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A PATHOLOGICO-CLINICAL CLASSIFICATION OF THE DISEASES OF THE SKIN.

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IN bringing the subject of the classification of the diseases of the skin to the attention of those interested in cutaneous medicine, it need scarcely be said that I regard it as of importance. Classification serves to bring together similar morbid processes and diseases, and allows of their being conveniently placed in divisions subdivisions, and groups. It enables us to arrange them according to some general plan. This should be, as far as possible, in conformity with the principles which govern the laws of morbid processes invading the economy in general. The pathology of the integument is governed by the same general laws that apply to the pathology of the other organs of the body. The peculiarities of the integument, including its complex anatomy, and the fact that it is the enveloping and exterior covering of the body, and, therefore, subject to innumerable invasions of different kinds from without, is the main point wherein it differs from other organs. In making use of the term medicine I take this opportunity of stating that, in my opinion, it should be employed in its broadest sense and application. By the expression cutaneous medicine I would include all morbid states that involve the integument. I make this observation because the tendency in recent years has been to contract the definition and signification of the term medicine. This, I think, should be deprecated. In our eagerness to foster the child the parent should not be forgotten.

Some authors, however, do not look upon the subject of the classification of the diseases of the skin as of importance. Thus, we note, even at this active dermatological epoch, certain works on cutaneous diseases by accomplished dermatologists written with entire disregard of any classification, the diseases discussed being arranged in most instances alphabetically, without reference to their clinical, etiological, or pathological relation to one another. In extenuation of this lack of arrangement it is argued by these authors that no existing classification is satisfactory for purposes of study or teaching, and that under these circumstances it is best not to attempt any systematic arrangement or grouping of the diseases, but to present them simply in alphabetical order. Some would contend, even, that cutaneous medicine is thus simplified. This latter argument I would regard as weak and unworthy of serious refutation. To the author or compiler of the book it is an easy, but to the student a very unsatisfactory, method of dealing with the subject matter in hand, and I must protest in the most emphatic language at my command against treating a large and important department of medicine in this manner. The subject matter discussed in the book is thus to be found in a disjointed or confused state; similar diseases etiologically or pathologically are disassociated and placed side by side, with nothing in common except that their name may happen by chance to begin with the same letter of the alphabet. The result is that a volume prepared on such a basis is not a treatise, but merely a descriptive dictionary. If it be called a dictionary, no objections can be raised against it. My criticism in these cases is not against the subject matter itself, but against the manner of presenting it. Treatises on diseases of the skin and dictionaries on diseases of the skin both have their uses, but they do not cover the same field in literature and should be clearly distinguished.

The classification of cutaneous diseases has been made the subject of special thought and study from the time of Plenck and Willan (a hundred years ago) up to the present date. Many schemes have been devised, based upon the cutaneous lesions, the normal or the pathological anatomy, the regions of the body involved, the special organs, parts, and strata of the skin, the etiology of the diseases, and various combinations of these several ideas. I shall not attempt to analyse the merits or demerits of these several trains of thought, but shall devote my attention to one in particular, to which reference will be made presently. It will be in place here to consider what should be the object of a classification. It should be, I think, to bring together similar diseases, either in form or in nature, and to

arrange and group them, as far as possible, into classes, divisions, and subdivisions, for purposes of recognition and study. We do this for practical or for scientific purposes, or for both combined. The most useful method of classification, it seems to the writer, is one which combines, to the extent the subject will admit of, both the practical and the scientific aspects of the question. As physicians it certainly should be our first aim to make the scheme of practical value in the consultation-room, so that the recognition of the diseases may be made as easy and definite as possible. This aspect of the subject, it need not be said, should be supported by science whenever this can be done. Experience shows that practice and science are in harmony and unison in almost all instances, at least up to certain points, and that, therefore, it is possible to make classifications practical and at the same time scientific. The latter aspect by no means precludes the former.

Etiological classifications, I admit, are ideal, and in cases where our knowledge of disease permits us to carry out this idea the results, as a rule, are satisfactory. But experience shows that there are limitations, often abrupt, to etiological classifications. While some diseases of the skin are due to definite causes, as, for example, the zoo-parasitic and phyto-parasitic diseases, many of them are due to different and varied causes. Thus, by way of example, note the diverse causes capable of giving rise to the well-defined diseases we designate herpes zoster and acne. Similar instances could be greatly multiplied.

The grouping of diseases according to the parts and structures of the skin involved is at first sight very attractive. Thus, it would seem as though a class might properly and satisfactorily be devoted to the diseases affecting the appendages of the skin—to the glands, hair, and nails; and it is true they may be so grouped with a certain degree of satisfaction, but not in a scheme which rests upon general pathology. The appendages are an integral part of the integument, and consequently cannot be separated from the tissues surrounding them. They are fed by the same set of blood-vessels, lymphatics, muscles, and nerves. The epithelium of the glandular and follicular systems of the integument are intimately connected and blended with the epithelium of the general surface, so that processes affecting the epidermis are prone to invade the follicles and ducts.

