Skin diseases : their nursing and general management / by G. Norman Meachen.

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THEIR NURSING AND GENERAL MANAGEMENT

BY
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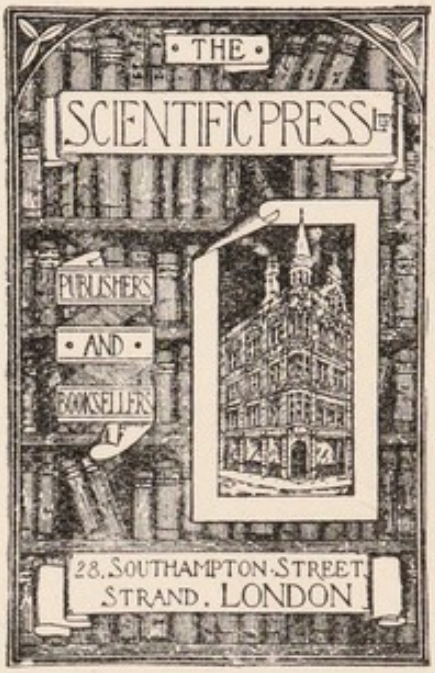
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BY

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PREFACE.

THE want of a popular manual dealing with the more common diseases of the skin has been many times expressed by nurses, for whom this little work is primarily intended. At the same time, it is hoped that its contents will also be found interesting as well as useful to all students of dermatology.

Stress has been laid throughout upon the practical management of cutaneous disorders, and pathological theories and discussions have been purposely kept in the background.

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CHAPTER I.

THERE is no disguising the fact that cases of skin disease are, as a rule, far from being popular among nurses. "They seem afraid of them somehow," as a ward sister recently remarked to the author, and when pressed for a reason she said she supposed it was because they thought they would "catch something from them". It is difficult, however, to accept this as the true explanation of that peculiar feeling of repulsion experienced sometimes by the fully trained nurse as well as by her probationer colleague when brought into contact with a "skin case," seeing that very few, if any, of those so affected ever betray the slightest anxiety when they are called upon to attend a patient with a really infectious fever. It cannot wholly be the element of contagion, therefore, which is responsible for this unfortunate prejudice against cutaneous diseases, for the risk, when it exists at all, is reduced to *nil* when due precautions are taken. The root of the matter lies hidden below a vast tangle of mental undergrowth. A skin disease! What visions does not the very name conjure up in some minds! Running wounds, putrefying sores, hideous patches of disfiguring scabs, perhaps, which, even if "mollified by ointment," render the condition of the unfortunate victim scarcely

less obnoxious to others than a misery to himself. Why obnoxious at all? A disease of the skin simply happens to be visible, whereas that of the lungs or stomach is, for the most part, invisible—that is all.

As we shall see later, there is a distinct advantage in being able to see disease with our own unaided eyes, for we can note at once the effect of treatment, good or bad. If the senses are outraged merely at the sight of a little patch of eczema or psoriasis, they would be far more so could they behold the ravages wrought by disease in the internal organs. A keen æsthetic sense is always a gift to be cultivated, but the true worker in the field of dermatology will never suffer his or her natural susceptibilities to be a barrier either to accurate observation or to a lively interest in a given case. Both of these faculties are essential for the successful nursing of a skin as of any other affection, and both require more or less intimate contact with the disease for their cultivation and perfection.

Another reason sometimes urged against the popularity of a "skin case" is that "it is so messy". This may be true; but who is the more uncomfortable, the patient, with his greasy dressings saturating the unwilling bandages and feeling instinctively that he is the object of general opprobrium because he looks such a sight, or the nurse, whose "æsthetic sense" and innate love of order receive something akin to a shock whenever she approaches the bed? Whose fault is it if the case is "messy"? Very often the patient's, for it is almost impossible for him to avoid rubbing or chafing the dressings owing to irritation, etc., but sometimes it is the

nurse's, for a little extra care bestowed upon the bandaging will often make all the difference between comfort and neatness on the one hand and restlessness and disorder on the other.

It would, no doubt, be regarded as a perversion of the artistic sense to assert that morbid processes can ever be beautiful, for disease and beauty are poles asunder; and yet, who will deny that there is a certain grace and even charm in the curious ring-like patterns and festooned designs assumed by some skin eruptions? We do not disdain the lowly fungus-growth that luxuriates upon the trunk of the stately oak, but we shrink with horror from ringworm and its allies, yet both are parasitic in nature. It needs the microscope and chemical dyes to bring out fully the intrinsic beauty of the delicate mosaic work traced by the latter fungus as it effects the hair shaft. This aspect of the case chiefly appeals to the pathologist who revels in such things, for in practice ringworm is anything but a "thing of beauty" and demands the most active measures in order to exterminate it.

There is a tendency, also, in the minds of some to think that all skin disease is due either to dirt or to negligence, and, therefore, that patients ought not to allow themselves to contract it. It is true, as we shall afterwards see, that many cutaneous disorders are so produced, especially among the poorer classes, but it is a most grievous mistake to suppose that all skin disease can be prevented by "living properly". A man can no more help getting psoriasis than he can pneumonia, and besides, it must not be forgotten that any one may accidentally contract one of the contagious skin diseases

through no fault of his own, and in spite of the most scrupulous care and cleanliness.

Those who will only take the trouble to study carefully the different manifestations and innumerable types of cutaneous disease, the wonderful way in which the skin reacts to treatment and in which it corresponds to and affords a valuable index of the state of the general health, will find their labour amply rewarded, for there is hardly any branch of medicine that bristles with so many interesting features as dermatology.

But there must first be the SEEING EYE.

After these prefatory remarks which, it is hoped, may aid in dispelling the mists of prejudice which have for so long clouded our ken and prevented many of us, perhaps, from doing ourselves and our patients justice in the treatment and management of skin disease, we must pass on to consider the structure of the *normal skin*.

One of the first things about which it is absolutely necessary to be clear is that the skin is not merely a membrane or wrapper covering over the fleshy parts beneath in the same manner as the "skin" of a grape or a plum encloses the luscious fruit within itself. It is something far more than this. In spite of physiology lectures, lantern-slides and mammoth diagrams, the vaguest notions are abroad with respect to the architecture of the skin and its relationship to other tissues of the body. The human skin is as much an *organ* as is the heart or the liver, *i.e.*, it is made up of more than one kind of tissue and it performs very definite functions. The expression "cutaneous system" is frequently used to signify the skin, and it is most appropriate, for each part

of the skin has its own special duty to perform, the principle of the "division of labour" being as well illustrated here as in the digestive or nervous systems of the body.

It is a popular delusion that we possess three skins, and some lucky individuals are said to have been blessed with seven! These, it need hardly be said, are absolute myths. We have only one skin, but this is divided, anatomically, into two main portions, (1) the epidermis, beneath which is (2) the cutis or "true skin".[1]

The *epidermis* consists of numerous layers of small cells, the uppermost of which is harder and flatter than those beneath. This is the *stratum corneum* or horny layer, which is specially thickened in certain parts such as the heels, balls of the toes, and those parts of the palms which are exposed to pressure. The layers immediately below this are known, collectively, as the prickle-cell layer, while the lowest layer of all, which rests upon the true skin, is called the *stratum Malpighii*, or the Malpighian layer. Here the cells are largest and here in the coloured races of mankind is contained the pigment or colouring matter. The horny layer is continually being worn away through friction with surrounding objects, clothing, etc., but it is constantly being renewed by fresh cells from the prickle-cell layer which are pushed upwards as they grow. In a sense, therefore, we change our skins from time to time, though the process is wholly an unconscious one.

[1] The terms "cutis" and "dermis" are both used to signify the true skin, the former being Latin and the latter Greek. Hence "epidermis," that which lies upon the dermis.

The *dermis* or *cutis* is that part of the skin which contains the blood-vessels, lymphatics, nerves and glands. Below it blends insensibly into the subcutaneous tissue which always intervenes between the skin and the deeper structures, while above it presents minute, finger-like projections, known as *papillæ*, which stick upwards into the epidermis. These papillæ, which are, of course, quite microscopic, contain nerves and small loops of blood-capillaries, and they are the most sensitive portion of the whole integument.

Buried somewhat deeply in the true skin are the two varieties of glands, (1) the sebaceous, and (2) the sweat glands. The former are always connected with the hair follicles into which they discharge their secretion, called *sebum*, which is a fatty material serving for the proper lubrication of the hairs and, to some extent, of the whole cutaneous surface.

The *sweat glands* are simple tubular glands the ducts of which run upwards, pierce the epidermal cells, and open upon the exterior of the skin by minute apertures, the *sweat pores*. The ducts are generally coiled upon themselves in a curious fashion, after the manner of a corkscrew. The glands are more numerous in some parts of the body than in others, being especially plentiful upon the palms, axillæ and forehead. In the former situation it has been estimated by Krause that there are 2,800 to the square inch, and the minute orifices of the pores themselves may be seen with a lens arranged in parallel rows upon the epidermal ridges which are conspicuous in this region. The secretion of sweat is under the influence of the nervous system.

The Appendages of the Skin.

The hair and nails are really modifications of the epidermis and are regarded morphologically in the light of appendages to the skin.

Each hair springs up from its root which is placed at the bottom of a deep, narrow tube, the *hair follicles*, which is formed by a dipping down of the epidermis some distance into the cutis, and into which opens the small duct of one or more sebaceous glands. The root is somewhat club-shaped and hollowed out on its under surface, like the bottom of a wine-bottle, and it rests upon a bed of epidermal cells known as the *hair papilla*. This is the growing part of the hair, for if the hair itself be pulled out or simply fall out, another one will grow in its place provided the papilla is not destroyed. In some diseases of the hair these important cells are so poorly nourished that they cease to take any part in the formation of the hair; consequently, when the hair is shed no other is formed in its stead. It is a well-known physiological law that if a part or tissue be deprived of its blood-supply it gradually ceases to perform its proper function, and this is well exemplified in the case of hair disorders.

The *hair shaft* is the visible portion of the hair which contains the pigment or colouring matter. Hair follicles are found embedded in the skin over the whole body, except the palms and soles; and those fine, downy hairs, seen on what are supposed to be non-hairy parts, are called "lanugo hairs". When the hair first begins to return in a severe case of baldness (p. 89) it does so

in this fashion, gradually becoming darker and stronger. The quality and texture of the hair varies in different individuals and also in different parts of the body of the same individual. The hairs of the beard region and body generally are always coarser than those of the scalp. Fine, silky hair, especially when associated with long eye-lashes of a similar character, is frequently, but not always, an indication of a weakly or a scrofulous diathesis.

The *nails* are developed from a special layer of cells in the epidermis covering the dorsal surface of the terminal phalanges of the fingers and toes. The sensitive part on which the nail rests is called the *nail bed*. Every nurse must have noticed the peculiar transverse ridges across the nails, marking the occurrence of some serious illness and also the irregular white spots concerning which many superstitions are still rife. The white segment or "lunula" is not constantly present in everybody. Apart from these conditions, the nails frequently share in cutaneous diseases, especially eczema, psoriasis and ringworm.

The Functions of the Skin.

As one of the organs of the body the skin has several important functions to perform, among which are the following: (1) to act as a protective covering; (2) to secrete the sweat; (3) to regulate the temperature of the body; (4) to do duty as a sense organ of touch, by reason of the sensory nerves which it contains.

