredible amount of facts. Surveying the many boxes of this indexed material, my associate, Dr. Herbert Rattner, who has been my valued assistant in the

work, commented that it was a pity not to utilize in some form the data which has not been used in the text, and suggested an historical index. The preparation of this index has been almost altogether his labor.

As always in such an undertaking as this, I am under obligations to many friends. I am particularly indebted to Dr. B. Barker Beeson, and to that interesting delver into dermatological history, Dr. John E. Lane. The Crerar Library and its Librarian, Mr. Christian Bay, and his associates, have increased my already large debt of gratitude to them by the way in which they made easily accessible to me their collection of rare books and photographs, and by their willing response to my many appeals for aid, some of them, I fear, unreasonable.

Chicago
December 1, 1932

CONTENTS

ILLUSTRATIONS

HISTORY OF DERMATOLOGY

INTRODUCTION

Those about to study medicine, and the younger physicians, should light their torches at the fires of the ancients.—ROKITANSKY.

CUMSTON, in his scholarly *Introduction to the History of Medicine*, remarks, concerning the antiquity of medicine, "It is evident that at the beginning of the world mankind was obliged to consider the question of Medicine, but centuries rolled by before Medicine became a profession." This, of course, is true. The care of his injuries and ailments was among the first of man's problems, and long preceded Medicine. But even so, if you are going to date the beginning of the medical profession, you must speak in terms of geological time. The Cro-Magnon man, whose date is fixed geologically about 25,000 years ago, trephined men's skulls; and such a procedure indicates a degree of skill beyond that of the casual amateur.

The beginnings of dermatology can hardly be less ancient, for skin diseases obtrude themselves upon the attention in a way that few others do, and none of man's medical efforts can have been much earlier than those to relieve his itching and to get rid of the sores and scabs and parasites that afflicted his skin. These speculations about the beginning of dermatology may seem fantastic, but they are supported by the emphasis given to skin diseases in the earliest ancient records. The Edwin Smith Papyrus, which

Professor Breasted calls the oldest scientific treatise, belongs to the seventeenth century B.C. It is devoted to surgery and the external parts of the body. The Ebers Papyrus, the oldest complete medical book in existence, was written a century later, in the sixteenth century B.C., but it is a compilation of medical lore which goes back from five hundred to two thousand years further. Much of it is devoted to diseases of the skin. These two works which antedate more than two hundred years the time of Moses and were as much older than Greek civilization as Greek civilization is older than ours, may be claimed as the beginning of dermatological literature.

From this early antiquity to very recent times dermatology has been a part, and a conspicuous part, of general medicine. It is only within a century and a half that its intensive study and its literature have been chiefly the works of specialists. An occasional earlier man has given his interest and writings so largely to skin diseases that he might be called a specialist in this field, but these exceptions are so rare that they do not invalidate the general statement. The history of dermatology, then, can only be separated from the history of general medicine—and then only incompletely—since the latter part of the eighteenth or the beginning of the nineteenth century. The history of medicine in turn is but an item in the history of civilization. Culture is a federation; knowledge is interdependent; and progress in one field goes with progress in another. And culture cannot flourish except in a stable prosperous civilization, which pro-

vides time and opportunity for men of original minds to mull over and investigate the world around them.

The archeological discoveries of the last one hundred years have given us a new insight into the antiquity and height of civilization in the district of its birth at the eastern end of the Mediterranean. Culture was born and first flourished in Egypt. Civilization's beginnings may have been as early in the Valley of the Two Rivers—the Euphrates and Tigris—but it attained there no such early height; and the civilization of Egypt was so precocious that it put its imprint upon the culture of all the neighboring nations. It spread in turn to Syria and Palestine, Babylon and Assyria, Asia Minor and the Aegean Islands. Egyptian influence was as long exercised and apparently had as much effect upon the culture of these early civilizations as Grecian culture has had upon that of modern Europe.

These old civilizations flourished and decayed, some of them disappeared, before Greek civilization developed, but in the fifteen hundred years that the Greeks were struggling up from barbarism, they gradually assimilated Egyptian culture which came to them from direct contact with Egypt and indirectly through the Aegean Islands and the Aegean shores of the Mediterranean. Greece was the lineal descendant and legatee of Egyptian culture, but Greece attained an intellectual stature so greatly surpassing that of all other ancient nations that the influence of Egypt upon its culture is commonly overlooked.

The influence of Greek culture, with Alexander's conquest, was spread throughout the known world, but with the loss of power of the Greek states the center of activity of medicine as well as other science went to Alexandria, and with the breaking up of Alexander's Empire the emigration of Greek physicians transplanted Greek medicine to Rome. Latin civilization was inhospitable to medicine. Roman medicine was Greek medicine, and what was done in medicine in Rome was the preservation with little original additions of the medical knowledge and practice of the Greeks.

During the decline of the Roman Empire, medicine declined with civilization, and after the fall of the Western Empire, reached its lowest estate during the futile period of slavery to authority of the Middle Ages. But for the persistence of the Eastern Empire at Byzantium until the fifteenth century, even the records of Greek medicine might have been lost. Fortunately during the five hundred years before 1000 A.D., when scientific light almost flickered out in Europe, Arabian civilization and science attained its greatness, and the Mohammedan Empire did an invaluable part at an opportune time, not only in preserving ancient medical knowledge but in furnishing contributions to it.

Beginning with the eleventh century there was a remarkable renewal of activity of original thought. With the Renaissance it went into a period of great vigor, in which medicine, perhaps more than any other field of intellectual activity, led the way. Servile

following of authority in medicine was replaced by the modern scientific spirit—observation of and curiosity about natural phenomena, and rational attempts to explain them by physical causes. The result has been an increase in the knowledge of medicine in the last four hundred years unique in its extent and its rapidity; its growth was sound and rapid in the sixteenth and seventeenth centuries; it slowed down during the eighteenth century; since the beginning of the nineteenth century it has amounted to a revolution, as a result of our new comprehensions of matter and of physical forces.

The history of dermatology falls into this outline; the task before us is to fill in, as completely as may be, the details of the outline.

There are certain general facts which have to do with the history of science that must be constantly borne in mind in the study of the history of dermatology. The growth of scientific culture is a story of slow progress—usually against opposition—away from superstition. It is only since the time of the Greeks that rational explanations of the physical world have begun to play any considerable part in men's philosophy, and this applies especially to the mysteries of the human body. Nearly all diseases in ancient times were associated with demoniacal causes, and this conception has influenced all medicine. Indeed we still have with us the idea of malicious animal magnetism.

Almost equally unfavorable to the progress of medicine have been philosophical speculations about

the causes of disease, and schools of treatment of disease based upon theories that far outran scientific knowledge. The humoral theory of pathology of Hippocrates for example, dominated medicine for more than two thousand years. It has been almost as difficult to throw off as the demoniacal theory.

Until recent times the conceptions of medicine have not been of specific diseases but of disturbances of the whole organism as they manifested themselves in various ways; and so we find skin diseases not described as such, but as manifestations of this or that or the other concept of pathology—usually of the Greek humoral pathology. Neverthless certain skin diseases, because of their striking characteristics, are recognizable in the literature from the time of the Egyptians, and they are described over and over again by various writers: alopecia areata and other forms of alopecia, leukoderma and cloasma (leuke and alphos), psora and lepra, in which we can recognize at times psoriasis, leprosy and other diseases with bright scaly and spotted eruptions. (Lepra did not connote leprosy definitely until after the middle of the nineteenth century.) Herpes and herpes zoster, pruritus of various sorts, various inflammations of the skin, impetiginous eruptions, echthyma, erysipelas, porrigo, scabies, furuncle and carbuncle, sycosis, elephantiasis. There was a considerable nomenclature of diseases of the skin. The difficulty was that terms were used loosely and it was impossible to identify diseases by their names. This can be done only by the descriptions, which unfortunately were usually short

and inadequate because the observer's interest was not in them but in interpreting them in accordance with his conception of the hypothetical pathological processes as a whole.

Always we shall find the course of dermatology going *pari passu* with the course of intellectual activity. It is inevitable, therefore, that its history, as that of all medicine, must be divided more or less into conventional historical periods. But it must be remembered that these are not sharp, as the dating of them would indicate. Civilization and culture do not move in that way; one period flows into another. The conditions and habits, particularly of thought, of one period assert their influence on the next, even after the most momentous social crises.

Also in different periods certain great leaders inevitably stand forth: Imhotep, Hippocrates, Aristotle, Celsus, Galen, Rhazes, Avicenna, Vesalius, Sydenham; in dermatology Astruc, Lorry, Willan, Rayer, Bazin, Hebra. These men are beacon lights because they epitomize their periods, but they are results, not causes. They are great because they are able to embody the culture of their times, and, perhaps, to reach a little higher because they stand upon the shoulders of their pedecessors. It must be remembered that they represent the accretions of knowledge of less famous Miltons and Cromwells, of predecessors and collaborators who, through historical necessity, and not through justice, are unmentioned or passed over with a word; that by a sort of scientific primogeniture they inherit and represent

the achievements of their period; and that in considering them we are really considering the achievements of the whole group which they represent.

James Henry Breasted, *The Conquest of Civilization*, (The Ancient World). New York: Harper & Bros., 1926. James Harvey Robinson, *The Ordeal of Civilization*, (Medieval and Modern World). New York: Harper & Bros., 1926.

Chapter I

EARLY ANCIENT DERMATOLOGY EGYPT TO GREECE

3000 B.C. to 300 B.C

Thus it is now a finally established fact that civilization first arose in Egypt, followed a few centuries later by Babylonia.—Breasted

EGYPT

THE most significant fact derived from the Egyptian manuscripts is the evidence that the Egyptians, thirty five hundred years ago, were beginning to study anatomy and physiology, to consider human ailments from the standpoint of their physical origin, and even then to establish an "Art of the Physician" in contrast to the "Art of Incantation" by which sickness was usually treated. This evidence in the Edwin Smith Papyrus[1] of the seventeenth century B.C. is the first scientific record in history. The Ebers Papyrus[2] of the sixteenth century B.C., the next important medical papyrus, is an extensive outline of the methods of practice, both physical and supernatural. It is a miscellaneous collection of notes on anatomy and physiology, and on remedies and treatment for all

[1] J. H. Breasted, The Edwin Smith Papyrus. *Bull. of Soc. of Medieval History of Chicago*, **3**, 58–78. 1923–1925.

[2] *The Papyrus Ebers*, Translated from the German version of Joachim by Cyril P. Bryan, with introduction by G. Elliot Smith, London: Geoffrey Bles, 1930.

sorts of ailments. While part of the Smith papyrus is missing, the Ebers papyrus is fortunately complete, and is of especial interest to dermatology because of

FIRST PAGE OF EBERS PAPYRUS

the large proportion of space which it gives to skin diseases and cosmetic troubles.

Among the skin troubles which the Ebers and other papyri indicate the Egyptians recognized are: dermatitis, pustules and suppurative dermatitis, scurf (which included various scaly and crusted dermati-

tides), scabies, weeping and crusted excoriations, granulating sores, ulcers, buboes, moles and skin tumors, stings and bites of wasps, tarantulas, lice, fleas and other vermin. One of the scurfs to which they gave much attention was eczema of the face and head. Many remedies are given for itching dermatoses, local and general. Alopecia areata can be recognized in the description which accompanies an ointment for it. Some terms are supposed to mean leprosy, but the famous Egyptologist, Elliot Smith, in his extensive examination of Egyptian mummies found no evidence of leprosy earlier than the Christian Era in Egypt, and, it may be added incidentally, none of syphilis until modern times.

Cosmetics was one of the earliest interests of civilized man and when it comes to cosmetic dermatology the Ebers Papyrus gets into its full stride. The amount of space given to gray hair and baldness indicate not only that they are not afflictions peculiar to modern man, but that there were the same frenzied and fruitless efforts to escape them that there are today. There were remedies to remove moles, to prevent or remove wrinkles, to make the face smooth, to improve its color, to beautify the skin. There is remedy after remedy to prevent or cure baldness and grayness and to dye the hair. There are even prescriptions for gray eyebrows. Perhaps the prescription of all others which has the record for age is not for a remedy for one of the great captains of death among disease, but one for that banal annoyance, baldness, prepared for Ses, mother of Teta, King of

Upper and Lower Egypt about five thousand years ago:

> O Shining One, Thou who hoverest above!
> O Xare! O Disc of the Sun!
> O Protector of the Divine Neb-Apt!

This invocation is to be spoken over a bolus of iron, red-lead, onions, alabaster and honey, which is then to be taken. Thus, invocations to the sun to restore hair, which in another way we make today, go back to the beginning of recorded history. As further evidence that human nature has not changed, there are remedies to remove hair, not however for beauty's sake, but for revenge, for the directions are "To be poured over the head of the hated woman." While these prescriptions happen to be for women, the evidence is not less full of the vanity of these earliest of civilized men.

Most of the Egyptian remedies were amazing concoctions, many of them containing nauseous and disgusting animal substances—to drive away the demons—of the same sort that have been used among primitive people of all times. But we also find the beginning of the use of remedies, useful and otherwise, that are still familiar: aloes, dill, fennel, juniper, mint, turpentine, castor-oil, linseed, beer, yeast, milk in various forms, hartshorn, iron, soda, saltpeter, caraway and caraway seed, coriander, coriander berries, poppy pods (opium). Among the remedies used in dermatology we find antimony, calamine, sulphur, red lead, wax, balsam, myrrh, turpentine, oil, goose-grease, onions, honey, sea salt. They used bandages,

enemas, gargles, inhalations, and they incorporated their remedies in plasters, poultices, pills, suppositories, ointments and lotions. This list of useful reme-

IMHOTEP

dies and vehicles is not to be taken as an indication that most of the treatment was rational. Their useful drugs were put up in all sorts of absurd mixtures, and

for the most part treatment was more magic than the intelligent use of remedies. On the other side, one of the case reports in the Smith Papyrus indicates intelligent treatment: it advises that in the healing of bruises an application of fresh meat should be used for one day, followed then by an ointment of honey and an astringent herb, and that no further treatment should be undertaken but that the patient should be put on a normal diet and results awaited. This wise injunction of "expectant treatment" frequently recurs.

The practices and teaching of Egyptian medicine tincture all medicine down to modern times. Many of the Hippocratic writings have in recent times been recognized to be of Egyptian origin. The materia medica of the Egyptians was used by Pliny and Galen, and through Galen's influence it came to the beginning of the modern period of medicine.

Although the vigorous period of Egyptian medicine was in the early part of the Middle Kingdom (2200–1700 B.C.), the preëminence of Egyptian medicine persisted after the breaking up of the ancient Egyptian Kingdom, at the end of the eleventh century B.C. Herodotus, writing in the fifth century B.C., testifies to the continuing preëminence of Egyptian physicians. According to Dawson (*The Beginnings, Egypt and Syria*, 1930), the influence of Egyptian medicine shows down through the fourteenth century, when medical documents are found drawn up in exactly the same way, using the same wording and with the same prescription headings. The supersti-

tions and magical practices of Egyptian medicine also followed through the centuries. The very same invocations, in the same forms, often in the same phraseology, are found throughout ancient medicine. We have inherited them from the Old Testament. Hebrew medicine was Egyptian medicine. "Moses himself was 'the Child of the Nile' and the medical information in the Old Testament is essentially identical with that of the Ebers Papyrus." (Elliot Smith.)

Fortunately there have come down to us the name and the portrait of the most famous of the Egyptian physicians, Imhotep. He became a legendary figure in the early days of the Old Kingdom, 3000 B.C. He was grand vizier of the court of King Zoser, the architect of the surviving monument which preceded the pyramids, and a great physician and wise man. He is not only the first physician of history, but also the first of a long line of physicians of history who have been great figures in their periods.

ASSYRIAN AND BABYLONIAN MEDICINE

Medicine in the other ancient centers of civilization around the eastern end of the Mediterranean shows the same sort of development that occurred in Egypt. Modern explorations of the ruins of Mesopotamian cities indicate that the people lived a "reasonably hygienic life, from which we may deduce a common-sense knowledge of medicine and disease."[1] The Code of Hammurabi, about the twentieth century

[1] S. B. G. Stubbs and E. W. Bligh, *Sixty Centuries of Health and Physick*. Hoeber.

B.C., but chiefly the later tablets from the library of Ashurbanipal at Nineveh, seventh century B.C., are the great sources of our knowledge of Mesopotamian medicine. Like the Ebers and the Smith papyri these are both compilations of medical lore going

BAKED CLAY TABLETS FROM THE LIBRARY OF ASHUR-BANI-PAL AT NINEVEH
A—A recipe for restoring the color of gray hair.
B—A sulphur prescription for itch.
(Stubbs & Bligh)

back for a millenium or more. They show the usual ancient importance attached to skin diseases, the same skin affections, and the same remedies that were used in Egypt.

GREEK MEDICINE

After early Egypt, medicine showed its next advance in the great period of Greek history. In Greece, as elsewhere, it began in magic and superstition. Its mythological founder was the great Apollo, physician to the Gods on Olympus. His son Aesculapius became so skillful in healing that he interfered with the population of Hades, was destroyed by a thunderbolt of Zeus, and became the patron of medicine and physicians. Fortunately Greek mythology led to the maintenance of many temples of Aesculapius, Asklepieions, for the cultivation of medicine and the treatment of the sick, and here there gradually appeared a group of physician Asklepiads, who, in contrast to the priestly Asklepiads, began to study and reason about the physical factors of disease and to treat them accordingly. In these Asklepiads scientific medicine began. Hippocrates was an Asklepiad of the Temple at Cos, and Aristotle was another Asklepiad. The careers of these men in their times indicate the position that the Asklepiads could attain. Plato classed Hippocrates with Praxiteles and Polycletus, and Aristotle was the favorite of Philip of Macedonia and his son, Alexander the Great.

The healing art in the temples of Aesculapius always remained largely a matter of propitiation of the demons, with the inevitable accessories of elaborate rituals and paraphernalia and deceptions to affect the imaginations of the patients. Even Socrates never got beyond listening to the voice of his demon. But there were skeptical minds among the Greeks. Aristoph-

anes in his comedy *Plutos* dared to use the practices of the Asklepieions as the butt of his ridicule. Fortunately for us he located his description in the famous Asklepieion at Epidauros, whose tablets were recovered in the nineteenth century. These tablets—really testimonials of patients—from Epidauros established the accuracy of Aristophanes' skit, and so many of them give accounts of patients treated for skin diseases that Brandt has described this Asklepieion as an ancient sanatorium for persons suffering from skin diseases.[1] Extracts from these tablets, which Brandt gives, have a peculiar interest for dermatologists and also illustrate in general the manner of practice in these temples:

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. Echenedos, 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 with an ulcer of the toes was cured by necromancy and drugs. Another one 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 ulcer of 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. Another man who was afflicted with a great number of lice slept in the temple and went away the next morning clean.

[1] (*Arch. f. Derm. u. Syph.* **84**: 135. 1907.)

But there was a gradual development of really scientific thought among the Asklepiads which after centuries had its apotheosis in Hippocrates (460–377 B.C.) in that unparalleled period of genius, the Age of Pericles. In that age that included Pheidias, Polycletus and Praxiteles, Sophicles, Euripides and Aristophanes, Thucydides, Socrates and Plato—in that Age Hippocrates was "Hippocrates the Great." Of the man Hippocrates we know very little, but we know enough to leave no doubt that he was an actual man in the flesh. The Hippocrates of medical tradition is a symbolic figure that includes the achievements of Greek medicine. Of the Hippocratic collection, the *Corpus Hippocraticum*, only six or seven of the sixty books are the works of Hippocrates himself. The composite character of the collection is fortunate for our purpose, because there we see and are able to survey the actual achievements of a profession itself rather than as they are personified in an individual. It covers all medicine.

The Hippocratic Collection, which was edited at Alexandria in the third century B.C.—one hundred years after the death of Hippocrates—bulks large in the history of dermatology on account of the great attention given to skin diseases. The observations of skin diseases, because they were regarded as manifestations of general diseases, are scattered throughout the collection. There is some consideration of the anatomy and physiology of the skin; comments on perspiration and its metabolic functions, on insensible perspiration, on the relation of the glands to the

skin in health and disease are examples of this. Case histories cover many aspects of skin diseases. Symptoms are carefully detailed, important ones emphasized, and intelligent effort made to interpret their significance and to discover their causes. An example is the description by Hippocrates of clubbed fingers and nails and their association with pulmonary and cardiac diseases. Prognosis is emphasized, and there is constant reference in the consideration of dermatoses to the prognostic significance of certain features of them. In the depicting of symptoms the Greek genius was unsurpassed; the Hippocratic facies of impending death, for instance, is a cameo of clinical description. The dermatological case records in accuracy and detail, in emphasis upon essentials, in intelligent effort to interpret findings, bear favorable comparison, time for time, with ours. In Richter's words, "we find in Hippocrates an almost modern description of skin diseases."

A list of the cutaneous afflictions recorded in his works constitutes a short catalogue of modern skin diseases. They consider dermatitis, weeping eczema of the scalp, skin eruptions in strumous children, various vesicular, pustular and fissured eruptions, eruptions with scales and bullae, purulent wounds, the development of proud flesh in wounds, secondary infections, phagadena, gangrene, burns, boils, carbuncles, buboes, intertriginous inflammations of the crural region, axillae and under female breast, anthrax, anthrax with blisters, condylomas, warts, freckles, red nose. They describe urticaria from mosquito bites

and also from gastro-intestinal disturbances, varicose veins and changes in the skin which follow them. In many places they consider erysipelas, describe various forms of it, and recognize the seriousness of certain forms. They discuss exanthems at length, describing many varieties and their characteristics. They applied the word herpetic to creeping eruptions. They describe herpes and apthous stomatitis, scabies, lichen, leprosy, leucoderma, scrofula, universal exfoliative dermatitis resulting in death, acne, loss of hair, alopecia, alopecia areata, frost bites and various disturbances of the nails. In many places they take up the consideration of itching, describing many forms of it including itching from icterus. Richter identifies one of the case reports as pityriasis rubra of Hebra. The modern vocabulary of skin diseases is there: exanthema, ecthyma, phyma, oedema, alopecia, psora, lepra, lichen, kerion, phagadena, gangrene, bubo. One chief difficulty is that the Greek usage of the names is not specific and often does not correspond to modern meaning.

Aristotle and Plato, among the very greatest of the Greeks, gave some study to the skin. Aristotle made observations on the nails, hair and skin, as did Plato, and Aristotle studied varicose veins, leprosy and lice.

Greek medicine had the scientific quality of being objective and concerned with the observation and explanation of phenomena, but it also had the medical instinct of interest in their relief. Fortunately their worship of the human body and the care they gave it, with their attendant devotion to athletics, de-

veloped a personal hygiene which lent itself to the relief of skin diseases. Hippocrates urged cleanliness in order to avoid suppuration. No one can estimate the importance of the baths of the Greeks, Romans and other ancients in preventing skin diseases. The routine of the gymnasia and the Asklepieions, the emphasis upon baths and cleanliness, their massage and unctions with fresh oil, their appreciation of the therapeutic influences of light, fresh air and pleasant salubrious surroundings were of value not only in the prevention of skin diseases, but in the treatment of many of them as well. Otherwise their remedies and their methods of application did not vary greatly from those of the Egyptians. They used olive oil and other oils, lard, tallow, wax, many vegetable and mineral remedies, which we have already seen in Egyptian therapy. Their greatest virtues in treatment were, first, a disposition to treat the patients as sick individuals rather than as examples of diseases, and, second, the realization of the healing power of nature and a corresponding conservatism in the use of heroic methods of local treatment and in the internal use of drugs.

But the actual additions to specific knowledge of the Greeks in medicine, as in science generally, are trivial in comparison with the importance of the example of vigor and originality of mind which they showed in their scientific spirit and method. These are illustrated to great advantage in their medicine. They, first of all men, carefully studied biological and clinical facts and tried to correlate them; then, di-

vesting them from supernatural relations, they tried to explain them as physical phenomena and, in the case of disease, to relieve them by what they conceived to be rational treatment. It is hard to realize now the height of intellectual independence that such an attitude towards disease then indicated. As Garrison says of Hippocrates, "The argument of the 'Sacred Disease' which ridicules the supposed divine origin of epilepsy was the highest reach of free thought for centuries." Their great contributions to science were the scientific spirit and the scientific method; the recognition of a physical universe controlled by physical laws; an intelligent curiosity about the universe; careful observation and record and study of its phenomena and a rational effort at their explanation. They did not use experimental methods, but were indefatigable students of experience. The scientific method of the Greeks revived in modern times has given modern science its power.

Chapter II

GRAECO-ROMAN, ARABIAN AND MEDIEVAL DERMATOLOGY ROME TO THE RENAISSANCE

300 B.C. to 1500 A.D.

To the dusk of the evening of Antiquity succeeded a night ever lightened by individual stars, until the dawn developed as a harbinger of the day of the modern era.
—Baas.

GRAECO-ROMAN MEDICINE

AFTER the golden age of Hippocrates and Aristotle, Greece lost her supreme eminence in medicine. The philosophy of Plato, which came to dominate Greek thought and which taught that mind, not matter, was the proper study of man, led the Greeks away from the study of the natural sciences. Then Alexander the Great destroyed the supremacy of the Greek States, but he spread Greek culture throughout the world. As Greece itself became less important, Alexandria after 331 B.C., and Italy after the capture of Corinth, 146 B.C., became the centers of medicine. The effect of this on the future Mohammedan world will appear later in Arabian medicine, which played a very large part in preserving for modern times our knowledge of Greek science. But the direct line of descent of medicine was through Alexandria and Rome. In spite of its transplanting, medicine re-

mained essentially Greek medicine and was in the hands of Greek physicians. It had lost its early Greek vigor, but it was not entirely barren. There were no more colossi of the magnitude of Hippocrates and Aristotle, but Galen who represented the fruition and end of the period was no mean colossus himself.

In the four hundred years from Hippocrates to Galen there was a gradual accumulation of biological and especially clinical knowledge, so that when we come to compare the condition of medicine at the beginning of the Christian Era with that of the time of Pericles, we find additions to the knowledge which do not discredit the period. In Alexandria particularly the emphasis placed upon the study of the appearances of diseases had added much to the symtomatology and diagnosis of skin diseases, as is evident in the works of Celsus, which are largely based upon the writings of the Alexandrines. Many important clinical observations were recorded in dermatology during the time. Dioskorides, first century, Archigenes, first century, and Kriton, first century A.D., and Soranos, first half of the second century, and Ruphos, second century A.D., were all notable students of medicine and of dermatology. Kriton wrote an extensive work in four books on cosmetics, in which he considers more than fifty subjects covering every sort of thing from bad odors in the axillae to psoriasis of the nails. Ruphos wrote an accurate and full account of the buboes of plague and described the eruptions produced by filaria medinensis and attributed the disease to contaminated drinking

water. Monographs on skin diseases began to appear among the Alexandrines.

Pliny's work covers skin diseases and mentions a few that Celsus omitted, but we got our knowledge of dermatology of the time from the encyclopaedic works of Celsus and Galen. Celsus (25–30 B.C. to 45–50 A.D.) has given us the best summary of Roman and Alexandrian medicine. Consideration of skin diseases is found in many parts of the eight books that constitute his work, but the sixth book is devoted chiefly to skin diseases and he described forty of them. We find the same names for diseases that have been familiar since the time of Hippocrates, and the same emphasis upon cosmetic dermatology, but many interesting new facts are recorded. He called attention to the great danger of carbuncles of the face, and that after burning out a carbuncle one had to deal with a burn rather than the other virulent process. He warns of the danger of overmanipulating carcinoma. He divided kerion into true kerion and furunculosis and dissecting cellulitis of the scalp. He fully considered "scabies," which covered a multitude of eruptions. Under the impetigines he gives the first recognizable description of psoriasis. Alopecia areata is called area Celsi, although he was far from the first to describe it. He described erythema multiforme and connected it with rheumatism. He distinguished between senile and symptomatic alopecia. As Rayer remarks of Celsus: "The ideas he conveys to us of these skin diseases are in general much more complete than those of Hippocrates; his descriptions . . . are not

only remarkable for their accuracy, but farther for the excellent therapeutical precepts with which they are conjoined."

Galen (133–200 A.D.) is the second historical figure in medicine who reached "the lonely heights of immortal fame." While not the Olympian genius that Hippocrates represents to us, he is a more vivid and real figure; he is less God-like, perhaps, because he is better preserved to us as an actual man. The background from which Galen considered disease was that of the pathological humors of Hippocrates, with which he combined the Pythagorean theory of the four elements—earth, air, fire and water—and he then interpreted these in the light of his own conception of the pneuma or spirit which pervaded the body. He thus developed a highly metaphysical theory of disease which, for his ingenious mind, offered a ready explanation for all pathological phenomena, and furnished a working theory for treatment.

The misfortune of Galen, and of his times, was the substitution of a philosophy of medicine for careful clinical observation and the rational explanation of disease upon the basis of observation—the way which the Greeks had pointed out. Nevertheless he is one of the great pioneers in the actual study and recognition of biological and clinical facts. He was an anatomist who unfortunately based his knowledge on the dissection of apes and swine, and he wrote the first book on dissection. He made important contributions to the knowledge of anatomy of the bones,

muscles, blood vessels and nervous system. And he founded experimental physiology and experimental pathology—perhaps his greatest scientific feats. Although the sixth book of Celsus is a work on skin diseases, Richter claims that Galen in his second book on *Diseased Tumors* wrote the first book on skin diseases. He classified skin diseases into those of the hairy parts and those of the non-hairy parts, a classification which persisted until the eighteenth century. He gives the familiar presentation of ancient dermatology, but it has a flavor of newness and originality because it is always bound up with his speculative pathology. In spite of his inveterate theorizing many of his comments indicate the sharp observer of nature, the careful student and the vigorous thinker. He offered rational explanations for abscess formations. He attributed varicose veins to weakening of blood vessels. He explained gangrene as necrosis produced by excessive inflammation. He accounted for the prevalence of elephantiasis in Egypt by the warm climate and the ways of living. He speaks of baldness as due to thinning of the scalp and advises shaving the scalp and massage to cure it. Galen was not the founder of dermatology but he was its first great expounder. It cannot fairly be urged against giving him credit that much of his views were speculative and erroneous. The same can be said of ours, even today. His explanation of baldness, for example, is still offered, and is no more fantastic than other theories which are seriously entertained now.

He established a confusing and elaborate poly-

pharmacy with very extensive use of herbals, which has furnished a bad example down to modern times. His therapy was hopelessly involved in theoretical pathology. His drugs included the familiar ones that had come down from early antiquity. Though a physician in Rome held an inferior position, Galen in his day was one of its great citizens. So genuine and wise a man as his emperor and friend, Marcus Aurelius, gave him the compliment—unique I believe to these two men—that Napoleon gave his friend and surgeon, Baron Larrey, that he was the only upright man he had known.

ARABIAN MEDICINE AND THE MIDDLE AGES

Celsus and Galen came at the end of the Graeco-Roman period, and their works mark its greatest heights, but most of the medical writings of that time indicate the low estate to which thought had descended. Intellectual activities in medicine were reduced to inaccurate summaries or bad translations of ancient authorities by such writers as Scribonius Largus (47 A.D.), who used the word Zona for herpes (which Cassius Felix copied "Zerna") and Cassius Felix whose summary of medicine, including dermatology, in which he first used the word tinea, was popular with the copyists and translators of the Middle Ages. In Western Europe culture continued downward. The characteristics of the Middle Ages were already upon medicine. The Roman Empire was ending the cycle that all great nations have ultimately passed through, Egypt, Babylon, Greece, and now

Rome: first the hard primitive life that produced vigor and courage and resourcefulness; gradual progress and material success; then riches and luxury that resulted in dependence upon others for the rough work of life; and finally subjugation by those they had come to depend on or by new people who were still in the rough stage of development. It is a cycle that is exemplified among nations as it is among families. This descent in intellectual strength gradually progressed until at its worst, in the seventh to tenth centuries, it marks the lowest condition of intellectual degradation of European civilization. The whole period from the fourth to the fourteenth century is marked by a futile scholasticism that was scientifically impotent. In Europe knowledge of Greek and Roman medicine was preserved only in the Arabic versions of the early masters. The original versions were lost to use, but preserved in Byzantium, in the monastaries of Western Europe, and in the Arabian centers of culture, which were not so affected by the blight and showed capacity for independent thought. The originals were rediscovered and came back into use at the end of the Middle Ages.

Byzantium did the great service of preserving the original works of the great masters in its libraries, but contributed almost nothing else to medicine. Its chief contribution to dermatology was in the early knowledge of smallpox. Among its physicians were Oribasius (325–403) friend and physician to Julian the Apostate; Aetius (sixth century) physician to Justinian; Alexander of Tralles (525–605); Paul of Aegina

(625–690). All great men, but not able to rise above the thrall of their times. They were all compilers in dermatology, and were authorities on the subject during the Middle Ages.

Fortunately during this period there was a remarkable exhibition of scientific vitality among the Arabs. They not only kept the works of the great masters alive, but they added not a little to the knowledge of medicine. We speak of it as Arabic medicine because it developed among Arabic-speaking peoples, but it was really Semitic medicine in the hands of Persians and Jews. It spread over the Dominion of the Caliphs from Mesopotamia to Spain. Its medicine was Arabicized Greek medicine, but it had a character of its own. It observed carefully, it recorded minutely, and it was discriminating in diagnosis. The Arabians first established smallpox and measles as distinct diseases. They described elephantiasis in the modern sense of the name. They studied the effects of baths on the skin. They were great alchemists and were the founders of pharmacology. They introduced distillation, filtration, sublimation, and the water baths in chemistry. They introduced syrups, elixers, flavoring extracts, alcohol, aldehydes. They discovered nitric and hydrochloric acids. They knew iron, copper, lead, tin, mercury, silver and gold. They introduced senna, camphor, rhubarb, musk, cassia, cloves, sandalwood and cubebs. Their masters are among the notables in medicine.

Rhazes the Persian, of Bagdad (860–932), was one of the great clinicians of all time, and is of particular

interest to us for his studies of the exanthemata. "He is one of the earliest and most important dermatologists, and his famous description of smallpox . . . and measles is new and original." (Baas.)

Avicenna (980–1037), courtier and great physician at Bagdad, gave good descriptions of anthrax, carbuncle and skin diseases of the head. He was an authority on skin diseases through the Middle Ages.

Avenzoar (1113–1162) of Cordova, the greatest of the Mohammedan physicians of Spain, described the itch mite and almost discovered its rôle in the production of scabies.

The history of smallpox and of the other exanthems is particularly associated with Arabian medicine. The first intimation of the recognition of smallpox was in Arabia. Its historic appearance in epidemic form in the Middle Ages is associated with the conquests of the Saracens. It was apparently recognized by the Byzantines as early as the fourth century, and Marius, Bishop of Avenches (570) used the Latin term Variola for it. Aharoun or Aarun of Alexandria, (622) described it under the name Djidri; but it was Rhazes who by a classical description of it, modern in its vividness, established it definitely in the literature of medicine. In doing this he also established measles as a distinct disease and gave it the name Hasba. Measles had apparently been recognized before the days of Rhazes, because he does not describe it as a new disease but he first distinguished it from variola. The name smallpox was introduced in the sixteenth century in contradistinction to syphi-

lis, the pox, whose severe pustular eruptions, common at the time, resembled it. Strange as it may seem the contagiousness of smallpox was not determined for hundreds of years. It was not recognized by Rhazes, and it was denied even by Sydenham in the seventeenth century. The merit of first pointing out its contagiousness belongs to Gilbertus Anglicus, of the thirteenth century.

It seems desirable to round out here this note on the exanthems by a word on the history of scarlet fever and chickenpox, although to do this one has to bridge a gap of a thousand years. Scarlatina may have been known to the Greek and Arabian physicians; Avicenna seems to refer to malignant scarlet fever; but the first clear description of scarlet fever that separated it from measles was made by Ingrassias, the great Sicilian anatomist, in 1556. It was the subject of numerous studies in the sixteenth century, and in the seventeenth century full descriptions of scarlet fever were made by Döring and Sennert in Germany, and by Sydenham and Morton in England. Ingrassias is also entitled to credit for the first description of varicella in 1553, three years before his description of scarlatina. The definite separation of varicella from smallpox, however, belongs to very recent times. A false variola which did not protect from smallpox has long been recognized; Rhazes refers to it, as does Sydenham. But it is only in very recent times that varicella has been definitely dissociated from variola. Rayer in 1835 was not clear that varicella is not a modified form of variola, nor was Hebra

as late as 1866. Forestus (1522–1597) gave a good description of German measles.

For 1000 years from 500 A.D., the greatest contribution of Europe to medicine was the institution of nursing and the development of hospitals; its next greatest contribution was in dermatology in its study of leprosy. References to leprosy are as old as the history of civilization, but many other diseases were included with it until recent times. Attention to it was forced upon European medicine by its great prevalence in the later Middle Ages. That is generally attributed to the returning Crusaders from the East, but Bloch thinks that it is to be dated back to the return of Roman legions from the East. However spread, it became pandemic in Medieval Europe, and, as in the case of syphilis later, necessity compelled careful observation and original thinking concerning it. It was recognized as contagious and as spread by contact, and strict segregation and quarantine became the policy of handling it. Its greatest prevalence was from 1000 to 1400 A.D. After that it rapidly diminished and practically disappeared in Central Europe. The spread of leprosy over Europe as a pandemic and more particularly its rapid subsidence after 1450, are curious facts. Perhaps its subsidence was due to the policy of segregation that prevailed; another factor which might account for it is that it appeared as a new disease in virgin soil, and then subsided largely because of the development of relative immunity to it. The physicians of the later Middle Ages showed evidence of new capacity in

clinical medicine in their study of leprosy, and worked out the important facts of its symptomatology, as well as of its control. This study of the cutaneous symptoms of leprosy began about 1000 A.D. and was of great value to dermatology, as Bloch points out, in increasing interest in skin diseases and in developing habits of careful observation, record of symptoms, and sharp distinctions in their features.