The classification of the diseases of the skin according to their general and local pathology has always seemed to me both practical and satisfactory. The scheme introduced by F. Hebra many years ago impressed me early in my professional life as being useful, and

at the same time scientific. The *integumentum commune*, the seat of all cutaneous diseases, is an integral part of the economy, and is subject to most of the morbid processes that invade other organs of the body, and for this reason is subject to the same or similar laws in pathology. For these and other good reasons I think such a classification is preferable to any other. That it is far from perfect I should be the first to admit, but perfection is not to be looked for in dealing with an inexact science like medicine. The scheme about to be submitted may be regarded as a modification and elaboration of that of F. Hebra. It is regarded as a distinct improvement on the writer's classification used in his several earlier published works on diseases of the skin. In addition to the arrangement of the diseases in classes based on general pathology, prominence is given to the clinical features of each disease by placing them into natural or convenient divisions and subdivisions. The primary lesions in which disease manifests itself in the skin are made to play a secondary part in the classification. In admitting them their value is not overestimated. They are employed merely for the purpose of serving as an aid to the clinician. That they have proved of assistance in diagnosis has been recognized by nosologists from time immemorial.

Lest a classification of the diseases of the skin become complicated, or too large and cumbersome, it is advisable to confine, as far as possible, the terms introduced to well-known and generally recognized types of disease. All superfluous or unnecessary matter, including varieties of diseases, composite diseases, ill-defined and obscure maladies, should be excluded. Thus, to exemplify concisely this idea in a practical way, acne and lichen representing well-known types of disease, are all-sufficient in a classification. To introduce the varieties, common or rare, of these or other similar diseases, would open the way to confusion. I believe that the simpler a classification can be made, as concerns the subject matter introduced, the more generally useful it will prove. Hence, in the plan about to be submitted, the framework is not overweighted with varieties of diseases or other accessories. The ideas involved in the classification should be made plain to the student, but no attempt should be made to crowd in too much material, lest the general principles involved be obscured.

With these preliminary observations I beg leave to present the following classification, based upon pathology, pathological anatomy, and symptomatology. The foundation, however, is pathology, symptomatology being of secondary importance. While the latter is of distinct aid to the clinician and diagnostician, at the same time it

might be omitted without the value of the classification being thereby impaired. It may be termed a pathologico-clinical classification.

CLASS I.

ANEMIÆ—ANEMIAS.

[*Transient or Persistent, General, or Local.*]

CLASS II.

HYPEREMIÆ—CONGESTIONS.

[*Process Congestive, Diffuse or Circumscribed, Chiefly Superficial.*]

		Predominant Lesions.
Erythema Hyperæmicum.	Active.	Erythematous.
Livedo, Cyanosis.	Passive.	

CLASS III.

EXSUDATIONES—INFLAMMATIONS.

[*Process Inflammatory, Diffuse or Circumscribed, Superficial or Deep-seated.*]

	Predominant Lesions.
Erythema Exsudativum. Erythema Pernio. Erythema Exsudativum Multiforme. Erythema Nodosum. Pellagra, Acrodynia.	Erythematous.
Urticaria. Urticaria Pigmentosa. Œdema.	Erythematous, Œdematous.
Eczema.	Erythematous, Papular, Vesicular, Pustular, Squamous, or Multiform.
Impetigo. Impetigo Herpetiformis. Ecthyma.	Pustular.
Dermatitis Herpetiformis. Pemphigus. Pompholyx. Herpes Simplex. Herpes Zoster.	Vesicular, Bullous, or Pustular.
Lichen. Prurigo.	Papular.
Acne. Sycosis.	Papular, Tubercular, or Pustular, involving Sebaceous Glands or Follicles.

Psoriasis. Pityriasis Rubra Follicularis. Pityriasis Rubra. Dermatitis Exfoliativa. Pityriasis Rosea.		Erythemato-Squamous.
Erysipelas.		Erythematous, Œdematous.
Morbilli. Rubella. Scarlatina.	Eruptive Fevers.	Erythematous, Maculo-Papular.
Variola. Vaccinia. Varicella.	Eruptive Fevers.	Vesicular, Pustular.
Dermatitis Medicamentosa. Dermatitis Venenata. Dermatitis Calorica. Dermatitis Traumatica. Dermatitis Neuropathica.	Due to Drugs, Poisons, Caloric, Traumatism, etc.	Varied, Multiform, Superficial or Deep-seated.
Gangrena. Furunculus. Carbunculus. Equinia (Glanders). Anthrax (Pustula Maligna).		Varied, Multiform, Suppurative, Necrotic, Deep-seated.
Tinea Trichophytina (Tinea Circinata, Tinea Tonsurans, Tinea Sycosis). Tinea Favosa. Tinea Versicolor, Tinea Erythrasma, Tinea Imbricata.	Due to Phyto-parasites.	Erythematous, Squamous, Multiform, involving Epidermis, Follicles, Hair, or Nail.
Actinomycosis, Mycetoma.	Due to Phyto-parasites.	Nodose, Ulcerative, Deep-seated.
Pediculosis. Scabies. Dracunculosis.	Due to Zoo-parasites.	Varied, Multiform, Superficial or Deep-seated.
Onychia.		Involving Nail.

Class IV.

HEMORRHAGIÆ—HEMORRHAGES.

[*Process Hemorrhagic Diffuse or Circumscribed, Superficial or Deep-seated.*]

	Structure chiefly involved.
Purpura.	Corium, Connective Tissue.

CLASS V.

HYPERTROPHIÆ—HYPERTROPHIES.