The *sweat* or perspiration is the principal secretion of the skin. Strictly speaking, it is an excretion, because

it is "cast out," as it were, from the body. Indeed, the skin shares with the kidneys the important task of getting rid of some of the soluble waste matters from the blood. Sweat is both visible and invisible, *i.e.*, the sweat glands are always acting in a healthy person even though no actual moisture of the surface is obvious, the amount being so small that it is evaporated into the atmosphere and absorbed by the clothing as soon as it emerges from the pores. It has, normally, an acid reaction, a very low specific gravity, and it contains common salt, other salts, and a trace of an organic substance, *urea*, this latter being also the chief waste product found in the urine. The close connection between the cutaneous and renal systems is thus made clear, and further proof of their intimate relationship is afforded by the familiar fact that the amount of excretion from the one varies in an inverse proportion from that of the other. Thus, in very hot weather the amount of sweat is perceptibly increased, while the quantity of urine is diminished, the reverse conditions prevailing when the atmosphere is cold. About two pints of sweat are excreted daily, upon the average.

The excretory function of the skin is constantly being made use of in medicine, to wit, the action of pilocarpine and hot vapour baths or packs in acute nephritis; the assistance afforded to the kidneys by the administration of diaphoretic drugs in the acute fevers, or even in a common cold. It is not surprising, therefore, that many disorders of the skin are connected with the sweat apparatus, and, as we shall subsequently see, the action of the sweat glands may be excessive or deficient.

With regard to the *regulation of body temperature*, the skin may be said to play the part of the "open window," for when it is necessary to get rid of heat the blood-vessels in the cutis dilate, producing a feeling of warmth at first, but leading to a direct loss of heat by the principle of radiation. Similarly, when all the heat of the body must be preserved that can be, as in cold weather, the cutaneous vessels contract so that the blood is driven to deeper and more vital parts.

The principal use of *clothing* is to assist the skin in this action and nothing succeeds in this respect so much as *wool*. A few skins are so sensitive that they cannot bear the feel of woollen materials next them at all. These cases are the exception rather than the rule, and for such a good and safe substitute may be found in one of the many excellent linen-mesh, "open-wove," or cellular undergarments. Silk, being also a non-conductor of heat, may be worn with advantage in certain cases of severe cutaneous irritability.

Disturbances of *sensation*, as might be expected, are frequently met with in skin diseases. Pruritus, or itching, is fully described on p. 67. Anæsthesia is sometimes seen in leprosy, while it is a common phenomenon in many nervous disorders. Loss of sensation for heat and cold occurs in the rare condition known as syringomyelia, and also in Morvan's disease (painful whitlow).

The power of the skin to *absorb* certain substances when these are applied or rubbed into it externally should not be forgotten. Cod-liver oil is occasionally rubbed into the skin of infants suffering from wasting diseases with

much benefit, and baths of milk are given under similar circumstances. Many ointments are directed to be used by *inunction*, especially those containing mercury. Iodoform ointment is also employed in this manner in tuberculous peritonitis or meningitis. If effects can be obtained simply from the unbroken skin, how much greater must be the action of remedies when applied to raw surfaces! These facts should make us pause sometimes before applying strong or poisonous ointments or lotions to mucous membranes, raw surfaces, or even to large areas of normal skin. Carbolic acid and mercury are particularly liable to produce their full physiological effects when thus employed. It is part of the nurse's duty to be on the look-out for any symptoms of intolerance of a drug, and to report the same at her earliest opportunity to the doctor.

An absolutely perfect skin is probably unknown, though that of a healthy child approaches very closely to it (p. 112). The fairest complexion may be marred by a minute speck of redness or one small hair showing itself where it ought not to be. The colour of the normal skin is by no means uniform, and both the blonde and the brunette may possess those enviable qualities of texture, elasticity and tint which go to make their own special type as nearly perfect as anything can be in this world. To the experienced eye of the dermatologist, who is ever on the look-out for abnormalities, many flaws may be evident which are hidden from ordinary gaze, and, indeed, it may be said that it is exceedingly difficult, if not impossible, to hide any defect or blemish of the skin.

This fact and the ease with which the results of treatment may be observed give to all dermatological practice a certain advantage not to be obtained in any other department of medicine.

CHAPTER II.

It is sometimes remarked by those who have not paid special attention to the subject that skin diseases "all look so much alike". This reminds us of what a medical student once said after examining his first series of pathological specimens under the microscope: "They all look like sections of plum-pudding!" There are, certainly, many cutaneous disorders which resemble each other very closely, as far as external appearances go. Others, again, have such characteristic features that they could not possibly be mistaken for each other. Even in those which are most alike there are nearly always minute differences which can be made out on careful examination.

Skin diseases may be classified in several ways, according to duration, whether acute or chronic; according to the part of the body affected; the predominance of one particular type of lesion (see p. 23), whether papular, vesicular, etc.; but a better and a more scientific classification is the pathological one. By this is meant whether the disease is inflammatory, congestive, parasitic, etc. We have seen that the skin is made up of many different kinds of tissue, and now we shall see that each of these is subject to its own diseases, so that it is quite correct to speak of affections of the epidermis, of the sweat glands, of the hair, etc.

A good working classification which is not too complicated is given below, and is compiled partly upon an anatomical and partly upon a pathological basis. One or two typical examples are given after each heading.

I. Inflammations—
1. From external irritants : trade eczema.
2. Toxic : iodide rash, antitoxin rashes.
3. Neurotic or vaso-motor : urticaria, herpes.
4. Catarrhal : eczema.

II. Hypertrophy—
Warts, horns, ichthyosis.

III. Atrophy—
Idiopathic atrophy.

IV. Disorders of Pigmentation—
1. Congenital : certain moles, albinism.
2. Acquired : leucoderma, arsenical pigmentation.

V. New Formations—
1. Innocent : fibroma, keloid.
2. Malignant : epithelioma, rodent ulcer.
3. Tuberculous : lupus vulgaris.
4. Syphilitic : rupia, certain ulcers.
5. Leprosy.
6. Vascular : nævus.
7. Lymphatic : certain moles, lymphangioma.

VI. Disorders of Sensation—
Pruritus : anæsthesia (as in leprosy).

VII. Parasitic Diseases—
1. Vegetable : favus, common ringworm.
2. Animal : scabies, pediculosis.

VIII. Diseases of the Appendages of the Skin—

1. The hair.
   (*a*) Pigmentary and structural affections: canities, monilethrix.
   (*b*) Atrophy: alopecia areata.
   (*c*) Parasitic: ringworm, etc.
   (*d*) Hypertrophy: hypertrichosis.
2. The nails.
   (*a*) Hypertrophy: onychogryphosis.
   (*b*) Inflammations: onychia, eczema.
   (*c*) Dystrophy: koilonychia ("spoon nail").
   (*d*) Pigmentary changes: leuconychia.

IX. Affections of the Sweat Apparatus—

Hyperidrosis, bromidrosis, sudamina.

X. Diseases of the Sebaceous Glands—

1. Secretory disorders: seborrhœa, acne, xerodermia.
2. Inflammations: acne pustulosa, rosacea.

XI. Hæmorrhagic Affections—

Purpura, scurvy.

XII. Artificial Lesions of the Skin—

Tattooing, dermatitis artefacta.

The above list is in nowise intended to be an exhaustive one, but it will be of some assistance in enabling a beginner to place a given skin disease in its proper category as regards its pathology and that part of the cutaneous system which is chiefly affected. Some diseases affect only one part of the skin and keep to it, such as ringworm, while others start in one part and may go on to involve many others, such as syphilis or lupus.

It is quite possible for a person to have more than one skin disease at the same time. As the author has shown elsewhere[1] such a co-existence of diseases may be (*a*) natural or (*b*) accidental. In the first case several apparently different cutaneous affections are present together which are due to the self-same pathological cause, such as acne of the face, seborrhœa of the body, and alopecia of the scalp. In the latter, there is no connection between the diseases, each being a separate morbid entity. Thus, a person affected with psoriasis may contract scabies, or a child suffering from ringworm may also have eczema or urticaria. As Dr. Pye-Smith has stated, each disease "ignores" the presence of the other, runs its own independent course, and is cured by its own special and appropriate treatment. If the fact of the simultaneous appearance and development of different cutaneous affections in the same individual were more widely recognised, many lamentable errors would be prevented.

It is sometimes facetiously remarked that when a skin disease has been given a name all is done that can be! This witticism is, of course, far from expressing the truth, and yet it has some show of reason, for unless the diagnosis be absolutely correct the treatment must necessarily be faulty. It is by no means always an easy matter to give a skin disease its proper name, for most of the terms used in describing cutaneous disorders carry with them some idea as to their pathology, at any rate to the mind of the physician. A certain rash may look suspiciously like eczema, but some of the characteristic features of that disease are, perhaps, lacking. To get over the difficulty

[1] *Medical Times and Hospital Gazette*, 1903, p. 259.

it is called "eczematoid" or "eczematous," for want of a better term. In a day or two, most likely, other features may show themselves which leave no doubt in the mind of the observer as to the real state of affairs.

Compromises are generally unsatisfactory, and particularly so in dermatology. A disease is either eczema or it is not. There is no harm in saying: "This is an eczematous eruption," but such a statement does not carry with it the conviction that a real diagnosis has been made. Sometimes it happens that the wisest expert has to be content with a provisional diagnosis, as it is called, for there are yet many unsolved problems in the field of cutaneous medicine.

The very *names of skin diseases* prove a stumbling-block to some. That they are nearly always Latin or Greek terms goes without saying, for what other languages have we "ready made," so to speak, which at the same time are so concise and so expressive? The name "Erythema induratum scrophulosorum" seems a mouthful, perhaps, but it is the name of a definite skin disease which, if expressed in English, would have to be rendered by the following rigmarole: "A redness of the skin accompanied by induration occurring in scrofulous subjects". An adjective tacked on to the name of a skin disease means a great deal in Latin!

The Different Kinds of Skin Lesions.

The most superficial examination of even a few skin cases will be enough to show the beginner that the spots or foci of disease are very different in appearance in different cases. In one there are innumerable little red

pimples; in another, large scaly patches, like a fish's back; in another, several angry-looking wheals; in yet another, little blebs filled with a watery serum, and so on. The description and proper recognition of these "lesions" of the skin form the very A, B, C of dermatology.

The word "lesion" really signifies an injury,[1] but it is used in dermatology to denote the various changes in the skin which are characteristic of its different affections. The doctor invariably asks the skin patient: "What was it like when it first came?" meaning that he wishes to know what the original trouble looked like—whether it was a papule, a wheal, or a bleb. It is, therefore, of considerable importance that the nurse should be familiar with these lesions so as to be able to report them to the doctor. The patient himself or the friends are not always sufficiently observant or accurate to be of the slightest use in this direction, for to the uninitiated everything is just a "rash" or a "pimple".

Primary Lesions. (1) The *macule.* This is simply a spot, different in colour from that of the surrounding skin, not elevated above the surface, and may be seen in syphilis, simple erythema, freckles, etc. The rose-spots of enteric fever are macules in their earliest stages. When a macule is due to blood which has escaped from the vessels it is called a *petechia*, which may be seen in purpura.