By the thirteenth century the modern spirit of science was beginning to show itself. Petrarch, "the first modern scholar," lived in Italy, and Roger Bacon in England. The compass came into use; lenses and gunpowder were invented between 1350 and 1450; printing was invented between 1440 and 1450, and by 1500 eight million books had been printed. In the latter part of the fifteenth century Leonardo da Vinci's drawings from dissections began modern anatomy, and in 1543 Copernicus published the modern conception of the solar system. The quickening showed everywhere in medicine. There were numerous medical authors and in their works skin diseases were considered as a matter of routine, but most of their material is a repetition of Celsus, Galen, Avicenna and Rhazes. However, there were new observations in dermatology from all over Western Europe. Roger of Palermo (1170) used mercurial salves for parasitic affections of the skin, and made the very important observations that the venereal lesions of the genitals were infectious and contracted from sexual intercourse. Saliceto (1210–1277), Roger's pupil and greatest Italian surgeon of his day, confirmed his observa-

tion of the contagiousness of genital ulcers, phagedena and bubo, and to prevent sexual infection recommended washing with water and sponging with vinegar solution, the first suggestion of venereal prophylaxis. Jean Yperman (1295–1351), the great Belgian surgeon, emphasized the diagnostic importance of anesthesia in leprosy. Bernard de Gordon, probably a Scotchman, teacher at Montpellier (1285–1318), Gilbertus Anglicus, London, middle of the thirteenth century, John of Gaddesden, England (1280–1361), all wrote on the familiar skin diseases and made some interesting observations. Gordon suggested the contagiousness of leprosy. It is a very curious fact that all three of them refer to the use of red-light in the treatment of smallpox, which was revived on scientific grounds by Finsen six hundred years later. Albertus Magnus (Albert von Bollstadt 1193–1280), the great Dominican monk and theologian of Paris and Cologne, wrote a famous book on cosmetics (*De secretis mulierum*), which was really compiled by his pupil, Henry of Saxony. Hans von Gersdorff, Strassburg, in his work on surgery (1517), which was one of the leading books particularly on account of its illustrations, gives plates of leprosy and erysipelas, and considers skin diseases extensively. Guy de Chauliac (1300–1368) physician to three Popes at Avignon, and the most eminent surgeon for two hundred years, wrote extensively on skin diseases, and was the first to point out definitely the contagious character of scabies.

The most interesting of these late medieval au-

thors, from a dermatological standpoint, is the famous French surgeon Henri de Mondeville (1260–1320). His description of the facies of leprosy, as given by Bloch, is as sharp a description of cutaneous symptoms as can be found, and has not been improved upon: the prominence of the supra-orbital ridges, the loss of hair of the eyebrows, the staring eyes, the thickening of the nose, the nodules in the ali nasi and in the ears, and round white patches in the skin, muscular atrophy between the thumb and first finger, loss of sensation in the extremeties. Such a description means more than the beginning of clinical interest in medicine; it means getting away from the doctrinaire attitude, discriminating objective study, capacity for accurate selection of characteristic symptoms from the mass of unimportant ones, and ability for sharp description. De Mondeville's emancipation from ancient authority and his independence of mind are amusingly shown in his criticism of the confusion and uncertainty of medieval authors in skin diseases. His complaints at their nomenclature have a familiar ring today: "On this account one cannot take much truth from their writings because one calls serpigo what the other calls impetigo, and the third pannus, a fourth places two diseases under one species and wishes to institute only one treatment for the two, while a fifth one divides impetigo alone into three species and establishes three different methods of treatment."

Thus by the end of the fifteenth century the revival of learning was well under way and medicine was ac-

tive. Dermatology was well represented in this activity, and accurate knowledge of it, based upon observation and independent thought, was rapidly broadening. We can now see there was already the beginning of a new era in intellectual history, but no one then could have foreseen the rapidity and brilliance of its development.

Chapter III

DERMATOLOGY IN EARLY MODERN EUROPE

1500 to 1750

WITH the sixteenth century began perhaps the most splendid and most productive intellectual period in history. We have already referred to its beginnings in the latter half of the fifteenth century. Now we are coming to the period of Galileo, Kepler, Newton, Leibnitz, Luther, Cervantes, Shakespeare, Milton, Molière, and, in medicine, Vesalius, Paracelsus, Paré, Harvey, Sydenham, Boerhaave. It was the age of Pericles again, but spread over all Western Europe. At the beginning of the seventeenth century came the discovery of the microscope, which opened up the universe of the infinitely little, as the telescope did the universe around us. During this period medicine kept the pace; it carried its studies as far as could be done without the instruments of precision of the nineteenth century. Anatomy, physiology, pathology, and clinical medicine were investigated to the limit of the resources of existing scientific knowledge. Medicine had a particular reason for the stimulation of its activity in the sudden appearance of syphilis at the very beginning of this period. The study of skin diseases was more than ever a subject of major interest in medicine, because of the cutaneous mani-

festations of syphilis which emphasized the importance of skin diseases. The history of dermatology during the period is that of rapid increase in knowledge through the investigations of men, many of whom are the great figures in early modern medicine.

JEAN FERNEL

Paracelsus, Jean Fernel, Falloppio, Ambroise Paré, all made contributions to syphilis. Paré wrote on skin diseases of children (1510–1590). There were many monographs on skin diseases, some of them important, all of them significant as evidence of the intense interest in dermatology. Montagnana (1589) wrote

on herpetic, gangrenous, and carcinomatous affections of the skin; Manardus (1544) on crusted eczema in infants; Falloppio on tumors and ulcers. Blondus (1497–1563) and Septalius Settala (1552–1632) wrote on moles and naevi (1606) and Septalius speaks of the sympathetic relation between the skin of the face and the rest of the body. Laurent Joubert, the great chancellor of Montpellier, wrote a monograph on diseases of the hair. Forestus (1522–1597) described German measles rather clearly, and wrote on pemphigus, scabies, and psoriasis of the palms. Gorreaus (1515–1575) evolved a dermatological nomenclature in his *Definitiones Medicae.* Jean Tagault, one of the ablest French surgeons of the sixteenth century, in a complete work on skin diseases in six books, as Richter has pointed out, gave an effort at rational classification and evidence of increasing knowledge of the familiar affections of the skin. In the seventeenth century Doering (1625–28) and Sennert (1628) in Germany, and Sydenham (1676) and Richard Morton (1692) in England, gave modern descriptions of scarlet fever. In 1630 appeared the famous textbook on skin diseases by Hafenreffer. It is important because it gives the common German synonyms for various skin diseases, and thus furnishes a useful key to the meaning of the technical names then given to skin diseases. In France Riolan, and in England Thomas Willis made efforts at the classification of dermatology by rather remarkable classifications of skin diseases according to their cutaneous symptoms. Bonet, Manget, and Severine added to the knowledge

of elephantiasis. Felix Platter and Rivière studied universal exfoliative dermatitis, gangrene of the skin, and the use of white precipitate ointment in pustular eczema. Zacutus Lusitanus wrote on eczema, pediculosis of the eye brows, acne rosacea, and pruritus of the genitals.

There had been many early attempts at study of the anatomy of the skin. André Dulaurence (1598) wrote on the anatomy of the skin. Giulio Casserio (1561–1616) wrote on and made drawings of the skin of the palm and sole, and illustrated cutaneous papillae. Bonomo (1687) gave the first complete description of scabies and made a fair drawing of the itch mite.

Scabies has evidently been one of the great pests of life until very recently. When Hebra took over his clinic in Vienna scabies constituted 2197 cases out of an annual total of 2723 cases. Vague descriptions of it go back to very early medical literature. References to the mite appear in Medieval European and in Arabian literature, (e.g. Avenzoar). Guy de Chauliac pointed out that the disease was contagious and Ambroise Paré described the mite. Bonomo's description of scabies is in his famous letter to Redi in 1687. This letter not only tells how he demonstrated the mite, but shows the prevalence of scabies among the poor. He says that having observed how poor women picked out on the point of a pin little "bladders of water" from the "scabby skins" of their children who had the itch, and cracked "them like fleas upon their nails," and how "scabby slaves

in the Bagno at Leghorn" often did the same thing for each other, he "quickly found an Itchy person and asking him where he felt the greatest . . . itching, he pointed to a great many little Pustules not yet Scabb'd over," from one of which Bonomo took out a very small white globule and "observing this with a Microscope, I found it to be a very minute Living Creature in shape resembling a tortoise, ..." He then makes this very significant comment: "From this Discovery it may be no difficult matter to give a more Rational account of the Itch, than Authors have hitherto delivered us. It being very probable that this contagious Disease owes its origin neither to the Melancholy Humour of Galen, nor the corrosive acid of Sylvius, nor the particular Ferment of Van Helmont, nor the Irritating Salts in the Serum of Lympha of the Moderns, but is no other than the continual biting of these Animalcules in the Skin." This was a weighty argument against the humoral theory of skin diseases. There is hardly a more interesting document in dermatology than Bonomo's letter, which John Lane has reproduced with comments, in the original and in Mead's translation.[1]

As the microscope came into use in the seventeenth century, the minute anatomy of the skin became a subject of intensive study, and knowledge of it was enlarged by the work of many men. Most of the great anatomists contributed to this. Niels Stenson (1638–

[1] *Arch. Dermat. and Syph.*, July, 1928, p. 1. The whole subject of scabies is also interestingly considered by Beeson in the *Arch. of Dermat. and Syph.*, Sept. 1927, p. 294.

86), Copenhagen, described the sweat glands. Malpighi (1628–1694) studied the anatomy of the skin fully and described the rete Malpighi, hairs, hair follicles, and sebaceous glands. Ruysch (1638–1731) described the sebaceous glands as crypts of the

JEAN ASTRUC

epidermis and gave us the name epithelium. Boerhaave (1668–1738) described the sebaceous glands as true glands. Abraham Vater of Wittenberg in 1717 described the nerve endings in the skin which bear his name—the Vater-Pacinian corpuscles—and made a drawing of them from macerated specimens. The

description of these corpuscles by Pacini occurred one hundred years later. Russi studied histopathology of the skin of an albino in 1793.

The great JEAN ASTRUC (1684–1766) in particular contributed to this field. He differentiated mucous membranes, epidermis, corium, sebaceous glands, hair follicles, and nerve papillae, and he made a modern effort to relate cutaneous lesions to the anatomical structures which were involved. Astruc, almost a hundred years before Willan, should be regarded as the founder of modern dermatology, for he not only pointed the way by studying the histology of the skin, but he first indicated the pathology of certain affections in the light of that knowledge. He showed that acne is an affection of the sebaceous glands and that boils also occur in them. He suggested that carbuncles occurred in the sweat glands and that urticaria is a local obstructive oedema. But Astruc's claims to fame in dermatology are far wider than this. His work on syphilis is a milestone in the history of that disease, not because he made any important original contributions to the knowledge of syphilis, but because he did the invaluable service of summarizing and clarifying all of the knowledge of syphilis up to his time. He is one of the great figures in the history of dermatology, and he was an outstanding figure of his time. Famed throughout Europe, after 1731 he spent his life in Paris as Royal Physician. Associated with the vanities of the Court he remained a scholar with unending industry in intellectual pursuits.

Daniel Turner (1667–1740) is perhaps, in a smaller way, to be regarded as the founder of British dermatology. He wrote two books, the first, *De Morbis Cutaneis, A Treatise of Diseases Incident to the Skin*, published in 1714, and second, *Syphilis, A*

DANIEL TURNER

Practical Dissertation on Venereal Diseases, of which my copy, the third edition, is dated 1727. His books had a wide circulation in England and the Colonies, and are the first comprehensive ones in dermatology in English. They give a good summary of the state of knowledge of the times. As an illustration of the

De Morbis Cutaneis.

A

TREATISE

OF

DISEASES

Incident to the

SKIN.

In Two Parts.

WITH

A short *APPENDIX* concerning the Efficacy of *local* Remedies, and the Manner of their Operations.

By *DANIEL TURNER*,
Of the College of Physicians, LONDON.

The SECOND EDITION Revised and very much Enlarged.

LONDON:
Printed for R. BONWICKE, J. WALTHOE, R. WILKIN, T. WARD, and S. TOOKE. MDCCXXIII.

TITLE-PAGE TURNER'S *DISEASES OF THE SKIN*

thorough way in which he gleaned the field, he gives a not inaccurate account of the minute anatomy of the skin based upon the description of William Cowper. He made some interesting clinical observations on herpes, naevi, cutis laxa, and absence of sweating. It is a curious fact that the first medical degree given in English-speaking North America was an honorary degree conferred upon Turner by Yale College in 1723. John Lane has delightfully described the episode, which had its amusing side, in the Annals of Medical History, December, 1919.

One of the very significant but neglected figures in dermatology arose in Italy in the last quarter of the seventeenth century, Bernardino Ramazzini (1633–1714) whose work *De Morbis Artificium Diatriba*, a treatise on the diseases of tradesmen, Modena, 1700, was the first work on industrial medicine and a classic in its own right. From the time of Hippocrates occasional notice had been taken of occupational affections, but Ramazzini was the first systematic student of the subject. His attitude is shown in a remark in his preface, "The Divine Hippocrates informs us, that when a physician visits a patient, he ought to inquire into many things, . . . 'what uneasiness he is under' . . . 'what food he eats,' to which I would presume to add one interrogation more; namely, 'what trade is he of'?" He investigated with reference to pathogenic influence every occupation with which he could come in contact. His work is interesting therefore not only for a description of occupational dermatoses but for the light which it throws

on industrial conditions of the time. He pointed out the cutaneous changes that were the marks of many occupations—the stigmata which Hebra later took such delight in calling attention to—and he described

BERNARDINO RAMAZZINI

accurately most of the skin diseases which are found characteristically in various sorts of workers—workers in horn and bone in button factories, in copper and other metals, bakers and washerwomen, chalk and gypsum workers, butchers, cloth makers, wheat

handlers, salt workers, shoemakers and tailors, sailors, servants, sculptors, smiths, masons, and, quoting Juvenal, priests, who are prone to varicose veins from long standing. He recognized the contagiousness of many skin diseases, and refers to syphilis and other infections of the skin in midwives and wet nurses from their nurslings.[1]

Ramazzini's interest in industrial diseases was not accidental, but was due to the recognition for the first time of their importance by a very great man. He was the outstanding physician of Italy of the time, the associate of such masters as Malpighi and Morgagni. He was professor of medicine at Modena for thirty years until 1700, and after that at Padua. He was internationally known as a physician, investigator, teacher and writer, and he received the signal honors of his time.

Following Ramazzini there are more frequent references to occupational dermatoses. Percival Potts made his famous observation of cancer of the scrotum in chimney sweeps. Willan especially, in his studies on sanitation, emphasized the influence of occupation. Alibert, Biett, Cazenave, Rayer, Bazin and

[1] Moritz Openheim, *Die Beruflichen Stigmata der Haut.* Die Schadigungen der Haut durch Beruf und Gewerbliche Arbeit, Leipzig and Hamburg, 1915. 39–40; Otto Sachs, *Gewerbekrankheiten der Haut.* Wien, *Handbuch der Haut und Geschlechtskrankheiten*, **14**: 220; Franz Koelsch, *Bernardino Ramazzini Der Vater der Gewerbehygiene, Sein Leben and Seine Werke*, Stuttgart, 1912; J. Fischer, *Geschichte der Gewerdermatosen. Die Schadigungen der Haut durch Beruf und gewerbliche Arbeit.* Wien, 1915. Bd. **1**: 16–37.

Hardy all made observations in this field. Rayer described anthrax in hair workers and nail changes in workers in leather and dilute acids. And finally Hebra, by his constant attention to the subject made dermatologists conscious of its importance. Since the middle of the nineteenth century the field has been thoroughly traversed, first by the French and later by the Germans and English. Dermatoses are the most important group of industrial diseases. Prosser-White's invaluable *Industrial Dermatoses* is almost a treatise on skin diseases of external origin.

The foregoing brief summary of progress in dermatology in the two hundred fifty years following 1500, indicates the momentum which it was piling up. Clinical dermatology had grown rapidly; etiology and pathology were being developed; and there were new efforts at rational treatment. Most important of all was the beginning of the use of the microscope in studying the skin.

Syphilis.—The clinical history of syphilis was worked out during this period. Appearing suddenly as a new disease at the end of the fifteenth century, it was a challenge to original thought. The list of its students is a catalogue of the great minds in medicine of the time. With the sixteenth century began what Garrison calls "the huge output of the syphilographers." Proksch, in his enumeration of the most important writers on syphilis, gives forty authors whose works have come down to us. We can only mention a few: Paracelsus (1493–1541), Fracastoro (1530), Jean Fernel (1506–1588), Falloppio (1563), Ambroise Paré

(1510–1590), Valsalva (1666–1723), Lancisi (1720), Jean Astruc (1736), van Sweiten, Zittman, Boerhaave (1728), Morgagni (1682–1771); in the latter half of the eighteenth century Stoll, Plenck, Sanchez, Francis Balfour, Andrew Duncan, Benjamin Bell.

GIROLAMO FRACASTORO

These men and many others in the three hundred years between 1500 and 1800 worked out all of the clinical and gross pathological facts of the disease. They early described syphilitic eruptions, the mouth and throat lesions, loss of hair, involvement of bones and joints and of the nervous system and internal

organs, the infectious character of the chancre, and of condylomas and mucous patches, extragenital infections, the necessity for a break in the skin for infection, the characteristic indolence of the syphilitic bubo, hereditary syphilis, indirect transmission of syphilis and dangers of this method of infection to doctors and midwives, infection from kissing and drinking cups. The ravages of syphilis in the deeper structures and of the viscera were well recognized and described; syphilitic lesions of the nose and mouth, of the larynx, trachea and lungs, cerebral gumma, syphilitic meningitis, syphilitic headache and neuralgia, syphilis of the liver, spleen and kidneys, the relation of syphilis to diseases of the heart and blood vessels and to aneurysm. In the latter half of the eighteenth century hereditary syphilis, even late hereditary syphilis was recognized. In the three hundred years before 1800 the whole clinical story of syphilis was worked out.[1]

[1] Iwan Bloch, *Ursprung der Syphilis*, Jena, 1901, summarized in English in his article in the *System of Syphilis*, Oxford Univ. Press, 1908, **1**: 3–25; Jeanselme, *Traité de la Syphilis*. Paris, 1931. **1**: 3–432; Pusey, *Syphilis as a Modern Problem*. A.M.A. 1915. Commemoration Volume; Williams, The American Origin of Syphilis, *Arch. of Derm. & Syph.* **16**: 683–696. December, 1927; Herbert U. Williams, The origin and antiquity of Syphilis the Evidence from Diseased Bones. *Arch. of Path.*, **13**: 779, 931. May, June, 1932; Hans Haustein, Die Fruhgeschichte der Syphilis (1495–1498). Historisch-kritische Untersuchung auf Grund von Archivalien und Staatsdokumenten. *Arch. f. Derm. u. Syph.* **131**: 255–338. 1930; Charles Greene Cumston, Did Syphilis Exist in Antiquity? *Med. Jour. and Rec.* **125**: 269–273 and 339–341. 1927; Dohi, K., *Geschlichte der Syphilis*, 1923.

Chapter IV

DERMATOLOGY FINDING ITSELF

1750–1825

THE period from 1750 to 1825 has been well characterized by Bloch as the period of system building, but it is not to be regarded with the airy condescension that "practical" men so often assume toward efforts in this field. Facts must be classified if they are to be correlated and interpreted, and the very effort involves a thorough study of them. It is the first work necessary in every deductive science. Nobody has stated this better than Bateman:

> I am aware, indeed, that there are many individuals, professing to be practical men, who affect a contempt for all nosological disquisitions, and deem the discussions relating to nomenclature, in particular, very idle and frivolous, or, at the best, a sort of literary amusement, which is not conducive, in the smallest degree, to the improvement of the medical art. But this I conceive to be a mistaken view of the subject, originating perhaps from indolence, or from a want of habitual precision in the use of language. The inference of slight and superficial observation may, indeed, be detailed without recourse to a very definite vocabulary: for, where little discrimination is exercised, very little nicety can be requisite in regard to the import of the language employed. But it is not by such means that the boundaries of science are extended.

Among the manifest advantages of a copious and definite nomenclature, may be mentioned, in the first place, the necessity which it demands of an accurate investigation of phenomena, or, in other words, the habitual analytic turn which it tends to give to our inquiries, and therefore the general improvement of the talent of observation which it must ultimately produce. Secondly, it contributes to facilitate the means of discrimination, by multiplying, as it were, the instruments of distinct conception; for, from a deficiency of terms we are apt to think, and even to observe indistinctly. But, above all, a definite nomenclature supplies us with the means of communicating with precision, the information which we acquire, and therefore contributes directly to the advancement of knowledge, or at least removes an otherwise insurmountable impediment to its progress.

The first important figure in this period is JOSEPH PLENCK, of Vienna (1732–1807). Plenck was one of those encyclopaedic characters who take all knowledge for their field, and, although they may do nothing original, are important for the summaries which they make of the knowledge of their times. He was—after 1783 in Vienna—professor in Buda of half a dozen different subjects. In his treatise *Doctrina de Morbis Cutaneis* (1776), his work which interests us, he classified skin diseases upon the basis of their cutaneous symptoms. As Bateman says, "It seems probable, indeed, that Dr. Willan was indebted to this work of Professor Plenck for the ground-work of his classification; since his definitions, as well as his terms, accord accurately with those of the Hungarian nosologist."

JOSEPHI JACOBI PLENCK,
Chirurgiæ Doctoris, nec non Chirurgiæ, Anatomes, atque Artis obſtetriciæ Profeſſoris Cæſareo-regii, publici ac ordinarii in Cæſareo-regia Univerſitate Tirnavienſi.

DOCTRINA
DE
MORBIS CUTANEIS

Qua hi morbi in ſuas claſſes, genera & ſpecies rediguntur.

VIENNÆ,
APUD RUDOLPHUM GRÆFFER.
1776.

TITLE-PAGE OF PLENCK'S *DOCTRINA DE MORBIS CUTANEIS*

In Antoine Charles Lorry of Paris, (1726–83) we reach really the founder of French dermatology. Lorry, in his *Tractatus de Morbis Cutaneis*, (Paris, 1777), undertook to go much further than to classify skin diseases in the Linnean manner, simply on their

ANTOINE CHARLES LORRY

characteristics. His efforts was to classify them on the basis of essential relations, their physiological, pathological and etiological similarities. His classification was marked by a realization that facts of all sorts must be taken into consideration in determining the character of a skin disease. And in it for the first

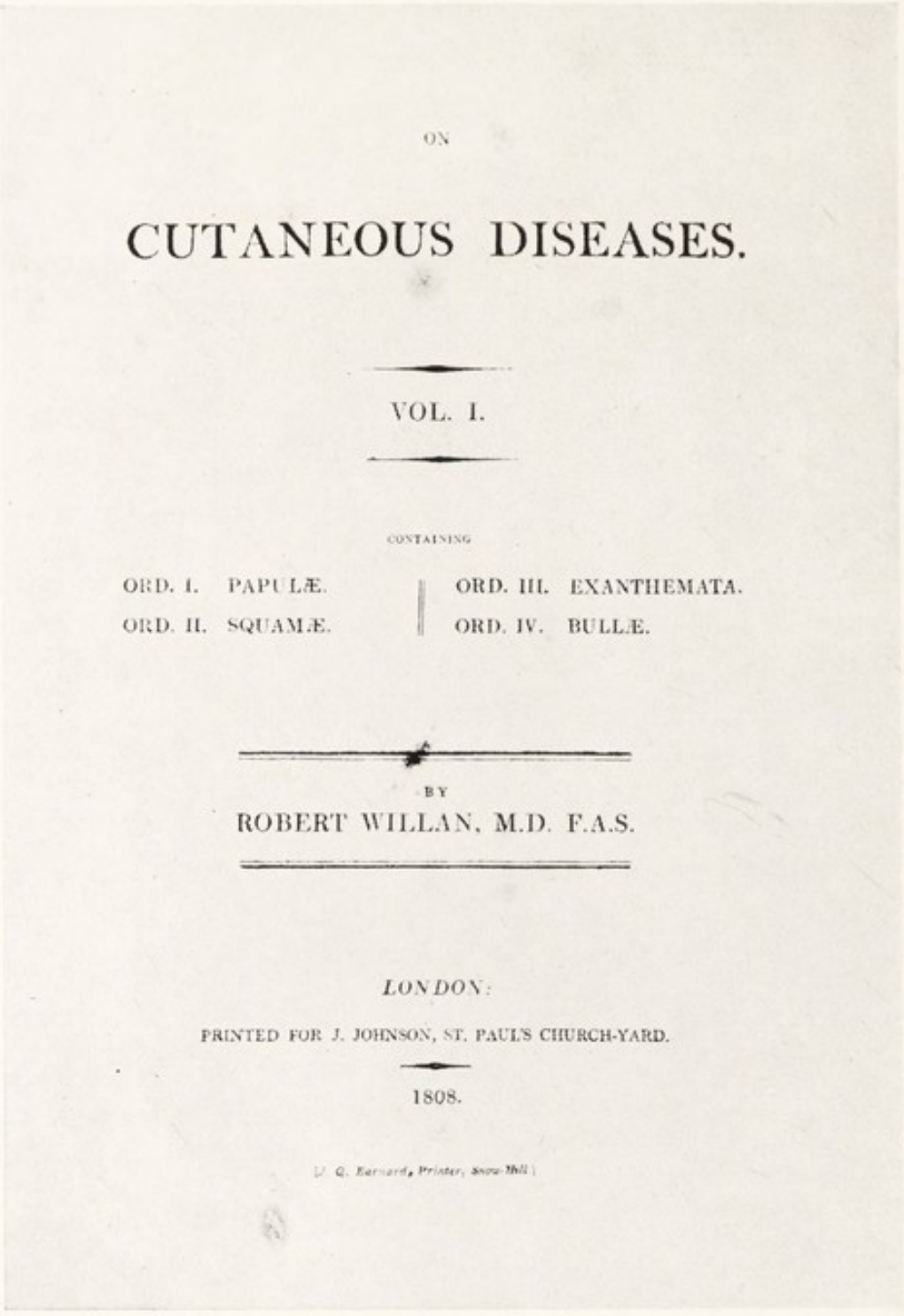
time he considers the skin as a living organ of the body, with a relationship to all its other organs. In the study of skin diseases he takes into consideration the innumerable factors that concern them; digestion and the gastro-intestinal tract, sexual life, mental states, food, air, climate, sunlight, and all habits and surroundings of life that effect the general physical well-being. He laid emphasis upon the toxaemias, and was the originator of the modern concept of the toxic dermatoses. He considered the influence of syphilitic and scrofulous conditions on skin diseases, and he was the first to suggest gout as a cause of skin diseases. He was the founder of the French doctrine of arthritisme, which has played so large a part in French dermatology. In spite of his emphasis upon the influences of the general health upon skin diseases, he did not fail to take into consideration local causes and did not overlook parasitic affections. This brief summary of the characteristics of Lorry's work indicates the originality of his mind and the advanced position which he took. His conception of skin diseases was the new, broad one that has been evolved so slowly, and is in line with that by which progress to the present time has been made. Whatever weakness and confusion there is to modern eyes in Lorry's work is not so much his defects as the defects of his time. He was a great dermatologist, the next great master in dermatology after Astruc, whose pupil he was. Lorry was educated in Paris, and it is a significant fact that he was a student of Astruc, whose influence is shown in Lorry's attitude toward the problems of medicine.

He had an encyclopaedic mind and wrote on many subjects in medicine other than dermatology. He was, during his life, one of the leaders of medicine.

F. B. De Sauvages (1706–67) is known for his *Nosologia Methodica* (Lyons, 1760), in which he made a classification based on external symptomatic characteristics. He was a careful clinician and gave a good description of eczema of the face in children. Retz of Amsterdam, in 1785, called attention to the fact that Sauvages had described a skin disease in China from the inhalation of the vapors of a varnish obtained from certain trees—a description of lacquer dermatitis. Jackson of England, in his *Dermopathology, or Practical Thoughts on the Pathology and Proximate Causes of the True Skin* (London, 1792), tried to classify skin diseases upon the basis of their pathology.[1]

Now we come to Robert Willan (1757–1812) of London, the accepted founder of British dermatology, who marks the beginning of modern dermatology. In 1785 he presented a plan for the classification of skin diseases before the Medical Society of London, which five years later was given the Fothergillian medal; Jenner received the same medal a few years later. Later he undertook the production of a treatise on skin diseases arranged on the plan of this classification. This appeared in parts from 1798 to 1808, under the title "Description and Treatment of Cutaneous Diseases," as volume one of his work *On*

[1] William Heberden, Sr., sharply distinguished chickenpox from smallpox, and made the very important point that one did not protect against the other (1767).



ON

CUTANEOUS DISEASES.

VOL. I.

CONTAINING

ORD. I. PAPULÆ.
ORD. II. SQUAMÆ.
ORD. III. EXANTHEMATA.
ORD. IV. BULLÆ.

BY

ROBERT WILLAN, M.D. F.A.S.

LONDON:

PRINTED FOR J. JOHNSON, ST. PAUL'S CHURCH-YARD.

1808.

W. Q. Barnard, Printer, Snow-Hill.

TITLE-PAGE OF WILLAN'S *CUTANEOUS DISEASES*

Cutaneous Diseases (London, 1808). His untimely death prevented the issuing of the second volume. This work of Willan's was translated into most of the languages of Europe and exerted an enormous influence. A not unimportant cause of its success was that in it Willan introduced for the first time many colored plates as illustrations, a feature that was adopted by most of his successors. He projected for himself in this treatise no less ambitious a project than the following:

1. To fix the sense of the terms employed, by proper definitions.
2. To constitute general divisions or orders of the diseases, from leading and peculiar circumstances in their appearance: to arrange them into distinct genera; and to describe at large their specific forms, or varieties.
3. To classify and give names to such as have not been hitherto sufficiently distinguished.
4. To specify the mode of treatment for each disease.

The great results of the efforts at classification and of Willan's emphasis upon the importance of clear definitions in the description of diseases was the final arrival at something like a uniform nomenclature of skin diseases. Up to the fifteenth century the names of skin diseases had been altogether indefinite. Their histories cannot be worked out under their names. It is only after that time that conception of diseases as morbid entities, to be definitely described and named, became established, and only then was there gradual development of definite descriptions and

names of diseases. It was this period of system building that promoted this, especially the influence of Willan. It is in the nineteenth century, after Willan, that skin diseases began rapidly to be described and named in the terms which we now employ.

Willan's classification was based upon the local features of skin diseases, and thus neglected essential relationships and was artificial. But his effort at classification was less primarily to systematize skin diseases than to define and describe them accurately. This was his great service. His studies led to a clearer conception of most of the dermatoses. But he did not stop here; he was a clinician of signal ability and hardly any master has given us more original observations in dermatology. He more clearly distinguished between the various forms of pruritus. He described more accurately psoriasis, sycosis, tinea versicolor (a name introduced by him and Sennert), various forms of erythema and ichthyosis. He first described herpes iris, purpura with visceral symptoms, and pompholyx (which he named). He sharply distinguished chickenpox from smallpox.

His greatest feat was his grouping of a great number of various forms of dermatitis under the generalization eczema. Eczema is a term which goes back to the early days of dermatology.[1] It was Willan's brilliant generalization which gave us our modern concept of it. Willan's concept was afterwards enlarged and confused, chiefly by the French, who eagerly

[1] Iwan Bloch, Der Alteste Gebrauch der Wortes Ekzem. *Monatshefts für Prak. Derm.*, **53**: 69. 1911.

grasped the generalization, but as the subject has been clarified dermatology has come more and more back to it.

Willan's generalization which gave us eczema is the first great one of a series which represents some of the most important services that have been done in simplifying and clarifying our knowledge of skin diseases. As we proceed we shall happily find a few other brilliant illustrations of the same sort: Hebra's establishment of the concept of erythema multiforme, Erasmus Wilson's lichen planus, Tilbury Fox's impetigo, Unna's seborrhoeic dermatitis, Duhring's dermatitis herpetiformis, Caesar Boeck's tuberculides and Brocq's parapsoriasis. Such generalizations which represent the attainment of a higher plane of knowledge are the fruits of the tedious accumulation of facts which precede them

For all of his interest in academic precision in dermatology Willan was an intelligent and practical student of etiology and therapeutics. He antedated Erasmus Wilson in preaching the religion of cleanliness. He gave due importance to the rôle of both external and internal causes in the production of skin diseases. He was one of the pioneers in emphasizing the importance of industry in producing skin and other diseases. Willan, one of the many distinguished men who have sprung from Quaker stock, was one of the founders and notable figures in the public health movement in England. He was greatly interested in smallpox as a public health problem. He was one of the most powerful supporters of vaccination.

Jenner said of his treatise on vaccination, "You cannot quote a better authority." His *Antiquity of the Small Pox, Measles and Scarlet Fever* edited by Ashby Smith after his death, was, in the words of Haeser, "epoch making."

Willan came to London in 1782, a young doctor, and the next year was appointed physician to the Public Dispensary in Cary Street where all of his public practice was done. He established there the bedside method of teaching. His quality as a teacher is indicated by such pupils as Bright, Addison, and Bateman; his quality as a man, by the fidelity with which his work was perpetuated by Bateman and Ashby Smith.

Until recently knowledge of Willan, the man, was meagre. No portrait of him was known to exist, and the chief source of information was Bateman's sympathetic but incomplete sketch. Fortunately the persistent labors of John Lane have unearthed much more complete information, and three authentic portraits of him. There is a temptation to linger over his attractive personality, but the story is available in Lane's sketches.[1]

Willan's reputation cannot be separated from that of his faithful associate, THOMAS BATEMAN (1778–1821).[2] Indeed Bateman furnishes a pleasing illustration of those occasional disciples who have mirrored the greatness of their masters. This Bateman did

[1] *Arch. Derm. and Syph.* **13**: 737, 1926; and **22**: 54. 1929.

[2] *Biography of Thomas Bateman in Roll of the Royal College of Physicians*, **3**: London: Wm. Munk.

brilliantly in his *Practial Synopsis of Cutaneous Diseases*.

Willan arranged diseases of the skin in eight orders: (1) Papulae, (2) Squamae, (3) Exanthemata, (4) Bullae, (5) Pustulae, (6) Vesiculae, (7) Tubercula, (8) Maculae. The significance of these orders is clearer if it is remembered that under them Willan includes the diseases characterized by these various primary lesions. In his *Cutaneous Diseases* he covered only the first four orders, thus leaving the latter half of his work uncompleted. The relation of the two men in Bateman's book may be summarized in about this way: the classification and the elaboration of the first half of Willan's eight orders are Willan's; the elaboration of the second half of the eight orders is Bateman's. Thus, therefore, in all that has been said of the service done by Willan in defining and clarifying dermatology, Bateman is entitled to a considerable part of the credit. For example, the notable establishment of eczema as a dermatosis is largely a result of Bateman's statement of Willan's views. Bateman promulgated Willan's views both in his writings and in his work at the Public Dispensary.

The relation that Bateman bears to Willan is best indicated in Bateman's own words. Referring to his *Synopsis* and to its relation to Willan, he says:

Its sole purpose is to present an abstract of the classification proposed by that respected author, together with a concise view of all the genera and species, which he intended that it should comprehend. The materials for the description of the first four orders

have been obtained principally from Dr. Willan's publication, of which the first part of this *Synopsis* may be regarded as an abridgement: some additional facts, however, have been supplied from subsequent observation. The remainder of the matter has been derived partly from personal experience and research, but principally from a constant intercourse with Dr. Willan, upon the subject of these diseases, during a period of ten years, while his colleague at the Public Dispensary, and from his own communications in his last illness, before he departed for Madeira, when he kindly undertook a cursory perusal of his unfinished MSS. for my information, during which I made notes relative to those points with which I was least acquainted. For it was, in fact, his wish, that the profession should possess a sketch of the whole of his arrangement, even when the completion of his own treatise, though distant, was not without hope.

Bateman's two important works in dermatology are: (1) *A Practical Synopsis of Cutaneous Diseases*, according to the arrangement of Dr. Willan, which went through many editions (at least seven) with two printings in America, and was translated into French, German, and Italian. (2) *Delineations of the Contaneous Diseases comprised in the classification of the late Dr. Willan*, in one volume, 4to, with upwards of seventy colored plates. This Atlas in spite of its price of sixty-five dollars went through almost as many editions and was translated into German.

Bateman wrote upon medical subjects other than dermatology, but after Willan's death in 1812, he became the representative dermatologist in London, and his practice became largely dermatology. He, like

Willan, was a Yorkshireman, and also like him was a quiet, modest, scholarly man who gained a high position in London medicine. There is a *Life of Thomas Bateman* by J. R., the second edition of which was published in London in 1827.

Willan and Bateman's disciples appeared all over Europe. In the British Isles, Jonathan Green, John Wilson, Neligan and Plumbe; in Italy Chiarugi of Florence (1759–1822); in France, Biett, Cazenave and Schedel; in Germany Klaatsch, (1824), Schreiver (1836) and Puchelt, Heidelberg (1836); in Spain, Alfaro, Madrid, (1840). With some of these the influence of Biett is quite as clear as that of Willan.

The efforts at classification remained a serious activity until the knowledge of skin diseases arrived at a point where Hebra could make a classification on a pathological basis that has since proved fairly satisfactory. The classification was an effort to bring order out of confusion that existed from the vast accumulation of uncoördinated knowledge. This effort at coördination and Willan's attempts at precise definitions of dermatological terms led not only to a sharper delineation of dermatoses, as shown by the many diseases that were described and a better comprehension of the essential relations and differences, but it had much to do with laying the groundwork for the rapid upbuilding of dermatology that came with the new increase of exact knowledge of the material world and in scientific instruments for its study. As a result dermatology was in a position immediately to utilize the new discoveries of science and in-

vention as soon as they became available. Before the end of this period, indeed, a new movement was beginning, and we can turn now to the more obviously positive progress that characterized dermatology after the first quarter of the century, when the impulses aroused by Lorry and Willan commingled to start the modern stream of dermatology.

Chapter V

THE THRESHOLD OF MODERN DERMATOLOGY. CLINICAL DERMATOLOGY

1800–1850

THE first part of the nineteenth century is the threshhold of modern medicine; and before considering dermatology in this period it may be well to orient oneself afresh by reviewing briefly the state of knowledge of that time.

Science and invention in the last one hundred years have reaped the harvest of the Renaissance. And yet in 1825 no one could have foreseen it. Modern science was just beginning to declare itself. Mathematics and astronomy were the only sciences that had reached a state resembling maturity. Of the three great generalizations that underlie all science, Newton's law of gravitation, Joule's law of the conservation of energy, and Darwin's principle of evolution, only the law of gravitation had been worked out. In chemistry, upon which, after the biological sciences, medicine is most dependent, only the beginnings had been made. The discoveries of hydrogen (Cavendish, 1766), of nitrogen (Rutherford, 1772), of oxygen (Priestly, 1774), the application of the balance in chemistry and the foundation of quantitative chemical analysis (Lavoisier), represented the peaks of achievement in chemistry. Dalton had not

yet given us the atomic theory, upon which modern chemistry is built. Wöhler had not yet synthesized urea, the very beginning of organic chemistry, and without organic chemistry modern advancement in medicine is impossible. Liebig (1825) had not yet opened the way to physiological chemistry. The physics of light, heat and electricity hardly showed any inkling of the amazing advancement of the next century. The modern biological sciences were unborn. Von Baer had not shown that man, as all mammals, develop from eggs (1827) and founded modern comparative embryology (1828). Schwann had not yet demonstrated the cellular structure of all living tissues (1839), and Virchow's (1858) cellular pathology came after the middle of the century. Beaumont had not yet published his experiments on digestion (1833), and Johannes Müller had not inaugurated modern physiology (1837–1840).