[*Process Hypertrophic, Formative, Diffuse or Circumscribed, Superficial or Deep-seated.*]

	Structure chiefly involved.
Lentigo. Chloasma. Nævus Pigmentosus.	Pigment.
Callositas. Clavus. Ichthyosis. Verruca. Molluscum Epitheliale. Cornu.	Epidermis.
Comedo. Milium. Cystis Sebacea. Keratosis Pilaris. Keratosis Follicularis.	Follicles, Sebaceous Glands.
Hypertrichosis. Nævus Pilosus.	Hair.
Onychauxis.	Nail.
Elephantiasis.	Corium, Connective Tissue.

CLASS VI.

ATROPHIÆ—ATROPHIES.

[*Process Atrophic, Retrogressive, Diffuse or Circumscribed, Superficial or Deep-seated.*]

	Structure chiefly involved.
Albinismus. Vitiligo.	Pigment.
Atrophia Cutis Propria. Xeroderma Pigmentosum. Striæ et Maculæ Atrophicæ. Morphœa. Scleroderma.	Corium.
Atrophia Pilorum Propria, Trichorrhexis. Alopecia. Canities.	Hair.
Onychatrophia, Leuconychia.	Nail.

Class VII.

NEOPLASMATA—NEW FORMATIONS.

[*Process Neoplastic, Benign or Malignant, Diffuse or Circumscribed, Chiefly Deep-seated.*]

	Structure chiefly involved.	
Fibroma. Neuroma. Cicatrix. Keloid. Xanthoma.	Corium, Connective Tissue.	Benign.
Myoma.	Muscle.	Benign.
Angioma, Nævus Vasculosus, Telangiectasis.	Blood-vessels.	Benign.
Lymphangioma.	Lymph-vessels.	Benign.
Adenoma.	Glands.	Benign.
Tuberculosis, Scrofulosis, Lupus Vulgaris. Lupus Erythematosus. Rhinoscleroma. Syphilis. Frambœsia (Yaws), Verruga Peruana. Lepra. Carcinoma, Dermatitis Papillaris Maligna (Paget's disease). Sarcoma. Granuloma Fungoides.	Corium, Connective Tissue.	Malignant.

Class VIII.

ANOMALIÆ SECRETIONIS GLANDULARUM—ANOMALIES OF SECRETION OF THE GLANDS.

[*Glands Involved Functionally.*]

A. GLANDULARUM SUDORIPARARUM—SWEAT-GLANDS.

	Predominant Process.
Hyperidrosis. Bromidrosis. Chromidrosis. Hæmatidrosis. Uridrosis. Anidrosis.	Disordered Secretion without Structural Change.
Sudamen. Hidrocystoma. Miliaria.	Disordered Secretion with Structural Change.

B. GLANDULARUM SEBACEARUM—SEBACEOUS GLANDS.

Seborrhœa.	Increased or Altered Secretion.

CLASS IX.

NEUROSES—NEUROSES.

[*Sensory Diseases, Functional, without Primary Lesions.*]

	Chief Symptoms.
Hyperæsthesia. Dermatalgia.	Increased or Painful Sensation.
Pruritus.	Itching.
Anæsthesia.	Decreased Sensation.

There are nine classes, as follows: I., Anæmiæ; II., Hyperæmiæ; III., Exsudationes; IV., Hæmorrhagiæ; V., Hypertrophiæ; VI., Atropiæ; VII., Neoplasmata; VIII., Anomaliæ Secretionis Glandularum; IX., Neuroses. The classes, it will be noted, represent mainly the expressions of pathological processes, most of which require no comment. The special involvement of anatomical structures, or the epidermis, pigment, corium, and so on, is a matter of importance both to the dermatologist and to the pathologist. The knowledge of the special seat of a disease aids materially in its treatment. The clinical portion of the classification is based on broader lines than has been heretofore attempted. It must be remembered concerning the forms of lesions that the exudative diseases especially are prone to exhibit, that in some cases considerable latitude is to be allowed. In stating the predominant lesions usually encountered in typical cases of the disease it is believed that this information may prove of aid in diagnosis. It need not be remarked that in most of the exudative diseases the forms of lesions are variable, and hence, as already stated, ample latitude must be allowed for deviations and exceptions to the so-called "predominant lesions." At the same time it is well known that many of the common diseases are very prone to manifest themselves always in the same form of lesions; thus, we may assert, without fear of contradiction, that herpes zoster is preeminently a vesicular disease, psoriasis an inflammatory squamous disease, and so on. A consideration of the classes and the matter they contain may now be taken up.

CLASS I.—ANÆMIÆ.

The anemias of the skin may be properly and satisfactorily divided into (1) those which are transient, and (2) those which are persistent. They may, moreover, be considered under the headings of (*a*) general, and (*b*) local. The most notable example of transient anemia of the skin occurs in connection with loss of blood from ex-

cessive localized or general hemorrhage, especially in those instances where the bleeding occurs suddenly. Anemia of the skin is also met with in edema. Transient anemia occurs as a result of temporary disturbed or arrested innervation, as in fear and anger; also, in connection with disturbed nerve-centers, as observed in nervous chill and shock, and in certain psychical conditions, as fainting from emotion. Persistent anemia often occurs in connection with certain diseases, as chlorosis and tuberculosis, and in these cases it is general. Localized anemia is met with where there exists an arrest of nutrition arising from defective innervation, as observed in morphœa and scleroderma, and still more strikingly in alopecia areata. Pallor of the skin occurring in the course of certain general diseases, as the febrile eruptive diseases, is indicative of a determination of the blood from the integument to other organs, and may be of importance prognostically. I have referred to these points because I do not think the anemic states of the skin in disease, whether general or local, are sufficiently recognized. I believe they may prove of considerable importance in connection with diagnosis in general, especially as concerns systemic diseases. The fact that they cause no substantive cutaneous lesions should not be a reason for ignoring the whole subject. On the contrary, I would contend that a good deal may be learned from close observation of the blood-current in the skin.