(2) The *papule.* This is a small elevation of the skin up to the size of a pea. We speak of papular eczema, meaning that that disease has showed itself mainly in the form of papules. Acne of the face is a common papular af-

[1] From the Latin, *lædo, læsus*, I hurt.

fection of the skin. A larger papule is called a *nodule* or sometimes a *tubercle.*

(3) The *wheal* is not unlike a papule, but it begins suddenly with a small area of conjestion, the centre of which rises up and becomes paler and firmer than the surrounding portion. Urticaria or "nettlerash" chiefly consists of wheals.

(4) The *vesicle* is a fluid papule with clear contents. It may be circular, as in herpes, or oval, as in chicken-pox (varicella). A larger vesicle is called a *bulla* or *bleb*, such as is seen in pemphigus.

Any of these four chief primary lesions of the skin may be changed into other secondary ones either as a result of injury, the inoculation of germs, or by a natural process of evolution. Sometimes the particular type of secondary lesion present may give a clue as to the nature of the primary, if none of the latter be present. More frequently, however, primary and secondary lesions exist side by side.

Secondary Lesions. (1) The *scab* or *crust.* This nearly always results from the drying up of liquid matter which has come from the primary lesion. A fine, streaky blood crust is known as a *scratch mark*, which is seen in a large number of skin diseases in which itching is a marked feature.

(2) The *pustule* is a vesicle whose contents have become purulent. When this breaks a scab results. Pustules and scabs are seen in a great many cutaneous affections, in eczema, impetigo, dermatitis, kerion, as well as in certain of the acute specific fevers, such as small-pox.

(3) The *fissure* is a crack in the surface of an inflamed

or injured skin. It is well seen in eczema of the palms and soles.

(4) The *scale* results from the throwing off of the upper layers of the epidermis. It may form upon the top of a papule or upon a much larger area of previous erythema. The process of scale formation is known as desquamation. It is important to remember that this may take place in many skin diseases, notably after an attack of simple erythema, and it does not always signify a prior attack of scarlet fever. In some cutaneous disorders the scales are very much heaped up and stick together in a sort of crust resembling the shell of a limpet. This condition is known as *rupia*. The scaling that occurs in psoriasis is probably the most familiar instance of this process. In ichthyosis the scales are silvery, but more dirty looking and more uniformly disposed, so that this affection sometimes goes by the name of " the fish-skin disease ".

(5) *Ulcers* are the most severe of all the secondary lesions. They indicate that actual destruction of the epidermis, with, perhaps, a portion of the cutis, has taken place.

(6) *Scars* are white, atrophic areas indicating previous loss of tissue, generally due to suppuration. They may be of all shapes and sizes, from the small circular scars of severe acne to the larger ones seen as the result of healed ulcers or burns. The fibrous tissue of which a scar is mainly composed occasionally becomes much thickened and may even develop into nodules or small tumours. A *keloid* is then said to have formed in the scar.

(7) *Discoloration or pigmentation* is frequently seen upon the skin. It may follow many different primary or sec-

ondary lesions, but is generally most marked upon the legs in the neighbourhood of old ulcers. General darkening or bronzing of the whole integument may occur as one of the symptoms of some constitutional disorder, such as Addison's disease.

Having decided what is the predominant lesion in the case under examination, *i.e.*, whether papules, scales or vesicles abound most, the attention should be turned to the particular part of the body that is most affected. We are accustomed to speak of "regional surgery," meaning the surgery of certain areas of the body, such as the abdomen, the pelvis or the thorax. Similarly, we may speak of "regional dermatology," for certain parts of the body are more prone to become affected with certain diseases than others. Thus, scabies is most commonly found upon the hands, wrists and axillæ, hardly ever appearing upon the face. Acne, on the other hand, prefers the face and upper part of the back to any other region.

Causes of Skin Diseases.—There is always some satisfaction in knowing the cause of a disease, even if it can only be determined somewhat hazily. At any rate, the skin patient is generally most anxious to be told how or why he or she contracted a particular complaint. People will say with conscious dignity, yet in a half-pathetic manner, that "they never had a single blemish on them before," or that they and their families have always been "noted for their beautifully clear complexions!" Skin diseases, however, are no respecters of persons. Unless the nurse be absolutely sure of the cause of a skin disease she had better not express any opinion at all thereupon, for when the doctor has told the patient that his

disease is constitutional it is hardly conducive to the peace of mind of either party if the latter exclaims, "Oh! but Nurse A. says I must have caught it somewhere". Explanations all round are apt to be difficult under such circumstances. The word "gouty" has a sort of mystic charm about it which is most acceptable to some minds, and the term itself must have covered a multitude of errors in diagnosis.

The principal causes of cutaneous disorders may be grouped into external and internal. Among the former we have exposure to heat and cold, contact with irritating substances, parasites and bacteria. The latter embrace hereditary and nervous influences, reflex irritation, blood diseases, and absorption of toxins. Instances of all these will be found in the following chapters.

From the point of view of scientific treatment it is most essential to know both the exciting and the predisposing causes of a skin disease. Dermatology, like any other branch of medicine, has its limitations, and we are still ignorant of the real cause of many cutaneous disorders, which must, therefore, be treated symptomatically or in a more or less empirical fashion.

CHAPTER III.

Factors in Diagnosis.—The nurse will seldom if ever be called upon to make a diagnosis of a skin case, but it is important for her to know what are the principles upon which it is based. If a skin disease is absolutely typical and is exactly like the description or illustration given in a text-book it is pretty easy to diagnose it correctly, but unfortunately these typical cases are only few and far between. Many cases have so little that is characteristic about them that the diagnosis literally cannot be made upon the first examination, and it would be not only unprofessional but exceedingly rash for the nurse to venture upon an opinion where the medical practitioner hesitates about giving one. There are some cases whose features are so peculiar as to puzzle greatly the most experienced skin specialist. The following are the chief factors which will be found of considerable assistance in classifying or naming a skin disease.

(1) *The Character of the Predominant Lesion.*—We have already seen that there are at least four primary and seven secondary lesions of the skin, and that more than one of these may be present at the same time in the same patient. An endeavour should be made to find out which were the earliest ones to appear, and, if possible, to see one actually

in the process of "coming out". Some lesions are quite transitory, only appearing at night when the patient is warm in bed, and fading rapidly away next morning. In children these are frequently overlooked altogether. If one can get as far as saying, "This is chiefly a papular disease," something has been accomplished.

(2) *The Distribution of the Lesions.*—If one side of the body only or part of one limb only be affected, the disease is far less likely to be "in the blood" than if the lesions are symmetrical. Some disorders are almost entirely limited to the face or the scalp, such as acne and alopecia. Scabies affects the fingers, wrists, umbilical and axillary regions and the feet. The flexures or bends of the joints are favourite places for eczema, and so on.

(3) *Colour of the Lesions.*—This is not always a sure guide, but sometimes the tint of a lesion is helpful in ascertaining its true character. Some of the rashes of syphilis are generally said to resemble "lean ham" in colour. Seborrhœic eruptions are often fawn-coloured. Pityriasis versicolor has a dirty brown tint. The papules of lichen planus are sometimes lilac. The crusts of favus are of the colour of sulphur, while those of impetigo are golden-yellow. Lupus vulgaris has certain little areas in it whose colour has been likened to that of "apple jelly".

The ancients were rather fond of comparing morbid appearances and products with things to eat, and we have already had two examples of this weird comparison. Thus we have the "sago grains" of cheiro-pompholyx, the "orange-peel" nails, the "raspberry" papule of framboesia, and so on.

(4) *Duration of the Lesions.*—This is a factor of

great importance, for lupus and rodent ulcer take a long time to develop, months or years, whereas impetigo and acute eczema have a much more sudden onset, to be measured in days or even hours. Some lesions are transitory while others relapse. Urticaria is apt to appear at certain times of the year or after eating a particular article of diet. Psoriasis may be very chronic, but it is subject to acute exacerbations.

(5) *The Age of the Patient.*—Some skin diseases are peculiar to infants, such as prurigo and papular urticaria (see Chapter VIII.). Ringworm of the scalp is practically unknown after the age of puberty. Rodent ulcer is only seen in persons of middle and advanced age. Other cutaneous disorders, such as eczema, lupus and psoriasis, may occur at almost any period of life. Acne of the face is limited to young adults, and so on.

(6) *Certain Special Features.*—The diagnosis of scabies, for instance, is not really complete without finding a "run" or "burrow" of the itch-mite (p. 68). The little papules of molluscum contagiosum have a small central umbilication which distinguishes them from ordinary warts. The characteristic "stump" of a hair affected with the ringworm fungus is the principal thing to look for in that complaint.

In some cases an accurate diagnosis cannot be made without the aid of the microscope, and this is, of course, purely the doctor's province. Scrapings from the surface of the affected part are taken with the edge of a small knife or a special "scraper" devised for the purpose whose blade is moistened with a drop of the official Liquor Potassæ (B.P.) and carefully transferred to a microscopic

glass slide, covered with a cover-slip and examined under the microscope. When a scraping is about to be taken, the part should be gently exposed and isolated with a towel, the knife or scraper should be in readiness, together with the potash solution and the glass slide. The latter, needless to say, should be spotlessly clean and free from dust. If the part which has been scraped feels a little sore or smarts, it may be gently dabbed with boracic lotion or plain tepid water, and this small detail is essential if the subject be a timid child.

In a *dermatological clinic* such things will be on the doctor's tray on the consulting-room table. Other necessary requisites include the following: camel's-hair brushes for applying paints, varnishes, etc.; larger and stiffer paste brushes for applying blistering-fluid or stimulating lotions to bald patches upon the scalp; a dozen or so wooden matches with one end carefully sharpened to a fine point for applying pure carbolic acid to pustules, etc.; a supply of cotton-wool pledgets; several clean, round, sewing needles of various sizes for use in the extraction of the itch-mite, and half a dozen or so small shallow saucers—watch-glasses do excellently—in which to pour the small quantities of the various medicaments used. These are all necessities, and are, of course, subject to modification in different hospitals. The special solutions, caustics, varnishes and other chemical reagents, together with the microscope and apparatus for mounting hairs, scrapings, etc., should all be placed in a convenient situation. A good hand lens or watchmaker's glass is a useful addition to the chatelaine of a nurse who is "taking up skins".

The importance of *seeing as much as possible* of any eruption cannot be overestimated. If one part does not show any characteristic features another may; moreover, unexpected patches of disease or altogether fresh lesions may be discovered where none were thought to exist. These may afford valuable clues as to the nature of the complaint in the case under consideration. If a rash is universal the whole of it must be got ready for the doctor to see and examine. What the patient supposes to be the same rash upon the body may differ materially from that first seen by the doctor upon the arms or legs.

A *good light* is also essential, daylight being best. If the illumination is bad it is frequently impossible to arrive at a satisfactory conclusion. In scalp affections the hair should be gently taken down in females and areas of disease exposed to view in a strong light. Where electric hand-lamps are not available an excellent substitute is a good oil lamp with a metal reflector attached, such as the convenient portable variety known as the "Guy's Hospital pattern," and used in many hospital wards at night. In out-patient departments where gas is used the patient's chair may be placed immediately under a gas burner, incandescent or otherwise, having a reflector so arranged as to throw down the light well upon the patient.

The General System in Cutaneous Disorders.