The steam engine had begun the modern industrial revolution, but the discoveries and inventions that have come from the utilization of modern science were nearly all to come. The inventions that have made travel quick and messages instantaneous, and have done so much for science by making the exchange of knowledge easy, had not been made. The horse was still the most rapid means of transportation. The telegraph was not introduced until 1836. It was only about the middle of the nineteenth century that the improvements were made that overcame the defects of spherical and chromatic aberrations of the compound microscope, and made it the

modern instrument of precision for the examination of minute bodies.

Medicine had done well; through a long line of great investigators such as Vesalius, Paré, Harvey and Jenner, it had carried its knowledge as far as could be done, but it was still collecting and coördinating facts. Charles Bell had not demonstrated the difference between the motor and sensory nerves, nor Marshall Hall the reflex functions of the cord. Claude Bernard had not discovered the vasomotor system and suggested its enormous importance. Bichat had lately indicated the possibilities of pathological and normal histology. Laënnec had just discovered the stethoscope and Corvisart emphasized the importance of Auenbrugger's percussion. The revolution that Pasteur wrought, and anesthesia and aseptic surgery which were essential for precise animal experimentation and without which progress in medicine beyond a crude state is impossible, were in the future.

Sedgwick and Tyler have said of physics and chemistry at this time, "General physics and chemistry were still in the preliminary state of collecting and coördinating data, with attempts at quantitative interpretation, while in their train the natural sciences were following somewhat haltingly." The statement was true of all science. Men were investigating nature under the same limitations that had restricted them since the beginning of civilization. It was the next fifty years that produced the momentous insight into matter and force that has resulted in the scientific

revolution. This is a good place to reflect upon this in considering the history of our special field.

The spirit of the French Revolution, in spite of such atrocities as its murder of Lavoisier, was favorable to the cultivation of science, and in the years following it France became the greatest theatre of scientific activity. In medicine and biology, under the leadership of such great men as Lamarck, Bichat, Cuvier, Louis and Laënnec, France became preëminent, and, after Willan and Bateman's time, preëminence in dermatology also went to France. On November 27, 1801, the old St Louis Hospital was made a dermatological hospital, and this enlightened step was probably in large part responsible for the rapid rise of French dermatology. It furnished a center for dermatological study with a vast material which French medicine was in a spirit and had the capacity ably to utilize, and its success stimulated the establishment of other centers of dermatological interest in Paris and in the Provinces.

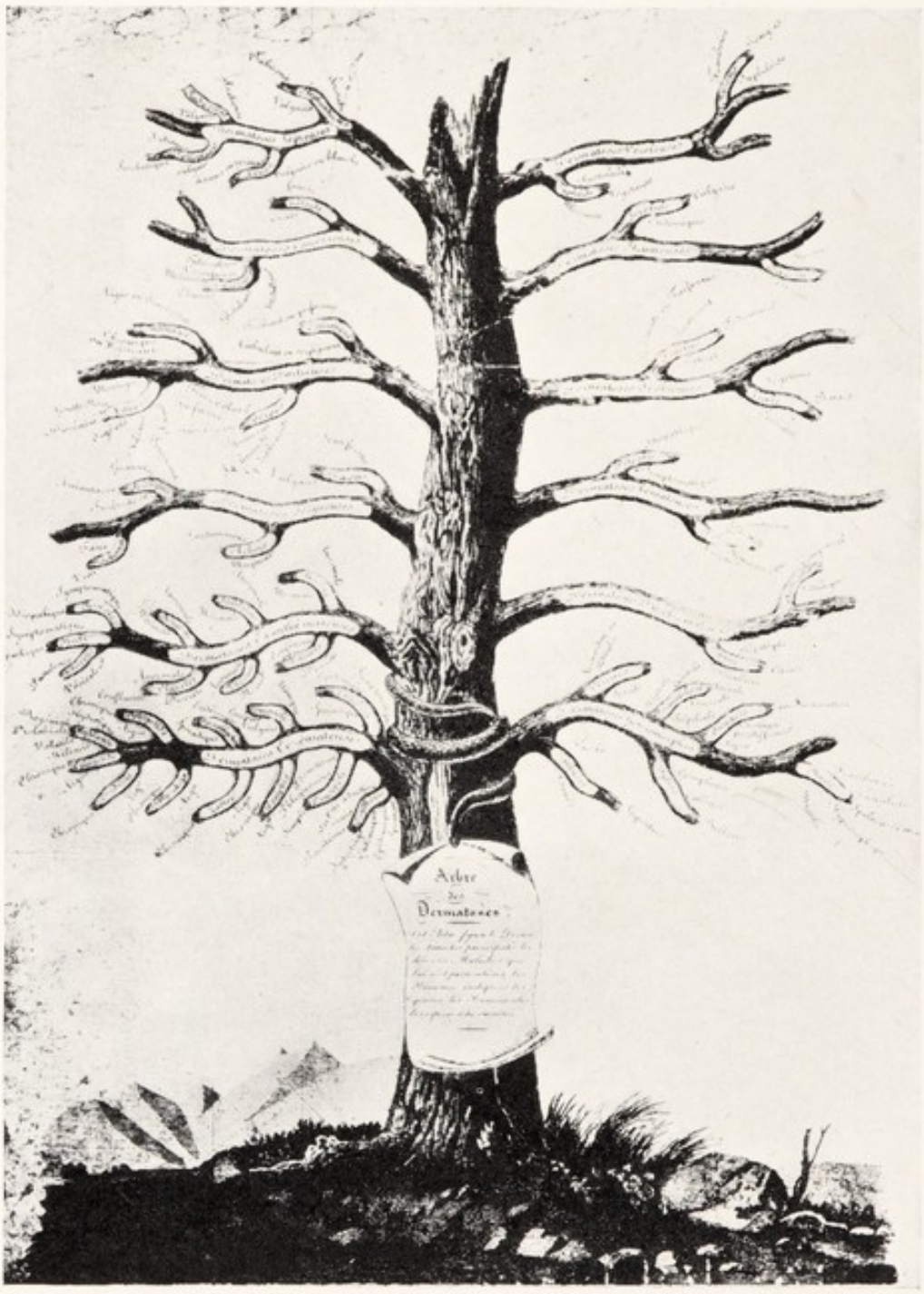
Chiefly around St Louis Hospital there developed a group of masters who gave a prestige to French dermatology, including syphilography, which was unchallenged until the middle of the century, and which has continued until the present day, Alibert, Biett, Cazenave, Rayer, Gibert, Devergie and Bazin, with their associates, following the road indicated by Willan, gave new precision to clinical dermatology and greatly enlarged its knowledge.

The first of these, J. L. B. Alibert (1768–1837), through his high position in France, was probably re-

sponsible for making St. Louis Hospital a hospital for skin diseases. Few services have been more valuable to the progress of dermatology. He was made physician for skin diseases in 1803, and first systematically taught dermatology in France. In the main he was

J. L. B. ALIBERT
(From a pastel in 1835)

a follower of Lorry, and he studied dermatoses from the standpoint of their essential features. Although loose in his nomenclature he had the French characteristic of close observation of minute details. He first described mycosis fungoides and named it. He



ALIBERT'S *ARBRE DES DERMATOSES*

first clearly described and recognized the character of keloid. In practice he was a sound dermatologist, but classification became a passion with him and his *Nosologie Naturelle* from which he developed his "Arbre des Dermatoses" remains merely one of the curiosities of dermatological history. Alibert performed a great service in firmly establishing the position of French dermatology through his strong personal influence. He was one of France's distinguished citizens. He was made a baron; one of the wards of St Louis Hospital and one of the adjacent streets bear his name. He has been the subject of numerous French sketches and of a biography by Brodier.

Equally important with Alibert as the founder of French dermatology is Laurent Théodore Biett (1781–1840). In contrast to Alibert, the personality, Biett was the scholar. First a protégé of Alibert, Biett was put in charge of the out-patient department of St Louis Hospital in 1814. In 1816, while travelling as a physician to a French plutocrat, he was in London and utilized the opportunity of studying under Bateman. Returning to France he impressed the teachings of Willan and Bateman upon French and Continental dermatology. He brought to dermatology a wide and deep knowledge of general medicine and pathology, which shows in his attitude towards dermatology. He for the first time did the important service of describing the various syphilides. He described lupus erythematosus and was the first to record the frequency of fatty degeneration of the liver in pemphigus. Therapeutics was beginning

to get more attention at this time and Biett made many important suggestions in this field. He popularized iron and arsenic in skin diseases and is given credit for introducing the Asiatic pill. He introduced the protiodide and biniodide of mercury in the treatment of syphilis. He was an advocate of baths, especially sulphur baths, and of the use of warm air sprays in skin diseases. Like Alibert he had a commanding position in the social and professional life of Paris. Reserved and quiet, and without the oratorical attractions of Alibert, he was a popular teacher whose lectures were clear, concise and illustrated from his extensive knowledge. His great contribution to French dermatology was his scientific attitude.

Following the eminent position given dermatology by Alibert and Biett there developed a group of able dermatologists who were nearly all students of Alibert and Biett; Cazenave, Gibert, Devergie, Rayer, Hardy, Bazin and other able but less famous men, such as Lugol, who contributed to the knowledge of tuberculosis and other constitutional diseases as affecting the skin, Caillault (1859) *Skin Diseases in Children*, and Baumes (1791–1871) who was largely responsible for impressing upon French dermatology Lorry's views of the importance of diathesis in dermatology.

P. L. A. Cazenave (1802–1877) with his collaborator Schedel, in his *Manual of Diseases of the Skin* (1828) recorded Biett's teachings of dermatology, which Biett had not systematically done, as Bateman did Willan's. This treatise published in English

in London in 1842, had an important influence on English dermatology. Cazenave in his service at St Louis Hospital did much to increase the detailed knowledge of skin diseases. He first described pemphigus foliaceus (1850); made important studies in lupus erythematosus and gave it the name lupus erythematodes (1851), and he was the founder of the first French journal of dermatology, *Annales des Maladies de la Peau et de la Syphilis*, (1843–1852).

Pierre Francois O. Rayer (1793–1867) is a distinguished figure in comparative medicine and pathology as well as in dermatology. His *Traité Théorréique et Pratique des Maladies de la Peau* (Paris, 1827), translated into English in 1835, well illustrates the advance in dermatology since the time of Willan. It is one of the classical summaries of dermatological literature of the period, with one of its notable features the scholarly comments on the histories of skin diseases. He was an investigator of high rank. He analyzed the elementary lesions of the skin, studied the histology of the vesicles of herpes zoster and variola, and described adenoma sebaceum. His demonstration (1837) by a series of animal experiments that glanders is contagious and that it is a specific disease and not a form of tuberculosis is one of the landmarks of bacteriology. Another landmark in internal medicine was his *Treatise on Diseases of the Kidneys, with an Atlas*, 3 volumes, 1839–41. Rayer's fame thus rests upon the solid foundation of classical contributions in dermatology, internal medicine and comparative medicine. He and Bazin have the dis-

tinction of being the greatest figures in French dermatology. In the greatest period of French medicine he was one of the most famous physicians and one of

PIERRE FRANCOIS O. RAYER

the distinguished citizens of France. He was personal physician to Louis Philippe and Napoleon III; a Grand Officer of the Legion of Honor, 1833; a member of the Academy of Science, 1843; Dean of the

Medical Faculty; and in 1857 he succeeded Magendie as president of the Consulting Committee on Public Hygiene of the City of Paris. Unlike most of the other French masters in dermatology, who were at the St Louis Hospital, Rayer's work was done at the Charité. Among his students were Villemin, Davaine, Tardieu and Charcot. There is a biography of him by Menetrier.

Camille Melchoir Gibert (1797–1866), was also a pupil of Biett, and a contemporary of Cazenave at the St Louis Hospital, where they continued to advance the traditions of their master and of Willan. His *Manual of Skin Diseases*, three editions, 1834 to 1860, his *Manual of Venereal Diseases* in 1837, and his *Memoir on Syphilis* in 1847, established his fame. Gibert and Devergie and Bazin, his contemporaries at St Louis Hospital, are illustrations of the vivid perpetuation of names by the chance of having eponyms attached to them. Gibert's name is constantly associated with pityriasis rosea, as Devergie's is with Devergie's disease and Bazin's with erythema induratum. Why more than Rayer's with adenoma sebaceum, or Alibert's with mycosis fungoides, or Tilbury Fox's with impetigo contagiosa, would be hard to say; it is one of the tricks of history. It is of course altogether deserving in Gibert's case, as in the others, for he established for all time pityriasis rosea as a definite clinical syndrome, separating it from psoriasis and scaling secondary syphilids by a description photographic in its accuracy and completeness. Equally important with his clinical contribu-

tions were his contributions to the therapeutics of dermatology. His name has been preserved by another eponym: Gibert syrup, a mixture of biniodide of mercury and potassium iodide, long used in the treatment of syphilis. He studied and wrote extensively upon the use of mercury and iodides in the treatment of syphilis, and mercury and arsenic in the treatment of skin diseases, and made many valuable therapeutic suggestions. He promoted the study of histopathology and was one of the first to accept the importance of parasites in skin diseases. He was a member of the Academy of Medicine, in his election to which it is rather curious to note that he defeated the great Trousseau.

Alphonse Devergie (1798–1879) succeeded Biett at St Louis Hospital. He made his impress upon French dermatology chiefly as a teacher and through his treatise on diseases of the skin, published in 1857. His name is particularly fixed in dermatology by his clear definition of pityriasis rubra pilaris (Devergie's disease). He did a great service as one of the founders of the dermatological museum of the St Louis Hospital.

French dermatology reached its zenith, to use Brocq's term, in Ernest Bazin (1807–1878). He came on the staff of the St Louis Hospital, with Devergie, Cazenave, Gibert and Hardy as his colleagues. He first undertook a thorough study of scabies. He determined that the acarus was scattered over the entire body, and established effective methods which revolutionized treatment in the hospital.

He was prompt to recognize the rôle of the parasites in ringworm and favus, and carried out their treatment by epilation—introduced by Plumbe—followed by parasiticides. By his revolutionary work in the treatment of scabies, favus and ringworm he established himself as the chief of the St Louis school. Under the name acne pilaire he first described acne varioliformis (1831). He described acne keloid, which Kaposi later described as dermatitis papillaris capillitii. According to Brocq he first described hydroa vacciniforme, and recognized the seborrhoeic skin and seborrhoeic dermatitis, later definitely established by Unna. In connection with his lectures on scrofula he described erythema induratum, Bazin's disease, which he regarded as commonly of scrofulous origin. He emphasized the importance of external irritants in skin diseases. He advanced the knowledge of syphilis of the lungs, the kidneys and the liver, and in his insistance upon the importance of the rôle of syphilis in organic diseases he preceded Fournier and his school. Indeed Gaucher claimed, not with great extravagance, that "Bazin had described all or almost all of the existing skin diseases, even those which were invented after his death." Bazin was the forerunner of Unna in realizing the importance of the application of the natural sciences to the problem of dermatology, both because of the light which they might throw upon the processes of disease, and of the usefulness of their methods in the treatment of skin diseases.

Alfred Hardy (1811–1893) and Bazin were con-

genial colleagues, from the days of their internship at St Louis Hospital. Hardy was first physician to St Louis Hospital and later to the Charité Hospital. He was among the first to support Bazin's idea of the parasitic cause of skin diseases, and of Bazin's teachings of the importance of the relation of systemic diseases to those of the skin. He first described pigmentary syphilide; he clearly described tuberculous ulcers of the skin, which he called phlegmonous scrofulide, several unusual forms of lupus vulgaris, scleroderma, bromide eruptions. He grouped as cutaneous trichophytosis, tinea tonsurans, tinea circinata and tinea sycosis.

While these men are described as successors, they were to a large degree contemporaries. Bazin and Hardy, for example, the last of the group, were students of Alibert and Biett. Their combined studies and teachings along with those of their disciples, mark the establishment of modern clinical dermatology. They brought clearness out of confusion in the nosology, nomenclature, symptomotology and diagnosis of skin diseases. They defined the concepts and confirmed the names of most skin diseases as we know them today. They established as syndromes many diseases hitherto unknown. They gave a new importance to the objective study of the minute features of skin diseases and a new precision to diagnosis. They added to the realization of the importance of the skin as a mirror of the body as a whole to use the expressive phrase of Martin Engman. They were pioneer exponents of the importance of

anatomical pathological and bacteriological study of skin diseases. They were masters in French medicine. Further it must be remembered that only a convenience of description necessitates a description of French dermatology or any of the schools as a separate movement. Its clinical progress is emphasized because the work of the French school in developing modern clinical dermatology is a fact of the first importance in the history of modern dermatology. But French dermatology shows abundantly the effect of the growth of dermatology elsewhere. As early as 1853 Cazenave's teachings recognized the importance of Hebra. Just as we shall see that Hebra was greatly influenced by Bazin and French dermatology, so Bazin was influenced by the work of Hebra. Bazin also was one of the first to recognize the significance of the discoveries in mycology of Schönlein and Remak, and it was in France that the remarkable work on the tricophytons was done by Gruby.[1]

The work of the French in syphilis in the first half of the nineteenth century is one of the brilliant achievements of French medicine. France, and France almost alone, was responsible for the epochal advances in the knowledge of syphilis that cleared up the confusion in which syphilis had been left at

[1] An interesting and easily available introduction to the history of French Dermatology is found in a series of papers by B. Barker Beeson in the *Archives of Dermatology and Syphilology:* Bazin, Dec. 1929; Hardy Jan. 1930: Devergie June 1930; Rayer Nov. 1930; Ricord Dec. 1930; Gruby Jan. 1931. A survey of the whole has been made by L. Brocq, *La Presse Médicale*, **11**: 101–105. 1903.

the end of the eighteenth century. And this is a part of our subject, but for the sake of continuity it will be taken up with the further history of syphilis.

The work of Willan and Bateman in England, and of Biett and Rayer and the French school, greatly influenced the trend in dermatology in England and Germany through many followers who made efforts at classifications and contributed to the study of clinical dermatology. In England W. C. Dendy wrote a treatise on *Cutaneous Diseases Incident to Childhood* (1827) and *Remarks on Skin Diseases* (1828); Jonathan Green, *A Practical Compedium on Diseases of the Skin, with illustrative cases* (London, 1835); A. T. Thompson, *Communications on Diseases of the Skin* (London, 1839); J. N. Neligan, Dublin, *Practical Treatise on Diseases of the Skin* (1852). These were all scholarly contributions to dermatology; most of them were widely distributed through the English-speaking world and were influential in establishing the position of dermatology. The most important of the English dermatologists of this time was Samuel Plumbe, who wrote a *Practical Treatise on Diseases of the Skin* (London, 1837). He gave a scholarly review of the pathological anatomy of the skin, and Bloch gives him high rank in dermatopathology. He first suggested epilation for tinea tonsurans.

In Germany Willan's work was spread through a translation and through manuals patterned after him, such as Klaatsch's tabular sketch of skin diseases according to Willan's System (Berlin, 1824), and Schreiner's diagnostic tables according to Biett's

system (Berlin, 1836), and Puckelts' tables of skin diseases in tabular form (Hiedelberg, 1836). L. A. Struve in his *Synopsis of Skin Diseases*, published 1829, after his death, with historical introduction and colored illustrations, spread Rayer's doctrines, but used a botanical classification. Peter Frank (1745–1821) and Joseph Frank (1771–1842) undertook still another classification, the acute and chronic dermatoses. The work of Joseph Frank is valuable for his critical consideration of previous authors. Schönlein (1793–1864) and his pupil C. H. Fuchs (1803–1855) undertook still another botanical classification, and established what they called the natural history school. We know more of this from Fuch's writings, which he dedicated to Schönlein, than from the writings of Schönlein himself. Isensee (1807–1845), *New Practical Description of Skin Diseases*, attempted to carry Fuchs' system into elaborate subdivisions. Fuchs' work (Gottingen, 1840–41), was important through his consideration of the historical and geographical factors of dermatoses and his able description of certain diseases, notably the scrofulous diseases, and of his original and intelligent efforts at a rational therapy. He first described erythema gyratum.

So the study of clinical dermatology continued up to the middle of the century. The conscious effort was largely at classification, but the chief benefit was the minute study of the objective details of skin diseases which the attempts at classification entailed. It is easy to belittle the efforts at classification and

systematization and to underestimate their value. The combined work of the world in this field resulted in the concepts of skin diseases which we now hold and which are necessary for the further growth of knowledge in dermatology.

Chapter VI

THE THRESHHOLD OF MODERN DERMATOLOGY. LABORATORY DERMATOLOGY

1800 to 1850

IN THE meantime, while clinical dermatology was bringing order out of confusion, there was the beginning of a new era through laboratory study of the anatomy and pathology of the skin and of its microparasitology. There had been, of course, work in the field since the days of Morgagni and Malpighi, but it was only in the beginning of the nineteenth century that its fruitfulness began to disclose itself. With better technical facilities, there was a rapid development of the knowledge of the anatomy and physiology and pathology of the skin and of the etiology of skin diseases that was significant of the revolution of knowledge that was soon to come.

Eichhorn (1826) in Germany, recorded the distribution and number of sweat glands in various parts of the body, and considered the method of sweat excretion. Weber (1827) and Purkinje and Wendt (1833) elaborated further the knowledge of the epidermis, corium and hair follicles. Breschet and Roussel de Vauzene (1835) described the anatomy of the sweat glands. They and Purkinje discovered the ducts and coils of the sweat glands, without however seeing the connection between the two. Gurlt (1835)

on the basis of these studies and his own, gave the first accurate description with drawings of the sweat glands. These investigations were summarized by Flaurens in his *Anatomie Générale de la Peau* (Paris, 1843). Jakob Henle (1809–85) studied the anatomy of the hairs and described the two sheaths of the root of the hair, of which the outer is known as sheath of Henle (1840). He and Kölliker (1844) described the Pacinian corpuscles. Kölliker discovered the smooth muscle fibers of the skin, the erectores pilorum, and their relation to the hair follicles. Weber in 1834 had studied carefully the whole subject of the touch sense of the skin. Pacini (Florence, 1812–1883) in 1835 rediscovered and more accurately described the Vater-Pacini corpuscles. Pappenheim in 1846, and Herbst in 1847, also studied the sensory organs of the skin. Meissner and Wagner discovered the touch corpuscles in 1852–53. Gerlach studied sweat secretion, and Favre and Schottin studied the composition of sweat. Toward the middle of the century these microscopic studies of the skin were carried forward through notable investigators, G. Simon, von Bärensprung and Julius Rosenbaum. These men not only made original contributions, but summarized the contemporary knowledge of the histopathology of the skin, and by emphasizing the importance of the subject established its place more firmly in dermatology.

Gustav Simon (1810–57) reviewed the entire subject of the histopathology of the skin, and wrote on the structure of condylomas and warts, pigment formation of the skin and the development of hairs,

and first described the acarus folliculorem. He advanced the comprehension of eczema.

Felix von Bärensprung (1822–64) was made professor in Berlin in 1853, on Schönlein's recommendation. In 1848 he published his work on the permeability of the skin to mercury. He described eczema marginatum in 1855. He gave the clinical description of erythrasma, and confirmed the fungous cause of the disease. He made important contributions to pemphigus (1862), xanthoma (1865), and in his famous work on herpes zoster he determined the very important fact that it was a disease of the spinal ganglia (1861). Von Bärensprung must be regarded as one of the brilliant workers in dermatology. His *Treatise on the Anatomy and Pathology of the Human Skin*, published early in his career, had a very important place in the progress of dermatopathology. His treatise on skin diseases, left unfinished because of his death at the age of 42, is one of the classical texts on dermatology. Von Bärensprung was also an important investigator in syphilis. In 1860 he formulated his famous dualistic theory of chancre, that the soft and the hard chancre were specific and distinct.

Julius Rosenbaum of Halle (1807–74) wrote an important work on the histopathology of the skin which emphasized the importance of the structure and functions of the skin in the study of its pathology.

As important as were the results of this increased interest in the minute study of the anatomy and pathology of the skin, they were less significant of the progress of dermatology and of medicine generally

than those which came from the study of the parasitic causes of skin diseases. There had long been a vague impression of a *contagium vivum*, a living cause of skin diseases. Girolamo Fracastoro (1484–1553), famous for naming syphilis, but entitled to fame for many better reasons, in his *De Contagione* (1546) clearly suggested micro-organisms as the causes of infectious diseases. Hauptman (1607–74) of Dresden, and Lange (1619–72) of Leipzig, had suggested parasites as the causes of skin diseases; Hauptman that all skin diseases were caused by parasites. These hypotheses had been strengthened and given interest by Leeuwenhoek's remarkable observation of the infusoria (1675). The ravages of pediculi and other vermin had been known from earliest times. The acarus of scabies had been known for centuries, and although its role in the disease which it accompanied had not been conclusively demonstrated, scabies furnished an illustration of a disease generally accepted as due to an organism living in the substance of the skin. But pediculi and itch mites were animal parasites of highly organized structure. It was another thing to appreciate that diseases might be produced by microparasites that were almost structureless, and it was a revolutionary discovery to demonstrate this fact. This gave momentous significance to the discovery by Schönlein in 1839 that favus was due to a fungus. In 1835 Bassi and Balsami, in Italy, discovered that muscardine, a contagious disease of silkworm, was due to a fungus, and this immediately stimulated interest in certain scaly contagious dis-

eases of the skin. Schönlein set out to study favus in the light of Bassi and Balsami's discovery, and in 1839 announced the discovery of its organism.

Schönlein communicated his discovery to Johannes Müller, in a letter accompanied by remarkable illustrations, which Müller published in his *Archiv für Anatomie und Physiologie*, under the title "Zur Pathologenic der Impetigenes." Schönlein says:

We know of Bassi's researches on the true nature of muscardine. These discoveries of Bassi seem to me to be of the greatest importance in pathogenesis and for this reason I sent to Mailand for silk worms suffering from Muscardine. My researches confirm the work of Bassi's as well as Audouini's, and further I have made some discoveries of my own. On this account I was reminded of the plant-like nature of some of the impetigenes, a view which formerly gained quite a foot-hold due to the work of Ungers on Plant Exanthams. Since I luckily had several cases of porrigo lupinosa (Willan) in the hospital, I made some careful investigations and already the first investigations left no doubt as to the fungus nature of the so-called pustules. Enclosed is a microscopic drawing of a piece of a pustule. At the same time I am enclosing a thin piece of one of the pustules. I am doing some further researches, the results of which I believe I shall publish.

But he made no further reports on the subject. He turned the work over to his assistant, Remak—the great Remak—who brilliantly justified the confidence by cultivating the organism on apple and reproducing the disease on his own arm. Remak gave

to the organism the name Achorian Schönleinii, in honor of his master.

Schönlein and Remak's demonstration in the skin of a disease produced by a micro-organism is the beginning of microparasitology. It was the first impressive illustration, of which there have been many since, that the skin offers the most promising field for the study of disease, because it furnishes unique opportunities for observing disease in living tissues in their normal surroundings.

JOHANN LUCAS SCHÖNLEIN (1790–1864),[1] in spite of his rather fanciful "natural history" school of classification of skin diseases, was a pathologist and an investigator of the first rank, a very able clinician, a leader and teacher who inspired his disciples, and a man of independent and original mind. In his clinic at Berlin he first substituted German for Latin in his lectures. He introduced chemical examinations of the blood and urine, the use of the miscroscope in clinical examinations, and auscultation and percussion to Germany. He first described triple phosphates in the excreta of typhoid fever. He suggested the name typhus abdominalis and typhus exanthematicus and haemophilia. In a contribution of only twenty lines he first described purpura rheumatica. He was one of those great men who wrote little, and who, after he had made an original investigation, was ready to turn over its further study to others. We have seen how his classification of skin diseases is known to us chiefly

[1] Rudolph Virchow, Biography of Schönlein in *Gedachtnisrede auf Joh. Lucas Schönlein.* Berlin, 1865.

through the writings of Fuchs, and how after the discovery of the fungus of favus, he turned the subject over to Remak for further development.

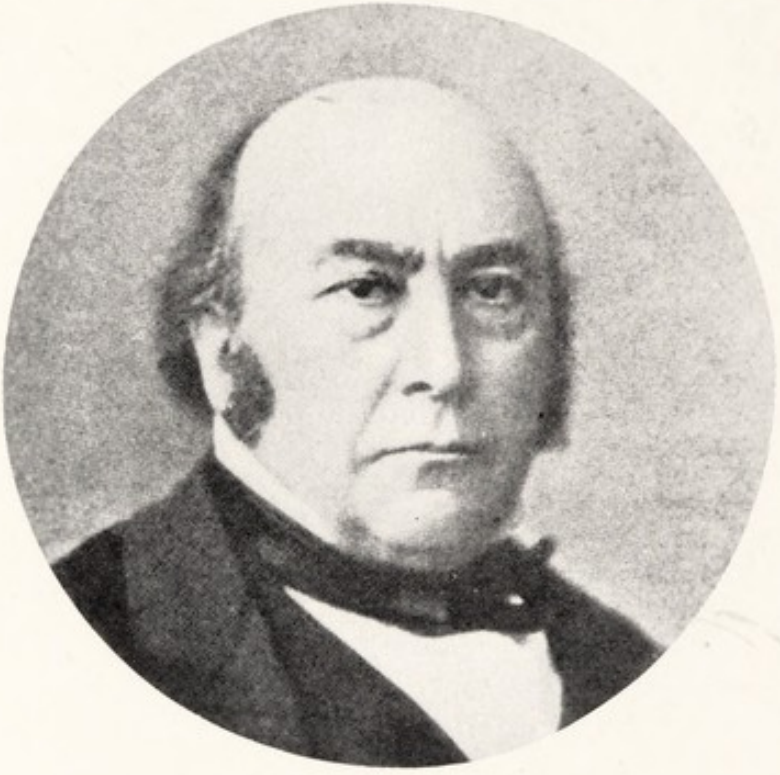
Work in this field equally as brilliant as that of Schönlein and Remak was done by DAVID GRUBY

JOHANN LUCAS SCHÖNLEIN

(1810–98).[1] He independently discovered favus two years after Schönlein in 1841. He found the fungus in thrush in 1842. He in 1843 and Malmsten independently in 1846, described the organisms of tinea ton-

[1] Theodore Rosenthal, Biography of David Gruby. *Ann. M. History*, July, 1932.

surans. Between 1843 and 1846 he made remarkable investigations in ringworm, during which he discovered the multiplicity of varieties of the organism and described the trichophytons ectothrix and endothrix and the microsporon Audouinii, which he named after the botanist. He described fungus in the



DAVID GRUBY

hair shaft in tinea tonsurans, and the collection of fungi around the hair shaft in ringworm of the beard. Gruby with the crude microscope of his time foreshadowed the modern work in the trichophytons, but his discoveries were forgotten until Sabouraud called attention to them and credited Gruby with first having done the work which he so ably repeated and elaborated. Gruby,[1] a Hungarian Jew, a graduate of

[1] J. H. Rille, *Dermat. Wachschr.*, **82**: 512. 1926; B. Barker Beeson, *Arch. of Derm. and Syph.*, **23**: 141. 1931; *Arch. M. History.*

Vienna and a pupil of Rokitansky and Barres, was not less than a genius. Surmounting the difficulties of the grinding ordeal of poverty and religious prejudice to obtain his academic and professional education, his possibilities of advancement blocked in Vienna by religious prejudice, he made his career in Paris. Gruby's work was neglected or opposed by most of the men in Paris. That perhaps accounts for the fact that he ended his brilliant scientific career before he was forty. Bazin, who confirmed Gruby's findings (1853), and Hardy alone accepted Gruby's work.

To complete this account of these remarkable discoveries: Eichstedt in 1846 discovered the organism of pityriasis versicolor (microsporon furfur), and in 1862 von Bärensprung discovered the organism of erythrasma (microsporon minutissimum). It may be added that Virchow gave the name mycosis and dermomycosis to this class of diseases due to fungi.

The efforts of this period had accomplished several things: the work in nomenclature, nosology and symptomatology of skin diseases had made clinical dermatology definite and precise in most of its concepts. The study of the functions and of the minute structure of the skin had given a new comprehension of skin diseases. The discoveries in parasitology gave an intimation of the importance of this subject in the etiology of skin diseases. These advances were the precursors of the modern period in dermatology which may be said conventionally to begin with Hebra in the middle of the nineteenth century.

Chapter VII

MODERN DERMATOLOGY—FIRST PHASE

1850–1900

CONTINENTAL EUROPE

IT IS hard to see one's own period in proper perspective, but it seems safe to say that the future will find that the middle of the nineteenth century marks the beginning of a new epoch in medicine. It is unnecessary to recite here the discoveries in anaesthesia, bacteriology and the development of methods of precision which brought the revolution about between 1850 and 1890.

The work in the anatomy of the skin and in microparasitology had stimulated thought in these fields, and dermatology was ready for the new period. Indeed it is not too much to say that the work in microparasitology in skin diseases pointed the way for the new period. But, at the time, the progress made in minute anatomy in turning attention to histopathology of the skin was most influential upon the course of dermatological thought. Later, after the discoveries of Pasteur and Koch, interest in dermatology turned toward bacteriology. This period in dermatology is really that of histopathology and bacteriology. With this new phase in dermatology, leadership passed from France to central Europe. German-speaking people had introduced the laboratory in the

study of medicine, and had demonstrated its usefulness. The rapid advance of Germany to leadership in medicine is to be attributed in large degree to the educational system of Germany and the inclusion of medicine in its system of university organization. Germany first showed the world the advantage that came to medicine from associating it with the natural sciences as an integral part of its universities and from giving it the opportunities for the application of the methods of scientific research that the natural sciences were developing. The great German hospitals became in effect university laboratories for research in medicine, with the largest opportunities for study by scientific methods of all the problems of medicine. The application of the laboratory method to the study of disease is perhaps the chief contribution of the German system to medicine. In its importance it is comparable to the contribution of the scientific method by the Greeks. It should be said that in speaking of the German method and the German universities I have in mind their system rather than necessarily German personnel, for the system extended beyond the geoegraphical limits of Germany, and was not necessarily always in German hands: For example, in Vienna, Rokitansky and Skoda, were Bohemians, Semmelweiss a Hungarian and Hebra a Moravian.

The Allgemeines Krankenhaus—general hospital of Vienna—was the first German institution to rise to international prominence under the new régime. It is another illustration of the rôle of a great institu-

tion in fostering medicine. Here there developed at the middle of the century a brilliant group headed by such masters as Rokitansky, Skoda, Hyrtl and

FERDINAND HEBRA

Brücke, who made Vienna as famous a center of medical teaching after 1850 as Paris had been before.

In this group FERDINAND HEBRA (1816–80)

emerged in dermatology just before 1850. Hebra's entire professional career is associated with the Allgemeines Krankenhaus. After graduating in 1841, he became associated with Skoda's clinic in 1842, as an assistant physician. At the time of his beginning, skin diseases were in Skoda's service and, curious as it

HEBRA'S CLINIC

may seem to us, under the section for diseases of the chest. Hebra was a disciple of Rokitansky, and Rokitansky is credited with having given him the inspiration of applying to skin diseases the methods of the newer pathology of the times. From Skoda, one of the great masters of clinical medicine, Hebra got the training in clinical methods which he subsequently applied to dermatology. Hebra quickly found his

great interest in dermatology, and began to devote his attention to it exclusively.

For many years thoughtful students of medicine such as Breschet of France, Julius Rosenbaum, Gustav Simon and H. Lebart of Germany had urged the use of pathology in interpreting clinical dermatology. It was Hebra's outstanding feat to bring this about. He applied this method broadly, emphasized its importance, and, as a result, with his unexampled knowledge of clinical dermatology, gave a clarity to the understanding of the processes of diseases of the skin that compelled recognition. He inaugurated the anatomico-pathological period in dermatology.

Like that other great master of dermatology of the middle of the century, Bazin, Hebra made his first studies and his first reputation in the study of scabies. Also as in Bazin's case, this was probably a fortuitous occurrence, due to the necessity of the situation; no one wanted the drudgery of the service and it was turned over to the young man. The year that Hebra took over the work scabies was almost all there was to the skin service—2197 cases of scabies in a total of 2723. Hebra, imbued with the current notions of humoral pathology, first took the view that scabies was essentially a systemic disease, and wrote upon the subject from that standpoint. But very quickly he convinced himself by conclusive experiments that scabies was a local disease produced by the itch mite. His classical paper on this subject *Über die Krätze* appeared in 1844. This led him to experiment with other irritants, particularly croton oil, and he demonstrated

that all of the changes of inflammation of the skin might be produced by purely local causes. The conclusions drawn from these experiments were of far-reaching importance. He concluded that all of the symptoms of inflammation could be produced in the normal skin by external irritants alone; that many of the varied manifestations of inflammation of the skin were due to the varying degrees of severity of the inflammatory process, and to other secondary features of the inflammatory process, characteristic of these different degrees; that the pathological changes which occurred in the skin were those of general pathology and that there might be diseases specifically limited to the skin. Thenceforth he preached the importance of local factors in the etiology of skin diseases. He did not subsequently take the position that there were no skin diseases of systemic origin, but he was the leader of the school of dermatologists who spread the doctrine of the great importance of local factors in the production of skin diseases. It was the opposite to that of the French school which had done so much to emphasize the importance of constitutional dyscrasias in the etiology of skin diseases. Hebra's emphasis upon the importance of local factors in dermatopathology was opportune; it made easier immediate comprehension of the importance of microbic factors in skin diseases when the time came to study these factors after the historic demonstrations in bacteriology.

One of the early results of his general clinical and pathological background was his classification of skin

diseases upon an anatomical and pathological basis. This was first published in 1845, and was subsequently used in his great treatise on skin diseases. It gave a rational classification of skin diseases upon the basis chiefly but not solely of their pathological and anatomical features. It was a final successful attempt at a logical classification and provided a satisfactory and comprehensive orientation of the whole of dermatology.