Class II.—Hyperemiæ.

Some nosologists are of the opinion that a class devoted to the hyperemias of the skin is superfluous. They would contend that all such affections should be relegated into the class of exudations, where they belong according to their views of pathology. But clinical experience shows that there exist certain forms of disease, especially of vasomotor nature, in which little or no exudation occurs, examples of which are met with in so-called morbid flushing and in other affections. These are very appropriately classed as *erythema hyperæmicum*, and are to be distinguished from *erythema exsudativum*. They are congestions without exudation, and of which there exist many varieties due to diverse causes, as caloric, traumatism, and poisons. To regard every instance of "erythema" as an early stage of exudation is unjust to the subject, for many of the hyperemias show no disposition to pass into the exudations. As I have endeavored to point out in Part II. of my "Treatise on Cutaneous Medicine" in discussing this topic, I think ample material exists for this class. The division into "active" and "passive" is of importance from the standpoint of both diagnosis and prognosis.

The *passive hyperemias* are of considerable import in connection with the so-called "stasis dermatoses," diseases in which the circulation, especially the venous, is interfered with, retarded, or arrested. *Livedo*, or lividity, plays a conspicuous part in affections which subsequently tend to superficial gangrene, as in chilblain, local asphyxia with gangrene, and the like. The origin of these diseases is for the most part obscure, but exposure to long-continued cold, impaired nutrition resulting from disturbed nervous system, impaired cardiac or central circulation may all be factors.

Class III.—Exsudationes.

The exudations are essentially inflammatory, but vary in the degree of exudation, as well as in the kind. They are due to a great variety of causes, some being internal, others external. Many of them are diffused, occupying a considerable portion or even the entire surface, while others, as furuncle or carbuncle, are circumscribed. Many are superficial, involving only the papillary layer or the upper and middle strata of the corium, while others invade the entire corium and to a greater or less extent even the subcutaneous connective tissue.

Among the erythematous exudations will be found *erythema exsudativum*, as well as *erythema exsudativum multiforme*. This distinction I have made because clinical experience shows that there is need for both of these varieties of erythema. Thus, to put the matter concisely, not every erythema exsudativum is an erythema exsudativum multiforme, using that latter term to stand for a substantive disease, as originally defined by F. Hebra.

There has been a tendency of late on the part of clinicians to enlarge the field of erythema exudativum multiforme; indeed, to such an extent that it shall include all forms of exudative erythema, irrespective of cause, not otherwise classifiable, and even hemorrhagic lesions. This movement has gone so far on the part of some observers that the name erythema exudativum with them no longer stands for the tolerably well-defined disease so well portrayed clinically by F. Hebra. To prevent further confusion in this direction I have endeavored in my "Treatise on Cutaneous Medicine" to set forth the claims of erythema exsudativum with its principal varieties, as well as those of erythema exsudativum multiforme. As varieties of erythema exsudativum, I would mention the erythemata of variola, vaccinia, diphtheria, cholera, uremia, the erythema of septicemia, gonorrhea, and erythema scarlatinoides. These, while often being multiform, are not so in the sense of the erythema exsudativum

multiforme of F. Hebra and of the writer. The subject is one too extensive to be discussed at length here, but attention, at least, may be directed to it.

Pellagra and *acrodynia*, two well-known general diseases (foreign to this country), have been placed with the erythematous exudations, because erythema, by no means the only form of existing cutaneous manifestation, is nevertheless one of the most prominent symptoms, and one whereby the diseases may be often recognized.

Urticaria pigmentosa is not considered a variety of urticaria, because it differs in such important particulars from that disease as to entitle it to separate description. It is unfortunate that the name urticaria should have been linked with this disease, and yet one can readily understand how it came to pass that Dr. Sangster originally selected that title. While some cases resemble urticaria vulgaris in their symptomatology, others do not; in most instances, however, the disease is well-defined in its history, symptoms, and course.

The introduction of *œdema* into a classification of cutaneous diseases is an innovation; at the same time the subject is one which grows larger through investigation and study, and especially in connection with the skin. The subject I regard as of importance, especially in its bearing various neurotic affections in which the skin proper is more or less infinitely involved, as I have pointed out in my "Treatise on Cutaneous Medicine," Part II., in describing its existence in varied forms; it is a pathological condition worthy of closer study than has heretofore been accorded to it in connection with the diseases of the skin.

Concerning *impetigo*, a disease that has been the subject of considerable discussion for many years, it seems proper in the light of present knowledge to discuss it as a whole, or as a unit, and to accord to it such varieties as simplex and contagiosa. While both varieties are contagious and inoculable, one is more contagious than the other, and for this variety the established term contagiosa may be retained. Its clinical features, moreover, are generally so well defined that this manner of dealing with the subject is the more justifiable.

For the same reason that urticaria pigmentosa has been separated from urticaria, *impetigo herpetiformis* has been described as a malady distinct from impetigo. It has but little in common with impetigo vulgaris, and possesses such a distinctive symptomatology that it is entitled to special description.