It is popularly but erroneously supposed that a patient with a skin disease is quite well in other ways. Some people even seem to think it is quite unnecessary that beds should be provided for skin cases in hospital wards! Such a thought can only be the outcome of ignorance or prejudice. Of course, some of the parasitic diseases of

the skin, such as ringworm of the scalp, do not, as a rule, affect the general health in the least, but these are not the cases that seek admission as in-patients. Bodily ill-health is frequently the accompaniment of a cutaneous disorder, in fact, the whole science of dermatology is intimately connected with general medicine, more so, perhaps, than any other speciality. Never was there such a trite saying as "He is the best dermatologist who is the best physician!" It is impossible to neglect the general system in the management and nursing of a skin case, indeed, it would only be courting disaster to do so.

It is customary to examine the tongue as a guide to the state of the digestive organs, and it is easy to see why such an examination is important. But the skin affords almost as valuable an index of the condition of many other systems of the body. As Professor Lesser puts it, "As the eye is the mirror of the soul, so is the skin that of the body".

There are countless little signs visible upon the skin even when that organ is not actually diseased itself which tell us how other systems of the body are doing their work. How many times is the condition of the skin noted in an ordinary medical case when first admitted to a hospital ward? The thoracic and abdominal organs or the nervous system receive the lion's share of attention, but what about the skin, its texture, its degree of moisture, its suppleness, the difference of colour in different regions, the presence of faint spots or rashes, the marks of old scars, the condition of the hair and nails? How often, when questioned on these points, has the answer been, "Oh! I never thought to look". Exactly; the page

has been widely opened, but the eyes have failed to see, much less to interpret, what has been depicted thereon. Anything very obvious can hardly escape observation, but it is the little things which frequently matter such a great deal.

As a straw will show the direction of the stream, so will a few spots indicate a great disorder.

The first beginnings of labial herpes in a case of pneumonia, typhoid fever, or cerebro-spinal meningitis, should be carefully noted. The hunt for "rose spots" in enteric fever is often eagerly undertaken by the nurse who, in her zeal to display her powers of cutaneous diagnosis, may be hopelessly trapped by similar lesions. The integument over the shins will often yield much information. This is the place where old scarring is very common, and where pigmentation can usually be best observed; here, too, may be seen the first minute petechiæ in many of the severer blood diseases, such as scurvy, as well as the painful nodes of erythema nodosum. The lobes of the ears should also be carefully examined for "tophi," those chalky deposits which are specially seen in gouty cases. Sweating is sometimes curiously localised, and this fact, which is of great clinical interest, should at once be reported to the doctor. The presence of scratch marks will reveal the fact that the skin is irritable or hyperæsthetic, even when there may be nothing visibly wrong. It is important to remember that a slightly jaundiced skin may itch greatly. The nails furnish a sort of cutaneous diary upon which are found inscribed many details of the patient's past life: these are to be found in the curious transverse ridges which

occasionally mark their surface (p. 8). Dilated vessels in the skin always call for attention; the "malar flush" of phthisis, heart-disease, etc., being distinguished from the teleangiectatic[1] condition seen in hepatic cirrhosis or chronic dyspepsia over the same region.

Gout and rheumatism are popularly supposed to be closely connected with skin diseases. As a matter of fact, these two disorders are not more intimately associated with cutaneous affections than other general diseases, especially tuberculosis, syphilis, leprosy, diabetes and kidney diseases.

The Urine in Skin Diseases.—The careful testing and charting of the condition of the urine is, of course, part of the general routine connected with the admission of any patient to a hospital ward. These details are of special importance in cases of skin disease. We have seen how close is the relationship between the work of the skin and that of the kidneys, so that it is only natural that the secretion of the latter organs should receive minute attention in all cutaneous disorders.

It should never be taken for granted that the urine is normal because it "looks all right". The estimation of the specific gravity is important, but more so is the determination of the presence or absence of albumin or sugar. Diabetes is sometimes a most insidious complaint, and it not infrequently happens that the true nature of an intractable case of eczema is only cleared up by suddenly finding one day that the urine contains a quantity of sugar for which, perhaps, it had never been tested before!

[1] A teleangiectasis is the name given to a dilated blood-capillary seen in the skin.

In Bright's disease the urine is generally measured daily and subjected to a detailed examination. Many different rashes upon the skin are sometimes seen in nephritis, whether acute or chronic. They are grouped, according to Dr. West, into those associated with and those without œdema. The most common, perhaps, is erythema, of a blotchy, semi-papular type. A dusky, mottled, almost purpuric eruption is usually a bad omen, signifying a grave prognosis. The onset of such a rash should, therefore, be early reported to the doctor.

CHAPTER IV.

General Principles of Treatment.—The first thing ever to be remembered, but only too often lost sight of, is to treat the patient and not merely his skin. This may sound somewhat of a truism, but success in the treatment of a skin case is to be sought by overhauling the patient at every point—digestive organs, nervous system, habits of life, and so on. A perfunctory daubing on of a little zinc or boracic ointment or cold cream and leaving the rest to chance will not do in the light of our present-day knowledge. The popularity of zinc ointment is simply marvellous, for it possesses little if any directly curative property. If it has been kept in stock for a long time it is worse than useless, owing to the gradual decomposition of the benzoated lard with which it is made up. The only thing in its favour is that it seldom does any real harm, for the very first rule for the treatment of a cutaneous affection is "Do no harm even if you cannot do any good".

It seems hardly necessary in a scientific text-book to point out that each case demands its own peculiar treatment with remedies specially designed for it, and that there are no two skin cases exactly alike. The want of due appreciation of these facts is, no doubt, partly responsible for the hideous growth of quackery which flourishes

unlet and unchecked like a canker in our midst. "He who proclaims a universal remedy is either a knave or a fool." And yet we cannot take up our daily paper without seeing some wonderful drug advertised which professes to "cure all skin diseases," as if such a thing were possible! It is not denied that one or other of these preparations may have cured somebody, but because it has done good to the man who lives on one side of the street it does not by any means follow that it will similarly benefit his neighbour who lives opposite. This the public cannot see. Much precious time and money are wasted in this fashion by sufferers from skin diseases who think that by trying one thing after another they will at last hit upon the right one. How much better it would have been for them had they availed themselves of properly qualified medical aid from the outset!

After this passing warning, the effect of certain internal medicines upon cutaneous disorders will be described.

Arsenic has long had a great reputation as a drug which has a peculiar influence upon the skin. It is well known that small quantities of arsenic are habitually consumed for its cosmetic effects by the natives of Styria. A few minims of Fowler's solution (Liquor arsenicalis) are frequently given in a mixture in lichen planus, pemphigus, etc. It should always be taken after meals, as the drug may act as an irritant if received upon an empty stomach. Sometimes the dose has to be gradually and continuously increased, in order to obtain its full therapeutic effects. The nurse should then be on the look-out for any symptom of intolerance, such as slight diarrhœa or sickness, watering of the eyes or smarting of the eyelids, and she

should report the same to the doctor in attendance. When the arsenic is diminished or even omitted for a time, all these unpleasant symptoms vanish. This remedy should never be taken except under medical orders, for it is by no means a panacea for all skin diseases; indeed, many are made positively worse by arsenic.

Thyroid extract is not infrequently ordered for psoriasis, alopecia, or chronic eczema. Most commonly it is administered in the form of tabloids, but sometimes the fresh thyroid gland of the sheep is prescribed and is taken cooked after the manner of a sweetbread. This, again, is a remedy the action of which needs to be carefully watched. It is seldom, if ever, given in cases where the patient is unable to visit the doctor at regular and frequent intervals. If the drug is not well borne, slight giddiness or faintness is complained of and the pulse may become irregular or intermittent. The pulse rate should always be regularly taken, night and morning, or oftener if necessary, in patients who are having thyroid extract.

Potassium iodide is largely administered for specific eruptions, but it is also prescribed for many other cutaneous disorders. It should be given, like arsenic, after meals and with a little water. Occasionally it will produce a rash upon the skin (p. 79).

Malt or *cod-liver oil* are given for scrofulous affections as well as for eczema in weakly and ill-nourished children.

Those drugs which are grouped under the class of stomachics, gastric sedatives and aperients find a large place in the internal treatment of many skin diseases. These will be mentioned in their appropriate places.

The belief in the virtues of "bottle medicine" is deeply rooted in the minds of many people who, on being given a lotion and ointment for their skin complaint, at once exclaim, "Don't you think I require a little medicine, doctor?" The popular idea that a skin eruption is dependent upon "something in the blood" dies hard, and, of course, it has much to justify it. Nevertheless, internal medicines are practically never given in the purely parasitic diseases of the skin, such as scabies or ringworm.

Lotions.—It is with the external treatment of disorders of the skin that the nurse is chiefly concerned. A lotion is a fluid medium containing substances in solution or suspension; it is designed to cleanse, soothe and heal. As an example of a purely cleansing lotion may be given that of boric acid, containing about 15 grains of the acid dissolved in one ounce of water. A familiar soothing lotion and one which contains drugs both dissolved and suspended is the Lotio Calaminæ of all hospital pharmacopœias. Its average composition is as follows:—

℞ Zinc Oxidi.
Calaminae, āā, gr. 15.
Glycerini, ♏ 5.
Aq. Calcis.
Aq. Dest., āā, ad oz. 1.
Misce, ft. Lotio.

This contains a pink sediment which requires to be well shaken up before using. The deposit settles upon the inflamed part and exercises a directly sedative effect. It is largely employed in acute eczema and dermatitis. The Lotio Plumbi cum Opio is a favourite application for erythema nodosum.

In the *relief of itching* lotions play an important part. Carbolic acid (1 in 60) and cyllin (Jeyes' "Medical") (1 in 200) are both used as anti-pruritic lotions (p. 66). Other good and useful preparations are Liquor Carbonis Detergens (Wright), dr. 2, Aq. ad oz. 8, or sodium bicarbonate, 10 grs. ad 1 oz. Lotions should never be applied cold, and they nearly always require diluting with one or two parts of warm water. If itching be severe, heat is well borne, and a very hot lotion will be more efficacious than one which is nearly cold. Carbolic acid should not be used over too large an area, nor in a small child, nor if the surface is much abraded. Evaporating lotions containing spirit, Eau-de-Cologne and menthol are sometimes used, but these do not find such a wide application in dermatology as they do in surgery. A lysol lotion, 2 per cent., is useful for cleansing the surface of old leg ulcers, especially before the application of Unna's paste (p. 57).

In *bathing* affected parts with lotion care must be taken not to expose more of the surface at one time than is necessary. Cotton-wool swabs are best for bathing with as they are very suitable for wiping the diseased areas. The greatest gentleness must be used in this process, for any harsh treatment of an acute eczema may cause the condition to spread. Little bits of loose epidermis should on no account be pulled away, but they may be cautiously snipped off with scissors close to the surface. It is important, however, to remove all old ointment left from the previous dressing during the bathing, and with a little patience this can generally be accomplished. Sometimes the doctor will order an alkaline lotion specially for this purpose, as weak solutions of alkali remove grease and

do not irritate. Immediately after bathing one part this should at once be covered with the ointment dressing that is ordered, and the next region or limb may then be uncovered for bathing. If much smarting be complained of, the lotion may be still further diluted with warm water. For some conditions a little pure cow's milk may often be added to the lotion with great advantage. This hint will be found useful by district nurses and others who are unable to obtain daily medical advice.

OINTMENTS consist of two parts, the base and the ingredients. The base is of a fatty or greasy nature, such as lard, vaseline, white wax or lanoline. A mixture of lanoline with vaseline forms an exceedingly good base, with which may be incorporated any of the usual drugs that go to make up ointments. If we classify ointments according to their properties, they would be (1) soothing, (2) protective, (3) astringent, (4) stimulating, and (5) germicide or antiseptic.