But Hebra's great reputation was not made either in pathology or in other laboratory fields of medicine. Later he was cold to the new biological conceptions of medicine and even to histopathological investigations. His consuming interest became clinical dermatology. It is beyond the limits of our space even to enumerate adequately his detailed contributions to dermatology. He demonstrated the growth of ringworm fungus on the epidermis; he first described rhinoscleroma 1872, impetigo herpetiformis 1872, lichen acuminatus, Hebra's prurigo, and lichen scrofulosorum; he put in one syndrome erythema multiforme, the various puzzling but essentially identical toxic erythemas which have since been included in this disease. He clearly described eczema marginatum, first described by von Bärensprung in 1860. He clarified the pictures of the xanthomas and pemphigus, and the character of urticaria and pruritus, in which he recognized the importance of internal diseases. His exposition of the essential nature of eczema is still the last word upon the subject, and it would be fortunate if it were oftener read by dermatologists to-

day. His work in the treatment of eczema and inflammatory skin diseases was equally as important. There is no better illustration of Hebra's genius for common sense than his treatment of the subject of eczema. As Gaucher said of Bazin, there is hardly a skin disease whose picture was not made clearer by Hebra's masterly description of it. By more clearly describing the various syndromes of dermatology and thus more sharply defining them, Hebra promoted progress in the same way that Willan had done by similar efforts at the beginning of the century.

Hebra was a voluminous contributor to dermatology from the beginning of his career. His two great works were his monumental *Atlas der Hautkrankenheiten*, which appeared between 1856 and 1876, and his *Lehrbuch der Hautkrankenheiten*, completely by his successor Kaposi, which appeared first as a part of Virchow's *Special Pathology and Therapy* in 1860, republished in English by the New Sydenham Society between 1866 and 1880. It remains today one of the most stimulating books in dermatology.

Hebra, like Willan and Erasmus Wilson in England, and Rayer and Bazin, extended the recognition of dermatology as one of the most important fields of medicine. He showed that it alone was large enough to be pursued by anyone as an exclusive specialty. When the Vienna school was at the height of its greatness, "perhaps the most brilliant name of the New Vienna School, after Skoda's and Rokitansky's, was that of Ferdinand Hebra." Although of necessity contrasted with Hyrtl, one of the most brilliant mod-

ern teachers of anatomy, Hebra's lectures in dermatology were the most famous and most popular course of the time in Vienna. His ability as a teacher must have been unique. The best proof of his ability as a teacher was the many disciples who became the next group of leaders in dermatology not only in German-speaking Europe, but throughout the world. Hebra personally makes an altogether pleasant picture of a master. He was without affectation and without oppressive physical earmarks of greatness. He was heavy, not above medium height, with a good head and a strong face that was usually lighted by a fleeting expression of good humor. He was one of the most famous physicians of Europe for over thirty years and one of the most distinguished citizens of Vienna. His great forte as a teacher lay in the extraordinary extent of his knowledge of skin diseases and his ability quickly to grasp and point out the salient features of a disease as it appeared in a given patient, and in the comprehensive and informative way with which he marshalled all of the facts upon which he founded his judgments and based his treatment. The running fire of wise pertinent observations upon the subject in hand, and of good-humored, often witty, and sometimes sarcastic comments, made his lectures always interesting. It was a method of teaching that required for success perfect assurance and unquestioned ability. Patients came to him from all over the world. His international reputation was recognized by honors from medical and scientific organizations everywhere. He was appointed Hofrath,

the Austrian patent of scholarly ability. After Rokitansky's death Hebra succeeded him as President of the Wiener Akademie der Wissenschaften. He was also president of the Kaiserlichen Gesellschaft der Aertzte of Vienna, the highest honor which Austrian medicine can bestow. Finally, he had a zest for living that gave him satisfaction in his position and in his blessings. Few great men have had more of the durable satisfactions of life than Hebra apparently extracted from it. Against that judgment can only be offered the fact that his last few years were made uncomfortable by ill health, which ended his life at the age of 64, on August 5, 1880.[1]

With the middle of the nineteenth century dermatology became more definitely specialized, and its activity still more intense and widespread. The neglected field of the gross structure and topographical features of the skin was developed by Voigt, Langar and others. Voigt in 1857 described the architectural structure of the skin, the distribution of the hairs and nerves, and the fine and coarse marking of the skin. Langer in 1861 described the lines of cleavage of the skin and the tension and elasticity of the skin. Then Tomsa added still further to the subject in his *Anatomy and Physiology of the Human Skin*, 1873, and in the same year Oscar Simon applied the knowl-

[1] Biographical sketches of Hebra: B. Hirschel, *Geschichte der Medicin*, 2nd ed. Vienna, 1862. Caspary, Hirsch Gurlt biograph. Lexicon **3**: 96–98. M. Kaposi, *Wien Med. Wch.*, 43. 1881; H. Auspitz, *Viertljrschr. fur D.u.S.*, **12**: 1–14. 1880; E. Schwimmer, *Allg. Med. Zentr. Zeit.*, **1**: 1104. 1881.

edge of the gross structure of the skin in explanation of the localization of skin diseases. The interest in cutaneous pathology was stimulated by the large amount of study which was given to this subject by Virchow. Publication of his studies on cutaneous pathology include: pathological pigment, the anatomy of the hair follicles, chronic pemphigus (1855), normal and pathological anatomy of the nails (1857), glanders (1857), onychomycosis (1860), leprosy (1860), verrucae (1863), molluscum contagiosum (1865), prickle cells of the epithelium (1865), tuberculosis of the skin (1865), xanthoma multiplex (1871), and other papers dealing with the more general subjects of dermatology such as *History of Leprosy* (1860), *On Disinfectant Soaps* (1869), *Leprosy in Spain* (1881).

By this time histological technique had made great advances in staining methods, especially developed by Weigert in the preparation of tissues for microscopic examination, which Purkinje had earlier advanced by introducing Canada balsam, glacial acetic acid, potassium bichromate, and particularly the introduction of the microtome had not only extended the bounds of histology and histopathology of the skin, but had indicated the necessity of a reëxamination of the whole subject. Then the discoveries in bacteriology produced a similar increase of our knowledge of etiology and pathology of skin diseases, and compelled another rewriting of these subjects. Knowledge of dermatology became so extensive and technical that specialization became imperative, preju-

dice against specialists broke down and work in dermatology passed largely into the hands of specialists. The subject became so large and new observations so numerous that they cannot here be recited in detail. Before 1900 all the essential features in the anatomy and pathology of the skin had been worked out. Minutiae are still being added, but without undue complacency it may be concluded that these subjects have reached a state of relative completion until some future revolutionary discovery produces new basic conceptions which again compel their rewriting. Anatomy and pathology have been studied chiefly in centers where clinical dermatology has been pursued with similar energy. Dermatological centers have increased, both in number and productiveness. Many workers, both among those to be mentioned and those who must be omitted, have taken part in this productiveness through original contributions but often quite as much through the clarification of the subject by the statement of their concepts that have been made in their writings.

In Vienna the Hebra dynasty was continued and its greatness proven through the works of Kaposi, Auspitz, Neumann and their successors.

Moritz Kaposi (1837–1902) a Hungarian and a son-in-law of Hebra, directly succeeded to Hebra's chair in Vienna. His chief interest was in clinical dermatology, and like Hebra he did not intensively cultivate the biological fields of medicine. He more than any one else maintained the Hebra traditions, and through his writings and the innumerable students

who came under his teaching he continued to spread through the world the traditions of the Vienna school. He first described xeroderma pigmentosum, idiopathic multiple pigmented sarcoma—Kaposi's "sarcoma"—herpes zoster gangrenosus hystericus, dermatitis papillaris capillitii, and, with Hebra, rhinoscleroma. His *Pathology and Treatment of Diseases of the Skin*, which was translated into French by Besnier, and into English by J. C. Johnson, is one of the great books on skin diseases, and his *Atlas of Skin Diseases* (3 vols. 1898, 1899, 1900) is one of the most extensive and valuable collections of illustrations in dermatology.

Heinrich Auspitz (1835–86), also professor of dermatology in Vienna, in scholarship and intellect was perhaps the most brilliant of the immediate successors of Hebra. *His System of Skin Diseases* (1881), in which he made his famous classification, showed profound knowledge of the facts and principles of dermatology, and with his monograph, *General Pathology and Therapy of Skin Diseases*, in Ziemsen's *Handbuch* (1885), exercised a strong influence upon dermatological thought. He introduced the term acanthoma and parakeratosis in pathology. He called attention to the characteristic sign of psoriasis, the bleeding points upon removal of the scales (Auspitz' sign). He studied the vesicles and bullae of pemphigus, the effects of venous congestion on the skin, and the use of soap in the care of the skin.

Isidore Neumann (1832–1906) was responsible for the establishment of the chair of dermatology and

syphilis in Vienna, and for developing there the importance of syphilis. His treatise on skin diseases, in which he gave careful attention to histopathology, went through five editions and he made original contributions to leprosy. But he made his greatest reputation as a teacher and student of syphilis. His treatise on syphilis is monumental.

Filip Joseph Pick (1834–1910), another pupil of Hebra, made Prague an important center of dermatology. He experimentally established the identity of mouse and human favus, and by inoculation proved the contagiousness of molluscum contagiosum. He made many contributions to therapeutics, the most important of which was his suggestion in his Linimentum Exiccans of fixed dressings. He was the first professor of dermatology in Austria to hold the title of full professor, and with Auspitz he founded (1869) the *Archiv für Dermatologie*, of which he was editor for many years.

Numerous other centers of dermatology developed under the inspiration of great leaders. Canstatt in South Germany has been an important center of dermatological research since 1837, through the family of Veiel, (A. von Veiel, 1806–79, who founded in 1837 the Institute for Skin Diseases, his sons Ernst Veiel, 1837–83, and Theodore Veiel (1848—). E. L. Schwimmer (1837–98) another of Hebra's students, stimulated dermatology at Budapest. He made important contributions on leukoplakia buccalis in 1878, and on neuropathic dermatoses in 1883, and wrote the first Hungarian textbook on dermatology in 1872.

Heinrich Köbner, Oscar Simon and Albert Neisser, three extraordinarily able exponents of dermatology in brilliant succession brought the Breslau school of dermatology to a position of great prominence. Its beginning goes back to 1861, when Köbner (1834–1904) founded the skin clinic, but in 1872 Köbner removed to Berlin, where he became the first president of the Berlin Dermatological Society, and a world-famous consultant on skin diseases. He first described epidermolysis bullosa. There is hardly a subject in dermatology which his researches did not touch. He worked extensively on plant parasites of the skin, drug eruptions, mycosis fungoides, leprosy, psoriasis, syphilis and pemphigus.

Oscar Simon (1845–82) succeeded Köbner, and became the head of the clinic in 1877, with Neisser as his assistant. We have already referred to his work on the localization of skin diseases (1873). He investigated molluscum contagiosum (1876), cachetic gangrene of the skin (1878), use of pilocarpine in pruritus (1879), animal vaccines as early as 1879, maculae ceruleae (1881), and mycotic balanoposthitis (1881). His premature death removed one of the vigorous and original investigators. He was a teacher of Neisser, who began in the Breslau Clinic with Simon in 1877, and succeeded him in 1882. A consideration of Neisser who belongs to this group must be deferred to the next phase of dermatology.

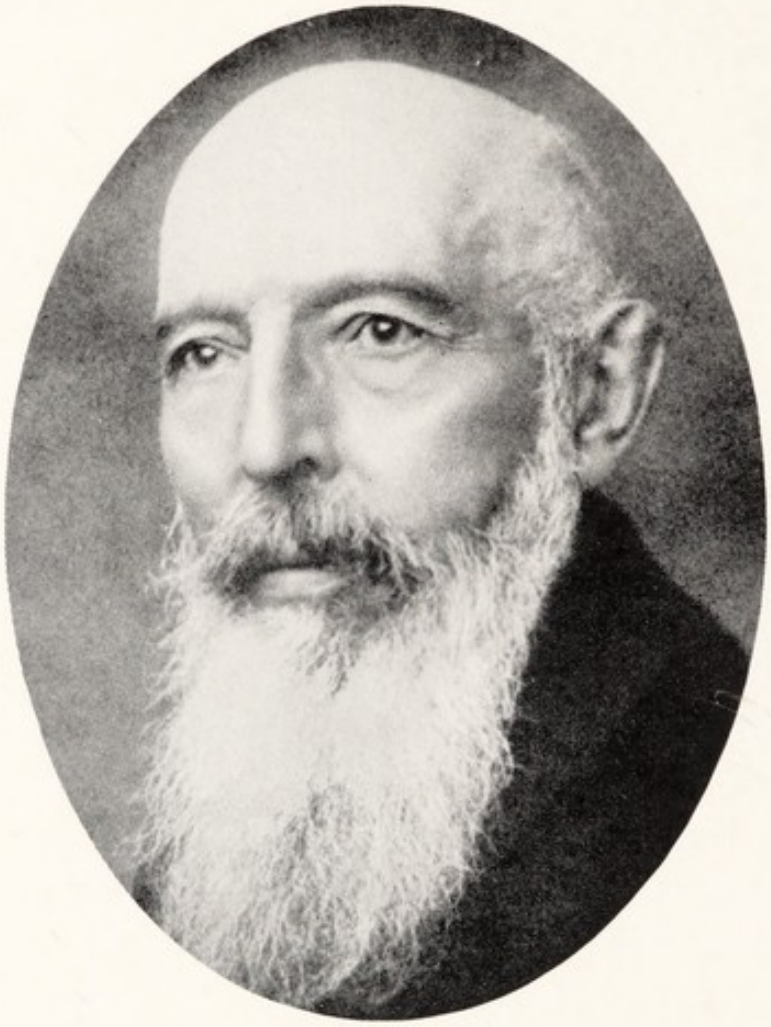
Dermatology was cultivated and original work in it was done in many European centers which were off the main current of progress of dermatology.

SCANDINAVIA

Mention must be made of the contributions of the Scandinavian countries, which from the days of Carl Boeck and Danielssen to the present have been independent centers of great importance, particularly in the study of tuberculosis and leprosy.

Carl Wilhelm Boeck (1808–75), Christiana, professor of surgery and skin diseases and syphilis, wrote extensively and made original contributions to syphilis, especially to syphilis in children and late syphilis, upon the sanitary control of syphilis and the results of syphilization on a large scale. His treatise on syphilis, like his other works, had a world-wide circulation and influence. But even more important was his work on leprosy, which was done for the most part with D. C. Danielssen (1815–94). They also made valuable contributions to the subject of parasitic diseases of the skin. They described the extraordinary ravages of unchecked scabies, "Norwegian scabies," that picture of excessive scabies found in paupers in the North. They made even more important contributions to our modern knowledge of leprosy, and vastly improved the leprosy situation in Norway by the leadership which they furnished in getting legal provisions for the segregation and care of lepers. Among Carl Boeck's works were *Syphilis in Children* (1856), *Tertiary Syphilis* (1860), *Leprosy* (1871), and *Experiences with Syphilis* (1875). Boeck and Danielssen wrote on *Spedalskhed* (leprosy) with an Atlas, *History of Leprosy*, in French (2 vols., 1848), and on *Vegetable Parasitic Diseases of the Skin, with an Atlas.*

The most spectacular and perhaps the most important contribution of Scandinavian dermatology was the discovery of the bacillus of leprosy by Armauer Hansen (1841–1912). Koch discovered the tu-



G. A. HANSEN

bercle bacillus in 1882. Eleven years before this Hansen found the bacillus of leprosy. He made the discovery in 1871 and demonstrated it to the Medical Society of Christiania in 1874. Neisser confirmed the discovery in 1879. Jordan, in his *General Bacteriology*, says:

In 1848 Danielssen recognized that certain peculiar cells which were found in leprous tissue were characteristic of leprosy, and as early as 1872 Armauer Hansen announced his discovery of small rods lying within the 'lepra cells.' The application of staining methods by Neisser and Hansen showed these rods to be bacilli; Hansen's discovery of the bacteria in leprosy, therefore, ranks as one of the earliest observations of pathogenic bacteria.

Scandinavia is also greatly distinguished for its very valuable contributions to tuberculosis of the skin, which is extremely frequent and severe there. Carl Boeck, Danielssen and Hansen all contributed to the subject, and other Scandinavian dermatologists have studied tuberculosis with equal interest and intensity up to the present. Caesar Boeck and Finsen are particularly to be mentioned in this work. They both belong in the next phase of dermatology, but for continuity Caesar Boeck (1845–1917) at least may be considered here. His very great contributions were the extremely ingenious conceptions of the toxituberculides, which he suggested in 1896, and to which Darier gave the name tuberculides (1910), and his suggestion of the syndrome, sarcoid. This conception of the tuberculides as developed by Boeck, Darier and others has been a feat of the first order in establishing the close association if not the essential identity of a great number of clinical pictures concerning which there was much confusion—from sarcoid and lupus erythematosus, through folliclis, acnitis, acne cachecticorum, dermatitis nodularis necrotica and various obscure tuberculides.

ITALY

Since the days of Fracastoro and Malpighi, the Italians have been constant contributors to dermatology. Many valuable contributions of the eighteenth century came from them. Although Thiery, who utilized the first description of it by the Spaniard Casal (1737), is credited with the first description of pellagra (1755), (which he and Casal called mal de la rosa) Francesco Frapolli (1771) gave a first hand accurate account and established this syndrome under its present name. Ramazzini (1700) gave us his remarkable work on industrial dermatoses which is the beginning in that field. Pacini for his work in the histology of the touch organs, Pellizzari for establishing the distinction between the venereal diseases, stand out in the middle of the nineteenth century among the outstanding contributors to dermatology. Modern dermatology has been active in Italy under such leaders as Tommasoli, Mibelli and Campana. Among those in the modern period whose work has given them international reputation are Ducrey (bacillus of chancroid 1888), Mibelli (angiokeratoma, 1891, porokeratosis, 1893), Giovanni (nodular disease of the hair, 1891, histology of keratosis pilaris, 1895), Respighi (hyperkeratoses, 1893), and Majocchi (purpura annularis telangiectodes, 1898).

FRANCE

Following Bazin and Hardy the great traditions of the French school have been upheld by a succession of able dermatologists: Doyen was especially

instrumental in spreading in France the knowledge of the works of Hebra and his successors in Germany, and was one of the founders of the *Annales des Dermatologie et Syphilologie*, 1869. Charles Lailler, successor to Bazin at St Louis Hospital, advanced the knowledge of clinical dermatology and therapeutics and of histopathology. Vidal, Besnier, Hallopeau, Leloir and many of their colleagues should be mentioned.

Emile Vidal (1825–1893) with Leloir made extensive studies in histopathology of the skin and was a pioneer in the experimental study of infectious diseases by inoculation. His researches covered impetigo and echthyma, epidemic pemphigus of the new born, herpes, the temperature of normal and diseased skin. Like those other French masters, he cultivated to the finest detail the objective study of skin diseases and contributed to the knowledge of many skin diseases. He wrote extensively on lupus with Leloir. His paper (1872), on general exfoliative dermatitis, which Erasmus Wilson had described, started interest in that subject which was later followed up by Brocq. He reported the resolution of tumors of Kaposi's sarcoma. He first described lichen simplex chronicus (lichen Vidal). He described pityriasis of the scalp and chest, which Unna later included under seborrhoeic dermatitis. He was much interested in therapeutics and made many ingenious suggestions. He introduced linear scarification in the treatment of indolent inflammatory processes which the French especially have utilized. Before Unna he introduced plasters in

the treatment of skin diseases. He was one of the founders of the Société française de Dermatologie et de Syphiligraphie, and one of the editors of the *Annales de Dermatologie et de Syphiligraphie.*

Ernest Besnier (1831–1909) a pupil of Lailler and Hardy, worked first in general medicine and epidemiology, but his great reputation rests upon his teachings and contributions to dermatology during his twenty five years' connection with the St Louis Hospital, where he succeeded Bazin in 1872. Besnier was an exquisite clinical dermatologist, a student of the pathology of the skin, and an investigator of many problems in skin diseases, such as the contagiousness of leprosy which he insisted upon. But his reputation rested largely upon the fact that he personified the wisdom of dermatology of his day. An indefatigable clinician and student who had an unsurpassed first-hand knowledge of skin diseases, he was acquainted with all dermatological literature, and with the advancement in all fields, and all of it he assimilated with great ability. He was an inspiring teacher, and among his disciples were Brocq, Sabouraud, Jacquet, Thiberge, Balzer and Leredde. He was a voluminous writer and his papers were models in substance and form. One of the classics of dermatological literature is Besnier's French translation of Kaposi's *Dermatology* with notes which make it an exposition of French and German dermatology. One of his greatest services was in organizing French dermatology more compactly. He inaugurated (1881) the conference of physicians of St Louis Hospital.

One of the results of this was the formation by Besnier, Vidal and Fournier of the French Society of Dermatology and Syphilology in 1889. He, Brocq and Jacquet edited that monumental French exposition of dermatology *La Pratique Dermatologique*, in four volumes, 1901 to 1904. For many years Besnier was recognized as the doyen of French dermatologists, and among the greatest leaders of dermatology in the world.

Henri Hallopeau (1842–1919) first gained distinction in general pathology. His work on this subject was a standard in France for more than twenty years, and ran through six editions between 1884 and 1911. But from 1884 to 1907 he devoted himself to dermatology at St Louis Hospital. He was a prodigy of learning and the number of his dermatological writings totaling eight hundred useful communications, probably constitutes a record. A text by him and Leredde on dermatology received prizes both from the Academy of Sciences and the Faculty of Medicine. He made valuable contributions to the subjects of syphilis, leprosy and tuberculosis of the skin, and to the therapeutics of dermatology. He established lichen planus atrophicus as one of the definite forms of lichen planus. He first separated dermatitis vegetans from pemphigus vegetans in 1889. He contributed to the clearing of the conceptions of idiopathic atrophy of the extremities, acanthosis nigricans, mycosis fungoides particularly its premycotic stage, and trichotillomania. Jeanselme was one of his pupils.

Henri Leloir (1855–96) chief of clinic for Four-

nier, later professor at Lille, is chiefly remembered for his writings on pathology, many of them with Vidal, and his description of lupus vulgaris erythematoides (1891). His premature death removed one of the brilliant French dermatologists.

Louis Brocq (1856–1928), Thiberge and Darier were the leaders of the French school after the death of Besnier. Brocq was a disciple of Vidal, and exemplified the meticulous ability of the French in clinical dermatology, with a faculty almost uncanny in diagnosis and analysis of cutaneous diseases. He was one of the chief contributors to the French system of dermatology. His books on skin diseases have been universally accepted as authoritative works and he has been a copious and valuable contributor to current dermatological literature. His most important contributions have been to the bullous and exfoliative dermatoses and the chronic inflammatory processes in the skin. His most notable contribution was his recognition of various confusing chronic resistant scaly erythrodermas which have passed under many names as essentially one process, and their grouping under the concept parapsoriasis.

In syphilis during the nineteenth century the French school gained one of its greatest distinctions. At the end of the eighteenth century the great progress which had been made in syphilology was checked and the subject thrown into confusion by John Hunter's denying the duality of syphilis and gonorrhea and the systemic effects of syphilis. It was the French school which reestablished clearness in

this field. Beginning in 1837 with Ricord, Rollet, Clerc and Bassereau, and coming down to Fournier, they brought to practical completion clinical knowledge of syphilis. They carried this whole subject as

PHILIPPE RICORD

far as could be done before the essential biological discoveries and the discovery of the organisms of syphilis after the beginning of the twentieth century.[1]

[1] This chapter in the history of syphilis has been ably written by Bloch in his *History of Syphilis*, and summarized by me in *Syphilis as a Modern Problem*.

Others outside of France contributed to this work, as for example William Wallace of Dublin, who established the contagiousness of secondary lesions of syphilis in 1835, while Ricord was still denying it, and

RICORD'S BOOK PLATE

who in 1834 made the very important contribution of the use of potassium iodide in its treatment; and Virchow, who following the work of Ricord in mapping the course of syphilis established in his paper concerning the nature of constitutional syphilitic affections the distribution of syphilis through the blood

and gave us the first interpretation of its stages of activity and inactivity. But it was the French school, led by Ricord, to whom credit is chiefly due for the completion of the clinical story of syphilis in the nineteenth century.

PHILLIPE RICORD (1800–89) is one of the great figures in syphilology. He was an investigator of the first rank and he is another illustration of the men who have been most fruitful in original scientific work while carrying the burdens of an enormous practice. He arose from poverty to large wealth and became one of the most popular and influential citizens of Paris. He was born in Baltimore and until he was twenty lived in the United States, but the only claim the United States can make upon him is that it gave his father's family refuge in time of revolution and afforded him an opportunity to get his preliminary education and to study natural history under his uncle.

Chapter VIII

MODERN DERMATOLOGY—FIRST PHASE

1850 to 1900

GREAT BRITAIN

AT THE beginning of this period British dermatology took a high place with Sir Erasmus Wilson, and has flourished down to the present time through the activities of many able men. Among them Wilson, Tilbury Fox and Jonathan Hutchinson are masters of the first magnitude.

Sir Erasmus Wilson (1809–84), a pupil of Hebra, distinguished himself first in anatomy, and was elected a member of the Royal College of Surgeons, but soon decided, in spite of the prejudice against specialism in England, to devote himself to dermatology. His contributions were many. He described trichorrexis nodosa (1849), erythema nodosum (1857), universal exfoliative dermatitis (1870). His outstanding nosologic feat here was the assembly of the various manifestations of lichen planus into the category of a single disease; this he first described and named (1869). His suggestion of the addition of benzoic acid as a preservative for ointments introduced benzoated ointments. His chief works were *Diseases of the Skin* (1842), which went through at least six editions, *A Dermatological Atlas* (1847), and his *Lectures on Eczema and Dermatology* (1870–78). He established

the *Journal of Cutaneous Diseases* in 1867, the first British dermatological journal. His writings on the care of the skin for laymen were credited with having made the bath popular in England. His observations and original suggestions, his able writings, and par-

SIR ERASMUS WILSON

ticularly the sanity with which he applied his comprehensive knowledge to the practical problems of dermatology made him one of the great dermatologists. His prestige and the stimulus which he gave to dermatology (and specialties in general in London) through the commanding position that he attained greatly aided dermatology. He was knighted, he became president of the Royal College of Surgeons, and early in his career he was elected a member of the

Royal Society, the patent of nobility in British science. Through his practice and investments he became rich and is perhaps unique among medical men in the size of his benefactions. He established the collection of wax models of skin diseases in the College of Surgeons. He made a gift of five thousand pounds to the College of Surgeons for the establishment of a chair of dermatology. He founded a chair of pathology in the University of Aberdeen. He was an extensive traveler and an Egyptologist, and he brought Cleopatra's Needle to London and set it up on the Thames embankment at an expense of ten thousand pounds. His philanthropy extended to other cultural subjects as well as medicine. His entire contributions to the sciences and the arts, including £180,000 to the Royal College of Surgeons at his death, must have aggregated £300,000. There is an interesting sketch of Wilson in Betany's *Emminent Doctor*.

Tilbury Fox (1836–79) was one of the ablest English dermatologists. He first clearly described dysidrosis which has been confused before and since his time. He made important studies on parasitic skin diseases; he demonstrated that kerion was a form of ringworm (1862); he gave suggestive descriptions of but did not identify epidermolysis bullosa, lymphangioma circumscriptum, dermatitis herpetiformis and urticaria pigmentosa, which were later completely described by others. He more clearly described certain forms of eczema, and in 1873 he segregated impetigo contagiosa—his greatest contribution to dermatology. He not only established it as a definite

clinical entity, but he established by experimental inoculation that it was contagious. This was the final acceptance of a dermatosis which had wandered through dermatology without definite recognition

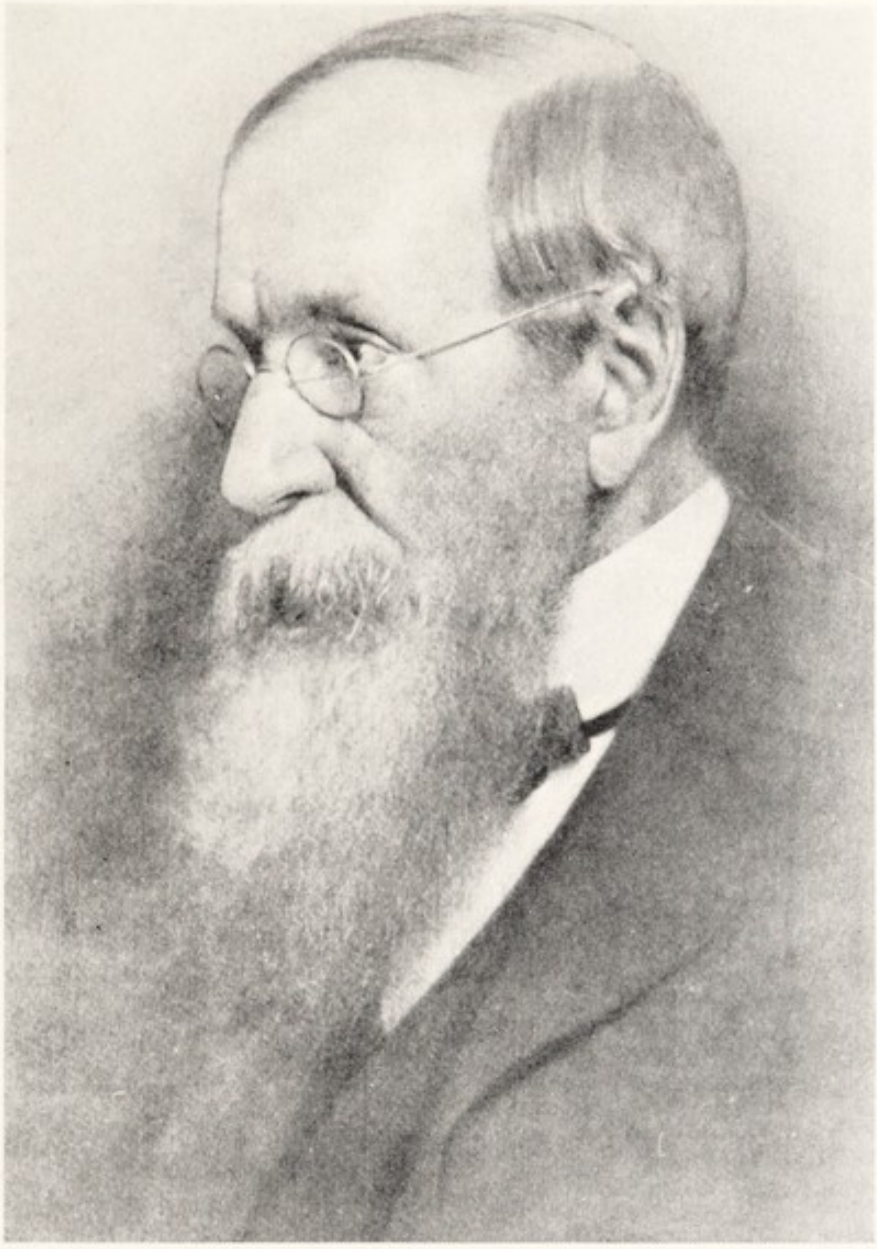
TILBURY FOX

from the earliest times. The word impetigo, from impetus (violent attack) had been used certainly since the time of Celsus, to designate eruptions which came out in successive attacks, and Willan and Bateman applied it to superficial eruptions, which did not occur on the face and that were not contagious. Porigo was the name under which they included among other things the facial forms of impetigo. Alibert had

impetigo among the diseases of internal origin. Devergie had many subdivisions of dermatitis under the name. Hebra made it a part of eczema. Cazenave (1838) used it most nearly in its modern significance. Since Tilbury Fox, Unna has shown that it was due to pus infection by streptococci and staphylococci, and Bockhart described the follicular form with large pustules and demonstrated that it was due to staphylococci; but Fox's concept stands. Fox's largest treatises were *Diseases of the Skin* (1864), *Lectures on Eczema, its Nature and Treatment* (1870), and *Endemic Skin Diseases of India* (1876), all of which remain standards in dermatological literature. The early death of Fox, like that of Willan and Bärensprung and Leloir, must be regarded as a great loss to dermatology.

Sir Jonathan Hutchinson (1828–1913) is famous both in dermatology and syphilology. He occupies a peculiar position. He was a great observer and an English clinician of the old school who, primarily a surgeon, was especially interested in skin diseases, leprosy and syphilis. He was active in dermatology until the beginning of the twentieth century and was president of the International Dermatological Congress in 1896. He is essentially a representative of clinical dermatology. He wrote much on leprosy, but in that field is chiefly known for his fish-eating theory of the etiology of leprosy. His investigations did not establish the thesis, but did establish that practically all mankind eat fish. In the study of clinical syphilis he ranks with the great names, particularly for his

work in hereditary syphilis. He called attention to the peg-shaped notched teeth of hereditary syphilis (Hutchinson's teeth), to the chronic keratitis of



SIR JONATHAN HUTCHINSON

syphilitic children, and to the deafness produced by hereditary syphilitic middle ear disease. The combination of these three conditions is the famous

Hutchinson's triad, a group of conditions which, occurring together, are pathognomonic of syphilis. The number of dermatoses which he described is beyond numbering here. Taking the whole field of medicine for his domain, he could not be a finished dermatologist. As Richter says, he was a free lance; any dermatosis he saw that was unknown to him he described and gave a name, sometimes using the patient's name to designate the disease, as Mortimer's malady. The method has its advantages in that it predicates nothing of the character of the disease and makes no attempt at premature classification. Of course, however, it leads nowhere except to duplication of names and much confusion before the dermatoses are finally placed. He described cheiropompholyx, of which Bazin had given an incomplete description and which Tilbury Fox had carefully described as dysidrosis. Under Mortimer's malady he described a form of sarcoid. Under Hilliard's lupus he described a condition resembling clinically lupus verrucosus. Under the term recurrent summer eruption he described in 1888 a condition, still commonly called recurrent summer eruption of Hutchinson, which Bazin had previously described as hydroa vacciniforme. He clearly described solid edema of the face following attacks of lymphangitis, a form of elephantiasis. He first described varicella gangrenosa (1882), and atrophic balanitis. He first described under the names infective angioma or nevus lupus a rare condition of acquired cutaneous hemangioma, more generally known by the later name of angioma serpiginosum. He ranks

with Fournier and Erb in his contributions to modern clinical syphilography. For fifty years he was a personage in medicine in the British capital, had an enormous practice and was knighted by the king. In later years his private clinic, where he gave weekly clinical demonstrations, was a Mecca of London medicine.

There were many other men who advanced British dermatology by specific contributions: Huxley in 1845, when he was only twenty years old and while still a medical student, described the layer of the root sheath of the hair which has since borne his name. Addison, student of Willan, and Gull in 1851 first described xanthoma diabeticorum. Addison in 1855 described Addison's disease (so named by Trousseau) in which he for the first time associated asthenic constitutional symptoms and the characteristic pigmentation of the skin with changes found in the suprarenal glands. Addison described morphoea (Addison's keloid), circumscribed scleroderma (1869). Gull in 1874 described myxoedema with its skin symptoms. Nettleship (1869) gave his clinical description of "chronic urticaria leaving brown stains," the condition which Sangster in 1879, denominated urticaria pigmentosa. Paxton of Chichester, 1869, described a brittle dry condition of the hairs which was named lepothrix by Erasmus Wilson, and later described by Pick. Sir Samuel Wilks added to the knowledge of visceral syphilis, called attention to "marking or furrows in the nails as a result of illness" (1869), and definitely placed in dermatology verruca necrogenica (1862), the subcutaneous tuberculosis of Laënnec. In

1864 Sir James Paget described atrophoderma neuriticum, and in 1874, a "disease of the mammary areola preceding cancer of the mammary gland" Paget's disease of the nipple. Greenhow in 1876 described the pigmentation of pediculosis corporis (vagabond's disease) and called attention to its simulation of the pigmentation of Addison's disease. Squire (1876) introduced chrysarobin the treatment of psoriasis. George Thin in 1881 foreshadowed the later division of the trichophyton fungi into varieties by showing that the fungus in scalp ringworm was different from other varieties. He studied the histopathology of various skin diseases, among them Paget's disease of the nipple, to which he gave the the name malignant papillar dermatitis, a better name because the disease occurs elsewhere than in the nipple. Milton described lupoid sycosis and angioneurotic oedema in 1876 before either Bannister or Quincke. The *British Journal of Dermatology* was established in 1888 and British dermatological literature was extensive and important and there were produced many useful texts upon dermatology all of which contributed in a greater or less degree to the progress of our knowledge.[1]

Among them are the works of William Frazer of Dublin, *Treatment of Diseases of the Skin* (1864); John Laws Milton, *The Modern Treatment of Diseases of the Skin* (1865); *Pathology and Treatment of Diseases of the Skin* (1872); *History of Syphilis* (1886);

[1] Sir Humphrey Rolleston, Cambridge Men and Dermatology. *J. D.* Aug.–Sept., 1932, p. 417.

Thomas Hillier, *Handbook of Skin Diseases* (1865); T. McCall Anderson of Glasgow, *Contributions to Dermatology* (1866), *Diseases of the Skin* (1875); Austin Meldon of Dublin, *A Treatise on Diseases of the Skin and its Appendages* (1873); Robert Liveing, Middlesex Hospital, London, *A Handbook on the Diagnosis of Diseases of the Skin* (1879) and several other works between 1878 and 1887; W. Allan Jamieson Royal Infirmary, Edinburgh, *Diseases of the Skin* (1888); Henry Radcliffe Crocker, the successor of Tilbury Fox in University College, London, *Diseases of the Skin* (1888); Malcolm Morris, Lecturer on Dermatology in St Mary's Hospital Medical School, *Skin Diseases* (1896).

Colcott Fox, Radcliffe Crocker, Sir Malcolm Morris and J. J. Pringle (1855–1922) of London, and H. G. Brooke of Manchester, were the immediate predecessors of the present generation of British dermatologists. Their influence is reflected in the leaders of the present. Colcott Fox was regarded by them as the most learned dermatologist and the most acute diagnostician. J. J. Pringle, who described adenoma sebaceum (1890), exemplified better than anyone else the merits of French dermatology. Malcolm Morris had perhaps the most commanding professional position among them. H. G. Brooke of Manchester described in 1890 epithelioma adenoides cysticum which Fordyce the same year described as multiple benign cystic epithelioma. Brooke in 1892 described keratosis follicularis contagiosa. Radcliffe Crocker's *Treatise on Diseases of the Skin*, which went through sev-

eral editions, ranked as the first text in English upon diseases of the skin of its day. He described angiokeratoma with Wyndham Cottle (1877), congenital milium in plaques (1880), dermatitis repens (1888), granuloma annulare (1893), erythema elevatum diutinum with Williams (1894). He suggested the names for granuloma pyogenicum (1903), acne keratosa (1899) and lichen spinulosis (1903).