On the subject of *herpes*, I would say that it seems eminently fitting that two types of herpetic disease should be insisted on,

namely, herpes simplex and herpes zoster. Both are herpes, but they differ in so many particulars that they may well be regarded as distinct affections rather than as varieties of one disease. The use of the term zoster, or zona, alone, expressive of herpes zoster, I look upon as an ill-advised and as an unnecessary abbreviation. On the other hand, the word herpes alone is inadequate to express the idea of herpes simplex. For these and other reasons it would seem proper, therefore, to retain both herpes simplex and herpes zoster, and to establish them on distinct footings.

The name *lichen* I would adopt for a certain type of inflammatory papular disease. Under this name its several varieties, according to the peculiar forms and course of lesion manifested, may be described, including "acuminatus" and "planus." I think that in the discussions that have taken place recently on the subject of the varieties of lichen, too much stress has been laid on the forms of the lesions, which are subject to considerable variation.

Simplicity and conciseness are aimed at everywhere throughout the classification. The uppermost thought has been to introduce as few names and terms as compatible with our present knowledge. Thus, it seems wisest to accept *acne* as a type of disease. The well-known *acne rosacea* is, therefore, not introduced because it is viewed as a variety of acne. Other forms of so-called acne, as *acne varioliformis* and *acne necrotica* are not admitted to position for the reason that their nature and pathology are still obscure. It is, I think, questionable if they are entitled to be regarded as forms of inflammation of the sebaceous glands. Most cases that I have observed seem to represent a process similar to but different from acne.

While appreciating the value of the work that has been done, during the last ten years, especially in New York and in Paris, in elucidating the symptomatology of the disease known in France by the name *pityriasis rubra pilaris*, I must raise a protest against the use of the adjective "pilaris" and suggest that the term "follicularis" be substituted. The latter more accurately describes the condition. The lesions tend to occupy not only the hair-follicles but the glandular ducts generally. My own observations with the disease have convinced me that the process by no means confines itself to the hair-follicles, as the French name would imply. In this respect it differs from keratosis pilaris.

It may be questioned by some dermatologists whether it is proper or advisable to distinguish between *dermatitis exfoliativa* and *pityriasis rubra*. There has been a tendency on the part of many observers to regard them as one and the same disease. While they

possess some points in common, a study of the literature will, I think, show that they differ in some important particulars. In the first place the matter of definition naturally arises. I am in favor of retaining and adhering to that put forth by Hebra many years ago. It does not seem to me that typical cases of dermatitis exfoliativa can be properly classified under Hebra's definition of pityriasis rubra. The exfoliation in dermatitis exfoliativa is different from that usually met with in pityriasis rubra, being more exfoliative and less squamous. In the latter disease, moreover, the course is usually distinctly chronic, while that of dermatitis exfoliativa is generally acute. In pityriasis rubra the subject is apt to become debilitated, marasmic, or arthritic, with chronic trophic changes of the hair and nails.

The *eruptive fevers* naturally belong with the other exudations. They possess without question full right to consideration in a classification of the diseases of the skin, as much so as lepra or syphilis. The cutaneous lesions which characterize them are an important part of their symptomatology. They are entitled to exhaustive investigation from every point of view. To exclude them from works on cutaneous medicine on the ground that they are general and not cutaneous diseases is an injustice not only to them but to other diseases involving the integument.

To those nosologists who would restrict cutaneous medicine in its scope to such diseases as eczema, psoriasis, etc., the question may with propriety be propounded, what constitutes a disease of the skin? Who is able in the light of present knowledge to answer this question to the satisfaction of the clinician and the pathologist? I do not hesitate to state that the more one reflects on this problem the more difficult the answer becomes. The subject covers a wide range. It permits of no narrow distinctions. The integument must be viewed as a part of the whole organization. All cutaneous lesions that occur in the course of any morbid process whatsoever invading the whole or any part of the economy, or only the skin, must be regarded as belonging to the province of cutaneous medicine. The epoch in which so-called "skin diseasss" were regarded as belonging strictly to the skin, and to that organ only, is rapidly passing away with the increased knowledge of the day. We no longer regard "skin diseases" in the same light as did our forefathers in medicine. The various diseases affecting the skin, with few exceptions, are neither more nor less than a branch of general medicine. To treat them in any other light betrays ignorance.

Erysipelas finds its place after the eruptive fevers as a well-de-

fined expression of a disease, and with it may be considered such affections as *erysipeloid*, *lymphangitis* due to varied causes, including that caused by fish and crab local infection, *phlegmona*, and *pseudo-phlegmona*.

The caption *dermatitis traumatica* is one under which may be discussed a variety of traumatic lesions of an inflammatory nature. Here may be considered "dermatitis factitia" and other allied forms in which traumatism plays a part, including certain *inflammatory ulcers*. Under *dermatitis calorica*, the several peculiar summer and winter forms of inflammation may also be properly considered, such as *dermatitis vesiculosa æstivalis* (or *hydroa æstivale*), whose nature is but little understood, beyond that sunlight is a potent factor in its production.

Under *dermatitis venenata* may be grouped varied forms of inflammation due to contact with poisonous plants and mineral poisons, poisoned wounds, cadaveric inflammations, snake-, scorpion-, and spider-wounds, and the bites or stings of bees, wasps, flies, and other noxious or poisonous insects.

There exists a group of diseases related in their general pathology, characterized by more or less distinct inflammatory symptoms, whose noteworthy peculiarity consists in the fact that they are intimately connected with or due to disturbed nerve action, central or peripheral, more often the former, and that, therefore, they are undoubtedly neuropathic. It will be observed, moreover, that they do not fall into the category of certain other well-known neurotic diseases, as, for example, herpes zoster and pemphigus.