Our favourite zinc ointment finds its place among the first group, and when perfectly fresh it is a useful preparation in acute inflammatory affections. It is best combined with a little lanoline. The oleates of zinc and bismuth are much used in ointment form, and so is calamine.

As an example of a *protective* ointment, plain cold cream may be mentioned. If something a little more antiseptic is required the boracic acid ointment is more suitable. Many of the simple lubricating agents, such as toilet lanoline, can be used as protectives. Some of the newer bases, like vasogen, are useful in many ways, because they allow other ingredients to be thoroughly

well incorporated with them, in addition to their greater penetrative properties.

Astringent ointments are used occasionally on weeping surfaces or upon too luxurious vegetations, as seen in old ulcers. They are also employed in conditions where the sweat glands are over-active, as in hyperidrosis pedum (p. 109). Such ointments contain lead, bismuth or tannic acid.

Stimulating ointments are employed to rouse the skin to activity in chronic eczema, or to induce healing more quickly. Tar, chrysophanic acid (chryrarobin), carbolic acid, and the oxides of mercury are among the ingredients of these salves. More care is needed in the application of these ointments than of any of the foregoing, because they may cause a greater amount of reaction than was intended or anticipated, hence they are seldom ordered at the very commencement of the treatment of a skin case. In acute inflammatory conditions they must never be used.

Germicide and *antiseptic* ointments find application in those diseases of the skin due to parasites or bacteria. It is in ringworm of the scalp especially that these strong ointments are most useful. All stimulating ointments are also germicides, and to the list of ingredients mentioned above may be added sulphur, salicylic acid, the oleates of mercury and copper, and such newer remedies as epicarin, acetozone, etc. Formalin is a powerful germicide, but must be used with great caution.

The Application of Ointments.—Much depends upon the way in which an ointment is applied for its successful action. Exactly how it is put on the skin de-

pends for what purpose it is needed. On a raw inflamed surface, for instance, the ointment should be thickly spread on the *smooth side* of a piece of lint cut the size of the diseased area, and bound evenly round the part. Gutta-percha tissue should not be used, but a little cotton-wool may be placed between the lint and the bandage, especially over an ulcer where greater protection is needed.

If we are dealing with a patch of ringworm or baldness upon the scalp, then the ointment that is ordered will have to be rubbed in. This is best done with the finger-tips, protected by a small bit of linen. In many cases a stiff brush may be advisable; an ordinary paste brush with the bristles cut straight through their middle with a sharp knife answers the purpose capitally.

In other cases the ointment only need be lightly smeared over the affected part with the finger-tip, similarly protected. Lint is better than old linen as a material upon which to spread ointment, but it is more expensive. Ointments soak readily through linen, converting the dressings into an unsightly mess.

It need hardly be stated that the greatest care must always be taken in the preparation and *dispensing* of ointments. Nurses who have to do dispensing should remember that the ingredients ordered should first be rubbed up as finely as possible in a mortar and gradually incorporated with the base. Sometimes they will blend better if a few drops of sweet almond oil be added during the rubbing process. A perfect ointment is free from all suspicion of grittiness or lumpiness.

Powders and their Uses.—Dusting powders are

used for many different purposes in dermatology: (1) to soak up serous discharges; (2) to give protection and prevent chafing; (3) to cover up some slight defect in the surface, in other words, to act as a cosmetic; (4) to exercise an antiseptic or curative effect. Fuller's earth has long enjoyed a reputation in the first two respects, especially for infants. The compound boric acid powder is an excellent application for protecting inflamed parts as well as for absorbing serous oozing. Its average composition is as follows:—

℞ Acid Borici.
Amyli, āā, 1 part.
Zinc Oxidi, 2 parts.
Talci, 3 parts.
Misce, ft. Pulvis.

Many other substances are sometimes used as dusting powders, either alone or in combination, such as rice powder, lycopodium and "kieselguhr," which is a natural siliceous earth. "Emol-Keleet," violet and rose powders have also their uses, being much in favour as cosmetics, for which purpose they, as well as any other powder, can be "flesh-tinted" or made of the same colour as that of the normal skin.

Iodoform and *calomel* are the two drugs most commonly used in powder form. They are then generally dusted straight on to the diseased part, most often an ulcer.

The Removal of Crusts.—In all diseases of the skin accompanied by the presence of scabs or crusts it is necessary to remove these before applying any external medicament. It is worse than useless to put ointments

on the top of crusts, and yet this is quite commonly done even by those who should know better. A crust may be easily removed by first soaking it with a little sweet, olive or almond oil for half an hour, after which it will be found softened sufficiently to allow of its being bathed off with warm water, with or without lotion. Upon the raw, reddened surface immediately beneath the crust the ointment is to be put.

In special cases a poultice may be necessary (p. 56), but poulticing in the popular sense of the term is not, as a rule, advisable in cutaneous disorders.

Medicated Baths.—The baths in common use are those containing sulphur, some or other preparation of tar, bran, oatmeal, starch, alkalies and gelatin. A sulphur bath is generally prepared by adding four ounces of the "liver of sulphur" (potassium sulphurata) to an average-sized bath containing thirty gallons of hot water. A little vinegar is occasionally added to assist the action of the sulphur, but this is not necessary. The patient soaks in the bath thoroughly for twenty minutes, care being taken that all the diseased areas of skin are fully immersed in the fluid. This bath is given in scabies.

One of the best preparations of tar is creolin (cyllin). Half a teaspoonful may be added to thirty gallons for a tar bath. This is useful in psoriasis.

Other baths are less frequently ordered: the proportion of bran, starch, oatmeal or gelatin being one ounce of each to a gallon of water. They are occasionally employed as demulcent or soothing agents in eczema, dermatitis, pruritus, etc. An alkaline bath is prepared by adding one

drachm of sodium bicarbonate (*not* the carbonate) to the gallon of water.

Medicated baths are really lotions applied on a large scale. They make fairly good, though, of course, inferior imitations of the natural mineralised waters found in various parts of the earth.

The Use and Abuse of Soap.

The question as to what soap may be used in a given skin disease is one that is sure to crop up. The wildest notions are prevalent with regard to toilet soaps and their properties, and even those who are authorities upon the management of skin cases are often strangely silent upon this most important topic.

Chemically speaking, a soap is a compound of a fat with an alkali. If either of these two component parts be largely in excess, particularly the latter, the resulting product is unsatisfactory. Persons with rather coarse, strong skins are unaffected by bad soap and can use any kind with impunity, but those whose cuticule is sensitive often find the greatest difficulty in obtaining a soap which does not cause them irritation, and this in health. In disease matters are ten times worse. Soap-making is now quite a fine art, the proportion of the relative ingredients being determined only by careful experiments and calculation. A really good soap cannot be sold at a low price. Fancy soaps with "fancy" names and showy colours invariably contain either an excess of alkali, inferior fat, or harmful impurities, all of which act injuriously upon the skin.

A perfect soap is one which (1) cleanses away all

superficial dirt and greasy matter from the skin, (2) forms a good lather, (3) contains nothing to irritate the most sensitive skin. It is better to use no soap at all than to have one which does not fulfil these requirements. Strong soaps containing carbolic acid are popularly believed to be healthy and are sometimes vigorously applied in cases of skin disease. The author has frequently made the remark: "That soap which you are using does very well for scrubbing the floor, but it will not suit your skin!" to patients who, in their eagerness to get well, have mercilessly lathered their own or their children's skin with some wholly unsuitable soap. So-called "medicated soaps" frequently act as irritants to the skin. The number of quack preparations of this sort upon the market is marvellous, and the amount of harm they do is incalculable. These soaps can no more "cure skin diseases" than any other of the nostrums sold to gull an unsuspecting public. It is comforting, however, to have the assurance that at least two English firms are doing their level best to study this important question from the practical standpoint, and their finished products can, therefore, be safely recommended.

As a general rule, it may be stated that *all soaps are injurious in acute eczema* or other severe inflammations of the skin. The best substitute in such cases is fine oatmeal sprinkled in the mixture of water and lotion, or, better still, boiled in water which is then filtered through muslin and used as directed. Bran is also excellent: it may be sewed up in a small muslin bag like a pin-cushion upon which boiling water is then poured. The water is left to stand for half an hour and when cool can be used

in a similar way to the oatmeal-water. When the acute condition has passed away, a good, slightly super-fatted soap containing a little cold cream, ichthyol, or oatmeal, may be cautiously used.

A medicinal soap should not be employed in a skin case without express orders from the doctor. In certain conditions sulphur or ichthyol is of great value, as in acne or scabies. Soaps containing coal-tar are useful for a few chronic cutaneous disorders, but they should not be used in a promiscuous fashion whenever there is something wrong with the skin.

Good soft or green soap is valuable for removing scales in psoriasis, also in seborrhœa of the scalp as a material for shampooing.

Antiseptics in Skin Diseases.

The great principle of antisepsis finds application in cutaneous affections just as much as in surgery. Many diseases of the skin are due to the invasion of bacteria, such as impetigo and seborrhœa, and for these active germicidal remedies are needed. A large number of micro-organisms flourish normally in and upon the epidermis. Some of these assume a virulent character in disease, and in addition to this source of infection, other septic organisms very easily find a lodgment in the upper layers of the skin.

Secondary *pus-inoculation* is a frequent complication of skin diseases, the harmful germs being transferred from one lesion to another by scratching and by friction with clothing, etc. The need for antiseptics in all cases where there is any breach of the surface must be apparent to all

who are acquainted with the most elementary principles of surgical nursing, and yet how common it is to hear the remark passed, "It doesn't matter; it is only a skin case!" when aseptic precautions are suggested. The natural processes of repair in the skin are much helped by keeping out such hurtful influences as germs.

Antiparasitics are, of course, also antiseptics, since it takes quite as strong an application to kill a fungus or an insect as it does to destroy bacterial growth.

The Influence of Diet in Skin Affections.

There is no doubt whatever that the majority of cutaneous disorders are greatly influenced by diet, and depend upon the state of the alimentary canal for their development and maintenance. It must be borne in mind that we can only lay down certain general principles in this connection, because different people differ so extraordinarily in their susceptibilities. One individual cannot take eggs in any shape or form without feeling ill, another comes out in a rash after eating strawberries, a third suffers from severe cutaneous irritation after drinking coffee.

Apart from these instances of idiosyncrasy which are comparatively rare, it is well known that certain articles of food aggravate most acute diseases of the skin. Too much salt is bad in eczema and an excess of sugar is likewise harmful. Similarly, highly seasoned dishes, spices and sauces must be avoided.

We might classify articles of food into three main groups :—

(1) Those that may produce skin-rashes in sensitive individuals with apparently healthy skins, such as crab,

lobster, mussels, eels, pork, strawberries, rhubarb, honey, alcoholic liquors, mushrooms, cucumber, parsley, oatmeal, and pickles. All these are forbidden in all skin diseases except those due to parasites, in which the patient is perfectly well in other ways.

(2) Those which it is safer to avoid when in doubt as to what to give in a skin case, including salt meat, pastry, sweet puddings, coffee, and cocoa.

(3) Those which must not be given to a skin patient because of some associated constitutional disorder which is keeping up the skin trouble. Thus, gouty cases must not have much meat, cheese, or any highly seasoned dish; dyspeptic patients must not take strong tea, excess of potatoes, farinaceous food, or anything that is likely to set up gastric fermentation; diabetics are forbidden sugar, much milk, and all sweetened dishes and wines. Saccharin may, however, be used instead of sugar for sweetening purposes.