UNITED STATES

Dermatology in the United States until the last quarter of the nineteenth century was a reflex of European dermatology; in the first half of the century English and French, and after 1860 German, especially Viennese. The history of skin diseases in Colonial America and of American dermatology down to the modern period has been interestingly reviewed by John Lane.[1]

It is an interesting historical fact, generally unknown, that America can claim one important scientific contribution to the minute anatomy of the skin in the eighteenth century, although the work was done in London. This was the injection of the capillaries of the corium, and the demonstration of "a fine vascular membrane immediately below the Malpighian layer of the skin, separate and distinct from the cutis and capable of separation from it through its whole extent"—the body of the corium and its super-

[1] Syphilis in the English Colonies, *Arch. of Derm. and Syph.*, **2**: 215. Aug. 1920; and Skin Diseases and Syphilis in Colonies and Early United States, *ibid.*, **11**: 721. June 1925.

ficial sub-papillary plexus of blood vessels. This was done by William Baynham while working at St. Thomas Hospital, London. Baynham, a Virginian whose ability approached genius, went to London in 1769, spent sixteen years in England and attained the highest medical and scientific recognition. Nevertheless he ultimately returned to a rural practice in Essex County, Virginia, and became one of the famous surgeons in America.[1]

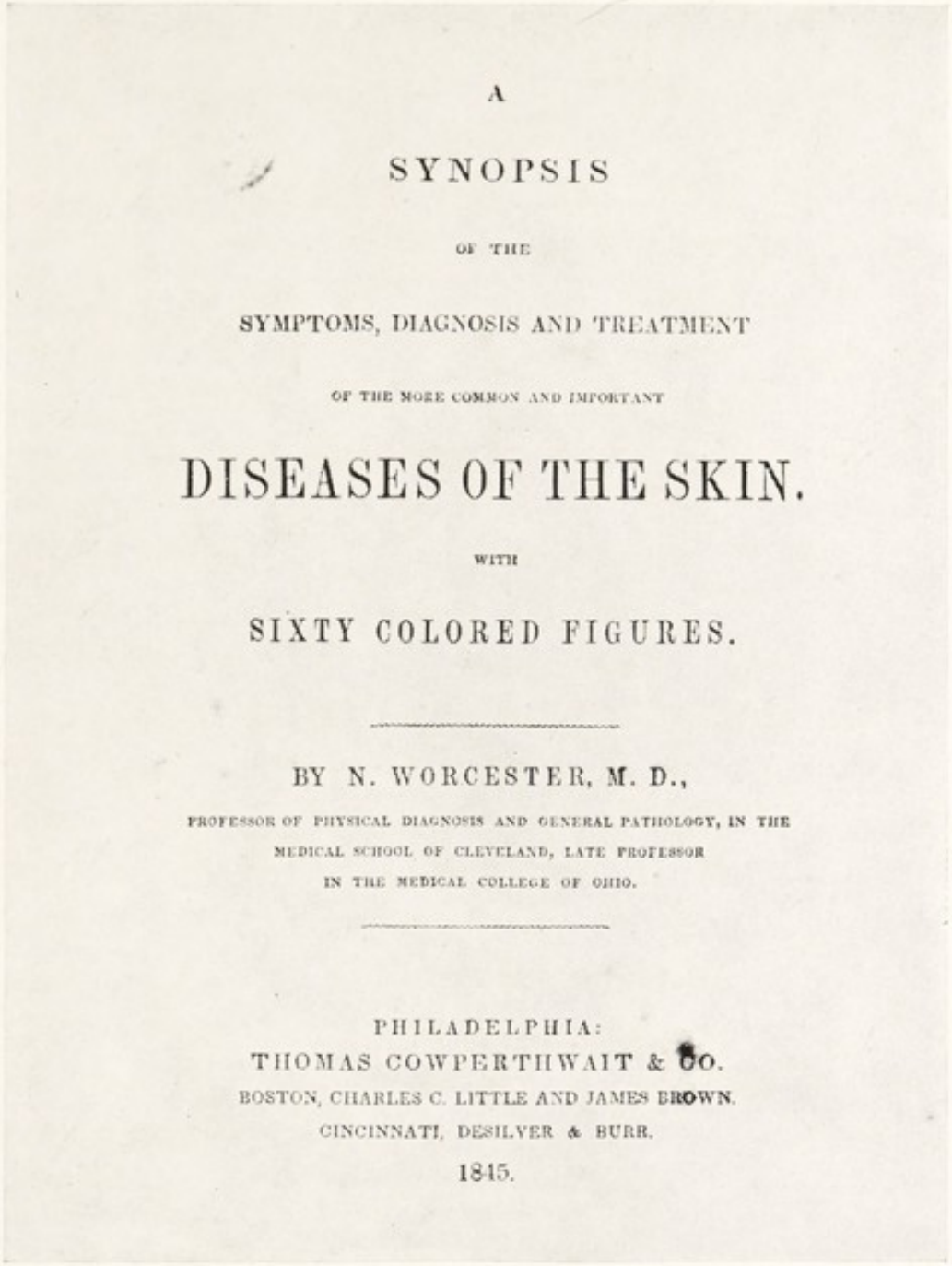
There are two events in dermatology in the first half of the nineteenth century which need especially to be mentioned. One is the founding of the first institution for the care and teaching of diseases of the skin; the other, the appearance of the first American book upon dermatology. Far antedating any other systematic activity in dermatology in the country was the establishment in New York City of the Broome Street Infirmary for Diseases of the Skin by H. D. Bulkley and John Watson, in 1837. H. D. Bulkley (1804–72) who studied under Biett and Cazenave in 1831, from 1837 to 1854 conducted a clinic and lectured on skin diseases at the Broome Street Infirmary. In 1841 he lectured on skin diseases in the spring course at the College of Physicians and Surgeons. He was evidently a zealous dermatologist who got recognition for dermatology in New York, but aside from his translation of Cazenave in 1845 he wrote little. He was president of the New York Medical Society, of the New York Academy of Medicine, and of the

[1] Blanton, *Medicine in Virginia, Eighteenth Century, J.A.M.A.* March 26, 1932, p. 1108.

New York State Medical Society, and first president of the New York Dermatological Society which was organized at a meeting at his house. It was eleven years after Bulkley discontinued his lectures in the Broome Street Infirmary, and fourteen years after his lectures in the College of Physicians and Surgeons, that the first lectureship on Skin Diseases was established in any medical school in New York or in the country.

The second early historical event was the publication of the first complete work on diseases of the skin in America, "*A Synopsis of Symptoms, Diagnosis and Treatment of the More Common and Important Diseases of the Skin, with Sixty Colored Figures*, by N. Worcester, M.D., Professor of Physical Diagnosis and General Pathology in the Medical School of Cleveland, late Professor in the Medical College of Ohio. Philadelphia: Thomas Cowperthwait & Co., Boston: Charles C. Little and James Brown, Cincinnati: Desilver and Burr, 1845." Ravogli alone, I believe, has referred to this book in dermatological literature. I am indebted to W. T. Corlett for the privilege of examining his copy. It is a large octavo volume containing 292 pages of text. The sixty colored illustrations are quite as good as those in contemporary European publications and must have been of European make. He acknowledges his indebtedness to the European masters from Willan and Wilson to Rayer and Gibert, but his work shows first-hand knowledge of dermatology. It is about the size of Bulkley's American edition of Cazenave's *Manual*

(1852) and it does not suffer by comparison with it. His descriptions are clear, show familiarity with the



A

SYNOPSIS

OF THE

SYMPTOMS, DIAGNOSIS AND TREATMENT

OF THE MORE COMMON AND IMPORTANT

DISEASES OF THE SKIN.

WITH

SIXTY COLORED FIGURES.

BY N. WORCESTER, M. D.,

PROFESSOR OF PHYSICAL DIAGNOSIS AND GENERAL PATHOLOGY, IN THE MEDICAL SCHOOL OF CLEVELAND, LATE PROFESSOR IN THE MEDICAL COLLEGE OF OHIO.

PHILADELPHIA:
THOMAS COWPERTHWAIT & CO.
BOSTON, CHARLES C. LITTLE AND JAMES BROWN.
CINCINNATI, DESILVER & BURR.
1845.

TITLE-PAGE WORCESTER'S *DISEASES OF THE SKIN*

subject, and a temperate and scientific spirit. Although published in Philadelphia, it probably did not

attract attention because the older states were hardly prepared to expect a useful book on dermatology to come out of a western outpost like Cleveland. Noah Worcester (1812–47) was evidently a man of unusual ability. Although he had to work his way, he was an A.B. of Harvard (1832), an M.D. of Dartmouth (1838) and in 1841 he went to Paris where he studied at St Louis Hospital for about eight months. He also studied in London and elsewhere in Europe for two or more years. He was a pupil of Laennec and was regarded by his contemporaries in Cincinnati and Cleveland as a leader in pathology and "the best trained man in percussion and auscultation in America." His untimely death from pulmonary tuberculosis in 1847 was regarded as a great loss.

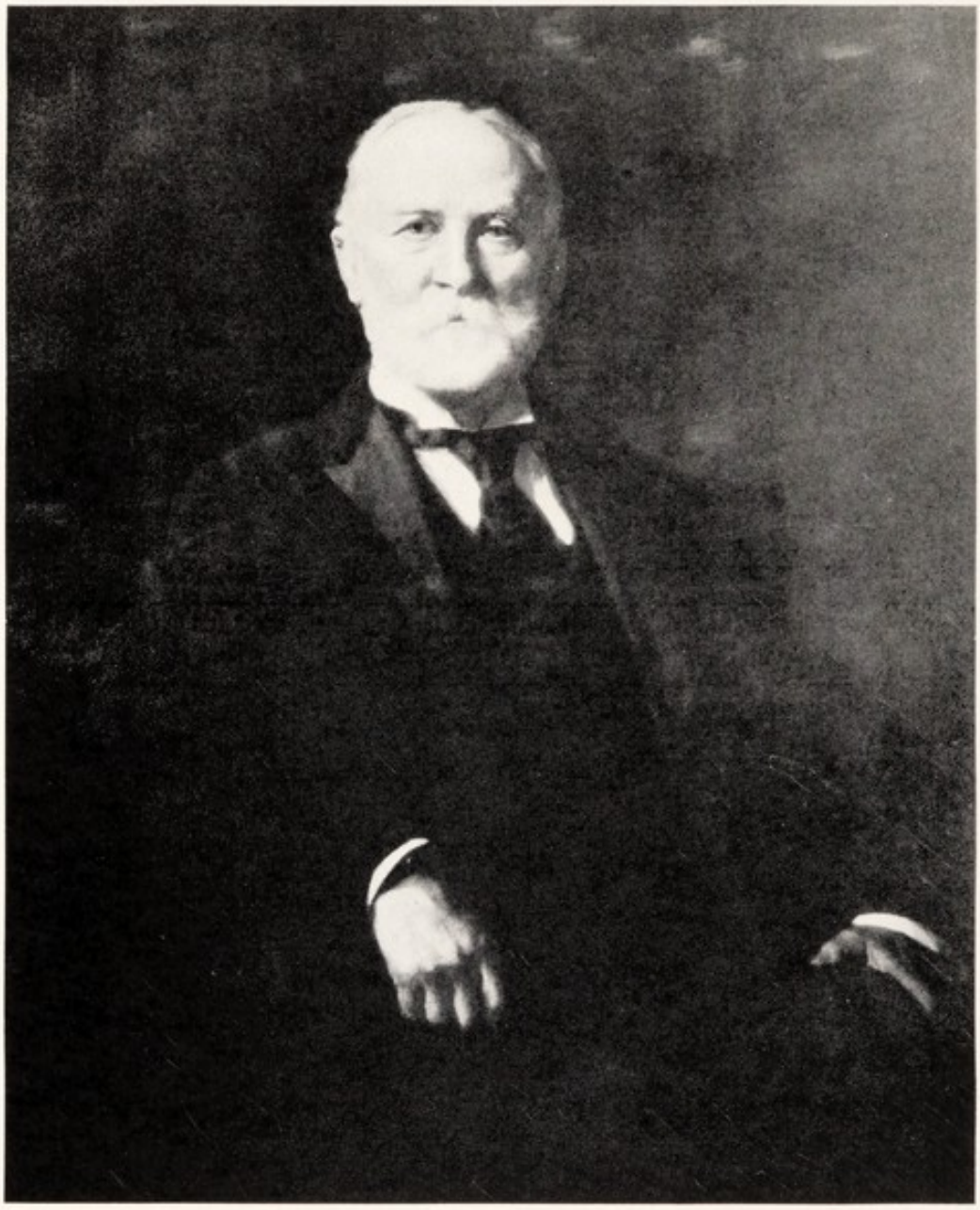
It was thirty one years after the appearance of Worcester's book before Piffard's *Elementary Treatise on Diseases of the Skin* was published, which is generally credited with having been the first systematic treatise on skin diseases in the United States. In the meantime there had appeared H. F. Damon's *Neuroses of the Skin; their Pathology and Treatment* (1868) and in 1869 *The Structural Lesions of the Skin, their Pathology and Treatment*, parts of a system which he was unable to complete, and which has been claimed to be the first American book on diseases of the skin. The books in common use were those of French and English authors; Bateman (1818), Cazenave (1829), Plumbe (1837), Jonathan Green (1838), Erasmus Wilson (1843), Rayer (1845), Neligan (1852) and Hillier (1865).

Bulkley and Worcester were ahead of the times. The real movement which represents a continuous development of American dermatology belongs to the period after 1850, and, is largely as a result of the influence of Hebra and his school. It became manifest in the seventies, and the extent of its activity indicates that it had been incubating in many men for several years. Its vigor showed in the establishment of numerous teaching positions in dermatology and in the rapid development of dermatological literature.

In 1863 James C. White gave a course of six lectures on diseases of the skin in a course of "university lectures" established at the Harvard Medical School. In 1871 a chair of dermatology at Harvard and a service in dermatology at the Massachusetts General Hospital were established and White was appointed to both.

In 1865 Faneuil D. Weisse was appointed lecturer on skin diseases in the Medical Department of the University of New York City. It was probably due to his influence that the lectureship was established. Weisse, to use the words of George Henry Fox, "was practically the founder of the New York Dermatological Society" four years later, and he was a force in dermatology in New York for more than twenty years. He was a pupil of Erasmus Wilson, and it is not unlikely that his spirit in dermatology had been stimulated by the example of that forceful man. In 1865 Bellevue Hospital Medical College appointed Foster Smith lecturer on dermatology. In 1867 a summer

course of lectures on skin diseases was established at the College of Physicians and Surgeons with W. H.



JAMES C. WHITE
(From the portrait in the Faculty Room at the Harvard Medical School).

Draper in charge. He was made professor of diseases of the skin in March, 1869. In 1869 at the University of Pennsylvania, Lennox Hodge was appointed lec-

turer on skin diseases for the "auxiliary autumn course" of a month, and in 1871 Harrison Allen began to give the course. In 1873 the University of Pennsylvania began its auspicious career in dermatology by the appointment of Louis A. Duhring as a lecturer on skin diseases. Duhring first gave the autumn course of a month, and in 1874 was transferred to the summer course of four months. In 1872 Bellevue created a chair of dermatology, and Edward L. Keyes was appointed professor. In 1875 the University of New York City made Henry G. Piffard professor of dermatology. In January, 1870, the *American Journal of Syphilography and Dermatology* was established with M. H. Henry as editor, and it in turn was succeeded in October, 1882, by the *Journal of Cutaneous and Venereal Diseases*, with Piffard and Prince A. Morrow as editors, and this journal has continued (under changing names unfortunately) until the present.

On May 18, 1869, F. D. Weisse, H. G. Piffard, Foster Smith and H. D. Bulkley founded the New York Dermatological Society, which has had a continuous existence since that date, and is the oldest dermatological society in the world. Seven years later, at the Centennial Celebration in Philadelphia in 1876, the American Dermatological Association was organized with J. C. White, president, L. A. Duhring, Philadelphia, and R. W. Taylor, New York, vice-presidents, L. D. Bulkley, New York, secretary, and J. N. Hyde, Chicago, treasurer, and twenty four other members. The first meeting was held at Ni-

agara Falls in September, 1877. Among the founder members of the Association, in addition to the officers, the following were most prominent in the subsequent activities of the specialty: George Henry Fox, Piffard, Weisse and Robinson of New York, and Hardaway of St. Louis.

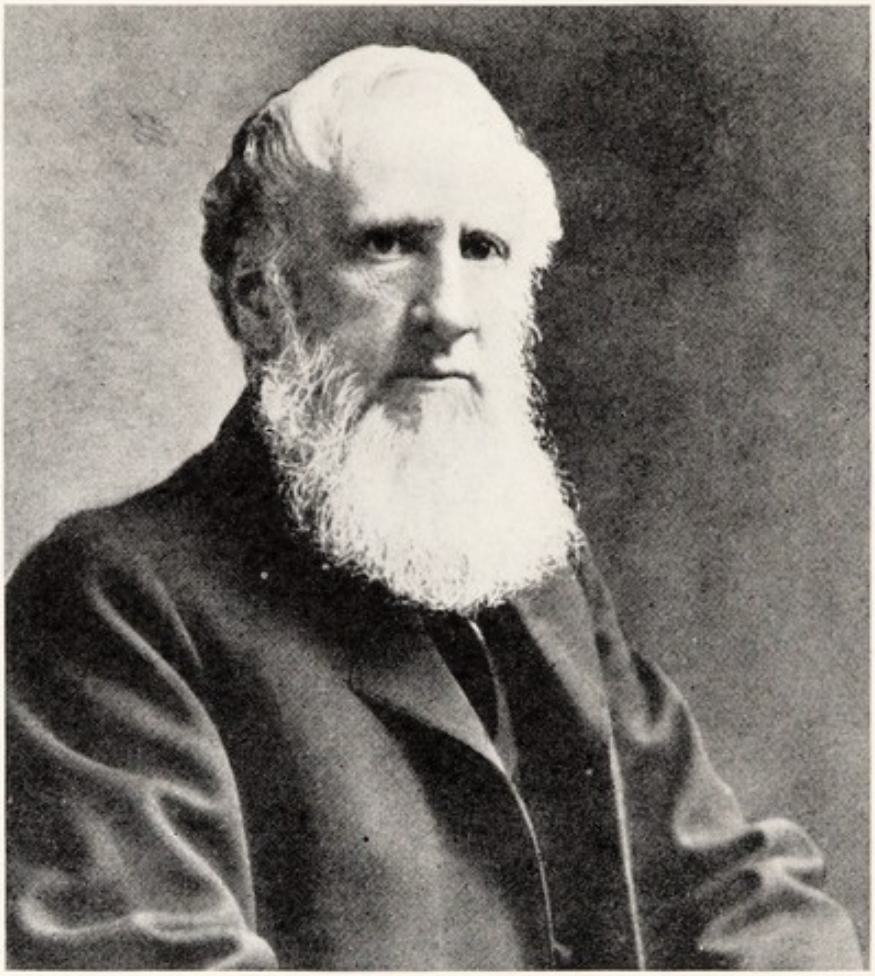
The rapid organization in the ten years between 1866 and 1876 indicates how faithfully dermatology was cultivated by those who were responsible for its transplanting from Europe. Provisions for teaching and studying dermatology had been organized. A permanent journal of dermatology was established in 1870. (The great German *Archiv für Dermatologie* was only established one year before, in 1869, and the *British Journal of Dermatology* in 1888.) A dermatological society that is the oldest in the world had been established, and, fifth among the national specialty societies in the United States, the American Dermatological Association had begun its career. These founders of the American Dermatological Association, with a few others, were chiefly responsible for the development of dermatology in the United States. Most of the leaders of the next dermatological generation were their pupils.

James C. White (1833–1916), the first American disciple of Hebra, was the strongest force in shaping the early course of American dermatology. He went to Vienna in 1856, and of the many American students who were attracted to Vienna by the growing fame of its modern school, he was the first to spend a year. The position which between 1863 and 1870

he built up for dermatology at Harvard and the Massachusetts General Hospital was the first strong recognition that it obtained in the institutions of this country. There he developed a large service and as a result of the experience issued a long series of valuable papers and books. His practice was practically confined to dermatology from 1870. His most useful single contribution was, probably, his two hundred page book *Dermatitis Venenata: An Account of the Action of External Irritants upon the Skin* (1887) is the first complete book upon the subject. It covers especially plant irritants—in which it is particularly complete because of White's intimate knowledge of botany—animal irritants and other irritants, organic and inorganic. White gave much study to leprosy, particularly its distribution in the United States, and was one of the early advocates of its contagiousness. He first described, under the name keratosis follicularis in 1889, a disease which Darier also in 1889 but shortly after, independently described as psorospermosis. White's life was one of usefulness and honor. He was one of the earliest and most influential in the struggle for advancing medical education which Harvard, under President Eliot, inaugurated in this country. He was president of the Massachusetts Medical Society, a member of the American Academy of Arts and Sciences from 1866, a rare honor for a physician, and president of the Sixth International Dermatological Congress, held in New York in September, 1907.[1]

[1] J. C. White, *Sketches from My Life*. Boston, 1914.

Louis A. Duhring (1845–1913) spent two years, 1868–69, studying dermatology in Europe, the first year in London and Paris and the second under Hebra at Vienna. He became associated with the Uni-



LOUIS A. DUHRING
(From the portrait by Hugh Breckenridge
in the College of Physicians, Philadelphia.)

versity of Pennsylvania upon his return, and when in 1875 the University of Pennsylvania established a professorship in dermatology, was appointed to the chair, which he occupied for thirty-five years. Duhring brought to dermatology a thorough training and

full knowledge of its literature and a great capacity for the observation and interpretation of minute details. His first notable output was his work on *Skin Diseases*, which appeared in 1877, only one year after Piffard's pioneer work. In this he showed the application of a highly original mind to the principles and details of dermatology. It promptly obtained international recognition, was translated into French, Italian and Russian, and became one of the accepted standard works of its time. In the previous year, 1876, he had published a fine *Atlas of Diseases of the Skin*. In these works and in his other contributions he gave numerous original ideas to dermatology. Under the name seborrhoea corporis he described some of the forms of seborrhoic dermatitis. In 1874 he described pruritus hiemalis. His greatest contribution to clinical dermatology was the generalization developed in seventeen or eighteen papers, through which he brought together under the name of dermatitis herpetiformis (1884) the group of obscure eruptions, papular to bullous in intensity, which morphologically lay between urticaria and the toxic erythemas on the one hand and pemphigus on the other. It is an illustration of the great service in simplifying dermatology which can come from a sound generalization. Dermatitis herpetiformis was eagerly accepted by the French and most of the dermatological world, but had to withstand strenuous opposition for many years by the Vienna school, which insisted that it was a form of pemphigus pruriginosus. In spite of all opposition the syndrome maintained itself and has fi-

nally come to general acceptance. Duhring was a student of Hebra, but his methods of approach to skin diseases and his conception of their relation to the whole organism suggest rather the attitude of French dermatology. His *Diseases of the Skin* and his establishment of dermatitis herpetiformis made him America's most famous dermatologist. Among his pupils were Van Harlingen, Hartzell and Stelwagon. He had an interesting personality. He was a bachelor, meticulous in dress, with a face strikingly suggestive of intelligence and refinement. Apparently reserved, he was delightful in society of which he was fond. He acquired a fortune and is second only to Erasmus Wilson in his benefactions. At his death he gave $250,000 to the College of Physicians in Philadelphia, and nearly three times that much to the University of Pennsylvania, a considerable portion of which was for the endowment of the department of dermatology.

Henry G. Piffard (1842–1910) was a brilliant, versatile man who suggested many original ideas in dermatology. He was the author of *Diseases of the Skin* (1876), and a *Treatise on Materia Medica and Therapeutics of the Skin* (1881).

L. D. Bulkley (1845–1928) was especially interested in the therapeutics of skin diseases concerning which in his emphasis upon internal causes he was a disciple of the French School. Among his monographs are: *Eczema and Its Management* (1881); *Acne and Its Management* (1885); *Local Treatment in Diseases of the Skin* (1907).

James Nevins Hyde (1840–1910) and William A.

HARDAWAY (1850–1923) were pioneer dermatologists in Chicago and St. Louis, respectively. Hyde's *Diseases of the Skin* (1883), is one of the successful American texts on the subject, and went through eight editions. Other important contributions of his were his studies of blastomycosis and sporotrichosis, and of pellagra in the United States. In 1883 he first described in dermatological literature "synovial lesions in the skin," but he gave credit for its first demonstration to Jones and Markin of St. Thomas Hospital, London. Hardaway under the title Multiple itching Tumors of the Skin, in 1880, described the rare condition which was described by Brocq as lichen obtusus corneus, and to which Hyde gave the name prurigo nodularis. Hardaway is notable for having introduced electrolysis for the removal of superfluous hair in 1877, and with the very careful working out of its technique. Hardaway always gave credit for this procedure to Charles A. Michel, who had devised it for inverted eyelashes. He was particularly skillful in therapeutics and published a *Hand Book of Cutaneous Therapeutics* with Grindon in 1907.

GEORGE HENRY FOX (1846–) who in a long life of work in dermatology has made many contributions, particularly to symptomology, is the one surviving founder of the American Dermatological Association. His photographic *Atlases of Skin Diseases* in 1880, and of *Cutaneous Diseases* in 1885, were valuable early contributions to the spread of dermatological knowledge. In 1888 he described match box dermatitis, which J. C. White and Raasch of Copen-

hagen described independently in the same year. In 1902 he with Fordyce described papular disease of the axillae.[1]

ROBERT W. TAYLOR (1842–1908) in 1876 described idiopathic atrophy of the extremities, which was described later by Hallopeau as acrodermatitis perstans (1897), and has been since described by other names by various other writers. Taylor was one of the ablest syphilographers. His book on bone syphilis and a large part of his book on venereal diseases devoted to syphilis, are important contributions to the subject.

ANDREW R. ROBINSON'S (1845–1924) *Dermatology* (1884) is notable for its full and accurate description of the pathology of the various skin diseases; in this respect it is a landmark. In 1884 he described histopathologically and clinically hydrocystoma.

The early career of PRINCE A. MORROW (1846–1913) is chiefly remembered for his studies in leprosy which he investigated in many parts of the world, and concerning which he made many extensive reports. Later his chief interest was devoted to the prevention of venereal diseases, especially syphilis, in which field he is one of the famous pioneers. He translated Fournier's *Syphilis and Marriage* in 1881. He published *Drug Eruptions* in 1887, which was chosen by the New Sydenham Society for republication by them; *Atlas of Skin and Venereal Diseases* in 1888; *Leprosy* in 1889. His *Social Diseases and Marriage* was the most important book on that subject originally in English. First with Piffard, then alone, and

[1] G. H. Fox, *Reminiscences*. New York, 1926.

then with Fordyce, he edited the *Journal of Cutaneous Diseases* for nine years, and was its mainstay.

JOHN A. FORDYCE (1858–1925) first called attention to the congenital anomoly of the mucous glands of the lip, which, although not a disease, has since been known as Fordyce's disease (1896). In 1892 he independently discovered the condition to which he gave the name multiple benign cystic epithelioma, but which under various names from 1887 to 1900, had been independently described by Jacquet and Darier, Török, Perry and Brooke. These studies are illustrative of many painstaking and able pathological studies which Fordyce contributed to dermatology. With George Henry Fox, in 1902, he first described Fox-Fordyce disease. His extensive studies were among the early valuable contributions in appraising the value of the Wassermann reaction and the arsphenamines in the management of syphilis.

A few other American workers or contributions must be mentioned: S. Weir Mitchell (1829–1914) with Moorhouse and Keen, described glossy skin or atrophoderma neuriticum in 1864. (Sir James Paget described it in the same year). In 1872 Mitchell described erythromelalgia. H. A. Martin first used elastic bandages in the treatment of varicose veins in 1878. F. X. Dercum described adiposis dolorosa in 1892. H. N. Bannister accurately described and recognized the character of angioneurotic oedema (giant urticaria) in 1880, for which the original description is usually accredited to Quincke in 1882. Its first description was by Milton in 1876. Henry W. Stelwagon

(1853–1919), in his *Diseases of the Skin*, was the author of one of the most extensive works in dermatology. Published in 1901, it remains after thirty years an authoritative text on the subject. Milton B. Hartzell (1859–1927) in 1899 clarified the subject of cancers appearing in arsenical keratoses, which Hutchinson had noted in 1887. Grover W. Wende (1866–1926) in 1906 established the syndrome erythema perstans, which brought under one heading numerous cases which had been described by Colcott Fox and others. Hartzell (1901) and Wende (1902) separately demonstrated that the vegetating dermatitis, originally described by Hallopeau in 1890 as a pustular dermatitis with vegetation which others had confused with pemphigus vegetans, was a proliferating dermatitis due to common pus organisms. These references to specific contributions in the case of Hartzell and Wende, as in many other cases, give no adequate conception of the services of the men. They were frequent contributors to many topics in dermatology: both were expert clinicians and pathologists, and in the case of each their leadership was as valuable as their specific contributions.

Two of the most important modern contributions to the infectious granulomas that involve the skin were the demonstration by Gilchrist of blastomycosis in 1894, and by Schenck of sporotrichosis in 1898, both due to pathogenic fungi. T. Casper Gilchrist (1862–1927) originally described blastomycosis (a name which Hyde suggested) under the name blastomycetic dermatitis. This was reported in May,

1894, before the American Dermatological Association. Closely following this was the description by Buschke in July, 1894, of skin lesions in which he found coccidial bodies, and that of Busse in November, 1894, of a fatal case of pyaemia with subcutaneous abscesses and cutaneous lesions in which the pathogenic agent was a yeast. Unlike these cases, Gilchrist's was a demonstration of a characteristic new clinical picture and its cause. His description clinically and mycologically and his demonstration of the pathogenicity of the organism was so accurate and complete that little has been added to it since. It established beyond question an important new disease among the infectious granulomas.

B. R. Schenck in an article entitled "On Refractory subcutaneous Abscesses caused by Fungus possibly related to the Sporotrichia" in 1898, first established the disease sporotrichosis. E. F. Smith classified for Schenck the organism as a sporotrichium, a genus created by Link in 1809, ninety years before, but of which no pathogenic species had previously been demonstrated. Schenck accurately described the disease, completely worked out the mycology of the organism, and established the pathogenicity by animal inoculation. Brayton of Indiana in 1899 demonstrated the second case; and Hektoen and Perkins in 1900 demonstrated the next case and confirmed and enlarged Schenck's work and Hektoen gave the organism the name Schenckii. It was not until 1912, fourteen years later, that Beurmann described the disease in France. Sporotrichosis and tularemia are

the two diseases which have been found and completely worked out in the United States.[1]

[1] E. Wilson, Lectures on Diseases of the Skin. *Lancet*, **1**: 113. Oct. 22, 1842; James H. Sequeira, M.D., London, An Address on the Progress of Dermatology since Hunter's time. *Lancet*, **1**: 1556–60. June 10, 1911; Haldane Davis, Foundation of English Dermatology. *Ann. M. History*, July 1931, p. 368; Fox, H., Dermatology of the Ancients. *J.A.M.A.* **65**: 469. 1915; Herman Goodman, Eponyms of Dermatology. *Arch.* **9**: 675. 1924; *Arch.* **17**: 23, 1928; Augustus Ravogli, History of Dermatology. *Medical Life*, **33**: 492–538. 1926; Elmore B. Tauber, Dermatology, Its Past, Its Present, Its Future. *J.A.M.A.*, **97**: No. 1. July 4, 1931.

Chapter IX

MODERN DERMATOLOGY
PRESENT PHASE

Since 1890

SINCE 1880 improvements in the technique of histopathology and of bacteriology have carried the knowledge of medicine to new frontiers. Many of these advances, especially in histopathology, have been made in dermatology. But regardless of their source these advances have been of great significance for dermatology. The new methods of histopathology have enlarged our knowledge of the minute structure of the skin and have permitted a new study of skin diseases on the basis of their distinctive histopathological features. This has resulted in the rewriting in a large part of the histopathology of the skin. At the same time the whole subject of dermatology has been examined from the standpoint of bacteriology. As a result the pathogenic organisms of most of the diseases that are probably of infectious origin have been discovered. This has resulted in an enormous enlargement of our knowledge of the exact etiology of skin diseases. Of course bacteriology and histopathology of the skin are not finished subjects, but in the thirty years after 1880 their fields were so thoroughly explored that it would seem that only the inaccessible outposts remain unknown. This work in the pathol-

ogy and etiology of skin diseases is the salient feature in the history of dermatology for the thirty years after 1880.

In the meantime advances in knowledge in other fields have changed the complexion of dermatology. Since 1900 we have had a period of revolutionary discoveries in the natural sciences, best illustrated for us in the biological sciences, physics and chemistry. We have a new chemistry and a new physics and equally radical advances in our knowledge of biological processes. Not only have there been these revolutionary advances in basic knowledge, but there have been almost equally startling changes in the application of these fundamental facts through inventions to the uses of medicine. We are in the period of the application of this new knowledge to medicine, and it is this influence that we find furnishing the dominent note in dermatology since 1900. Because of the favorable location for study of diseases of the skin, dermatology, perhaps more than any other field of medicine, has been able to apply to its problem the newest scientific knowledge and methods, and to lead the way for medicine in general in these efforts. A new biophysics and biochemistry are being utilized to throw light upon the problems of dermatology. And probably it is in the field of chemistry especially that there will occur the next important revelations in the knowledge of skin diseases. But one hesitates about this prediction when one remembers the startling advances that have come and are still promised in the field of the biological sciences. Immunology, since the

foundation of that science by Pasteur, has given us new conceptions of disease processes, of tissue reactions, and of the defensive mechanisms of the tissues against disease. Following the ramifications of this subject in our conceptions of toxins and antitoxins and their functions, of serum complement and antibody reactions, of allergy, we are exploring new fields and these explorations are already rich in results. While these new activities characterize the phase of dermatology since 1900, of course this period did not suddenly begin with 1900; as always there has been a more or less gradual evolution. Plumbe and Bazin are examples of pioneers in these activities in dermatology, and their researches date back to the middle of the nineteenth century. To reach the beginning of the period one would have to go back at least as far as Jenner at the end of the eighteenth century. But we are having now the rich culmination of the period in dermatology as well as in medicine in general.

The leaders in the first large application to dermatology of the new histopathology and bacteriology, as well as of the latest advances of other departments of the biological sciences and of physics and chemistry, are Neisser and Unna. In Unna's work especially we find the spirit of a new era.

Albert Neisser (1854–1916) was the third in succession in the Breslau School and the greatest in the hierarchy. He was a student of Heidehain, Cohnheim, Weigert, Koch and Ehrlich. To a broad clinical training he added a thorough knowledge of laboratory medicine. He worked with distinction in histology,

pathology, bacteriology, protozoölogy, immunology, and, as they developed, utilized x-rays, ultraviolet light and all of the newer methods and agents applicable to the handling of the problems of dermatol-

ALBERT NEISSER

ogy. Utilizing the discoveries of Koch and Weigert in staining methods he discovered the gonococcus in 1879, in his twenty-fifth year. His comprehensive ability was beautifully illustrated in this study of gonorrhea, the first work that brought him distinction. He established the pathogenicity of the orga-

nism, the essentially local character of the disease but its tendency to systemic metastases, the importance of bacteriological examinations, not only in diagnosis, but of successive examinations as criteria for the effects of treatment and finally of cure. His recommendations for treatment on the basis of his researches in the toxins of gonorrhea were pioneer work in immunology and introduced the use of gonorrheal vaccine in diagnosis and therapeutics. Again utilizing the new staining methods he and Hansen stained the lepra bacillus in 1879, and by this achievement inaugurated modern investigations in the sanitation and pathology of leprosy. He applied all of his knowledge to the problems of skin diseases. His were among the last researches necessary to establish finally the tuberculous character of lupus. He investigated the anatomy and physiology of the skin. His studies included work on eczema, urticaria, ringworm, anthrax, actinomycosis, glanders, molluscum contagiosum, xeroderma pigmentosum, xanthoma, naevi, myomatous and epithelial degenerations of the skin, leukemic dermatoses and pemphigus. He made intensive researches on new drugs and therapeutic methods, on the effects of physical agents on normal and diseased skins, on the effects of bacteria on the skin and on the antiseptic effects of therapeutic agents. The great researches of his later life were in syphilis whose problems he attacked with new zeal, after Metchnikoff and Roux's demonstration of the inoculability of the disease in apes had made the experimental study of syphilis possible. In order to have his apes more

nearly under natural conditions, he established a complete laboratory in Batavia, Java, and there in 1904, 1905 and 1907 he reviewed experimentally most of the problems of syphilis. He threw new light upon the problem of immunity in syphilis, the methods of the dissemination of the spirochaete through the body, the extent of the involvement of the internal organs, the processes of development and of subsidence of the disease, and the effects of treatment on it. He also studied experimentally the similarities and the distinctions between yaws and syphilis. During this same period, with Wassermann and Brück, he utilized his knowledge of the processes of immunity in the successful application of the serum complement reaction, which Bordet and Gengou had discovered, to the diagnosis of syphilis. So important were his contributions in this study that his name is linked with that of Wassermann and Brück in the original designation of the Wassermann reaction. He was equally as important a figure in the study of the social and scientific problems of syphilis and in bringing its problems into the public conscience.

Neisser succeeded Simon as professor of dermatology in Breslau in 1882; he soon became an eminent figure in dermatology and later a dominant figure in German dermatology and indeed in German medicine. He had the qualities of leadership; tall and spare, a graceful figure, swarthy with deep-set keen black eyes—these physical qualities combined with his great ability to making him a striking personality. His leadership extended not only to scientific medi-

cine, but to the social problems of medicine to which he gave the best of his abilities and his energies. He is another of the many illustrations of the men who have found time for extensive scientific work while at the time they carried on a very large practice. A pleasant glimpse of Neisser and also of his colleague Wassermann is given in a letter of Osler's from the Congress für Innere Medicin in Vienna in 1908.

On Tuesday morning Professor Neisser of Breslau opened the discussion on the "Present Position of the Pathology and Therapy of Syphilis." This was a splendid address, delivered without notes, in a good clear voice, and the subject matter arranged in a most orderly manner. . . . Neisser was followed by Professor Wassermann. . . . Both Neisser's and Wassermann's addresses were models.