These several peculiar and varied forms of inflammatory disease I have grouped together under the general caption of *dermatitis neuropathica*, a term sufficiently expressive of their general pathology and symptomatology. The group includes such diseases as *neurotic vesicles*, *blebs*, and *excoriations* (unclassifiable elsewhere); certain peculiar and rare forms of inflammation of the skin, of hysterical origin, such as S. Weir Mitchell's case of *hysterical crust*, *dermatitis neurotraumatica*, *atypical herpetic diseases*, *lioderma neuritica*, *erythromelalgia*, *asphyxia localis*, *simple pressure necrosis*, *bed-sores*, *ulcus perforans*, and the like. Some of these affections manifest, during their course, more or less distinctly defined trophic disturbances. The lesions and other clinical symptoms are often pronounced, and most of them tend to produce a chronic, obstinate course. Their intimate pathology is generally obscure. The central nervous system is probably more frequently at fault than is generally conceded

to be the case. Heretofore these diseases have had no definite place assigned to them in classification.

The diseases of the skin due to plant-parasites, or fungi, are few in number. They may be very conveniently and properly grouped together and designated as due to phyto-parasites, which term is better than the old "vegetable-parasites." The term "tinea" means a moth, hence the word "moth-eaten," which is suggested by the peculiar nibbled appearance of the scalp in common ringworm. In order to make this group uniform in nomenclature I have bestowed upon all of the diseases in which the epidermis is affected the generic prefix *tinea*. The use of this word, therefore, implies in itself a diseased condition of the skin due to a fungus, or plant-parasite. Uniformity in nomenclature is thus established, and there never can be any doubt in the mind of the student as to the nature of a disease so named.

In the classification of F. Hebra, and in that of the writer, as given in his earlier works, an entire class was devoted to the diseases due to parasites. With but few exceptions these diseases are distinctly exudative. The most notable exception is *tinea versiclor*, which is a squamous, "pityriasic," or finely desquamating, disease of the epidermis. In temperate climates it is seldom accompanied by exudation into the papillary layer, but in warm and hot climates it may be markedly congestive or exudative. As the disease is one which is very difficult to classify in a scheme based upon pathology or histopathology, it seems advisable not to separate it from the other squamous diseases due to fungi. It might, with propriety, also be placed with the hypertrophies, either of pigment (thus, with chloasma) or of epidermis (with ichthyosis). It finds, however, a more natural place with the other fungous diseases, where I have placed it.

The introduction of *actinomycosis* into a classification of cutaneous diseases seems warranted by recent observations, some of which go to show that the skin may be primarily as well as secondarily involved by the ray fungus. The latest investigators in Europe and in the United States all incline to the view that *mycetoma* (the so-called *Fungus Foot of Madura*) is a different disease from actinomycosis, and hence, I have admitted it to a place in the classification.

The zoo-parasitic, or animal-parasite, diseases are also accompanied by a variable degree of inflammation, primary or secondary, and may be very properly grouped together. Thus, in addition to the two types of zoo-parasitic diseases, (*a*) *scabies* and (*b*) *pediculosis* (the parasite of the former having its seat *in* the skin, the latter *on* the surface of the skin), there are other diseases also worthy of

consideration, as inflammation due to the harvest-mite, to fleas, to the bedbug, to bot-flies, to ticks, and to filariæ, as the guinea-worm, and possibly other filariæ. The well-known disease due to the presence of the guinea-worm, or dracunculus, has heretofore been designated "guinea-worm disease," "filaria Medinensis disease," and dracontiasis. The latter name is ancient, but has never been popular with authors. Inasmuch as the term dracunculus is universally known and used for the parasite, I propose to call the disease *dracunculosis.*

HEMORRHAGIÆ.

The hemorrhages of the skin constitute a tolerably well-defined class. The lesions may be diffused or circumscribed, superficial or deep-seated, their seat being extremely variable. The type of cutaneous hemorrhage is *purpura*, of which there are several fairly well-defined varieties. But there occur other forms of cutaneous hemorrhage which are also worthy of consideration, such as the lesions of typhus fever, cerebro-spinal fever, varicose ulcers, and neuropathic hemorrhages, as are noted in hematidrosis and in bleeding stigmata.

HYPERTROPHIÆ.

There exist a number of diseases, due to varied causes, whose most striking pathological characteristic is that they consist chiefly or largely of an augmentation of their normal structure. Pigment, epidermis, follicles, hair, nail, or corium, and connective tissue may be involved, singly or in combination. The pathological process thus is hypertrophy, and usually progressive. It may be diffuse or circumscribed, superficial or deep-seated, according to the structure involved. Diseases caused by hypertrophy of the tissues do not tend to take on an inflammatory action, although there are some exceptions to this statement. Following the description of the typical pigment hypertrophies, *lentigo* and *chloasma*, certain other allied affections may be referred to, as *argyria*, and the like, due to foreign matter in the skin. The epidermic hypertrophies, of which, as types, we may accept *callositas*, *clavus*, and *ichthyosis*, are common, and are of considerable importance, especially as concerns the comfort of the individual affected. They are due to increased and abnormal proliferation of the epidermis, with invasion not infrequently of the papillary layer. At times inflammation in the corium occurs, as in *keratoderma erythematosum* and in *keratosis follicularis*. In these cases the line of demarcation between hypertrophy and inflammation may prove more or less arbitrary, but there is to be said in favor of placing such diseases with the hypertrophies that the epi-

thelial proliferation is the predominant process, and, moreover, that it tends to be progressive. These affections are benign throughout their course, and in this respect differ from the so-called cancers, in which the epithelium takes on an entirely different action. Both forms press down upon and into the corium, but not to the same extent or in the same manner. In one case the cells, as a rule, undergo but little change in form, with some notable exceptions; in the other, the forms are not only more markedly adherent, but are more active and prolific.