Except in the case of diabetes, in which a strict diet is one of the essential points in treatment, a rigid adherence to a prescribed diet-table is not always absolutely necessary, indeed, the deprivation of an accustomed article of food may do as much harm as its continuance in nervous, fretful individuals. The risk that is run by partaking of a prohibited dish should be fully and simply stated to the patient, and if he persists in gratifying his palate at the expense of his skin he alone is responsible. Only those, however, who have been subjected to great restriction in the matter of diet, especially when they are not feeling bodily ill, can understand the painful longing which is experienced, sooner or later, for "one bite" of a forbidden

fruit which it is felt could not do any possible harm. The gratification of such a wish expressed by a skin patient should not be instantly refused by the nurse without a word of explanation and a silent resolve to ask the doctor about it at his next visit.

The *General Condition and Habits of Life* of the patient should always be taken into consideration in the matter of diet. An ill-nourished child with scrofulous tendencies requires feeding up with plenty of milk, eggs and butter, whereas a plethoric individual who leads a "fast" life will do better on a simple diet which does not contain any food-stuff to excess.

With regard to *Malt-Liquors and Alcoholic Stimulants* generally, it may at once be stated that, as a general rule, they are quite unnecessary in skin diseases, and further, that their habitual use even in a moderate degree is frequently responsible for the appearance and keeping up of a cutaneous eruption. Many diseases, such as acute urticaria, erythema, rosacea, and pruritus, are produced or much intensified by chronic indulgence in alcoholic beverages, as the author has stated elsewhere.[1]

[1] *The Medical Temperance Review*, 1903, vol. vi., p. 178.

CHAPTER V.

We must now pass on to consider in detail some of the more common affections of the skin. If it be asked, "What is the most common disease of the skin?" the answer would be undoubtedly "Eczema". This affection has been estimated as forming about one-third of all cutaneous disorders met with in everyday practice. Some idea of its frequency may be gathered from the fact that out of 1,695 new cases admitted to the skin department of the Tottenham Hospital in 1905, eczema was responsible for 312, excluding the so-called "seborrhœic eczema".

One of the best definitions of *Eczema* is that given by the late Tilbury Fox, in 1870: "Eczema is an inflammatory (catarrhal) affection of the skin, which is mainly characterised by a peculiar discharge, stiffening linen, and drying into thin yellow crusts. It has its stages in the fully developed disease of erythema, papulation, vesiculation, discharge, pus-formation, and squamation, which may each, under different circumstances, be more or less pronounced." It is not bound, of course, to go through all these stages, successively, in the same individual, and a large number of cases only show themselves in one stage.

To the man in the street the majority of skin affections

are eczema, but this name should be strictly reserved for diseases in which the above-mentioned morbid processes are conspicuous. It is very important to find out whether a given skin disease "runs with water" or "gets moist," for only to acute eczema does this special feature belong.

Classification of Eczema.—We may divide the cases according to (1) their duration, into acute, sub-acute, and chronic; (2) the part of the body affected, such as eczema of the hands, face, scalp, etc.; (3) the lesion or stage which is most obvious. The latter is the best and most scientific classification. We can thus speak of the disease in English as papular eczema or weeping eczema, and so on. The Latin equivalents, eczema papulosum or madidans, are equally correct. The following adjectives tacked on to eczema will readily explain themselves: vesiculosum, crustosum, erythematosum, squamosum. Seborrhœic eczema will not be included here, as it has an altogether different pathology.

Causes of the Disease.—There is an increasing tendency to regard eczema in the light of a "cutaneous reaction" rather than as an actual disease of the skin itself. To produce a reaction there must needs be some stimulus, and in the case of eczema there are many things which act as stimuli, both from within and from without. The alimentary and nervous systems, when disordered, frequently react unfavourably upon the skin. The so-called "gouty eczema" is only eczema occurring in an individual with gouty tendencies or manifestations.

The most common external cause of the disease is some irritant or other. Exposure to extremes of heat or cold, contact with chemical substances, constant or inter-

mittent wetting of the hands, and, in a few cases, the presence of micro-organisms, are responsible for many cases of eczema. Slight injuries to the skin are apt to be followed by eczema in susceptible people.

It is a popular idea that eczema is produced by "bad blood". Although this is not strictly speaking correct, yet it contains a substratum of truth. There can be no doubt that the disease is frequently the outcome of some toxin which has found its way into the system, usually from the gastro-intestinal tract. Internal treatment, as we shall see, is indispensable in nearly all cases of the complaint.

Special Clinical Types.—Since the general appearance of eczema varies so greatly with its different types, it will be useful to describe here those which are of most common occurrence.

Acute eczema of the face is often mistaken for erysipelas. It commences as a vivid blush upon the cheeks, forehead, and round about the eyes, frequently commencing on one side only. The temperature is slightly if at all raised. The patient complains much of smarting and burning, and the inflammatory reaction may be so severe as to cause œdema of the eyelids. There are no other constitutional symptoms, such as vomiting or rigors, which one would expect if the case were one of acute erysipelas. The pulse and temperature should always be carefully taken in this severe erythematous type of the disease. After a day or two in this condition slight scaliness of the surface manifests itself, the swelling gradually disappears, and the state of the skin once more returns to the normal. In more severe cases, the surface soon

begins to exude a clear watery serum having the peculiar property already referred to, and, if neglected or irritated, crusts and scabs soon form. Very often the skin at the margins of the hair, behind the ears, or in the neck, shows signs of eczema at the same time.

Trade-eczema or "occupation-dermatitis" is a common form of the complaint set up by manual work, especially when this involves intimate or prolonged contact with substances of a more or less irritating character. If rubbing movements or chafing of the fingers be part of the daily routine, the chances of producing a "professional" eczema, as it is sometimes called, are much greater. Washerwomen, photographers, confectioners, bakers, grocers, barmaids, polishers, gardeners, and seamstresses, among others, are specially liable to an outbreak of this kind upon the fingers, hands or forearms. Whether the irritating substance be sugar, chemicals, varnishes, oils, flour, dyes from clothing-materials, or dirty water, the effect upon a sensitive epidermis is much the same. The disease generally assumes a vesicular type, though from scratching it speedily becomes pustular and then crusty.

A young woman, aged 24, who was employed in a sweet-factory, came to the out-patient department one day with a severe eczema affecting the sides and tips of the fingers which were so sore as to prevent her utterly from doing her work. She had been engaged in making chlorodyne lozenges, having to mix together chlorodyne, linseed and liquorice into a paste with her fingers. The irritating factors in this case were probably the capsicum and morphine contained in the chlorodyne, in addition to

the linseed. Under appropriate treatment the condition rapidly improved, and soon afterwards she was back again at her work making chocolate-creams instead of cough-lozenges!

The irritation and roughness of the hands and fingers sometimes experienced by surgical nurses from constantly having their hands in and out of antiseptic lotions is really a mild form of "professional eczema". Strong lotions of carbolic, mercury, and lysol are the worst offenders in this respect. Whatever the source of the mischief may be, it is almost hopeless to expect a complete cure as long as the cause of the irritation persists. Many sufferers, especially among the poorer classes, are unable to give up their work for the period necessary for a cure, so that with such the condition is apt to become chronic.

Eczema rimosum or fissured eczema is met with in the palms and soles where deep cracks are sometimes present, causing great pain and discomfort on movement, and rendering work impossible. This type is often seen as a "trade-eczema," as in washerwomen, but it may appear spontaneously from exposure to cold. Ordinary chapping of the hands is a mild variety of fissured eczema, only the backs of the hands are usually more affected, since they are more exposed, than the palms.

The term *eczema madidans* is applied to any case of the disease in which profuse weeping or oozing of serum is the most prominent feature. It is best seen in eczema rubrum which affects the legs especially. The diseased surface is deep red, much inflamed, and exudes a great quantity of moisture which quickly soaks through the dressings. This discharge of serum would appear, in

some cases, to be beneficial, for patients not infrequently state that when their eczema is dry the irritation is more severe, but when weeping starts this is at once relieved.

Many different skin disorders of the hairy scalp are wrongly included under the term eczema. Ringworm, impetigo, seborrhœa, and pediculosis are the commonest diseases which popularly go by the name of eczema. It sounds so much better than any of the others! True *eczema capitis* is a catarrhal inflammation of the skin of the head, generally accompanied with crusting. It is not limited, as a rule, to the head, but makes its appearance on adjacent parts of the skin.

Varicose eczema is quite a type by itself. It consists of the various degrees of inflammation of the skin which are associated with the presence of varicose veins. The veins of the lower extremities are provided with valves which normally assist the blood within them in its passage upwards towards the heart and prevent it from flowing in the reverse direction. The strain of much walking or standing and sometimes of pregnancy may be too great for these delicate little pieces of mechanism so that they fail to perform their proper duty, with the result that a "venous stasis" or stagnation of blood occurs in the legs. This leads to permanent congestion of the parts, including, of course, the skin, which is thus less able to recover itself after slight injuries. A dusky redness of the integument first shows itself in the immediate neighbourhood of a tortuous or knotted vein, and soon a true eczema characterised by scaliness or slight weeping follows. The risk of ulceration is considerable in these cases on account of the special liability of the

skin to give way and of the enlarged veins to rupture. Further information upon these points may be obtained in a surgical text-book.

Chronic eczema is a most troublesome form of the disease. Any part of the body may be affected, but the neck, outer aspects of the limbs and trunk, are, perhaps, the commonest sites. The "eczema-patch" is a chronically inflamed area of skin, intensely irritable and generally difficult to treat, sometimes sharply localised, but often of more or less general distribution. This type is frequently seen in gouty individuals, so that the term "gouty eczema" has been used to designate it, but, as Hutchinson remarks, "there is no hall-mark of this particular variety of the disease; no sign which enables us to state positively that such-and-such a case is one of gouty eczema".

Treatment.—The GOLDEN RULE for the external treatment of eczema in all its various types is "in acute cases soothe, and in chronic stimulate". Such a principle may be safely followed in all skin diseases of an inflammatory nature. When an eczematous surface is raw, fiery red, and weeping, only the very mildest remedies can be borne. A favourite application is the calamine lotion, the formula for which has already been given. The pink sediment contained in this lotion must be well shaken up before pouring out and mixing with a little warm water. It should never be employed quite cold. Goulard water may also be used, especially in the erythematous varieties of the disease accompanied by much burning and smarting. Dusting-powders, such as the compound boracic, "Emol-Keleet," or simple oleo-palmi-

tate of zinc, are also most acceptable, tending to soak up the discharge and, at the same time, to exert a wholesome, sedative and protective effect upon the denuded epidermis. If ointments are considered advisable, those containing zinc oxide, bismuth and zinc oleate, or lead sub-acetate, are most generally ordered, with vasogen or lanoline as a base. When the most acute stage has passed, a dilute cyllin lotion (1 in 500) may be substituted for that of calamine. Cyllin is a refined tar-product (formerly known as "creolin"), and it has valuable properties, being more powerfully antiseptic than carbolic acid and less toxic, as well as anti-pruritic.[1] The "Liquor Carbonis Detergens" is similarly employed and has long been a favourite with dermatologists.