Paul Gerson Unna (1850–1929), son of a physician, like Neisser had a thorough preliminary education in which especially the physical sciences were emphasized. In his medical education he came under a brilliant group at Strassburg, including Waldeyer. Later he had his dermatological training in Vienna under Hebra and Auspitz. He was a disciple of Waldeyer and Auspitz. His thesis for his medical degree (1876), suggested by Waldeyer, upon the embryology of the skin, in which he introduced new staining methods with picrocarmine and osmic acid, showed the bent of his mind and his originality of method. The brilliant original mind of Auspitz probably confirmed his bent for dermatology, and accounted for his early expertness and ingenuity in histology and

histopathology. His career was a long series of investigations, based upon his original applications of the knowledge of the physical and biological sciences to the problems of dermatology. Conceiving the idea

PAUL GERSON UNNA

that differences in chemical reactions in tissues accounted for the different ways in which they took stains, he introduced a number of new and successful staining methods. His early efforts were to find specific stains for nuclei, protoplasm and intercellular sub-

stance. With these he was able to establish differences in tissues that had hitherto been regarded as homogeneous. He described plasma cells; he showed various degenerative types of cells such as "foam cells" and "balloon cells"; he furnished a new knowledge of the nuclear and granular elements of cells. He demonstrated many new characteristic features in the skin such as acid nuclei, degeneration of the intercellular substance, granoplasm, collagen, elacin, kollacin and kollastin. With Tanzer he developed the orcein stain for the elastic fibers of the skin. He described the changes in structure and composition of the epidermal cells. He demonstrated the production of fat in the evolution of the epidermal cells and in the secretions of the sweat glands. He analyzed the cutaneous fats chemically and differentiated them by spectroscopic analysis. He studied the cornification of cutaneous epithelium, using digestive and other new clinical methods, and added new knowledge of the structure of horn cells and the processes of cornification. It was particularly Unna's service to emphasize the importance of the chemical problems of the skin. In this field he was not an amateur but a master, respected by the ablest specialist in biological chemistry. He was equally distinguished in bacteriology. His bacteriological work included suggestions of new bacterial stains and bacterial studies of many diseases. An illustration of his expertness in such cases is found in his demonstration in 1892 of the Ducrey-Unna bacillus in the tissues which Ducrey had found only in the pus of the soft chancre.

By investigations of this sort, constantly applying to the study of both healthy and diseased skin all the resources of the physical and biological sciences, he contributed through a long life a continuous series of new ideas and new observations covering the whole field of dermatology. Many of his suggestions were revolutionary and startling, and were slow of acceptance, but all were suggestive and provocative of study and research. His activities of course were reported in a great stream of papers. Largely as a vehicle for his own work he established in 1882 the *Monatshefte für Dermatologie*. His investigations and his views in dermatology were finally embodied in his *Histopathology of the Diseases of the Skin*, which, begun in 1889 as the section on histopathology of the skin for Orth's *System of Pathology*, appeared in 1894 as a volume of twelve hundred pages (English translation by Norman Walker). Technically a work on histopathology, it is an exposition of Unna's ingenious and original conceptions in the whole domain of dermatology. It is a monumental work and a landmark in dermatological history. In addition to his *Histopathology* his contributions to the pathology and bacteriology of individual dermatoses are beyond enumeration here; they cover the whole of skin diseases.

Unna's interest in the academic and scientific aspects of dermatology was not greater than his interest in its practical problems in symptomology, diagnosis and treatment. His major contribution in nosology was his establishment of the disease seborrhoeic dermatitis. In diagnosis he was particularly con-

cerned with the development of the subject through histological and other laboratory methods. In therapeutics he was as ingenious and as original as he was in the histopathology and chemistry of the skin. He first gave satisfactory working theories, if not demonstrations, of the chemical explanations of many remedies; of the reducing action of sulphur and of ichthyol and resorcin, which he introduced; of the reason for the cooling action of powders and of "cooling" salves. His suggestions of new methods of applying drugs make a long list, and give really a new materia medica and therapeutics of skin diseases. One illustration among a great many that might be offered of his ingenuity in the use of familiar materials in therapeutics is his fixed gelatin dressings. In the therapy of skin diseases his *Allgemeine Therapie* greatly enlarged its scientific basis. There is no field of dermatology in which the influence of Unna's investigations are not to be found. It is not too much to say that by the originality of his conceptions and the ingenuity of his methods, he not only inaugurated but definitely established a new period.

It is interesting and a remarkable fact that Unna's career was worked out with his own independent resources, unaided by university or other institutional support. The University of Hamburg was established only in 1919, and his appointment then as professor of dermatology was simply an inevitable gesture. Early in his career, 1881, he established a private clinic in Eimsbüttel near Hamburg, and a few years later he began the development of a private hospital

and a laboratory. This grew into a large institution, and for a generation was a center, perhaps the center for dermatological students throughout the world. There Unna developed an international practice, and in this center his scientific work was done upon his own material. There also went out from this center a succession of Unna's disciples who have carried his influence to all parts of the world. Among the pupils are many of the ablest dermatologists of the present generation. Certainly no foreigner except Hebra compares with Unna in his influence upon American dermatology.

Unna was short—five feet five or six inches—with a broad frame, fairly but not excessively stout, and with a quiet pleasing manner. He was the embodiment of kindness and courtesy to his students, and a stimulating teacher. His days were filled with work, from seven o'clock in the morning until evening; then he had one diversion in which he took great pleasure—after dinner he enjoyed an hour with his violoncello.

The most pacific of men, Unna paid the penalty of an innovater in the hostility which his original concepts caused among German dermatologists. But he lived long enough to see the acceptance of his many sound contributions to dermatology and the appreciation of the originality of his work. Few would now fail to agree with Iwan Bloch's estimate of him:

> As Hebra appropriated . . . the newly proferred clinical and pathological views and methods of Skoda and Rokitansky, and made them fruitful for dermatology,

so . . . Unna appropriated all the aids of modern biological science of our times for the investigation and comprehension of dermatology. No other investigator has worked so uniformly and stimulatingly in all of the branches of the science of skin diseases, nor has anyone brought so many new and enlightening ideas into the darkest fields of this difficult subject.

Neisser and Unna are preëminent figures, but with and following them have been many other workers who have applied all the resources of modern science to the uses of dermatology. The biological sciences have been most useful. Bacteriology is still fruitful. We have gotten a new insight into the defensive mechanism of the body and into the processes of immunity. Anaphylaxis and allergy are terms and, indeed, concepts that have been introduced since 1900. The enlarged capacity and the greater precision of modern chemistry have increased the resources of medicine in every field. In dermatology it is offering methods of promise in the study of the chemistry of physiological and pathological processes, of the effects on the skin of metabolic disturbances, of endocrine glands and hormones, and of vitamins. Chemistry is giving us new substances such as the radioactive metals and innumerable new synthetic chemicals that are useful not only in the treatment of skin diseases but in the study of its many problems. Physics has given to our use during this period ultraviolet light, x-rays, radium, refrigeration—all representing new principles in their application to dermatology—and manifold new uses of electricity, the forerunner

of which was electrolysis. Dermatology has, in short, immensely increased the efficiency of the old methods for attacking both the academic and the practical problems of medicine, and has developed many new ones.

Dermatology is progressing through the utilization of all of the new additions to knowledge. They have greatly enlarged its field. They have also much increased its complexity. And not only have its scientific boundaries been extended, but its geographical as well. Its activities cover the civilized world and its story, varying only in degree, is much the same everywhere. All parts of the world are contributing to its progress.

In bacteriology perhaps the most striking contribution has been the demonstration of the very great importance of the rôle played by fungi in diseases of the skin. This is not only in the mycotic diseases generally regarded as grave, such as actinomycosis and blastomycosis, but more in the discovery of the extent of the ravages of the relatively trivial ringworm fungi. The beginning of our new knowledge in this field was the brilliant work of Sabouraud in redemonstrating the multiplicity of the ringworm fungi, reviving, as Sabouraud pointed out, the discoveries of Gruby a half-century before. Following this has come the important work of many men in establishing the unexpected rôle of these fungi in the etiology of familiar eruptions, the wide prevalence of these diseases, and new methods for their treatment.

A new chapter is being written in skin diseases, in

a larger understanding of the rôle of metastasis in distributing skin diseases. Neisser in his studies of the metastases of gonococcus called attention to the importance of this in what we have regarded as local infections. Finer methods have shown that the actual distribution through the blood of the specific organisms themselves is the explanation in part of generalized eruptions which were hitherto supposed to have been due to the toxins of the organism, and the investigations of present workers has shown that this is the explanation in part of the eruptions of diseases produced even by such gross organisms as the trichophyton fungi.

Following the work of Theobald Smith, von Pirquet and others in explaining the phenomena of serum sickness, there has arisen a new conception of certain disease-producing processes which has largely been gained through their manifestations in the skin. From these studies have come our conceptions of anaphylaxis and allergy. We are getting a new explanation of eruptions, of which the tuberculides, for which we are indebted to Caesar Boeck, was the first prototype, and of which the leukemids and the trichophytids are perhaps the latest. The researches in anaphylaxis and allergy are furnishing new concepts of the pathology of many toxic dermatoses. Not only does this apply to eruptions of systemic origin, but the researches of Jadassohn, Bruno Bloch and others furnishes new insight into the mechanism of production of skin diseases excited by local causes. In this same field we have had the problem of applying to

the treatment of skin diseases the artificial stimulation of the defensive mechanism of the body, first by the use of specific vaccines, and second by the production of anaphylactic shock from the injection of non-specific substances. The brilliant example of the success of diphtheria antitoxin has not been followed by the expected success of similar methods of infections generally, and this is true in skin diseases also. But the treatment of skin diseases both by specific antitoxins and by non-specific foreign proteins is still among the active and promising problems in dermatology.

Of course as the sciences of anatomy, physiology and pathology have advanced they have thrown new light on the problems of the skin. Perhaps the best illustration and the most important result of this in dermatology is the blood. The new staining methods introduced by Ehrlich have given us a new knowledge of the cytology and pathology of the blood. As a result of this we have the lymphoblastomas, a new grouping of various familiar old cutaneous pictures, and for the first time an understanding of their pathology. It is explaining obscure forms of pruritus, making a new group of erythrodermas, and a new group of granulomas, of which mycosis fungoides has long been the prototype. This is a new sort of illustration of the synthesis of various confusing and little understood dermatoses into one generalization upon a pathological basis.

The finer methods of biochemistry have been applied to the blood as well as other tissues, in exploring

in it the rôle of changes in the chemical composition of the blood in the etiology of skin diseases. Certain illustrations of this have long been known, such as the production of pruritus by bile in the blood, the effect of hyperglycemia in lowering the resistance of the skin to infection and in causing the occurrence of a rare form of xanthoma in diabetes. A less certain illustration is the rôle of fat changes in the blood in the production of simple xanthoma. All of the resources of chemistry are being applied to these problems, and cutaneous diseases are being examined from this standpoint. It is an important field which must be worked out to more exact knowledge. It cannot be said, however, that the positive results thus far have been striking. On the other hand, the negative findings have been extremely interesting in their very failure thus far to establish the importance of changes in the composition of the blood in the production of various dermatoses in which they have been supposed to play so large a part.

Through the researches of Pfeiffer, Brocq, Bruno Bloch and others, particularly through the work of Erich Hoffmann who suggested the word esophylaxis for this function, we are getting a new conception of the importance of the skin as a secretory organ producing harmone-like substances which play a part in the maintenance of the general health and as an important defensive mechanism, not only for the skin but for the body in general. As W. F. Peterson points out, their findings "all point to the skin as fundamentally involved in the mechanism of resistance."

The field is just being explored, but its possibilities are large.

The application of the knowledge of physics to dermatology has had far-reaching results, particularly

NIELS R. FINSEN

in the important field of therapy. First in the field of radiant energy we have long been familiar in a general way with invigorating properties of sunlight, and vague application of this has been often suggested.

It was, however, Niels R. Finsen (1860–1904), who by his researches in Copenhagen (1894 to 1897), on the use of ultraviolet light in the treatment of tuberculosis, put this subject upon a scientific basis.[1] He established the strong physiological effects of light upon the tissues, and its value as a therapeutic agent. He showed that these effects came chiefly from the rays of short wave length at and beyond the violet end of the spectrum, and he devised efficient apparatus for the artificial production of these rays in sufficient quantities. This gave us the first satisfactory treatment of lupus, and opened up a new important field of therapy. The agent as a method for the destruction of gross lesions has proved useful chiefly in lupus. If it had done no more it would have been abundantly justified. Out of the work of Finsen has come the present extensive use of ultraviolet rays to stimulate the secretory function of the skin and thus increase bodily vigor and resistance. Its value is already established, but its possibilities both in general medicine and in dermatology are still not yet defined, and are properly the subject of wide interest.

Almost at the time of Finsen's introduction of ultraviolet light, Roentgen discovered x-rays (1895), which, it was soon found through unfortunate experience, had the actinic properties of ultraviolet light exaggerated to an unexampled degree. It was inevitable that this action of x-rays upon the living tissues should soon be given therapeutic trial, and this was

[1] Finsen, *Phototherapy*, translated by Sequeira. London: Arnold. 1901.

first done (1896) by Freund and Schiff of Vienna. Freund not only gave it therapeutic trial (1897), but designed proper apparatus and offered a careful technique for its safe employment, and on the basis of its action upon the tissues of the skin also established a fairly definite set of therapeutic indications for its use. Immediately its great therapeutic possibilities were recognized, and since 1900 they have been developed by workers through the world. This has given us a new principle in therapeutics, an agent that within limitations not only affects diseased tissues relatively deeply seated, as ultraviolet light does superficial tissues, but that can produce permanent alterations in structure and in function of cutaneous tissues. It is powerful and therefore dangerous, but, taking it all in all, is one of the most useful additions to the therapy of skin diseases. All of the widespread therapeutic uses of x-rays have come from its original successful utilization in the treatment of skin diseases.[1]

The Curies discovered radium in 1898. Three years later Becquerel burned himself from carrying a bit of it in his pocket. It was then found that it had effects upon tissue like those of x-rays. It was first explored biologically by Danlos, Becquerel and others in Paris as the first x-ray therapy was developed in Vienna. The studies of Wickham and Degrais were especially important in introducing it into general therapeutic use.[2]

[1] Freund, *Radiotherapy*, pp. 229–237.

[2] Wickham and Degrais, *Introduction*.

Another therapeutic method which physics has given us has been the application of intense cold under pressure in the treatment of skin diseases. This is utilized either as a stimulating agent when superficially applied, or when applied under pressure as an agent for the destruction of superficial and subcutaneous tissues by sclerosis without destruction in mass, or for the complete destruction of lesions by freezing to the point of actual necrosis. Superficial freezing by spraying or by the application of highly volatile agents, such as ethyl chloride, had proved useful in producing a superficial inflammatory reaction. Deep freezing by the application of intense cold under pressure was first applied with liquid air (1899), but this, being relatively inconvenient in application and not easily obtainable, was largely replaced by solid carbon dioxide in 1907. They have both proved efficient and have been shown to have a valuable field of therapeutic usefulness.

It is activities of this sort that have distinguished dermatology in the last thirty years. The general result has been to put the subject more and more upon a scientific as contrasted with an empirical basis. This particularly applies to treatment. Much progress has been made, but the possibilities are almost unlimited and the problem intricate and difficult; much has yet to be done. There can be no doubt of the fruitfulness of such investigations in the future, not only for dermatology but for the light which will be thrown by their revelations upon many of the problems of disease processes in general.

The unique opportunity of dermatology lies in the fact that normal and pathological processes, using the word "pathological" in its broadest sense, may be studied in the skin under natural living conditions; and it is altogether probable that experience will show in the future, as it has in the past, that the living skin is the best field for the study of many of the important problems of medicine. It is in the interpretation of biological and pathological processes in general, as they can be observed during life in the skin, that dermatology has its most interesting prospects for the future.

The problems of dermatology are now being studied with knowledge and enthusiasm the world over. Contributions are coming from Japan, India, all of Europe, the Americas, around to Australia again. There are individual workers of such exceptional ability throughout the world that preëminence through individuals can hardly be said to lie anywhere. Continental Europe, however, still has the advantage, in organization and in institutional facilities, for the comprehensive study of the multitudinous problems of dermatology through organized effort. For the rest of the world it is more a question of progress through individual effort. England and the United States both still suffer from lack of abundance of organized facilities. In both, betterment in this respect is taking place, but we are only feebly following the leadership of Continental Europe, particularly of Germany, in furnishing the opportunities which only large institutions can offer for investigating most effectively the

unsolved problems of dermatology. But there are investigators everywhere who have the enthusiasm, the ability, the capacity for leadership, and the background of training; these men are the important thing, not only because of their own good works, but because they are producing followers trained in the same traditions to carry on for the future. And there is little room for doubt that the historian of the twenty-first century will report that the brilliant work in dermatology in the first third of the twentieth century justified the hopes then held for the future.

AN HISTORICAL INDEX OF DERMATOLOGY

THIS index pretends neither to absolute completeness nor absolute accuracy. No one could make a list, much less an index, of the facts of dermatological history that could pretend to completeness, nor could one be entirely accurate when assigning personal credits for the facts of dermatology. Many questions of priority are indeterminable. But this index does represent the sifting of an immense amount of historical material that I thought should not be wasted through pride in ideals of perfection. Although very full bibliographies are found in Richter and Bloch, no similar index, so far as I know, of dermatological history exists, and I hope this will be useful to others, as it has proved useful to me and my associates. With each item one or more references are usually given. These references are chosen as a rule from the standpoint of accessibility in order that the reader may easily get a lead for as full a study of the subject as he pleases. Where no references are given the authority is the text of this work.

ABBREVIATIONS

Arch.—Archives of Dermatology and Syphilology, Chicago.

J.C.D.—Journal of Cutaneous Diseases, New York.

B.J.D.—British Journal of Dermatology, London.

Pusey text.—*The Principles and Practice of Dermatology*, 4th Edition. D. Appleton and Company, 1924.

Castellani and Chalmers.—*Manual of Tropical Medicine*, 3rd Edition, William Wood and Company, 1919.

Hebra.—*Diseases of the Skin*, Faage translation. New Sydenham Society, London 1865.

Kaposi.—*Diseases of the Skin*. William Wood and Company, 1895.

Ormsby.—*Diseases of the Skin*. Lea and Febiger, 1921.

Sutton.—*Diseases of the Skin*, 8th Edition. C. V. Mosby Company, 1931.

Crocker.—*Diseases of the Skin*. 3rd Edition, P. Blakiston's Son and Company, 1905.

Knowles.—*Diseases of the Skin*. Lea and Febiger, 1923.

Garrison.—*History of Medicine*, 4th edition. W. B. Saunders Company, 1929.

Rayer.—*Diseases of the Skin*, 2nd edition. Baillière, Tindall and Company, 1835.

Sutton and Sutton.—*An Introduction to Dermatology*. C. V. Mosby Company, 1932.

J.A.M.A.—Journal of American Medical Association.

ACANTHOSIS NIGRICANS.—Janovsky and Pollitzer 1890 independently. Darier 1893 dystrophy papillaire et pigmentaire. Kaposi 1898 keratosis nigricans. REF.: Warthin, *Arch.* **10:** 160. 1924. Knowles *et al.*, *Arch.* **19.** 1929.

ACNE.—Known to Greeks, Aetius 542. Celsus discusses it as Varus. Gorraeus 1578 uses the name acne. Willan and Bateman 1817 divided it into acne simplex, punctata, indurata, and rosacea. Erasmus Wilson 1842 gave the name acne vulgaris and separated it from acne rosacea. REF.: Hebra **2:** 280.

ACNE BACILLUS.—Unna 1893. REF.: Lovejoy, *J.C.D.* **29:** 80. 1911.

ACNE AGGREGATA SEU CONGLOBATA.—*See* Acne Congoblata.

ACNE AGMINATA.—*See* Acnitis.

COLLOID ACNE.—Brocq 1921. REF.: S. S. Greenbaum, *Arch.* **8:** 416. 1923.

ACNE CONGLOBATA.—Ludwig Spitzer 1902 as dermatitis follicu-

laris et perifollicularis conglobata. Edward Lang 1902 independently. Karl Reitmann 1908 as acne aggregata seu conglobata. REF.: Michaelson and Allen, *Arch.* **23.** 1931.

ACNE FRONTALIS SEU VARIOLIFORMIS.—*See* Acnitis.

ACNE KELOID.—*See* Dermatitis Papillaris Capillitii.

ACNE KERATOSA.—Crocker 1899. REF.: Ormsby, p. 1037.

ACNE LUPOSA.—*See* Acnitis.

ACNE PILAIRE.—*See* Acne varioliformis.

ACNE ROSACEA.—Hippocrates mentioned the condition. Arabians referred to it in fairly plain terms. Cornelius gave good description. Guy de Chauliac gave treatment. Erasmus Wilson 1842 separated it from other acnes. REF.: Rayer, p. 477.

ACNE SEBACÉE.—*See* Seborrhoea.

ACNE TELANGIECTODES.—*See* Acnitis.

ACNE URTICATA.—Kaposi 1893. REF.: Adamson, *B.J.D.* **27:** 7. 1915.

ACNE VARIOLIFORMIS.—Bazin 1831 as acne pilaire. Hebra and Kaposi described it as acne varioliformis. REF.: Kaposi text 1895, p. 372.

ACNITIS.—Barthélemy 1891. Tilbury Fox 1878 disseminated follicular lupus. Pick 1889 acne frontalis seu varioliformis. Kaposi 1895 acne telangiectodes. Crocker 1895 acne agminata. Colloid degeneration of skin. Acne luposa-lupoid sycosis-Milton-Lupus miliaris. Varus nodulus. REF.: Wise, *Arch.* **4:** 588. 1921. Schamberg, *J.C.D.* **27:** 14. 1909.

ACRODERMATITIS CONTINUÉE.—*See* Acrodermatitis Perstans.

ACRODERMATITIS CHRONICA ATROPHICANS.—Herxheimer and Hartmann 1902 separated it from other atrophies which had been called by a number of different names. R. W. Taylor 1876 as progressive idiopathic atrophy of the skin. REF.: Wise, *J.C.D.* **32:** 295. 1914.

ACRODERMATITIS PERSTANS (ACRODERMATITIS CONTINUÉE).—Hallopeau 1890. REF.: Ebert, Paper in press.

ACRODYNIA, ADULT.—Chardon and Alibert 1828.

ACRODYNIA, JUVENILE.—Evers 1880 in India as ignipeditis. H. Swift 1914 as erythredema, the first vivid account. C. F. Clubbe as pink disease. Feer, 1920 as neurosis of vegetative nervous system or Feer's disease. J. H. Thruston and D. H. Patterson 1922 as dermatopolyneuritis. REF.: Goodman and Burr, *Arch.* **23.** 1931.

ACROMEGALY.—Paul Marie 1886. REF.: Knowles, p. 245. Sutton, p. 568.

ACHROMIA PARASITARIA.—Ehrmann 1854 is said to have made

the first report of a case. Jeanselme 1904 named the condition. REF.: E. W. Kistiakowsky, *Arch.* **15**: 695. 1927; Pardo Costello, *Arch.* **25**: 5. Surgeon General Index.

ACTINIC RAYS IN SKIN DISEASES.—Niels R. Finsen 1896. REF.: Knowles text, p. 55.

ACTINOMYCOSIS.—Bollinger 1876 found that lumpy-jaw of cattle which had been recognized since 1785 was due to a fungus. Harz 1877 named it actinomyces bovis. Israel 1877 found fungus in Man. Ponfleck 1879 proved both were the same. Majocchi 1887 first to describe skin lesions. REF.: Castellani and Chalmers, p. 2130; Puestow, *Arch.* **20**: 643. 1929. Ormsby, p. 912.

ADDISON'S DISEASE.—Addison 1855 "On the Constitutional Effects of Disease of the Suprarenal Capsules." Trousseau suggested the name Addison's disease.

ADENOMA SEBACEUM.—Rayer 1835 as végétations vasculaires, Addison and Gull 1851 as vitiligoidea. Balzar 1881 independently as adenomes sébacés. Pringle 1890 established it. REF.: Ormsby, p. 610; Crocker, p. 986.

SENILE SEBACEOUS ADENOMA.—Unna 1894 described it but without a name. Nomland, at Pusey's suggestion, 1930 named it. REF.: *Arch.* **22.** 1930.

ADIPOSIS DOLOROSA.—Dercum 1892.

AINHUM.—Messum 1821 probably the first description. J. F. Da Silva Lima 1852 first complete account. REF.: Castellani and Chalmers, p. 224.

ALASTRIM.—Anderson 1866 apparently first account of an outbreak. REF.: Castellani and Chalmers, p. 1491.

ALBARRAS NIGRA.—*See* Ichthyosis.

ALBINOS.—Recognized from early antiquity. Russi 1793 studied histopathology. REF.: Hebra, p. 175.

ALEPPO BOIL.—Albert 1828, pustule d'Alep. REF.: Goodman, *Arch.* **17.** 1928.

ALLERGY.—Idiosyncrasies to foods recognized from early antiquity. Blackley 1873 made first experimental observation of skin sensitiveness in allergy, worked with pollens in seasonal hay-fever. J. Jadassohn 1895 patch test. Word allergy coined in 1905 by Von Pirquet meaning an altered reactivity. H. L. Smith 1909 tested foods, a case of buckwheat poisoning. W. L. Moss 1910 used intradermal test preliminary to injection of antitoxic serum. R. A. Cook 1911 used intradermal diagnostic test. Schloss and Cooke 1913 independently reported on skin reactions from foods. Gave impetus to development of allergy.

REF.: Piness and Miller, *Arch.* **14.** 1926. J. T. Belgrade, paper in press in Arch.

ALOPECIAS, VARIOUS FORMS.—Egyptian literature of 5000 years ago under other name.

ALOPECIA AREATA.—Celsus (25–50 B.C.) given credit (area celsi) but it can be recognized in Egyptian literature of 5000 years ago. Celsus distinguished between symptomatic and senile types. Sauvages first used the term alopecia areata. Cazenave 1840 distinguished between porrigo decalvans (alopecia areata) and herpes tonsurans (tinea). Cazenave 1847 associated it with vitiligo and thought they were both of nerve origin. Jacquet 1902, attributed it to defective teeth. REF.: Williams, *Arch.* **15.** 1927. Wright, *Arch.* **29.** 1929.

AMEBIASIS CUTIS.—Engman and Heitaus 1919.

ANAPHYLAXIS.—Differentiated from immunity by Richet 1902. REF.: Fordyce *J.C.D.* **30:** 129. 1912.

ANETODERMA.—*See* Atrophy, Macular.

ANGIOKERATOMA.—Bazin 1862 as nevus a pernione. Cottle 1877 first observation. Breda 1881 dermatite de congelazione. Mibelli 1889 name, clinical and pathological description, generally credited. REF.: Wile-Belote, *Arch.* **18.** 1928. Fordyce, *J.C.D.* **14:** 84. 1896. Traub, *Arch.* **24.** 1931.

ANGIOLUPOID.—Brocq and Pautrier 1909. REF.: Schard, *J.C.D.* **37:** 86. 1919.

ANGIOMA SERPIGINOSUM.—Hutchinson 1889 as a peculiar form of serpiginous and infective naevoid disease. Crocker 1894 named it. REF.: Wise, *J.C.D.* **31:** 725. 1913.

ANGULUS INFECTIOSUS.—*See* Perleche.

ANTHRAX.—It has been traced to the time when Moses threatened Pharaoh with an epidemic. Mentioned by Homer, Virgil, Hippocrates, Galen and Pliny. In 1613, 60,000 people died of it in Southern Europe. By end of sixteenth century it was suspected that the disease was transmitted to man. Denis Fournier 1671 first description. Koch 1876 discovered organism. Pasteur 1880 vaccine. Marshoux 1895 anti-anthrax serum. REF.: P. F. Lucchesi, *Amer. Journal of Med. Sciences* **183:** 795. 6 June 1932. Hull, *Diseases Transmitted From Animals to Man.*

ANTHRAX IN HAIR WORKERS.—Rayer about 1835.

ANTHRAX OF THE TONGUE (GLOSSANTHRAX).—Heyfelder 1834 described a case in a butcher who, after slaughtering diseased sheep, held the knife between his teeth. REF.: Butlin-Spencer, *Disease of Tongue,* p. 77.

ARGYRIA.—Zollner 1795. REF.: Kaposi Text, p. 422.

ARSENIC IN TREATMENT OF SKIN DISEASES.—Thomas Girdlestone 1806 observations on effects of Dr. Fowler's Mineral Solution in lepra and other diseases (lichen, prurigo, psoriasis). REF.: Bechet, *Arch.* **23.** 1931.

ATROPHODERMA ALBIDUM.—Kaposi 1895.

ATROPHODERMA NEURITICUM (GLOSSY SKIN).—James Paget 1864. S. Weir Mitchell with Moorhouse and Keen independently 1864.

ATROPHODERMA RETICULATA SYMMETRICA FACIEI.—Pernet 1916. REF.: Sutton, p. 581.

DIFFUSE IDIOPATHIC ATROPHY OF SKIN.—Buchwald 1883. REF.: Sutton p. 581.

ATROPHY OF THE CELLULOADIPOSE TISSUE.—*See* Lipodystrophia Progressiva.

ATROPHY OF FATTY LAYER OF SKIN.—Gilchrist and Ketron 1916. REF.: Sutton, p. 585.

ATROPHY-MACULAR (ANETODERMA).—Jadassohn 1891 the beginning of concrete knowledge of macular atrophy of skin. REF.: Chargin, *Arch.* **24:** 615. 1931.

IDIOPATHIC PROGRESSIVE ATROPHY (ACRODERMATITIS CHRONICA ATROPHICANS).—Taylor 1876.

AUTOHEMOTHERAPY.—Ravaut 1913. REF.: Burgess, *B.J.D.* **44:** 125. 1932.

BALDNESS.—Ebers Papyrus sixteenth century B.C. mentions it.

BLASTOMYCOSIS.—Gilchrist 1894 established it. Wernicke 1890 described two cases as protozoic dermatitis. REF.: Castellani and Chalmers.

BLEPHAROCHALASIS.—Fuchs 1916. REF. Sutton, p. 583.

BONBAS.—*See* Frambesia Tropica.

BOTRYOMYCOSIS.—*See* Granuloma Pyogenicum.

BOWEN'S PRECANCEROUS DERMATOSES.—Bowen 1912. REF.: *J.C.D.* **30:** 241.

BROMIDROSIS—C. H. Fuchs 1840. REF.: Jadassohn's *Handbuch.*

BUBOES.—Hippocrates.

CALCIFICATION OF SKIN.—Thimm 1902. REF.: Ormsby, p. 609.

CARBON DIOXIDE SNOW.—William Allen Pusey 1905. Trans. American Dermatological Association *J.A.M.A.* **49:** 10, p. 1354. 1907.

CANCER.—Celsus (25–50 B.C.) warned against manipulation. Known from time immemorial. Vienna school established modern recognition of epitheliomas. Rokitansky 1842 established the pathological picture. REF.: Hebra, **4:** 194.

RODENT ULCER.—Jacob 1827. REF.: Graham Little, *B.J.D.* **27:** 145. 1915.

ARSENICAL CANCER.—Paris 1825 saw some cases in industrial workers in tin and copper. Hutchinson 1887 credited with first calling attention to it. REF.: Milch, *Amer. Journal of Surgery* **16:** 1. April 1932.

BASAL-CELL CARCINOMA.—Krompecher 1902. REF.: Sutton, p. 765.

BASAL-SQUAMOUS CELL EPITHELIOMA.—Darier and Ferrand 1922. REF.: Sutton, p. 776.

CANCER EN CUIRASSE.—Velpeau 1839. REF.: Pollitzer, *J.C.D.* **27:** 143. 1909.

CHIMNEY SWEEP CANCER.—Percival Potts 1775. REF.: O'Donovan, *Arch.* **19.** 1929. Schamberg, *J.C.D.* **28:** 648. 1910.

CARCINOMA ERYSIPELATODES.—H. Killtner 1924 as erysiplas carcinomatosum. REF.: Rasch, *B.J.D.* **43:** 7, p. 351.

MORPHOEA-LIKE EPITHELIOMA.—Danlos 1899 first report. Radcliffe-Crocker 1896 presented a case for diagnosis to International Dermatological Congress; was not recognized. Pernet 1899 diagnosed and reported Radcliffe Crocker's Case. REF.: Heidingsfeld, *J.C.D.* **31:** 379. 1913.

EPITHELIOMA, TREATED WITH X-RAYS.—First case by Stenbeck 1899. REF : McKee, *J.C.D.* **37:** 179. 1919.

EPITHELIOMA IN PATCH OF PSORIASIS.—Pozzi 1874. REF.: Wright and Friedman, paper in press in Arch.

CARCINOSIS CUTIS MULTIFORMIS VERRUCOSA.—*See* Epithelioma, multiple Benign Superficial.

CARCINOIDE.—*See* Epithelioma, Multiple Benign Superficial.

CARBUNCLE.—Egyptian literature of 5000 years ago.

CAROTINEMIA (CAROTINOID PIGMENTATION OF THE SKIN).—Von Noorden 1904 as xanthosis diabetica. Named by Hess-Meyers 1919. REF.: Wise-Diasio, *Arch.* **20:** 862. 1929.

CHANCROID.—Ducrey 1887 discovered organism. REF.: Garrison, p. 582.

CHAPPA.—*See* Lazarine Leprosy.

CHELITIS EXFOLIATIVA.—Rayer first description about 1835. Besnier 1891 wrote about it. Stelwagon 1900 suggested the name. REF.: Sutton, 1303.

CHELITIS GLANDULARIS APOSTEMETOSA.—Volkmann 1870. REF.: Sutton, 1300.

CHEIROPOMPHOLYX.—*See* Dysidrosis.

CHICKEN POX.—*See* Varicella.

CHIGNON DISEASE.—*See* Piedra.

CHLOASMA.—Egyptian literature of 5000 years ago.

CHONDRODERMATITIS NODULARIS CHRONICA HELICIS.—M. Winkler 1915. O. H. Foerster 1917 independently. REF.: O. H. Foerster, *Arch.* **11.** 1925.

CHRONIC ATROPHIC LICHENOID DERMATITIS.—*See* Lichen Sclerosus et Atrophicus.

CHRONIC URTICARIA LEAVING BROWN STAINS.—*See* Urticaria Pigmentosa.

CISTERN PUNCTURE.—Quincke 1890 (father of lumbar puncture). Westenhofer 1905. Obregia 1908 suboccipital rhachisentesis; generally credited. REF.: Jacobi, *Arch.* **19.** 1929.

COCCIDIOIDAL GRANULOMA.—Robert Wernicke 1890–1892. REF.: Jacobson, *Arch.* **21.** 1930.

COLLOID DEGENERATION OF SKIN (COLLOID MILIUM).—Wagner 1866 as colloid milium. Besnier 1879 as colloid degeneration of the corium. Histopathological study by Balzer about 1884. Liveing 1886 as colloid xanthoma. REF.: J. H. Labadie, *Arch.* **16:** 156. 1927.

COLLOID MILIUM.—*See* Colloid Degeneration of Skin.

COLLOID XANTHOMA.—*See* Colloid Degeneration of Skin.

CONDYLOMAS.—Hippocrates.

CONGENITAL LAX SKIN.—*See* Cutis Laxa.

COPRA ITCH.—Castellani 1913. REF.: Sutton, p. 1152.

CORNU CUTANEUM (CUTANEOUS HORNS).—Sir Everard Home 1791.

CREEPING ERUPTION.—Lee 1874. Crocker 1892 as larva migrans and indicated that the disease occurred in Arabia. REF.: Hamberger, *J.C.D.* **22:** 218. 1904. Klauder, *Arch.* **3:** 377. 1921.

CRETINOID EDEMA.—*See* Myxoedema.

CUTIS ELASTICA.—Turner 1723.

CUTIS LAXA (DERMATOLYSIS) (CONGENITAL LAX SKIN).—In 1657 a Spaniard, Georgius Albes, is reported to have been able to draw the skin of the right pectoral region to the left ear. REF.: Crocker, p. 949.

CUTIS VERTICIS GYRATA.—McDowall and J. J. Cowan independently in 1893, reported cases as abnormal development of scalp. Jadassohn 1906 the first to bring it to attention of dermatologists. Unna 1907 named it. REF.: Stratton, in press in Arch.

CYLINDROMA OF SCALP.—Ancell 1841. Dubreuilh and Auche 1902 demonstrated epitheliomatous character. Barret 1892 multiple sudoriperous adenomata. Cohn 1892 multiple sarcomata. Marrant Baker 1890 withering sarcoma. Kaposi 1894 endotheli-

oma capitis. E. Hoffman nevo-epithelioma adenoides. REF.: H. G. Adamson, *B.J.D.* **30.** 1918. Stillians, in press in Arch.

CYRINGOCYSTOMA.—*See* Lymphangioma Tuberosum Multiplex.

CYSTICERCUS CELLULOSAE.—Lewin 1894 says it was recognized in Europe in middle of sixteenth century. REF.: Chuan-Kuei Hu *et al.*, *Arch.* **21.** 1930.

DARIER'S DISEASE.—*See* Keratosis Follicularis.

DEER FLY FEVER.—*See* Tularemia.

DEMODEX FOLLICULORUM.—G. Simon 1842. Henle 1841 saw it but had no clear view as to its nature. REF.: Hebra, **5:** 259.

DERMAL LEISHMANIASIS.—*See* Oriental Sore.

DERMATITIS CIRCUMSCRIPTA HERPETIFORMIS.—*See* Porokeratosis.

DERMATITIS DE CONGELAZIONE.—*See* Angiokeratoma.

DERMATITIS, DIAPER (JACQUET ERUPTION).—Parrot, as lenticular syphilid 1877. Lucien Jacquet 1886 generally credited. REF.: Adamson, *B.J.D.* **21:** 41. 1909.

DERMATITIS DIPHTHERITICA.—Chomel 1759 first recognized it. Klebs 1883 and Loeffler 1884 independently discovered the bacillus. Neisser 1891 first bacteriological study of cutaneous diphtheria. REF.: Knowles and Frescoln, *J.A.M.A.* **63:** 398. 1914.

DERMATITIS DYSMENORRHEICA.—Matzenhauer and Polland 1912.

DERMATITIS EXFOLIATIVA.—Erasmus Wilson 1870 named the condition as we know it today. Hippocrates mentions it.

DERMATITIS EXFOLIATIVA EPIDEMICA.—Savill 1891. REF.: Knowles, p. 107.

DERMATITIS EXFOLIATIVA NEONATORUM (RITTER'S DISEASE).—Ritter, Von Rittershain G. 1878. REF.: Guy and Cohen, *Arch.* 19. 1929. Palek, *J.C.D.* **22:** 369. 1904.

DERMATITIS FOLLICULARIS ET PERIFOLLICULARIS CONGLOBATA.—*See* Perifolliculitis Capitis Abscedens et Suffodiens. *See* Acne Conglobata.

DERMATITIS GANGRENOSA INFANTUM.—Stokes 1880 and Hutchinson 1882 both following varicella. Crocker 1887 a case that was of primary origin. REF.: Dwyer, *Arch.* **11:** 368. 1925.

DERMATITIS HAEMOSTATICA.—Cavafy 1883 as symmetrical congestive mottling of the skin. REF.: Diasio, *Arch.* **22:** 423. 1930.

DERMATITIS, INFECTIOUS ECZEMATOID.—Engman 1902. REF.: Fordyce, *J.C.D.* **29:** 129. 1911.