Among the hypertrophies of the follicles and the sebaceous glands will be found the term *cystis sebacea*, which I have to suggest may properly be employed in place of the English term "sebaceous cyst," which has for so many years found its place side by side in classifications with Latin terms. While large, deep-seated sebaceous cysts and atheromata (the latter not sebaceous in origin) may not in some cases be properly regarded as belonging to diseases of the skin, there occur, nevertheless, lesions of this nature, which have their seat in the corium, often forcing themselves toward the surface rather than downward, thus constituting superficial cutaneous projections and often even tumor formations.

With hypertrophy of the corium and connective tissue, of which *elephantiasis*, due to varied causes (filaria, probably, being only one kind), may be grouped certain other enlarged conditions of the integument, such as *rhinophyma*, *acromegalia*, *myxœdema*; also, *sclerema neonatorum*, a disease possessing some features in common with elephantiasis, and differing from *scleroderma adultorum*. The changes in most of the diseases mentioned are complex rather than simple.

ATROPHIÆ.

The atrophic diseases are characterized by retrogression, which generally occurs in the form of shrinkage, wasting, or degeneration. The process is the opposite of hypertrophy, in which an increase or exuberance of tissue prevails. As in the case of the hypertrophies, the lesions may be diffuse or circumscribed, superficial or deep-seated, according to the structure involved. In *vitiligo*, which I place in this class because the usual primary and prevailing process is a loss of pigment, there is in almost all cases also a distinct increase in the amount of pigment surrounding the whitish patch. The process is, therefore, a compound one, consisting of both atrophy and hypertrophy occurring in combination. In some cases we find hypertrophy predominates over the atrophy. There is no reason for questioning the appropriateness of placing that rare affec-

tion known as *atrophia cutis propria* here, but the disease originally described by Kaposi as *xeroderma pigmentosum*, generally a family disease, and beginning early in life, may well be challenged as being entitled to a place in this class. It begins with pigment hypertrophy, vascular new formations, these lesions being followed by atrophy and scarring, and ultimately by new formations of a cancerous nature or by undoubted cancer itself.

There has been considerable discussion among nosologists during the past quarter century as to the relation of morphœa to scleroderma. The almost universal opinion is that they are closely related. Many observers, especially in England, regard morphœa as a circumscribed form of scleroderma. Other observers, however, the writer among the number, do not accept this disposition of the question. I am of the opinion that while there are cases of morphœa which show a distinct relation to scleroderma, and vice versa, there are other cases in which no marked relation exists.

In the latter group of cases of morphœa the clinical symptoms are often altogether different from those of scleroderma. Such, at least, has been the writer's experience, and he, therefore, deems it best to describe them as distinct diseases. Both morphœa and scleroderma tend to atrophic, retrogressive changes, with more or less condensation, degeneration, shrinkage, and wasting, accompanied with, in most cases, increased and altered pigmentation. The early stage of morphœa may begin as an elevated or as a depressed spot, yellowish, pinkish, reddish, or brownish in color, with more or less infiltration, or with increased and altered vascularity, which in a variable time causes the skin to become atrophic or to pass into a state of soft or firm fatty degeneration. In scleroderma the process manifests itself with diffuse stiffness, firmness, and condensation of the skin, and with other peculiarities that need not be enlarged upon here. Stiffness, firmness, or hardness, however, are characteristic symptoms. While the first stages may, in some cases, indicate an increase in the normal constituents of the skin, and hence may be looked upon as hypertrophy, this is by no means the course in every instance. The main point, however, to be remembered is that scleroderma tends to retrogressive changes, and that it is essentially a shrinking, wasting disease, not only of the skin, but, also, frequently of the subcutaneous tissues including the muscular system. Hence, for these reasons, I think it should be grouped with the atrophies, and with morphœa and striæ et maculæ atrophicæ, rather than with the hypertrophies, as is usually done by authors.

The *striæ et maculæ atrophicæ*, so well-known to clinicians, are

in my opinion intimately related to morphœa; so, also, is *hemiatrophia facialis*, as I pointed out many years ago. Many cases of atrophic macules and striæ begin with the same bluish, purplish, or reddish vascular changes that often accompany the first stage of morphœa, including puffiness and elevation of the skin, these symptoms, however, being sooner or later followed by more or less distinct degeneration or atrophic lesions in the form of irregularly rounded or elongate, linear, slightly grooved, scar-like depressions in the skin.

Passing on to atrophies of the hairy system, *alopecia areata* may first be referred to. This is a neurotic disturbance, and is characterized by signs of retrogression and shrinkage, involving usually the scalp. It is due to an arrest of nutrition of the hairy system. Hence, it appropriately finds its position in a classification among the atrophies. Forms of baldness due to fungi, sometimes closely resembling alopecia areata, find no place here. They are to be grouped with the tineæ.