Lassar's paste is widely prescribed as a soothing ointment: it consists of equal parts of zinc oxide, starch and vaseline. A little salicylic acid (5 to 20 grs.) is often incorporated with it. When the disease is more chronic or presents signs of scaliness, rather stronger remedies can be used. A beginning is generally made by adding a small quantity of some tar preparation to the ointment, such as five minims of cyllin to one ounce of zinc and lanoline ointment. It should be remembered that tar only aggravates acute conditions, but it is valuable for chronic. Other remedies commonly ordered are salicylic acid, ammoniated mercury, and sometimes sulphur or ichthyol.

Whatever ointments are ordered they should not be rubbed over the diseased areas, but spread evenly and thickly upon the smooth side of lint, laid gently over the eczematous surface and kept in place by a few neat

[1] An anti-pruritic is a substance which relieves itching.

turns of bandage. Oiled silk or gutta-percha tissue are on no account to be put over the lint, as these materials only serve to keep the parts unnaturally hot and prevent the due escape of the cutaneous excretions. It need hardly be stated that such applications as bread-and-water or bread-and-milk poultices must be discontinued, if these have been put on by the patient. The only time when poultices may be allowed in eczema is when there is much crusting, such as is seen upon the scalp or face. The boracic starch poultice is prepared by mixing one teaspoonful of boric acid with two tablespoonfuls of cold water starch and enough cold water to make a cream; a pint of boiling water is then added, the mixture being carefully stirred. A jelly then forms which must be allowed to stand until cold. Some of it is then spread upon pieces of cotton-wool, covered lightly with muslin, placed over the crusts, and changed every four hours. On removal of the poultice the crusts will be found to come away with it, and those that remain are so softened that they can be removed by careful bathing and lotion and water. The ground is then prepared for the application of ointment.

Unna's zinc-gelatin dressing, familiar in out-patient departments as "Unna's paste," is frequently ordered for varicose eczema of the legs. In all stages of this troublesome affection except the acute this application is of great service, combining, as it does, healing remedies with that due support for the limb which is so essential for recovery. Its composition, like that of calamine lotion, is not always quite the same in different places. The following may be taken as a good example;—

℞ Gelatin, 3 parts.
Zinc Oxide, 2 „
Glycerine, 6 „
Water, 9 „ Misce.

A little ichthyol is sometimes added in the proportion of one to three per cent. The application of this paste to an eczematous limb is not quite on a par with the process of painting the leg of a chair with enamel. A good deal of care is necessary if the dressing is to be a success. In the first place, the gelatin, which is generally supplied in the form of cubes looking something like indiarubber, must be melted in a water-bath—a jam-pot placed in a saucepan of water over the fire is convenient for the purpose,—and while this is in process the patient's leg must be carefully washed with a mild antiseptic lotion, boric acid if the surface is at all inflamed, or a one per cent. solution of lysol if the condition is more chronic, and then dried by dabbing it with boracic wool. The liquid gelatin, cooled to be a pleasant temperature, is now to be applied with a large flat painter's brush, the strokes being rapid and long. A thin sterilised gauze bandage may be applied to the limb, each turn being painted over with the gelatin-paste. Not more than two layers of gauze bandage should be used. Instead of gauze, a little plain cotton-wool is sometimes lightly dabbed all over the newly painted surface, some of which adheres to the gelatin and assists in the drying of the latter. These substances, gauze and wool, give more "body" to the dressing, besides facilitating its after-removal. The paste can be left on for two, three or four days, and occasionally longer, according to the comfort of

the patient, who should not attempt to take it off himself. The whole thing will peel off like a glove, and if the application has been successful, the underlying eczematous surface will be found much paler and drier. This mode of treatment is nearly always popular with patients, who beg that it may be re-applied time after time. If, however, it be hurriedly done and the preliminary washing of the limb omitted, nothing but failure will be the result.

The *Internal Treatment* of eczema must never be neglected. The state of the bowels should always be carefully inquired into, and any tendencies to constipation must be overcome by the administration of one or other of the aperient table-waters and mild laxatives. Cascara sagrada, aloes and strychnine, and saline purgatives, all find their place in the treatment of skin disease, and particularly in eczema. The digestive functions require looking after, any dyspepsia being corrected by appropriate remedies. In severe cases, a light milk diet is sometimes ordered, but too great or irksome restriction, unless really demanded by some underlying constitutional affection, such as diabetes or gout, is not to be recommended.

Psoriasis.—The next most common disease for which patients are admitted to hospitals for special treatment is psoriasis vulgaris. This is an inflammatory disorder of the skin characterised by an eruption of dull red, scaly spots of varying size, distributed over a large surface of the body. The tips of the elbows and the fronts of the knees are favourite sites, but there is no part of the body where it may not show itself. The scalp is often severely affected, and in a typical case the disease here looks like

little drops or splashes of mortar among the roots of the hair. The size of the lesions may be that of a pea, in which case the term *guttata*[1] is added to the name of the disorder. Similarly, we have psoriasis *gyrata* where the eruption appears as scaly festoons; *circinata* when it is in the form of rings; *inveterata* when it is very chronic and obstinate, and so on. Scaling is always present at some time in the course of the disease, and the scales are of a silvery hue and often greatly heaped up, especially in neglected cases. If they be picked off with the finger-nail the underlying surface is deep red and a few minute specks of blood start up as a result of the slight abrasion caused by the removal of the scales.

There is never any oozing of serum in psoriasis, which fact alone is sufficient to distinguish it from eczema. Itching is sometimes very severe, keeping the patient awake at night, but it is not a constant symptom at all and may be absent altogether. The nails may become affected, getting thickened, rough and brittle.

Psoriasis is a disease of adult life, though it is not uncommon in children. In infancy it is a rare affection. Very little is known as to its actual causation, but many cases are gouty or rheumatic, and it would seem as if heredity plays an important part in its occurrence. The general health of the patient seldom suffers to any great extent, but minor ailments are frequently enough associated with psoriasis, such as debility, dyspepsia, and constipation. The disease is not in the least contagious, so that no fear need ever be felt in the nursing of a case.

[1] From the Latin *gutta*, a drop.

The *prognosis* of a given attack of psoriasis is always good, but the disease has, unfortunately, a special tendency to relapse and to become more or less chronic. The author has seen cases in which it has been present, off and on, sometimes better and sometimes worse, for twenty or thirty years. So many patients leave off all treatment before they are quite well, *i.e.*, before every spot has completely disappeared, that the disease with them never seems to get properly cured. Then again, much depends upon the thoroughness of the treatment, for half-heartedness in this, as in everything else, is not conducive to success.

Treatment.—(1) *Internal.* Arsenic used to be regarded as the great specific for psoriasis as well as for a good many other skin diseases, but it is not nearly so much employed now as formerly. Several instances of bleb-formation have been reported, apparently attributable to its use. Thyroid extract is frequently of great service in obstinate cases. Salicin, as recommended by Dr. Crocker, is of distinct benefit in rheumatic cases. It need hardly be said that the gastro-intestinal tract requires careful attention. Plenty of fresh air, light, and plain simple food are necessary for the hygienic treatment of the disease.

(2) *External.* Local applications are of the greatest importance, and the first place is given to baths containing some preparation of tar. This may be in the form of cyllin, anthrasol, oil of cade, or the "Liquor carbonis detergens," according to the doctor's orders. The patient should remain in the bath for at least a quarter of an hour, soaking well all the scaly patches. It is

a good thing to employ gentle friction upon the patches at the same time, either with or without soft soap. The scalp, when much affected, needs a daily shampoo with soap spirit which is readily made by stirring four ounces of the best soft soap in a small basin with one ounce of rectified spirit. A little of this rubbed into the scalp makes a good lather with warm water and is most efficacious in removing scales and crusts. The way is then prepared for any ointment that may be ordered.

One of the secrets of success is to use PLENTY OF OINTMENT. This should be spread upon lint and bandaged over the worst places. Tar ointments are not often used for the face or scalp, naphthol or ammoniated mercury being employed instead. Chrysarobin is sometimes used for the body and limbs: it is a powerful remedy and needs to be carefully applied. As it stains linen most objectionably only the oldest materials should be employed for sheets, etc., and it should be kept away from the face. The patient must be warned against touching or rubbing his eyes with the fingers, as any chrysarobin upon or near the lids or conjunctiva is apt to set up a troublesome form of dermatitis or conjunctivitis. These drawbacks of an otherwise valuable drug can be got over by using it in the form of a varnish. A mixture of gutta-percha and chloroform forms a good varnish known as *traumaticin*, and chrysarobin may be dissolved in this and painted upon the individual patches with a camel's-hair brush. This, of course, takes time. Collodion is also used in this manner.

Salicylic and carbolic acids are frequently used in ointments, and a watch must be kept to see if the patches

become redder or more inflamed under this treatment. At other times the special *plaster-mulls* or muslins, introduced by Unna, of Hamburg, are cleanly and convenient preparations. They consist of rather stiff ointments all ready spread in an even layer upon muslin and covered by a thin film of protective gauze. This latter must be removed before applying to the skin, the muslin being first cut to the size of the patch. The finger-nail or the blade of a pair of scissors will generally start the removal of the gauze, but occasionally it may be necessary to moisten it with a damp sponge. In the very chronic cases of psoriasis and eczema, relief has sometimes been obtained from the use of X-rays judiciously applied.

Any outbreak of fresh lesions must be reported at once, and also any change in the character of the old ones. Psoriasis gets well by a gradual pallor of the individual patches and a disappearance of the scales.

Other Inflammatory Affections.

Erythema.—The term erythema when used alone simply means redness as a clinical symptom observed upon the skin, but various adjectives may be appended to signify definite cutaneous disorders. Thus, *erythema multiforme* is a disease characterised by the sudden appearance of circumscribed patches of redness or large areas of vivid erythema, slightly elevated above the surrounding skin, and sometimes accompanied by constitutional symptoms. Many cases bear a striking resemblance to scarlet fever, but the temperature is seldom so high, and the rash is generally of longer duration,

hence this variety is known as *erythema scarlatiniforme.* The responsibility of making the diagnosis of this unusual type rests, of course, with the medical practitioner, and the nurse would be most ill-advised who attempts to diagnose this disease for herself.

Some skins are much more sensitive than others, and such slight stimuli as a change of air, an unaccustomed article of diet, or a new soap, may be quite sufficient to cause an outbreak of erythema. When the lesions look something like a target, with concentric circles, the disease is called *erythema iris.*

The *treatment* is simple. Saline purgatives are generally administered, and soothing lotions of calamine or Goulard water are ordered for external application. Any error in diet must be carefully corrected.

Erythema Nodosum.—This affection is commonly seen upon the shins of little girls, boys being less often attacked, while adults suffer from it less frequently. The lesions consist of raised, red, tender nodules, situated over the shins. The pain may render walking difficult and the temperature is generally raised. Joint-pains are very often present in this disease which by some is regarded as being allied to rheumatic fever. The term "nodal fever" (Lendon) well expresses its principal features. The nodes are at first bright red, but they soon become darker and almost purplish. Fresh ones appear in crops from time to time.

The patient must be confined to bed. Soothing lotions, such as one of lead and opium, are grateful and comforting, and one of the salicylic acid group of drugs—salicylate of soda, salol, salicin or aspirin—is nearly always

given internally in a mixture or in cachets. The diet must be light and nourishing.