DERMATITIS HERPETIFORMIS.—Duhring 1884. Bazin 1862 hydroa bullosum. T. Fox 1880 hydroa herpétiforme. REF.: Knowles, *J.C.D.* **25**: 247. 1907.

DERMATITIS NODULARIS NECROTICA.—Werther 1910. REF.: Duemling, *Arch.* **21.** 1930.

DERMATITIS PAPILLARIS CAPILLITII.—Kaposi 1869 dermatitis papillomatosa capillitii. Hebra previously described the condition as sycosis framboesiformis. Morrant Baker 1882 acne keloid. REF.: Adamson, *B.J.D.* **26**: 70. 1914.

DERMATOSIS PAPULOSA NIGRA.—Castellani 1925. REF.: Michael, *Arch.* **20.** 1929.

DERMATITIS REPENS.—Crocker 1888. REF.: Sutton, *J.C.D.* **29**: 325. 1911.

SEBORRHOEIC DERMATITIS.—Unna 1887.

DERMATITIS VENENATA.—Kaempfer 1712 an early reference. That certain plants have stinging properties is known from very ancient times. REF.: Castellani and Chalmers, *Tropical Medicine.*

DERMATITIS, ADHESIVE TAPE.—Jantzen 1924. REF.: Brown, *Arch.* **12.** 1925.

DERMATITIS, BERLOCK.—Freund 1916 first description. F. Rosenthal 1924 named it. REF.: Gross and Robinson, *Arch.* **21**: 637. 1930.

DERMATITIS FROM LACQUER VARNISH.—Kaempfer 1712. REF.: Castellani and Chalmers.

DERMATITIS, MATCH BOX.—Rasch, Fox, and J. C. White independently 1888.

DERMATITIS, MERCURY.—Bell 1796. Alley 1804 a more detailed account. REF.: Morrow, *Drug Eruptions.*

PATCH TEST.—J. Jadassohn 1895 as "functioneller Prufung der Haut." REF.: Sulzberger and Wise, *Arch.* **23**: 519. 1931.

DERMATITIS SQUAMOSE ANORMALE.—*See* Parapsoriasis.

DERMATITIS VARIEGATA.—*See* Parapsoriasis.

DERMATITIS VEGETANS.—Hallopeau 1894 in adult as pyodermite végétante. Perrin 1900 in infants. Hartzell 1901 as dermatitis vegetans. REF.: Wende and Degroat, *J.C.D.* **20**: 58. 1902.

DERMATOFIBROSARCOMA PROGRESSIVE AND RECURRENT.—Coenen in 1919 according to Hoffman. Darier 1924 independently. Senear, Andrews and Willis first American report 1928. REF.: Senear *et al Arch.* **17.** 1928.

DERMATOLYSIS.—*See* Cutis Laxa.

DERMATOMYOSITIS.—Virchow about 1860 described morbid pathology. Unverricht, Wagner and Hepp in 1887 independently and almost simultaneously. Unverricht and Wagner as polymyositis acuta progressiva. Hepp as pseudo-trichinosis. REF.: Karelitz and Welt, *Amer. Journal of Pediatrics* **43:** 5, p. 1134. 1932.

DERMATOPOLYNEURITIS.—*See* Acrodynia Juvenile.

DERMATOSES, INDUSTRIAL.—Hippocrates described lesions on rump of horsemen. Bernardino Ramazzini 1700 father of industrial hygiene. Paracelsus and Agricola—early sixteenth century described lesions in metal workers and salt miners. REF.: Foerster, *Arch.* **17.** 1928.

DERMOLYSIS.—Charles J. White 1908. REF.: *J.C.D.* **26:** 295. 1908.

DEVERGIE'S DISEASE.—*See* Pityriasis Rubra Pilaris.

DISSECTING CELLULITIS OF THE SCALP.—*See* Perifolliculitis Capitis Abscedens et Suffodiens.

DISSEMINATED CLAVUS OF HANDS AND FEET.—*See* Keratoderma Punctatum.

DISSEMINATED FOLLICULAR LUPUS.—*See* Acnitis.

DUHRING'S DISEASE.—*See* Dermatitis Herpetiformis.

DYSIDROSIS (POMPHOLYX).—Jonathan Hutchinson 1871 as cheiropompholyx. Tilbury Fox 1873 independently first written report. A. R. Robinson 1877, first histological examination. REF.: G. B. Dowling, *Brit. Med. Journal* **1:** 142. Jan. 23, 1932. Sutton, p. 313.

DYSIDROSIS LAMELLOSA SICCA.—*See* Keratolysis Exfoliativa.

DYSKERATOSIS.—Term used by Darier 1914. REF.: Jadassohn, *Handbuch der Haut und Geschlkr.* **14:** part 2, p. 344.

DYSTROPHIA ADIPOSA GENITALIS.—Babinsky 1900. Froelich 1901 generally credited. REF.: Hollander, *Arch.* **7:** 634. 1923.

DYSTROPHY PAPILLAIRE ET PIGMENTAIRE.—*See* Acanthosis Nigricans.

ECTODERMAL DEFECT.—Guilford 1883. REF.: McKee, *Arch.* **10:** 675. 1924.

ECZEMA.—Impossible to trace eczema to earliest writers for it was confused with impetigo, scabies, psoriasis, etc. Aetius of Amida 543 A.D. first used the term eczema. Eczema can be recognized in the descriptions of many authors, but under various names as herpes, tinea, etc. Willan established the syndrome. Bateman 1817 described it. Biett, Cazenave and Schedel 1847 first to appreciate that eczema could be acute or

chronic. Rayer 1835 established multiformity, peculiarities depending on location. Devergie 1854 set up symptoms of redness, secretion and itching. REF.: Hebra **2**: 74.

ECZEMA MARGINATUM.—*See* Tinea Cruris.

ANGIONEUROTIC EDEMA.—John Laws Milton 1876. Bannister 1880. Quincke 1882 usually credited.

EDEMA NEONATORUM.—Parrot 1877. REF.: Knowles, p. 240.

ELECTROLYSIS IN SKIN DISEASES.—Hardaway 1877 gave credit to Charles A. Michel.

ELEPHANTIASIS.—Egyptian literature of 5000 years ago.

ELEPHANTIASIS NOSTRAS.—Kennedy 1819. REF.: Elliott, *J.C.D.* **35**: 17. 1917.

ENDOTHELIOMA CAPITIS.—*See* Cylindroma of Scalp.

EPIDERMOLYSIS BULLOSA.—Köbner 1872. Tilbury Fox 1879. Goldscheider 1882. Köbner 1886 named it. REF.: Tobias, *Arch.* **18.** 1928. Elliott, *J.C.D.* **13**: 10. 1895.

EPIDERMOLYSIS BULLOSA ACQUISITA.—Kablitz 1904 first used the qualifying term acquisita. REF.: Wise, *J.C.D.* **33**: 446. 1915.

EPILATION.—Plumbe introduced it as a therapeutic procedure about 1837.

EPITHELIOMA.—*See* Cancer.

MULTIPLE BENIGN CYSTIC EPITHELIOMA (Fordyce)

EPITHELIOMA ADENOIDES CYSTICUM (Brooke).—Brooke 1891 and Fordyce 1892, independently. Balzar and Menetrier 1885 sebaceous adenoma of face and scalp. Jacquet and Darier 1887 first to describe and individualize according to J. C. White. Henry Ancell 1841 case of tumors on head and face is probably the same, but is now called cylindroma or endothelioma capitis. REF.: Summerill and Hutton, paper in press, *Archives.* J.C. White, *J.C.D.* **12**: 482. 1894. Savatard, *B.J.D.* 410: 12, 381. 1922.

EPITHELIOMA, MULTIPLE BENIGN SUPERFICIAL.—Jadassohn 1918 suggested separating it from Paget's and Bowen's. Arning 1922 carcinoide. Little 1923, erythematoid benign epithelioma. Carol 1926 carcinosis cutis multiformis verrucosa. REF.:Wise, *Arch.* **19.** 1929.

EPITHELIUM.—Frederick Ruysch gave the name (1638–1731).

ERECTORES PILORUM.—Kollicker *circa* 1844.

EROSIO INTERDIGITALIS BLASTOMYCETICA.—Fabry 1917. REF.: Mitchell, *Arch.* **6**: 675. 1922.

DRUG ERUPTIONS.—Lorry 1777 was the first dermatologist who called attention to them. REF.: Morrow, *Drug eruptions.*

ANTIPYRENE ERUPTION.—Ernst 1884 first to note. REF.: Morrow, *Drug eruptions.*

ARSENIC ERUPTIONS.—Devergie 1857. REF.: Morrow, *Drug eruptions.*

BROMIDE ERUPTIONS.—Alfred Hardy "clearly" described them 1811–1893.

COPAIBA ERUPTION.—Montegre 1814. REF.: Morrow, *Drug eruptions.*

IODIDE ERUPTIONS.—Ricord 1842. REF.: Morrow, *Drug eruptions.*

ERYSIPELAS.—Egyptian literature of 5000 years ago. St. Anthony's fire first used by French historian Meseray speaking of epidemic of 1090. REF.: Garrison, *History of Medicine*, 186.

ERYSIPELAS CARCINOMATOSUM.—*See* Carcinoma Erysipelatodes.

ERYSIPELAS PERSTANS FACEII.—*See* Erythema Perstans Faceii. *See* Lupus Erythemotosus Acutus Disseminatus.

ERYSIPELOID.—Tilbury Fox 1870 erythema due to dye. Morrant Baker 1873 erythema serpens. F. J. Rosenbach 1884 (1887) established it. REF.: Klauder *et al.*, *Arch.* **14:** 662. 1926.

ERYTHEMA ANNULATUM.—*See* Pityriasis Rosea.

ERYTHEMA ATROPHICANS.—*See* Lupus Erythematosus.

ERYTHEMATOID BENIGN EPITHELIOMA.—*See* Epithelioma, Multiple Benign Superficial.

ERYTHEMA CENTRIFUSE.—*See* Lupus Erythematosus.

ERYTHEMA ELEVATUM DIUTINUM.—Hutchinson 1878 reported a case that was probably erythema elevatum diutinum. G. S. Middleton 1887. Judson Bury 1889. Crocker and Williams 1894 named it and are generally credited. REF.: Weidman, *Arch.* **20.** 1929. Trimble, *Arch.* **13.** 1926.

ERYTHEMA FIGURATUM PERSTANS.—Wende 1905. REF.: Sutton, p. 129.

ERYTHEMA INDURATUM.—Bazin 1861. REF.: Dade, *J.C.D.* **17:** 308. 1899.

ERYTHEMA INFECTIOSUM.—Escherich 1904. REF.: Ormsby, p. 119.

ERYTHEMA MULTIFORME.—Celsus 25–50 B.C. described it and associated it with rheumatism. Willan 1808 clearly designated the various forms and treated them as distinct affections. Hebra 1854 name and present conception. REF.: Corlett, *J.C.D.* **26:** 7. 1908.

ERYTHEMA NODOSUM.—Erasmus Wilson 1857. REF.: Garrison, *History of Medicine.*

ERYTHEMA NODOSUM SYPHILITICUM.—Mauriac 1880 early

syphilitic affections of subcutaneous cellular tissue. REF.: McEwen, *Arch.* **5**: 35. 1922.

ERYTHEMA PALMARE HEREDITORIUM.—John E. Lane 1929. REF.: *Arch.* **20.** 1929.

ERYTHEMA PERSTANS.—T. Colcott Fox showed a case at international congress in 1881 and described it in 1901. REF.: Wende, *J.C.D.* **24**: 244. 1906.

ERYTHEMA PERSTANS FACEII.—Kaposi *circa* 1895 as erysipelas perstans faceii.

ERYTHEMA SERPENS.—*See* Erysipeloid.

ERYTHRASMA.—Burchardt 1859. Von Bärensprung 1862 suggested name and discovered organism. REF.: Sutton, p. 1243.

ERYTHREDEMA.—*See* Acrodynia Juvenile.

CONGENITAL ICHTHYOSIFORM ERYTHRODERMA.—Brocq demonstrated cases in 1881. 1902 first report in print. REF.: McKee Burns, *J.C.D.* **33**: 259. 1915.

ERYTHRODERMA PITYRIASIQUE EN PLACQUES DISSEMINÉES.—*See* Parapsoriasis.

ERYTHRODERMA SQUAMOSUM.—*See* Parapsoriasis.

ERYTHROMELALGIA.—S. Weir Mitchell 1872. REF.: Brown, *Amer. J. Med. Science*, April 1932, p. 468.

ERYTHROSE PERIBUCCALE PIGMENTAIRE.—Brocq 1923. REF.: Ormsby and Ebert, *Arch.* **23**: 13. 1931.

ESOPHYLAXIS.—A. Kreidl 1904 introduced the hypothesis. E. Hoffman 1919 named it. REF.: Levin and Silvers, *Arch.* **23.** 1931.

ESPUNDIA (MUCO-CUTANEOUS LEISHMANIASIS).—Known to be present in South America since time immemorial. Lesions depicted on water vases of ancient Incas. Smith 1840 good description. REF.: Castellani and Chalmers, p. 2176.

SUBUNGUAL EXOSTOSES.—Dupuytren 1817. REF.: Shaffer, *Arch.* **24**: 371. 1931.

FEER'S DISEASE.—*See* Acrodynia Juvenile.

FLUX SEBACÉ.—*See* Seborrhoea.

FOLLICULITIS DECALVANS.—Quinquaud 1888. REF.: McCafferty, *Arch.* **18**: 522. 1928.

FOLLICULITIS ULERYTHEMATOSA RETICULATA.—Unna 1889–1899 as ulerythema acneiforme. McKee and Parounagian 1918. REF.: Corson-Knowles, *Arch.* **10**: 294. 1924.

FOOT AND MOUTH DISEASE.—Sager first to call attention in man 1765. REF.: Butlin-Spencer, *Diseases of Tongue*, p. 91.

FORDYCE'S CONDITION (OF THE LIPS).—Fordyce 1896. REF.: *J.C.D.* **14**: 413. 1896.

Fox Fordyce Disease.—Fox and Fordyce 1902. Ref.: *J.C.D.* **20.** 1902.

Fragilitas Crinium.—*See* Trichorrhexis Nodosa.

Frambesia Tropica.—*See* Yaws. Also called bonbas by Oviedo. Yaws, English; Pian, French; Polypapilloma Tropicum. Many local names. Probably a form of lepra in the *Bible*. Is thought by some to be a disease of ancient times affecting the Israelities in their emigration from Egypt. Given first serious attention by Oviedo Y. Valdez 1535. Sauvages 1759 suggested name. Ref.: Castellani, *J.C.D.* **26:** 151. Goodman, *Arch.* **2.** 1920.

Freckles.—Hippocrates.

Frei Test.—*See* Lymphogranulomatosis Inguinalis.

Frost Bites.—Hippocrates.

Furuncle.—Egyptian literature of 5000 years ago.

Gangosa.—Had existed in Guam at least since 1750. First described in 1828 by a Spanish Royal Commission to Ladrone Islands or Marianne Islands. Seligman 1898 careful study. Has been described as lupus and cancer. Ref.: Mink and McLean, *J.C.D.* **25:** 503. 1907. Castellani and Chalmers, *Tropical Medicine.*

Gangrene.—Hippocrates mentions it.

Pyoderma Gangrenosum.—Brunsting, Goeckerman and O'Leary 1930. Ref.: *Arch.* **22:** 655. 1930.

Geographical Tongue.—*See* Transitory Benign Placque of Tongue.

German Measles.—*See* Rubella.

Gibert's Disease.—*See* Pityriasis Rosea.

Proliferative Gingivitis of Pregnancy.—Monash 1926. Ref.: *Arch.* **24:** 580. 1931.

Glanders.—Rayer 1837 established it as a specific disease, demonstrated contagiousness. Löffler 1882–1886 demonstrated organism. Ref.: Garrison, p. 582.

Moeller's Glossitis.—Moeller 1851, as chronic superficial excoriation of tongue. Ref.: Pusey text.

Glossitis Rhombica Mediana.—Brocq and Pautrier 1914 as glossitie losangique médiane de la face dorsale de la langue. J. Lane 1924 named it. Ref.: Sutton, p. 1927. *Arch.* **11.** 1924.

Glossy Skin (Atrophoderma Neuriticum).—James Paget 1864 usually credited. S. Weir Mitchell, Moorhouse and Keen independently 1864.

Gold.—Paracelsus, in 1500, compounded an "elixir of life" made up of gold and mercury, and the use of gold in tuberculosis probably dates back to this time. According to White, gold was

used in tuberculosis as far back as 1810 by Christien. Robert Koch 1890 demonstrated its effect on tubercle bacillus in vitro. Bruck-Gluck 1913 used it in lupus vulgaris. Ruete 1913 first to use it in lupus erythematosus. REF.: Schamberg, *Arch.* **15.** 1927.

GRAIN ITCH.—Schamberg 1901. REF.: *Philadelphia Medical Journal*, July 6, 1901.

GRANULOMA ANNULARE.—Colcott Fox 1895 as ringed eruption. Radcliffe-Crocker 1902 named it. REF.: E. Graham Little, *B.J.D.* **20:** 213. 1908.

GRANULOMA FUNGOIDES.—*See* Mycosis Fungoides.

GRANULOMA INGUINALE.—Macleod 1882 serpigenous ulceration of genitals. Conyers and Daniels 1896, first adequate description but considered it a form of lupus "the lupoid form of the so-called groin ulceration." Galloway 1897 called it granuloma inguinale with a good pathologic description. Donovan, organisms 1905. Aragao and Vianna 1913 used tartar emetic. REF.: Gage, *Arch.* **7.** 1923. Gage, *Arch.* **19.** 1929. Goldzieher and Peck, *Arch.* **14.** 1926.

GRANULOA PYOGENICUM.—Bollinger 1870 Botryomycosis. Rivolta 1879 Botryomycosis in animals. Kitt 1888 suggested that similar lesions might be produced by staphylococci. Poncet and Dor 1897, Human Botryomycosis. Sabrazes and Laubie 1899, asserted the identity of so-called botryomyces with staph aureus. Crocker 1903 and Hartzell 1904 proposed name granuloma pyogenicum independently. REF.: Michaelson, *Arch.* **12:** 492. 1925. Wile, *J.C.D.* **28:** 663. 1910.

GRANULOSIS RUBRA NASI.—Pringle 1894 presented two cases with provisional diagnosis of Hidrocystoma. Luithlen 1900 first described a case as a peculiar form of acne with changes in the sweat glands. Jadassohn 1901 named it. REF.: Beeson, *Arch.* **14.** 1926. Macleod, *B.J.D.* **18:** 348. 1906.

GRANULOMA SENILIS.—Kreibich 1927. REF.: Johnson and Harvey, *Arch.* **21.** 1930.

GREYNESS.—Ebers Papyrus, sixteenth century B.C. mentions it.

HAIRS-HAIR FOLLICLES, ANATOMY OF.—Malpighi (1628–1694).

HALLOPEAU'S DISEASE.—*See* Lichen Sclerosus et Atrophicus.

HARLEQUIN'S FOETUS.—*See* Ichthyosis Congenita.

HASBA.—*See* Measles.

HELODERMIA SIMPLEX ET ANNULARIS.—*See* Keratoderma Punctatum.

HERPES.—Egyptian literature of 5000 years ago.

HERPES CIRCIVE.—*See* Tinea Cruris.

HERPES CRETACE.—*See* Lupus Erythematosus.

HERPES IRIS.—Willan and Bateman about 1800. REF.: Hebra **1**: 378.

HERPES TONSURANS.—*See* Alopecia Areata.

HERPES TONSURANS MACULOSUS ET SQUAMOSUS.—*See* Pityriasis Rosea.

HERPES VEGETANS.—*See* Pemphigus Vegetans.

HERPES ZOSTER.—Egyptian literature of 5000 years ago. Celsus speaks of it as ignis sacer.

HERPES ZOSTER AS A DISEASE OF SPINAL GANGLIA.—Von Barensprung 1861.

ZOSTER ARSENICALIS.—J. Hutchinson 1868. REF.: J. Zeisler, *J.C.D.* **25**: 515. 1907.

HERPES ZOSTER GENERALIZATUS.—Haslund 1897. REF.: Paronnagian, *Arch.* **7**: 440. 1923.

HIDROCYSTOMA.—Robinson 1884. *See also* Granulosis Rubra Nasi. REF.: Pusey text.

HODGKIN'S DISEASE OF THE SKIN.—Grosz 1906. REF.: Fox, *Arch.* **2**: 582. 1920.

HYDRADENITIS SUPPURATIVA.—Verneuil 1864. REF.: Ormsby text.

HYDROA BULLOSUM.—*See* Dermatitis Herpetiformis.

HYDROA HERPETIFORME.—*See* Dermatitis Herpetiformis.

HYDROA PUERORUM.—Unna 1889. REF.: Haase and Hirschler, *J.C.D.* **26**: 199. 1908.

HYDROA VACCINIFORME.—Bazin 1855. Schultz 1874 as pemphigus leprosus. Hutchinson 1878 as prurigo aestevalis. Jamieson 1888 a form of xeroderma pigmentosum. REF.: Bowen, *J.C.D.* **12**: 92. 1894. Senear, *Arch.* **7**. 1923.

HYDROGEN PEROXIDE.—Thenard 1818 discovered it. Thiellay first to use it as a hair bleach. REF.: McCafferty, *Arch.* **14**: 141. 1926.

HYPERKATOSIS ECCENTRICA.—*See* Porokeratosis.

HYPERIDROSIS.—Hippocrates.

HYPERTRICHOSIS.—In *Aldrovandi Monstrorum Historia* published in 1642 there is an account of a hairy family. REF.: Jackson McMurtry, *Diseases of Hair*, p. 146.

ICHTHYOSIS.—First described by Avicenna as albarras nigra. Willan about 1800 gave first comprehensive description. REF.: Hebra **3**: 55.

ICHTHYOSIS CONGENITA (HARLEQUIN FOETUS).—Richter 1792. REF.: Sherwell, *J.C.D.* **12**: 389. 1894.

ICHTHYOSIS CORII.—*See* Scleroderma Generalized.

ICHTHYOSIS HYSTRIX.—Apparently first case was reported by John Machin in 1751. REF.: McFarland, *Arch.* **22**: 312. 1930.

IGNIPEDITIS.—*See* Acrodynia Juvenile.

IGNIS SACER.—*See* Herpes Zoster.

IMPETIGO COMISSURAL.—*See* Perleche.

IMPETIGO CONTAGIOSA.—Tilbury Fox 1864. REF.: Reed, *Arch.* **20.** 1929.

IMPETIGO OF BOCKHART.—Bockhart 1887. REF.: Kletz, *J.C.D.* **14**: 48. 1896.

ECTHYMA.—Rayer first correct description 1826–1835. Isidor Neumann earliest accurate conception in his *Atlas of Skin Diseases* published 1885–1889. REF.: Jamieson, *B.J.D.* **15**: 391. 1903.

IMPETIGO HERPETIFORMIS.—Hebra 1872. REF.: Towle, *J.C.D.* **32**: 265. 1914. Whitehouse, *J.C.D.* **16**: 169. 1916.

IMPETIGO NEONATORUM.—Kaposi 1890 acute contagious pemphigus neonatorum. Matzenauer 1900 linked pemphigus neonatorum to impetigo contagiosa. REF.: Reed, *Arch.* **20.** 1929.

IRRITANT DERMATOSES.—*See* Dermatitis Venenata.

JACQUET ERUPTION.—*See* Dermatitis Diaper.

JUXTA ARTICULAR NODES.—Lutz 1892 according to Silva. Jeanselme 1889–1890 according to Neveux. Jeanselme 1904 named the condition. William MacGregor 1900 independently and is generally credited. REF.: Gutierrez, *Arch.* **12.** 1925.

KAPOSI'S SARCOMA.—*See* Multiple Idiopathic Hemorrhagic Sarcomata.

KELOID.—Retz 1790 mentioned it. Alibert 1814 gave first accurate description of it. REF.: Rayer, p. 1007.

KELOID OF TONGUE.—Sedgwich 1861. REF.: Mook, *Arch.* **10**: 305. 1924.

KERATODERMA BLENNORRHAGICA.—Vidal 1893. Chauffard 1897 first biopsy and theoretical speculation as to pathogenesis. REF.: Rostenberg, *Arch.* **16.** 1927. Barrett, *Arch.* **22.** 1930.

KERATODERMA-DISCRETE KERATODERMA ON DORSA OF HANDS.—Jeffrey Michael 1930. REF.: *Arch.* **21**: 215.

KERATODERMA DISSIPATURN HEREDITARIAN PALMARE ET PLANTARE.—*See* Keratoderma Punctatum.

KERATODERMIA MACULOSA SYMMETRICA PALMARIS ET PLANTARIS.—*See* Keratoderma Punctatum.

KERATODERMA PALMARIS AND PLANTARIS.—Krost 1880. REF.: Sims, *Arch.* in press.

KERATODERMA PUNCTATUM.—Davies-Colley 1879 disseminated

clavus of hands and feet. Chalmers and Kamar 1917 named it. A number of reports by different names. Mantoux 1903 porokeratose papillomateuse palmaire et plantaire. Busche and Fischer 1910 Keratodermia maculosa symmetrica palmaris et plantaria. Vorner 1911 kelodermia simplex et annularis. Brower 1913 keratoma dissipaturn hereditarian palmare et plantare. Matsumoto 1918 a new form of punctiform Keratodermia. Galloway 1918 punctate keratose of palms and soles. REF.: Sweitzer, *Arch.* **8**: 690. 1923. Swiss, *Arch.* in press.

KERATOLYSIS EXFOLIATIVA.—A Caryon 1903 as desquamation estivale en aires des mains. G. W. Wende 1919 as keratolysis exfoliativa. Bruhns and Alexander in Jadassohn's *Handbuch* dysidrosis lamellosa sicca 1927. REF.: McKee and Lewis, *Arch.* **23**: 3. 1931.

KERATOMA PLANTARE SULCATUM.—Castellani and Chalmers 1919. REF.: Aars, *Arch.* **24**: 271. 1931.

ARSENICAL KERATOSES.—Jonathan Hutchinson 1887 the first to point out the relationship of arsenic to keratoses. Paris 1826 in his *Pharmacologica* mentions that arsenic may cause cancer. Saw cases in men and animals from arsenic fumes. Cartaz 1877 saw epithelioma and keratoses in a patient with psoriasis. No mention made of arsenic. J. C. White 1885 reported two cases of epithelioma following keratoses in psoriatic patients treated with arsenic. REF.: Wile, *J.C.D.* **30**: 192. 1912.

KERATOSIS FOLLICULARIS (DARIER'S DISEASE).—Darier 1889. J. C. White 1889 independently. REF.: Mook, *J.C.D.* **30**: 722. 1912.

KERATOSES FOLLICULARIS CONTAGIOSA.—Brooke 1892.

KERATOSIS NIGRICANS.—*See* Acanthosis Nigricans.

KERATOSIS PUNCTATA.—Hallopeau and Claisse 1891. REF.: Knowles, p. 229.

KERATOSIS SEBORRHOEIC.—Dubreuilh 1890 was the first to point out the significance of distinguishing keratoma senilis from verruca senilis because of the tendency of the former to undergo malignant change. Pollitzer 1890 gave first detailed description. REF.: John Hookey, *Arch.* **23**: 948. 1931.

KRAUROSIS VULVAE.—Breisky 1885. REF.: Montgomery, *J.C.D.* **35**: 576. 1915.

KROMAYER LAMP.—Kromayer 1906. REF.: Clark, *J.C.D.* **32**: 426. 1914.

LARVA NIGRICANS.—*See* Creeping Eruption.

LEIOMYOMAS OF SKIN.—Verneuil, dissecting room specimen 1858.

Besnier 1880 clinical picture. REF.: Alex. Ravius, *Arch.* **23** 1931.

LEISHMANIASIS AMERICAN.—Organism by Wright, as leishmania tropica 1903. Vianna 1911 suggested name leishmania braziliensis. McEwen 1914 oriental sore in the Americas. REF.: Howard Fox, *Arch.* **23**: 3. 1931.

LENTICULAR SYPHILID.—*See* Dermatitis Diaper.

LENTIGO MALIGNA.—*See* Xeroderma Pigmentosum.

LEPOTHRIX.—Paxton 1869 first clear description; had been previously described. Erasmus Wilson 1876 suggested name. REF.: Lane, *J.C.D.* **37**: 388. 1919.

LEPRA.—Egyptian, Hebrew, Greek. Organism Hansen 1874. Sharply differentiated only in nineteenth century. REF.: Castellani and Chalmers, p. 1644.

LEPROSY, ANESTHIA OF.—Jean Yperman 1295–1351.

LAZARINE LEPROSY.—First accurate description is credited to Zambaco Pacha 1897. Similar cases were reported by Guiteras of Cuba as chappa 1904. REF.: Pardo Costello and Cabellero, *Arch.* **23**: 1. 1931.

NODULAR LEPROSY.—Boeck and Danielssen 1848 differentiated the two types of leprosy. REF.: Castellani and Chalmers, p. 1654.

CHAULMOOGRA OIL IN TREATMENT OF LEPROSY.—Blanc 1888. REF.: Hollmann, *Arch.* **5**: 94. 1922.

LEUCOTRICHIA ANNULARIS.—Karsch 1846 as pili annulati. Erasmus Wilson 1867 as trichodyschroia. Unna named it 1890–1894. REF.: Meachen, *B.J.D.* **14**: 88. 1902. Cody and Trotter, *Arch.* **6**: 301. 1922.

LEUKEMIA.—Originally described by Virchow 1846. Leukemia cutis, Biesiadecki 1876 described the first known case. Leukemides, Audrey 1902 suggested name. REF.: Miller, *Arch.* **17**. 1928. Hazen, *J.C.D.* **29**: 525. 1911. Fox, *Arch.* **2**: 579. 1920.

LEUKODERMA.—Early Egyptian literature.

LEUKODERMA ACQUISITUM CENTRIFUGUM.—Sutton 1916. REF.: Stokes, *Arch.* **7**: 611. 1923.

LEUKOPLAKIA.—Bazin 1868. Term proposed by Schwinner 1877. REF.: Butlin-Spencer, *Diseases of Tongue*, p. 115.

LICHEN ALBUS.—*See* Lichen Sclerosus et Atrophicus.

LICHEN ANNULATUS SERPIGENOSUS.—*See* Pityriasis Rosea.

LICHEN EN RUBAN.—*See* Lichen Planus Linearis.

LICHEN NITIDUS.—Pinkus 1901. REF.: Trimble, *Arch.* **7**: 452. 1923.

LICHEN OBTUSUS CORNEUS.—*See* Prurigo Nodularis.

LICHEN PLANUS.—Erasmus Wilson 1869. REF.: Auner, *J.C.D.* **35:** 169. 1911.

LICHEN PLANUS LINEARIS.—Devergie 1854 as lichen en ruban. REF.: Auner, *J.C.D.* **35:** 168. 1917.

LICHEN PLANUS OCREAFORMIS.—Lieberthal 1916. REF.: *J.A.M.A.* **67:** 1582. 1916.

LICHEN PLANUS HYPERTROPHICUS.—J. A. Fordyce 1897. Corlett 1896 described a case. REF.: *J.C.D.* **15:** 56. 1897.

LICHEN PLANUS RETIFORMIS.—*See* Parapsoriasis.

LICHEN PILARIS SEU SPINULOSUS.—*See* Lichen Spinulosus.

LICHEN RUBER.—*See* Pityriasis Rubra Pilaris.

LICHEN RUBER ACUMINATUS.—*See* Pityriasis Rubra Pilaris.

LICHEN RUBER MONILIFORMIS.—Kaposi 1886. REF.: Fordyce, *J.C.D.* **15:** 55. 1897.

LICHEN SCLEROSUS ET ATROPHICUS (HALLOPEAU'S DISEASE).—Hallopeau 1887 as lichen plan atrophique. Darier 1887 suggested name. Zumbusch 1906 lichen albus. Csillag 1909 Chr. atrophic lichenoid dermatitis. REF.: Nomland, *Arch.* **21.** 1930.

LICHEN SCROFULOSORUM.—Hebra 1868. Kaposi 1895 first histologic description. REF.: Skeer, *Arch.* **20.** 1929.

LICHEN SPINULOSUS (LICHEN PILARIS SEU SPINULOSUS).—1883. Crocker and Colcott Fox independently separated it from the group of acne cornée of the earlier French writers. Crocker, 3rd edition, lists it as lichen spinulosus (Devergie) but there is no record of an article by Devergie. REF.: Bowen, *J.C.D.* **24:** 418. 1906. Wallhauser, *Arch.* **8:** 776. 1923.

LICHEN URTICATUS.—Willan and Bateman 1817. REF.: Hebra **1:** 305.

LICHEN VARIEGATUS.—*See* Parapsoriasis.

LICHENOID EXANTHEM.—*See* Parapsoriasis.

LINEA ATROPHICAE.—Samuel Wilks 1861.

LIPODYSTROPHIA PROGRESSIVA.—Morgagni, eighteenth century, described first case. Ameline and Quercy, in their researches in Egypt discovered a mummified body with characteristics of lipodystrophia progressiva, that of Pharaoh Amenophis IV, 1500 B.C. Barraquer 1906 first scientific description as atrophy of the celluloadipose tissue. Simons 1911 named the condition. Maranon and Cascos suggest lipodystrophia cephalothoracica. REF.: Capper, *Arch of Pediatrics* **49:** 3: 155.

LIPODYSTROPHIA CEPHALOTHORACICA.—*See* Lipodystrophia Progressiva.

LIQUID AIR.—J. C. White 1899 says Charles E. Tripler suggested its use in medicine. REF.: Irvine and Turnacliff, *Arch.* **19.** 1929.

LIVEDO RACEMOSA.—S. Ehrmann 1907. REF.: Becker, *Arch.* **14.** 1926.

LUPUS DISSEMINATED FOLLICULAR.—*See* Lupus Miliaris Disseminatus.

LUPUS ERYTHEMATOSUS.—Biett 1828 first description as erythema centrifuge. Hebra 1845 seborrhoea congestiva. Cazenave 1851 gave name lupus erythematosus. Parks and Thompson 1850 lupus superficialis. Devergie 1854 herpes cretace. Leloir, lupus erythematoide. Unna, ulerythema centrifugum. Morris, erythema atrophicans. Kaposi 1872 acute lupus erythematosus. REF.: Throne, *Arch.* **12.** 1925. Freshwater, *B.J.D.* **12:** 59. 1924.

LUPUS ERYTHEMATOSUS ACUTUS DISSEMINATUS.—Kaposi, as erysipelas perstans facei 1872. REF.: Robertson-Klauder, *Arch.* **8:** 488. 1923.

LUPUS MILIARIS.—*See* Acnitis.

LUPUS SUPERFICIALIS.—*See* Lupus Erythematosus.

LYMPHANGIOMA CIRCUMSCRIPTUM.—Tilbury and Colcott Fox 1879. REF.: Pusey's text.

LYMPHANGIOMA TUBEROSUM MULTIPLEX (CYRINGOCYSTOMA).—Kaposi 1872. REF.: Hebra **3:** 387.

LYMPHODERMA PERNICIOSA.—Kaposi 1885. REF.: Garrison, *History of Medicine.*

LYMPHOGRANULOMATOSIS CUTIS.—Hodgkin 1832. Virchow 1846 leukemias. Cohnheim 1865 pseudoleukemias. Kundrat 1893 lymphosarcoma. Sternberg 1898. Reed 1902 lymphogranulomatosis. REF.: Miller, *Arch.* **17.** 1928.

LYMPHOGRANULOMATOSIS INGUINALIS.—Nicolas, Durand, Favre 1913. As early as 1859 Chaissaignac a French surgeon, described the condition and many others after him, usually under the name of climatic bubo, bubo, etc. Frei 1925 intracutaneous test. REF.: Hillsman *et al.*, *Arch.* **18.** 1928. Pardo-Costello, *Arch.* **14.** 1926. Zakon, *Arch.* **26:** 232. 1932.

MADUROMYCOSIS (MADURA FOOT).—Condition recognized since Gill 1842. Kaempfer 1712 noted the disease. Colebrook 1846 Madura foot. Van Dyke Carter 1860 mycetoma. Banzonji Rustomji 1858 differentiated black and yellow varieties. Chalmers and Archibald 1916 created term. REF.: Puestow, *Arch.* **20.** 1929. Gommel, *Arch.* **15.** 1927.

MEASLES.—Established by Rhazes 860–932 by name of hasba. It had apparently been recognized before him for he does not describe it as a new disease. REF.: Welch and Schamberg, *Acute Contagious Diseases*, p. 476.

MELANOMAS.—Veterinarians 1784 recognized it in horses. Du-

puytren 1778–1835 is credited with having been the first to recognize the disease in man. Laënnec 1806 first description and name. Wardrop Norris 1820 first to recognize relationship of melanosis to mole tumor. Virchow 1859 coined term melanoma. Paget 1865(?) first to call attention to ability of moles to degenerate into malignancy. REF.: H. J. Farrel, *Arch.* **26:** 110. 1932. Johnston, *J.C.D.* **23:** 1. 1905.

MERALGIA PARESTHETICA.—Bernhardt and Roth 1895. REF.: James White, *J.C.D.* **24:** 161. 1906.

MIBELLI'S DISEASE.—*See* Porokeratosis.

MOLES, TREATMENT OF.—Ebers Papyrus sixteenth century B.C. mentions it.

MOLLUSCUM CONTAGIOSUM.—Bateman 1817. REF.: Wile and Kingery, *J.C.D.* **37:** 431. 1919.

MOLLUSCUM FIBROSUM GRAVIDARUM.—Brickner 1906. REF.: Sutton, p. 693.

MONGOLIAN SPOTS.—Known to ancient Japanese physicians. Japanese descriptions about 1800. Baelz 1885 first microscopic picture. REF.: Herrman, *J.C.D.* **25:** 201. 1907.

MONILETHRIX.—W. O. Smith 1879 a rare nodose condition of the hair. Named by Crocker 1903. REF.: Tobias, *Arch.* **8:** 655. 1923. McKee, *J.C.D.* **28:** 500. 1910.

MORPHEA.—*See* Scleroderma Circumscribed.

MORPHEA GUTTATA.—Unna 1894. REF.: Gunch, *B.J.D.* **27:** 77. 1915.

MORVAN'S DISEASE.—*See* Syringomyelia.

MUCO-CUTANEOUS LEISHMANIASIS.—*See* Espundia.

MULTIPLE BENIGN TUMOR-LIKE NEW GROWTHS.—Schweninger and Buzzi 1891. REF.: Pusey, *J.C.D.* **35:** 582. 1917.

MULTIPLE HEMORRHAGIC SARCOMA OF KAPOSI (KAPOSI'S SARCOMA).—Kaposi 1872. REF.: Sequeira, *B.J.D.* **13:** 206. 1901.