Certain other diseases of the hair, such as *fragilitas crinium*, splitting of the hair, *trichorrhexis nodosa*, and *plica*, are also atrophic. Under *canities* I would also consider *pili annulati*, or *ringed hairs*, and allied conditions in which the pigmentation is deficient in places or wholly.

NEOPLASMATA.

This class, known also as *new formations* and *new growths* contains many important diseases. The process is more or less distinctly neoplastic, having its seat mainly in the deeper structures, especially in the corium, in the form of diffuse or circumscribed infiltrations or deposits, which clinically pursue a tolerably constant, benign or malignant course. The various strata and structures of the integument are all more or less involved, but, as stated, the diseases evince a preference for the corium. I will not attempt here to enter upon a discussion of what constitutes a neoplasm, nor to discuss wherein many neoplasmata, as, for example, lupus vulgaris, lepra, and syphilis differ from the exudations. I may go so far into the discussion, however, as to say that some diseases usually classed among the neoplasmata might with equal propriety be classed with the exudations. Thus, *lupus erythematosus* is characterized by many of the usual signs of inflammation, as observed under the microscope. It might, therefore, be regarded as an exudation; at the same time, it possesses features so peculiar and different from those of the diseases we are accustomed to look upon as inflammatory, that it may be allowed to remain for the present in the place it has occupied for half a century and longer, among the neoplasmata.

According to the views of some pathologists *lupus vulgaris*, *lepra*, and *syphilis* might also be placed in the class of exudations, but the fact that they are prone to produce distinct neoplastic infiltrations and deposits in the skin, often firm and circumscribed, and different from those met with in non-specific inflammatory diseases, entitles them to separate classification. Their course, moreover, is persistently chronic, as is the case with the neoplasmata in general, a point wherein they differ from most of the exudative diseases.

The work of the past decade has done much to enlighten us as to *tuberculosis* of the skin, and its relation to *lupus vulgaris* and *scrofulosis*, but there are many points still unsettled in connection with the pathology of these diseases, so that in order that we may discuss their clinical features understandingly, and thus avoid confusion, it is wisest to hold fast, for the present, to the old and universally recognized nomenclature.

The two diseases *frambœsia* (or *yaws*) and *verruga Peruana*, peculiar to the countries in which they are usually met with, are difficult to classify. The lesions in both possess the general characters of new formations, but the probable nature and the history of the diseases would indicate that they rather belong to the group of eruptive fevers. They might be placed there with propriety. The fact, however, that frambœsia has long been confounded with syphilis, even by distinguished authors, is indicative that it possesses much in common with new formations. Hence it may, for the present, be grouped here. Verruga Peruana, in its general character, nature, and history, is not unlike frambœsia, but it is unquestionably a distinct disease, and is confined, geographically, to a small area in the valleys of the Andes Mountains in Peru, in this respect, as well as in others, differing from frambœsia.

The term *granuloma fungoides* is, I think, for many reasons much preferable to the common, but misleading, name, *mycosis fungoides*. As far as our knowledge extends, it is not really a mycotic disease, and hence the word "mycosis" should be abandoned for the non-commital term "granuloma." The fact that the disease in its course is prone to take on exuberant, mushroom-like formations is not alone of sufficient import to warrant the use of "mycosis" to designate it, which, as already stated, is misleading as to its pathology.

ANOMALIÆ SECRETIONIS GLANDULARUM.

In this class are grouped the anomalies or disorders of the sebaceous and sudoriparous glands. They are functional disorders. The sweat-gland diseases, characterized by deranged secretions

without structural change, constitute a well-defined group, hyperidrosis being the accepted type. In sudamen, hidrocystoma, and miliaria we have diseases in which marked structural changes occur in the ducts or in the glands.

Of the disorders of the sebaceous glands seborrhea is the most important. It is, in my opinion, a disease subject to much variation in its symptomatology. While it is frequently functional and non-inflammatory, it often becomes involved with considerable exudation, giving rise to morbid lesions which are difficult to classify. We speak of these as erythematous or inflammatory seborrhea, as "seborrheic dermatitis," or as seborrheic eczema, and the like, according to the form or degree of exudation that may exist. I believe that the functional disorders of the sebaceous glands, characterized by epithelial proliferation and increased secretion, are exceedingly prone to go a step further and become hyperemic or inflammatory. Thus, seborrhea may be a functional disorder without or with hyperemia, and also a distinctly inflammatory disease, as seen especially upon the scalp, face, trunk, and extremities. I think our definition of this disease, heretofore, has, in the past, been much too narrow. While typical seborrhea is met with in the oily form chiefly on the face, and in the crusted variety in the same region, other forms of the disease characterized by disturbed rather than profuse secretion, with more or less exudation, also occur in these regions, as well as on the trunk and limbs.

In concluding my remarks upon the important features of the classification presented, it may be added that I have been particular in avoiding reference to minor matters. My chief purpose has been to direct attention to the ideas underlying the skeleton or framework of the classification.

It has been my aim to classify only well-known clinical forms c diseases—what may be termed types of morbid processes—with the view in mind of preserving the tables as clean and as free from doubtful diseases as possible. Varieties or rare forms of disease introduced into classifications make the latter unduly large, cumbersome, or confusing. The classification may in this way be elaborated to such a degree that its essential features are obscured by the accessories. Too much elaboration and refinement in a classification should not, in my opinion, be attempted, lest its usefulness be impaired. If a general plan of classifying the diseases can be agreed upon by dermatologists, the elaboration of the whole may be perfected with increased knowledge of the individual diseases concerned.