MULTIPLE SARCOMATA OF SCALP.—*See* Cylindroma of Scalp.

MULTIPLE SUDORIPEROUS ADENOMATA.—*See* Cylindroma of Scalp.

MYCETOMA.—*See* Maduramycosis.

MYCOSIS FUNGOIDES (GRANULOMA FUNGOIDES).—Alibert 1835 first description but did not define it as a special morbid process. Bazin 1862–1873 Gillot and Ranvier established it as a morbid process. REF.: Kaposi, p. 593. Frazer, *Arch.* **11.** 1925.

MYXOEDEMA.—William Gull 1873 as cretinoid edema. Ord 1877 suggested term myxoedema and determined it was due to deposit and proliferation of mucoid material. REF.: Kaposi text, p. 475.

NEUROSIS OF VEGETATIVE NERVOUS SYSTEM.—*See* Acrodynia Juvenile.

NERVE ENDINGS (VATER-PACINIAN CORPUSCLES).—Abraham Vater 1717. Pacini 1817.

NEUROFIBROMATOSIS.—Smith in 1849 before von Recklinghausen 1882 pointed out that these fibromas arose from nerve tissue. Von Recklinghausen 1882. REF.: Schneiderman, *Arch.* **12**: 483. 1925. Friedlander, *J.C.D.* **28**: 497. 1910.

NEUROMA CUTANEOUS.—Duhring 1873. REF.: Duemling, *Arch.* **29.** 1929.

NEUROTIC EXCORIATIONS.—Erasmus Wilson 1874 first used the term. REF.: Adamson, *B.J.D.* **27**: 1. 1915.

NEVO-EPITHELIOMA ADENOIDES.—*See* Cylindroma of Scalp.

NEVOXANTHO-ENDOTHELIOMA.—McDonough 1912. REF.: Ormsby, p. 654.

NEVUS ACNEIFORMIS UNILATERALIS.—*See* Nevus Unilateralis Comedonicus.

NEVUS ANEMICUS.—Vorner 1906. REF.: Lane, *J.C.D.* **34**: 602. 1916.

NEVUS A PERNIONE.—*See* Angiokeratoma.

NEVUS CAVERNOUS.—Winiwarter 1892. REF.: Winiwarter, *Surgical Diseases of Skin*, 1892. Surgeon General's Index.

NEVUS FOLLICULARIS KERATOSUS.—*See* Nevus Unilateralis Comedonicus.

NEVUS SEBACEUS.—Jadassohn 1895.

NEVUS UNILATERALIS COMEDONICUS.—S. Kofman 1895 first case in German archives. S. B. Selhorst 1896 in *B.J.D.* as nevus acneiformus unilateralis. C. J. White 1914 reported first case in U. S. as nevus follicularis keratosus. REF.: S. E. Sweitzer, *Arch.*, in press in *Arch.*

NICHOLAS, DURAND, FAVRE DISEASE.—*See* Lymphogranulomatosis Inguinalis.

NOCARDIOSIS CUTIS.—Potron and Thiry 1913(?). REF.: Guy, *Arch.* **11**: 142.

OCHRONOSIS.—Virchow 1866. REF.: Sutton, p. 652.

ONYCHOMADESIS.—Term suggested by Heller for shedding of nail 1927. REF.: Strauss, in press in *Arch.*

ORIENTAL SORE (DERMAL LEISHMANIASIS).—Alex Russel 1756 first serious account of the disease. Wright 1903 established diagnostic criterion (organism). REF.: Darling, *J.C.D.* **29**: 616. 1917.

OSTEOSIS CUTIS.—Fred Slare 1683 inaugurated chemical study of stones of human body. REF.: Becker, *Arch.* **10.** 1924.

PAGET'S DISEASE OF NIPPLE.—James Paget 1874. Nelaton 1855 "probably" described it. REF.: Rubenstein, *Arch.* **22.** 1930. Book Review Les Dyskeratiniations *Amer. Journ. of Cancer*, May 1932.

PAGET'S DISEASE—EXTRA MAMMARY.—Henry Morris 1880 did not call it Paget's. Crocker 1889. REF.: Hartzell, *J.C.D.* **28:** 379. 1910.

PARAPSORIASIS.—Term proposed by Brocq 1902. Brocq 1897 erythrodermia pityriasique en placques disséminées. Lailler 1871 mistook a case for pityriasis rubra. Erasmus Wilson 1873 called the same case lichen planus retiformus. Radcliffe Crocker recognized it as parapsoriasis. 1901 lichen variegatus. Unna, Santi, Pollitzer 1890 parakeratosis variegata. Jadassohn 1894 lichenoid exanthem. Juliusberg 1899 pityriasis lichenoides chronica. Ravogli 1901 erythroderma squamosum. C. Boeck 1899 dermatitis variegata. Casoli 1901 dermatitis squamose anormale. REF.: Brocq, *J.C.D.* **21:** 315. 1903.

PARAFFIN OIL TUMORS.—J. and F. Freniet 1917. Weidman, *Arch.* **7:** 211. 1923.

PEDICULOSIS.—Described from earliest time. Aristotle described it. REF.: 5 Hebra: 274.

PELLAGRA.—Casal 1730. Thiery 1755 accurate description. Frapolli 1771 first to use the term pellagra in medical literature. It was originally a popular designation for the disease.

PEMPHIGUS.—Sauvages 1770 used the term pemphigus in writing of an affection previously described under various names by Hippocrates, Galen, and Aetius. Willan 1808 described Pemphigus under the name of Pompholyx. Ch. Lepois gave a clear description of it. Pemphigus chronicus of today was established by Hebra. Senear-Usher type 1926. REF.: Corlett, *J.C.D.* **24:** 464. 1924.

PELS PHYTOTOXIC TEST FOR PEMPHIGUS.—I. R. Pels and D. I. Macht 1929. REF.: *Arch.* **19.** 1929.

ACUTE PEMPHIGUS IN BUTCHERS.—Pernet and Bullock 1896. REF.: Ormsby text.

ACUTE PEMPHIGUS.—Kaposi 1890 acute contagious pemphigus neonatorum. REF.: Crary, *J.C.D.* **24:** 16. 1906.

PEMPHIGUS FOLIACEUS.—Cazenave 1844. REF.: Cranston Low, *B.J.D.* **21:** 101. 1909.

PEMPHIGUS LEPROSUS.—*See* Hydroa Vacciniforme.

PEMPHIGUS NEONATORUM.—*See* Impetigo Neonatorum.

PEMPHIGUS VEGETANS.—Neumann 1876. Kaposi 1869 as syphilis

vegetans. Auspitz 1869 as herpes vegetans. Ref.: Winfield, *J.C.D.* **25**: 71. 1907. Jamieson, *B.J.D.* **14**: 287. 1902.

Periadenitis Mucosa Necrotica Recurrens.—Loblowitz 1910. Sutton 1911 independently. Ref.: Fordyce, *Arch.* **13.** 1926.

Perleche.—Lemaistre 1886. Previously recognized as angulus infectiosus (Faulecke). Impetigo comissural (Sabouraud). Ref.: Finnerud, *Arch.* **20.** 1929.

Perifolliculitis Capitis Abscedens et Suffodiens.—L. Spitzer 1903 as dermatitis follicularis et perifollicularis conglobata. Named by E. Hoffmann 1907. Called dissecting cellulitis of the scalp by Robert F. Barney in *Arch.* **23**: 3. 1931, at the suggestion of W. A. Pusey. Ref.: Wise, *Arch.* **4**: 750. 1921.

Phenolphthalein Eruption.—E. W. Abramowitz 1918. Ref.: Wise, *Arch.* **5**: 298. 1922.

Pian.—*See* Frambesia Tropica.

Piedra.—Known locally in Colombia since remote times. Beigel 1869 chignon disease. Desenne 1878 Morris 1879 first scientific descriptions. N. Osario 1876 named it Spanish word for stone. Ref.: Jackson McMurtry, *Diseases of Hair*, p. 290. Surgeon General's Index.

Piedro Nostras.—Morris and Cheadle 1879. Ref.: Ormsby, p. 1053.

Pili Annulati.—*See* Leucotrichia Annularis.

Pink Disease.—*See* Acrodynia Juvenile.

Pinselhaar.—*See* Trichostasis Spinulosa.

Pinta.—(Spanish "to paint"). Drew attention of medical writers in eighteenth century. Known since remote times. Description in *Encyclopedia of Polauko* of Mexico in 1760. Alibert 1829 complete description. Ref.: Castellani and Chalmers, p. 2093.

Pityriasis Circine.—*See* Pityriasis Rosea.

Pityriasis Circine et Margine.—*See* Pityriasis Rosea.

Pityriasis Dissemine.—*See* Pityriasis Rosea.

Pityriasis Lichenoides Chronica.—*See* Parapsoriasis.

Pityriasis Lichenoides et Varioliformis Acuta.—Originally described by Mucha 1916. Named by Haberman 1926. Ref.: Senear and Oliver, *Arch.* **23.** 1931.

Pityriasis Maculata et Circinata.—*See* Pityriasis Rosea.

Pityriasis Rosea.—Gibert 1860. Willan 1798 Roseola annulata. Rayer 1828 erythema annulatum. Erasmus Wilson 1857 as lichen annulatus serpigenosus. Bazin 1862 pityriasis rubra aigu. Hardy 1868 pityriasis dissemine. Horand 1876 pityriasis circine. Hebra 1876 herpes tonsurans maculosus et squamosus.

Vidal 1877 pityriasis circine et margine. Duhring 1880 pityriasis maculata et circinata. REF.: Lord, *Arch.*, in press in *Arch.*

PITYRIASIS RUBRA.—Hebra 1868. Jadassohn 1892 present conception of disease. REF.: Barney, *Arch.* **18.** 1928.

PITYRIASIS RUBRA AIGU.—*See* Pityriasis Rosea.

PITYRIASIS RUBRA PILARIS.—Claudius Tarral 1828 no name. Devergie 1857 pityriasis rubra pilaris. Hebra 1862 as lichen ruber. Kaposi 1889 lichen ruber acuminatus. REF.: Feldman, *J.C.D.* **37:** 226. 1919. Pusey text, p. 470.

PLASMA CELLS.—Unna 1891. REF.: Whitfield, *B.J.D.* **16:** 8. 1904.

PLICA NEUROPATHICA.—La Page *circa* 1884. REF.: Jackson-McMurtry, *Diseases of Hair*, p. 286.

POIKILODERMA ATROPHICANS VASCULARE.—Jacobi 1907. REF.: Taussig, *Arch.* **25:** 883.

POISON IVY.—Von Mons 1779 made first attempt to isolate active principle. REF.: Strickler, *J.C.D.* **36:** 327. 1918.

POLYMYOSITIS ACUTA PROGRESSIVA.—*See* Dermatomyositis.

POLYPAPILLOMA TROPICUM.—*See* Frambesia Tropica.

POMPHOLYX.—*See* Dysidrosis.

POROKERATOSE PAPILLOMATEUSE PALMAIRE ET PLANTAIRE.—*See* Keratoderma Punctatum.

POROKERATOSIS (MIBELLI'S DISEASE).—Neumann 1875 as dermatitis circumscripta herpetiformis. Majocchi 1887 called a case ichthyosis hystrix. Mibelli 1893 generally credited. Respighi 1894 independently as hyperkeratosis eccentrica. REF.: Wright, *Arch.* **4:** 469. 1921. Hall, *Arch.* **18.** 1928. Heidingsfeld, *J.C.D.* **23:** 29. 1905.

PORRIGO DECALVANS.—*See* Alopecia Areata.

PRICKLY HEAT.—Willan, Johnson 1821 apparently first printed report, but Bontius and Cleghorn wrote of it before them. REF.: Castellani and Chalmers.

PROGRESSIVE PIGMENTARY DERMATOSIS.—Schamberg 1901 Schamberg's Disease. REF.: Kingery, *J.C.D.* **36:** 166. 1918.

PRURIGO.—Hebra 1865.

PRURIGO AESTIVALIS.—*See* Hydroa Vacciniforme.

PRURIGO NODULARIS.—Hardaway 1880 first case as multiple tumors of the skin accompanied by intense itching. Brocq 1900 lichen obtusus corneus. Hyde 1908 named it. REF.: Netherton, *Arch.* **8:** 193. 1923.

PRURITUS.—Described by Galen.

BATH PRURITUS.—Stelwagon 1898. REF.: Ormsby.

PRURITUS HIEMALIS.—Duhring 1874. REF.: Corlett, *J.C.D.* **12:** 457. 1894.

PRURITUS ITCHING WITH ICTERUS.—Hippocrates.

PSEUDO-PELLADE.—Neumann 1868 first to mention the condition. Brocq 1885 established it as a clinical entity. REF.: Pardo-Costello, Abstract of article from *Ital. Derm.* Oct. 1931.

PSEUDOXANTHOMA ELASTICUM.—F. Balzar 1884. Darier 1896 named it. REF.: Throne-Goodman, *Arch.* **4**: 440. 1921. Jones and Allen, *paper* in press in *Arch.*

PSEUDO-XANTHOMATOUS LYMPHANGIOMA.—Thibierge 1907. REF.: Gottheil, *J.C.D.* **27**: 277. 1909.

PSORIASIS.—Willan, modern conception. Celsus 25–50 B.C. gives first recognizable description under name of impetigenes.

PSORIASIS, BLEEDING POINTS IN.—Auspitz 1835–1886.

PSORIASIS, CHRYSAROBIN.—Squire 1876.

PURPURA.—Mentioned by Hippocrates. Werlhof 1735 established it as a disease. REF.: 2 Hebra: 403.

PURPURA HENOCHS.—E. Henoch 1874. According to Osler Willan described the condition sixty years previously. REF.: Bowen, *J.C.D.* **10**: 434. 1892.

PURPURA HEMORRHAGICA.—Werlhof 1735. REF.: Garrison, *History of Medicine.*

PURPURA ANNULARIS TELANGIECTODES.—Majocchi first observed a case 1887 Majocchi first publication 1896. REF.: Stuart Way, *Arch.* **21.** 1930. Weiss, *Arch.* **1**: 520. 1920.

PURPURA RHEUMATICA.—Schönlein 1839.

PYODERMITE VÉGÉTANTE.—*See* Dermatitis Vegetans.

PSEUDO-TRICHINOSIS.—*See* Dermatomyositis.

RADIUM REACTION.—Becquerel 1901 carried radium in his pocket. Walkoff 1900 claimed priority. REF.: McKee, *X-rays and Radium in Diseases of the Skin.*

RAT BITE FEVER.—Millot-Carpentier 1884. Miyake 1899. REF.: O'Leary, *Arch.* **11**: 293. 1924.

RAYNAUD'S DISEASE.—Maurice Raynaud 1862 as "local asphyxia and symmetrical gangrene of the extremities." REF.: Morton, *J.C.D.* **12**: 249. 1894.

RETE MALPIGHI.—Malpighi 1638–1686.

RHINOSCLEROMA.—Hebra and Kaposi 1870–1872. Frisch 1884 the organism. REF.: Pardo-Costello, *Arch.* **5**: 484. 1922.

RHINOPHYMA.—Hebra 1881. REF.: Garrison, *History of Medicine.*

RINGED ERUPTION.—*See* Granuloma Annulare.

RITTER'S DISEASE.—*See* Dermatitis Exfoliativa Neonatorum.

ROCKY MOUNTAIN SPOTTED FEVER.—Wood 1896. REF.: Ormsby.

ROSEOLA ANNULATA.—*See* Pityriasis Rosea.

RUBELLA (GERMAN MEASLES).—Avicenna A.D. 980–1037 re-

ferred to it as a disease related to measles. Forestus 1522–1597. De Bergen 1752 first accurate and undoubted reference to rubella. REF.: Welch and Schamberg, *Acute Contagious Diseases*, p. 547.

SARCOID.—Kaposi 1899 introduced term included mycosis fungoides, leukemias, sarcomatosis cutis, hemorrhagic sarcoma, melanotic sarcoma. REF.: *Sweitzer Arch.* **11.** 1925.

SARCOID.—Boeck 1899. Darier 1910 present classification. REF.: Goeckerman, *Arch.* **18:** 237. 1928.

SCABIES.—Vague references in very early literature. Avenzoar 1113–1162 described mite. Guy de Chauliac 1300–1368 contagiousness. Bonomo 1687 drawings and clear description.

SCARLET FEVER.—Ingrassias 1556 first clear description, in 1560 first to differentiate it from measles, also pointed out the immunity. Daniel Sennert 1625 described the disease as it is known today. Sydenham 1624–1689 named it scarlatina. REF.: Welch and Schamberg, *Acute Contagious Diseases*, p. 145.

SCHAMBERG'S PROGRESSIVE PIGMENTARY DERMATOSIS.—Schamberg 1901. REF.: *B.J.D.* **13:** 1. 1901.

SCHOENLEIN'S PURPURA.—*See* Purpura Rheumatica.

SCLEREMA NEONATORUM.—Underwood and Denman 1784. Forget 1847 separated it from scleroderma. Cruse 1875 accurate description. Parrot 1877 differentiated it from oedema neonatorum. REF.: Skeer, *Arch.* **19.** 1929. Lieberthal, *J.C.D.* **36:** 30. 1918.

SCLERODERMA, GENERALIZED.—Early history confused with that of leprosy, ichthyosis, and keloid. Curzio 1752 ichthyosis corii probably a diffuse scleroderma. Gintrac 1847 coined term scleroderma. REF.: T. C. Fox, *B.J.D.* **4:** 1892. Boardman, *Arch.* **19.** 1929.

SCLERODERMA CIRCUMSCRIBED—(MORPHEA).—Described by many early writers. Addison 1869 as keloid. Erasmus Wilson 1809–1884 suggested name morphea. REF.: Kaposi text, p. 454. Tilbury Fox, *Diseases of Skin*, p. 341, second American edition 1887.

CARDLIKE SCLERODERMA.—Unna 1894 kartenblattahnlich. REF.: Nomland, *Arch.* **21.** 1930.

SEBACEOUS GLANDS, ANATOMY OF.—Malpighi 1628–1694.

SEBORRHOEA.—C. H. Fuchs 1840 coined the word for what is now seborrhoea oleosa. Before then Biett 1817 acne sébacée. Rayer 1835 flux sébacé. REF.: Highman, *Arch.* **10:** 430. 1924. Hebra **1:** 100.

SEBORRHOEA CONGESTIVA.—*See* Lupus Erythematosus.

SERPIGENOUS ULCERATION OF GENITALS.—*See* Granuloma Inguinale.

SMALLPOX.—*See* Variola.

SPOROTRICHOSIS.—Schenk 1898. REF.: Burgess, *Arch.* **12**: 642. 1925.

ST. ANTHONY'S FIRE.—*See* Erysipelas.

STEATOCYSTOMA MULTIPLEX.—Bosellini 1898. REF.: Ormsby and Finnerud, *Arch.* **22**: 823. 1930.

STEATORRHOEA.—Erasmus Wilson 1860 the same as the seborrhoea of Fuchs 1840. REF.: Highman, *Arch.* **10**: 1924.

ULCERATIVE GINGIVITIS AND STOMATITIS.—Miller 1882 first saw spirochetes and fusiform organisms. Vincent 1898 first described them. REF.: Castellani and Chalmers, p. 1745.

APTHOUS STOMATITIS.—Hippocrates.

SUBOCCIPITAL RHACHISENTESIS.—*See* Cistern Puncture.

SUMMER ERUPTION (HYDROA VACCINIFORME).—Hutchinson 1888. REF.: Bowen, *J.C.D.* **12**: 92. 1894.

SUTHRAKES.—*See* Variola.

SWEAT GLANDS.—Niels Stenson 1664.

SYCOSIS.—Egyptian literature of 5000 years ago under other names. Greeks used the term to apply to surfaces with excessive granulations resembling a fig. Bateman 1817 first accurate description. Gruby 1842 sycosis tinea. Köbner and Michelson 1864 sycosis parasitica and folliculitis barbae. REF.: Hebra **2**: 301.

SYCOSIS FRAMBOESIFORMIS.—*See* Dermatitis Papillaris Capillitii.

SYCOSIS LUPOID.—*See* Acnitis.

SYMMETRICAL CONGESTIVE MOTTLING OF THE SKIN.—*See* Dermatitis Hemostatica.

SYMMETRICAL LIVIDITY OF SOLES.—Pernet 1924 in *B.J.D.*

SYNOVIAL LESIONS OF SKIN.—Hyde 1883. REF.: McKee, *Arch.* **4**: 162. 1921.

SYPHILIS.—Appeared in Spain in 1493 and in Italy 1494–95. First described by Ruy Dias de Isla 1493 in Barcelona. Named syphilis by Fracastor 1530 "syphilis sive morbus Gallicus." Ricord 1837 described primary, secondary and tertiary lesions. Metchnikoff and Roux 1903 inoculated apes. Schaudinn and Hoffman 1905 discovered the spirocheta pallida. Wassermann 1906 Wassermann reaction. Ehrlich 1909–1910 arsphenamine. Noguchi 1911 cultivated spirocheta pallida in vitro. REF.: Iwan Bloch, *British System of Syphilis*, **1**. Pusey text, p. 559.

Syphilis Vegetans.—*See* Pemphigus Vegetans.

Chancre of the Gum.—Astruc 1736. Ref.: Klauder, *Arch.* **3:** 615. 1921.

Dark Field Illumination.—Landsteiner and Mucha 1906 used it in syphilis. Ref.: Ketron, *J.C.D.* **32:** 217. 1914.

Peripheral Syphilitic Arteritis.—Hutchinson 1884. Ref.: Klotz, *J.C.D.* **25:** 450. 1907.

Bismuth.—Balzar in animals 1889. Sazerac and Levaditi 1921 guinea pigs. Fournier and Guenot 1921 humans. Ref.: McCafferty, *Arch.* **8:** 470. 1923.

Jaundice in Early Syphilis.—Recognized as early as 1585 by Paracelsus. Ref.: Wile, *Arch.* **1:** 656. 1920.

Iodides in Treatment of Syphilis.—William Wallace 1834.

Frambesiform Syphilid.—Sauvages first description 1768. Ref.: Goodman, *Arch.* **7:** 619. 1923.

Hutchinson's Teeth.—Hutchinson 1857. Ref.: Quentan, *Arch.* **11.** 1927.

Luetin.—Nagouchi 1911. Ref.: Fox, *J.C.D.* **30:** 465. 1912.

Phlebitis Syphilitic.—Girwood 1860. Ref.: Morrow, *Arch.* **17.** 1928.

Syphilitic Bursopathy.—Verneuil 1868. Ref.: Garner, *Arch.* **24:** 591. 1931.

Syphilis of the Kidney.—Rayer 1840 was the first author to assert that syphilis may cause albuminuria. In 1859 he placed syphilis of kidney on a firm basis. Ref.: Wile, *Arch.* **1:** 411. 1920. Fordyce, *J.C.D.* **15:** 151. 1897.

Syphilis of the Orbit.—Boerhaave 1744. Ref.: Kemp, *Arch.* **8.** 1923.

Syphilitic Splenomegaly in Early Syphilis.—Biermer 1862. Ref.: Wile, *Arch.* **3:** 118. 1921.

Provocative Wassermann Test.—Gennerich 1910. Ref.: O'Leary, *Arch.* **2:** 348. 1920.

Malaria for Neurosyphilis.—Wagner von Jauregg 1887.

Herxheimer Reaction.—Karl Herxheimer 1902.

Syringo Cystadenome.—*See* Syringocystoma.

Syringocystoma.—Kaposi 1872 as Lymphangioma tuberosum multiplex. Torok 1889 syringo-cystadenome. Ref.: Ormsby, p. 617. Pusey text, p. 1049.

Syringomyelia (Morvan's Disease).—First recognized in 1800 by Portal. Olivier 1834 named it. Morvan 1883 that type in which there is a predominance of changes in skin. Ref.: Knowles, p. 260.

TATTOO.—Derived from tattow used by Cook and Banks in 1789. Primitive man. REF.: Castellani and Chalmers.

TELANGIECTASIA GENERALIZED.—Tanturri 1879. Osler 1901 called attention to group of hereditary cases with mucous membrane involvement and hemorrhage. REF.: Becker, *Arch.* **14.** 1926.

MULTIPLE HEREDITARY TELANGIECTASES.—Rendu 1896. REF.: Pusey's text.

THROMBO-ANGIITIS OBLITERANS.—Buerger 1908. REF.: Pusey's text, p. 386.

TINEA.—Term was first used by Cassius Felix about A.D. 400.

MYCOSIS AND DERMOMYCOSIS.—Virchow 1850–1870 introduced the term.

FUNGUS FROM TOE LESIONS.—Sabouraud 1911. REF.: Scholtz, *Arch.* **25:** 812. 1932.

THRUSH.—Clinically known to Hippocrates. Vogel about 1834 demonstrated contagiousness. Gruby 1842 discovered organism Langenbeck 1839 discovered fungus. REF.: Castellani and Chalmers, *Tropical Diseases*, p. 1742.

DERMATOPHYTID (TINEA).—Jadassohn 1911. REF.: Williams, *Arch.* **13.** 1926.

TRICHOPHYTID.—Jadassohn 1912 introduced it as a clinical conception. REF.: Williams, *Arch.* **15:** 455. 1927.

LICHENOID TRICHOPHYTID (TINEA).—Jadassohn 1911. REF.: Raasch, *B.J.D.* **28:** 10. 1916.

TINEA AMIANTACEA.—Alibert 1832. REF.: Becker, *Arch.* **20.** 1929.

TINEA IMBRICATA.—Dampier 1789. REF.: Castellani, *B.J.D.* **25:** 377. 1913.

TINEA INTERSECTA.—Castellani 1908. REF.: *J.C.D.* **26:** 405. 1908.

TINEA TONSURANS.—Gruby 1843, Malmsten 1846, independently described organism.

KERION.—Ancient times. Tilbury Fox 1862–1866 first to recognize identity with ringworm of scalp. REF.: Ormsby.

X-RAY TREATMENT FOR RINGWORM OF SCALP.—Sabouraud and Noire 1904. REF.: Editorial *J.C.D.* **23:** 159. 1905.

TINEA CRURIS (ECZEMA MARGINATUM).—Von Bärensprung 1855 described it. Devergie in 1857 brief description as herpes circive. Hebra 1860 complete description. Köbner 1864 demonstrated mycelial nature. REF.: Williams, *Arch.* **15.** 1927.

RINGWORM OF SCALP IN ADULTS.—J. A. Cantrell first report in United States, 1896. REF.: H. Fox, *Arch.* **11.** 1925.

THALLIUM.—Sir William Crookes 1861 discovered the element. J. Combemale 1898 used it to control night sweats. Sabouraud 1897 accidentally noticed hair fall, and used it for tinea of the scalp. Cicero 1909 used it and published results in 1918 which led to present popularity. REF.: Cooper and Engman, *Arch.* **23.** 1931.

TINEA VERSICOLOR.—Eichstedt 1846 discovered parasite. Robin 1853 named the organism microsporon furfur. REF.: Corlett, *J.C.D.* **28:** 315. 1900. Knowle, p. 448.

FAVUS.—Schönlein 1839 discovered parasite. Gruby 1841 independently. Remak 1845, pupil of Schönlein, named it achorion Schönlein. Favus was known as tinea vera, tinea lupinosa and as porrigo lupinosa. The entity called tinea favosa prior to 1800 was impetigo. REF.: Williams, *Arch.* **15:** 451. 1927.

TOUCH CORPUSCLES.—Meissner and Wagner 1851.

BLACK HAIRY TONGUE.—Rayer first accurate description 1835. REF.: Sutton, p. 1292.

TRANSITORY BENIGN PLAQUE OF TONGUE (WANDERING RASH) (GEOGRAPHICAL TONGUE).—Bridon 1872 first description. REF.: Butlin-Spencer, *Diseases of Tongue*, p. 95.

TRICHODYSCHROIA.—*See* Leucotrichia Annularis.

TRICHONODOSIS (KNOTTED HAIRS).—Galewsky 1906. REF.: Macleod, *B.J.D.* **19:** 40. 1907.

TRICHORRHEXIS NODOSA.—Wilks 1852 first recognized it as a new disease. Biegel 1855 first description, generally credited. Erasmus Wilson 1867 as frigilitas crinium. Kaposi 1876 named the condition. REF.: Heidingsfeld, *J.C.D.* **23:** 246. 1905. Adamson, *B.J.D.* **19:** 99. 1907. Jackson McMurtry, *Diseases of Hair*, p. 131.

TRICHOSTASIS SPINULOSA.—Galewsky 1911. Franke 1912 reported a case that he had demonstrated in 1901 as Pinselhaar. REF.: Mitchell, *Arch.* **11:** 80. 1925.

TRICHOTILLOMANIA.—Hallopeau 1889. REF.: Blaisdell, *J.C.D.* **34:** 362. 1916.

LUPUS VULGARIS—Indefinite term to describe spreading ulcers. Willan 1800 described modern lupus vulgaris. Friedlander 1872 established it as tuberculosis. Hutchinson 1887 described apple-jelly nodules. REF.: Crocker text, p. 763.

LUPUS VULGARIS ERYTHEMATOIDES.—Leloir 1891.

LUPUS MILIARIS DISSEMINATUS.—Tilbury Fox as disseminated follicular lupus 1878. REF.: Wise, *Arch.* **4:** 588. 1921.

TUBERCULOSIS VERRUCOSA CUTIS—Samuel Wilkes 1862 as

verruga necrogenica. Riehl and Paltouf 1886 accurate description. REF.: Sutton and Sutton, p. 348.

TUBERCULIDES.—Caesar Boeck 1896 as toxi-tuberculides established modern conception Darier 1910 tuberculides.

LUPUS ERYTHEMATOSUS WITH PAPULO NECROTIC TUBERCULIDE.—J. Hutchinson 1879. REF.: Wile, *J.C.D.* **29**: 286. 1911.

NODULAR TUBERCULOSIS OF THE HYPODERM.—Wende 1911. REF.: Wende, *J.C.D.* **29**: 1. 1911.

TUBERCULOSIS OF MOUTH AND LIP.—Ancient literature. Jarisch 1879. Chiari 1879. Kaposi 1898. REF.: Zeisler, *Arch.* **3**: 18. 1921.

PIRQUET TEST.—Pirquet 1907. REF.: Hollander, *Arch.* **17**. 1928.

SCROFULODERMA.—Friedlander 1872 established it as tuberculous.

TULAREMIA.—Pearse 1910 deer fly fever. Bacterium tularense McCoy and Chapin 1911–12. Francis 1920 connected the two. 1921 first case from rabbits. REF.: Miller-Taussig, *Arch.* **19**. 1929.

ULCERATING GRANULOMA OF THE PUDENDA.—Conyers and Daniels 1896. Before that was included in group of tropical ulcers. REF.: Goodman, *Arch.* **1**: 152. 1920.

ULCERATING GINGIVITIS AND STOMATITIS.—Miller 1882 a dentist first saw spirochetes and fusiform organisms. Vincent 1898 described them. REF.: Castellani and Chalmers, p. 1745.

ULERYTHEMA OPHRYOGENES.—P. Tanzer 1889. REF.: McCafferty, *Arch.* **18**: 524. 1928.

ULCUS PSEUDO-VENERIUM.—*See* Ulcus Vulvae Acutum.

ULCUS VULVAE ACUTUM.—B. Lipschutz 1904 as ulcus pseudo venerium. Lipschutz in 1912 gave it its present name. REF.: Finnerud, *Arch.* **13**. 1926.

ULERYTHEMA ACNEIFORME.—*See* Folliculitis Ulerythematosa Reticulata.

ULERYTHEMA CENTRIFUGUM.—*See* Lupus Erythematosus.

ULTRAVIOLET RAY.—Finsen 1897. REF.: Butler, *Arch.* **11**: 51. 1924.

URTICARIA.—Hippocrates mentions it.

URTICARIA DUE TO HYPERSENSITIVENESS TO A FOREIGN ALBUMINOID SUBSTANCE.—Wolff-Eisner 1907. REF.: Fordyce, *J.C.D.* **30**: 129. 1912.

URTICARIA PIGMENTOSA.—Nettleship 1869 as chronic urticaria leaving brown stains. Sangster 1877 named the condition. Tilbury Fox 1899 as xanthelasmoidea. REF.: Fraser, *Arch.* **17**. 1928. Finnerud, *Arch.* **8**: 344. 1923.

VAGABOND'S DISEASE.—Greenhow 1876.

VARICELLA (CHICKENPOX).—Rhazes ninth century mentioned it. Ingrassius 1553 first accurate description and is usually credited. Vogel 1764 introduced term varicella. REF.: Welch and Schamberg, *Acute Contagious Diseases*, p. 318.

VARIOLA (SMALLPOX).—Claimed by some that it dates back to China 1000 years before Christian Era. Hippocrates, anthrakes 460–377 B.C. only suggestive. Philo in first century probably referred to it. Bishop Marius 570 A.D. first mentioned variola. Isaac ninth century first description by a physician. Rhazes 910 first scientific and comprehensive report, says that smallpox was referred to by Aaron in seventh century. Gilbertus Anglicus thirteenth century established contagiousness. REF.: Welch and Schamberg, *Acute Contagious Diseases*, p. 145. Marius, Bishop of Avenches, 570 A.D. used term variola.

VARICOSE VEINS.—Hippocrates mentions it.

OBLITERATING SOLUTIONS FOR VARICOSE VEINS.—Chassaignac 1854 perchloride of iron. Wood, F. B. 1877 persulphate of iron. Vallette 1867 iodatannic solution.

VARUS.—*See* Acne.

VARUS NODULUS.—*See* Acnitis.

VEGETATIONS VASCULAIRES.—*See* Adenoma Sebaceum.

VELDT SORE.—Crocker 1903. REF.: Ormsby, p. 314.

VENEREAL INFECTION.—Roger of Palermo 1170 recognized infectious character of genital lesions by sexual intercourse.

VENEREAL PROPHYLAXIS.—Saliceto 1210–1277 first suggestion.

VERRUCAE.—*See* Warts.

VERRUGA NECROGENICA.—*See* Tuberculosis Verrucosa Cutis.

VINCENT'S ANGINA.—*See* Ulcerative Gingivitis and Stomatitis.

VITILIGOIDEA.—*See* Xanthoma. *See* Adenoma Sebaceum.

VON RECKLINGHAUSEN'S DISEASE.—*See* Neurofibromatosis.

WANDERING RASH.—*See* Transitory Benign Plaque of Tongue.

WARFS.—Hippocrates.

VERRUCA PLANTARIS.—Dubreuihl 1895 first accurate description. REF.: Sutton, *J.C.D.* **27**: 154. 1909.

VERRUGA PERUVIANA.—Early references in Spanish works of sixteenth century. De Zarote 1543 first record. Tschudi 1843 modern description. REF.: Castellani and Chalmers, *Tropical Medicine*, p. 1566.

WHITE SPOT DISEASE.—Westberg 1901. Johnston and Sherwell 1903 named it. REF.: Wise and McKee, *J.C.D.* **32**: 629. 1914.

MELANOTIC WHITLOW.—Boyer 1854. Hutchinson 1886. REF.: Hertzler, *Arch.* **6**: 704. 1922. Johnston, *J.C.D.* **23**: 60. 1905.

WIT KOP.—McArthur and Thornton 1911. REF.: Sutton, p. 971.

WITHERING SARCOMA.—*See* Cylindroma of Scalp.

WRINKLES, TREATMENT OF.—Ebers Papyrus, sixteenth century B.C. mentions it.

X-RAY THERAPY.—Freund and Schiff 1896.

X-RAY DERMATITIS.—J. C. White 1896, E. A. Codman 1896, among the earliest to report it. REF.: Surgeon General's Index.

XANTHELASMOIDEA.—*See* Urticaria Pigmentosa.

XANTHOMA.—Xanthoma planum, Rayer 1836 as plaques jaunatres des paugiers. Addison and Gull 1850 xanthoma multiplex, as vitiligoidea. Erasmus Wilson proposed term xanthelasma. W. F. Smith 1869 proposed term xanthoma. Bazin 1869 demonstrated crystals of cholesterol in lesions. Unna 1894 histologically separated the two types. REF.: Wile, Eckstein and Curtis, *Arch.*, **29.** 1929. Pollitzer, *J.C.D.* **28:** 633. 1910. Knowles, *J.C.D.* **32:** 288. 1914.

XANTHOMA DIABETICORUM.—Addison and Gull 1851. REF.: Schamberg, *J.C.D.* **13:** 202. 1895.

XANTHOSIS DIABETICA.—*See* Carotinemia.

XANTHOMA MULTIPLEX.—Addison and Gull 1851. REF.: Whitehouse, *J.C.D.* **22:** 470. 1904.

FAMILIAL XANTHOMA.—Ehrmann 1889 brothers. Lehzen and Knauss 1889 sisters independently and McKenzie 1882. REF.: Wile and Duemling, *Arch.* **21:** 643. 1930.

XERODERMA PIGMENTOSUM.—Kaposi 1870 described a case that he first observed in 1865. Kaposi 1882 pathological study. Erasmus Wilson in *Diseases of Skin* 1867 describes it as parchment skin under heading of atrophia cutis, indicates that he was familiar with the condition before Kaposi described it. Piffard as "lentigo maligna." REF.: Corlett, *J.C.D.* **33:** 164. 1915.

YAWS.—Oviedo y Valdez 1535 first mentioned it. Pison 1648 described it. Charlouis 1881 proved by experiment that yaws and syphilis were distinct. Numa Rat 1891 modern clinical description. Aldo Castellani 1905 discovered organism. (*See* Frambesia.) REF.: Schamberg, *Arch.* **3:** 49. 1921. Pusey text, p. 553.

YEAST INFECTIONS IN SKIN.—Rivolta 1873 in a case of psoriasis. REF.: Beeson, *Arch.* **13.** 1926.

ZONA.—Scribonius Largus A.D. 47 used term. *See* Herpes Zoster.

GENERAL INDEX

THIS BOOK

HISTORY OF DERMATOLOGY

was set, printed and bound by The Collegiate Press of Menasha, Wisconsin. The cover design is by the Fox Studio of Springfield, Illinois. The type face is 12 on 14 point Monotype 31E. The type page is 21 x 38 picas. The text is 100 pound White Polychrome Enamel. The end sheets are 50 pound White Antique Buckeye. The jacket is 20 x 26—50 Green Albemarle. The binding is Du Pont Fabrikoid Linen Embossed

With THOMAS BOOKS *careful attention is given to all details of manufacturing and design. It is the Publisher's desire to present books that are satisfactory as to their physical qualities and artistic possibilities and appropriate for their particular use.* THOMAS BOOKS *will be true to those laws of quality that assure a good name and good will.*