Purpura Rheumatica.—This disease may be mentioned here, though it is not a purely inflammatory disease. The onset is sudden with a temperature and pains in the joints, and a purpuric eruption soon makes its appearance about the knees and elbows. A purpuric lesion is really a small hæmorrhage in the cutaneous tissues; it may be of any size, from a pin's head upwards. Every purpuric patch or spot has to go through the ordinary colour changes of a bruise and ultimately disappears completely.

The *treatment* is similar to that of erythema nodosum.

Erythema intertrigo is described on p. 113.

Urticaria.—Nettlerash or urticaria is a common affection of the skin. It appears as raised, reddened patches, called wheals, which soon become pale in the centre and then, after a time, fade away. The irritation is very great while the wheal is coming out. Sometimes the rash only develops when the patient is warm in bed, when the itching may be so great as to destroy all hopes of sleep, and yet by the morning all traces of it may be gone. In other cases the eruption is more lasting. Any part of the body may be affected, but the chest and arms usually suffer most.

There is a special variety of the disease known as "giant urticaria" or *acute circumscribed œdema*, in which irregularly shaped swellings, of the nature of huge wheals, come out in various parts, last for some hours, and then subside. The tongue, fauces, and even the mucous membrane of the larynx may participate in this unpleasant

eruption. Neurotic influences are supposed to have much to do with this particular variety of the complaint which is apt to be very chronic and obstinate.

Many of the articles of food mentioned on p. 46 are responsible for the appearance of simple urticaria, the connection between the ingestion of the offending substance and the appearance of the rash being immediate and obvious. On the other hand, urticaria sometimes appears in people who are most careful about their diet, and in these a deficient vaso-motor control is supposed to be the underlying cause of their condition.

Urticaria factitia is the name given to a special variety of the disease in which the wheals only or chiefly appear upon stroking or scratching the skin. It is quite possible in such cases to write a figure or a name upon the back of a patient by simply stroking the skin somewhat briskly with the blunt end of a pencil. After the lapse of a few seconds the name or figure traced in this manner becomes slowly visible as a red streak which speedily becomes raised and white. The whole thing gradually fades away again in the course of a few minutes. This condition of the skin is called *dermatographia*, and is not uncommon in pale, anæmic girls who suffer from slight rashes upon very mild provocation. Neurosis is a possible factor to be taken into consideration in some cases.

The giant or chronic forms of this disease are the only ones likely to be seen in hospital wards, but it is important to be familiar with the principles of treatment of this troublesome affection in all its phases. The time of appearance, duration, and exact situation of the lesions should be carefully noted as well as the presence of any

associated disorder, such as dyspepsia or constipation. Anti-pruritic lotions, such as those of weak tar, carbolic acid, menthol, or thymol, are commonly ordered for bathing the skin, and sometimes alkaline baths are useful. Ointments are not much employed as a rule. The diet needs careful supervision, and all "forbidden" articles must be rigorously excluded. The following internal remedies are generally prescribed—quinine, salol, ichthyol, saline aperients, ergot, and supra-renal extract. Calcium chloride and lactate have also been warmly recommended on account of the property possessed by these salts of increasing the power of coagulability of the blood which is frequently deficient in urticaria.

Urticaria pigmentosa is a very rare affection, chiefly occurring in children, in which pigmented areas are left after the disappearance of the wheals.

Urticaria papulosa is described on p. 113.

CHAPTER VI.

PRURITUS.—*Itching of the skin* or pruritus is such a common symptom of cutaneous disorder that one of the first questions we ask of a patient with a skin disease is "Does it itch?" Severe itching is worse to bear than toothache, and if long continued it soon pulls down the patient by depriving him of rest and sleep. There is always an irresistible tendency to scratch and rub a part which itches, and this may be done both consciously and unconsciously. Scratching, however, soon leaves its mark upon the skin in the shape of what the author has termed the *sign-manual of itching, viz.*, the *scratch-mark*.[1] This latter, it will be remembered, is one of the secondary lesions of the skin. Pruritus, from whatever cause, is invariably worse at night when a patient is warm in bed.

We may classify the various causes of pruritus into three main groups, (1) external, (2) internal, and (3) intra-cutaneous. In the first group the most important factor is mechanical irritation of the skin resulting from the presence of parasites upon and within it, such as are found in scabies; contact with irritating substances; and variations in temperature. In the second group we have certain toxic, reflex, and nervous factors. Pathological

[1] *Clinical Journal*, vol. xxiii., 1903, p. 121.

changes within the skin itself are responsible for the last group. It will be helpful to describe the principal cutaneous affections in this order in which itching is such a pronounced feature.

Scabies, commonly called "the itch," has been known for thousands of years. It was not until 1634 that the true cause was discovered in the shape of a minute insect. This animal parasite belongs to the same family as the familiar cheese-mite, in fact it is known as the "itch-mite," or more scientifically as the *Acarus scabiei*. It can hardly be seen with the naked eye, but with a good hand-lens, or better still, a low power of the microscope, it is a most striking object. The acari live in tunnels or galleries which they excavate for themselves in the horny layer of the epidermis. Clinically, the disease shows itself by numerous small papules, which soon become vesicles or pustules, symmetrically distributed, upon the hands, feet and body. The clefts between the fingers, the fronts of the wrists, the borders of the axillæ, the neighbourhood of the umbilicus, the toes and ankles, are all favourite places for the eruption. The characteristic "runs" or "burrows" made by the parasite can generally be found as minute, wavy, black lines with the aid of a lens. The acarus itself can be picked out from some of these by inserting a fine needle into the tiny papule nearly always present at one end of a burrow. In severe or neglected cases, the eruption may be bullous, or covered with crusts and sores from secondary infection with micro-organisms, so that these cases are sometimes mistaken for impetigo or eczema. The face is seldom affected in scabies. There is no age or rank of life that is exempt from this disease,

though, of course, it is more common among those whose opportunities for daily ablution are limited!

Though scabies is contagious, no one need fear contracting it from a simple examination of the skin or from the application of dressings. The parasites are most active at night, when they wander from their tunnels and move freely upon the epidermis. It has been stated upon the highest authority that it is impossible to get scabies from shaking hands with a patient suffering from the disease, nevertheless, most physicians and nurses prefer to wash their hands after having anything to do with a case. If washing is not convenient, a rinse in carbolic or mercury lotion is sufficient.

The *diagnosis* of scabies presents many pitfalls and it behoves the nurse to tread warily here. It is most damaging to any one's reputation to pronounce erroneously a case to be scabies, while the opposite mistake of calling scabies eczema, though less awkward, leads to waste of time by not applying anti-parasitic remedies. It is not surprising if, in such cases, the so-called "eczema" does not clear up.

The *treatment* consists in taking sulphur baths and applying some anti-parasitic ointment to the affected parts. The bath should be taken nightly, and when in it the patient should wash the hands, feet, etc., with soft soap, a little friction with a flannel being beneficial than otherwise. On coming out he should dry quickly and then rub in the ointment thoroughly over the diseased areas. Two or three nights of this treatment is generally sufficient for ordinary cases, but it is essential that all infected clothing should be baked or otherwise sterilised.

Sulphur ointment is the favourite application, but it should be remembered that sulphur may act as an irritant to sensitive skins, so that if pustules or secondary eczema be present it must be used with caution. In such cases balsam of Peru is a valuable substitute or the stavesacre ointment of the B.P. When convalescence is fully established it is a good thing to sprinkle the sheets and nightdress with powdered sulphur to act as a preventive against any possible relapse. Internal remedies are, it is needless to say, absolutely useless in scabies, which is not a "disease of the blood" at all. The administration of sulphur tablets in the hope of "clearing it out of the system" has, naturally, no effect whatever upon the course of the disease.

Pediculosis Corporis.—The next important parasitic affection of the skin is that due to the presence of lice upon the skin. There are four species of these insects which may inhabit the clothing, hair, or person of human beings. The *pediculus* itself is a great deal larger than the acarus, being readily seen with the naked eye, and it is capable of inflicting more injury than the itch-mite. It makes punctures in the skin, drawing a minute drop of blood and, at the same time, causing intense pruritus. The appearance of the trunk in an advanced case of pediculosis of the body is quite characteristic. The colour of the skin is somewhat bronzed, irregularly pigmented and studded here and there with small macules or papules in the centre of which may be seen the tell-tale "hæmorrhagic speck". Scratch-marks are plentiful, and there may be even scabs and sores. As the disease is common in tramps it has been called the "vagabond's disease".

Sulphur baths are efficacious in pediculosis, and ointments containing ammoniated mercury and sulphur are much used for inunction. The clothing needs to be disinfected as in scabies.

Pediculosis capitis is described on p. 91.

Severe itching may be caused by contact with certain irritating substances which give rise to urticarial or eczematous eruptions. Gardeners who handle the *Primula obconica* or the "poison-ivy" (*Rhus toxicodendron*) occasionally suffer in this way. Some kinds of hairy caterpillars, especially the "woolly bear," beloved of schoolboys, produce urticarial rashes accompanied by much itching, and at certain times in the year when little children are sent out into the fields for purposes of "Nature study" regular epidemics of "caterpillar-rash" occur. Fortunately, all these unpleasant manifestations cease when the offending cause is removed.

The irritation produced in both sexes by the saccharine urine in diabetes is apt to produce severe *pruritus pudendi*, the treatment of which properly belongs to that of the constitutional condition.

The so-called "bath-pruritus" is the feeling of itching which many persons experience just before or after a warm bath. The variations in the external temperature act upon the sensitive nerve-endings in the skin and thus cause the itching. This is not a skin disease, but only a strange cutaneous susceptibility.

Of the *internal causes* of itching, only that met with in jaundice is likely to come under the notice of a hospital nurse. It is supposed that the presence of the bile-acids circulating in the cutaneous capillaries irritates the ad-

jacent nerve-twigs, producing the pruritus. At any rate, it is a most troublesome symptom to treat. Weak solutions of cyllin, or of lead and opium, generally afford some relief; at other times menthol dissolved in spirit, lightly dabbed upon the skin, is acceptable.

Other internal factors which are occasionally productive of severe itching are Bright's disease, especially granular kidney, neurasthenia and pregnancy (*prurigo gestationis*).

When we turn to those causes of pruritus which are situated *in the skin itself* we have already seen that itching is nearly always present in eczema, but it is not constant in psoriasis. On the other hand, many diseases of the skin never itch at all. Seborrhoea and lichen planus are accompanied by severe irritation.

Senile Pruritus is a special variety of itching of the skin in old age, unaccompanied by any real cutaneous disease. It is the natural outcome of senile degenerative changes occurring in the skin. Sometimes there will be nothing visible at all, but it is more usual to see a dry, harsh, wrinkled skin more or less covered with scratch-marks. The condition is apt to be chronic and rebellious to treatment, any slight stimulus serving to produce a violent outbreak of pruritus. If any bodily disorder be present at the same time it should receive careful treatment. Medicines containing a little tincture of cannabis indica are sometimes given, while such anti-pruritic lotions as cyllin or carbolic acid are useful for external application.

Pruritus ani is a troublesome itching affecting the anal region and perinæum associated with piles, eczema, or perhaps a slight fissure of the rectum. The treatment is in the main surgical, *i.e.*, the removal of the source of

irritation, but failing this, hot sitz-baths containing a little cyllin are most comforting, and patients will say that the hotter the bath or lotion the greater the relief. Dusting-powders of gallate of bismuth (dermatol) or the compound boracic powder previously mentioned are also useful for applying to the affected parts immediately after drying.

In all cases of severe pruritus alcohol and coffee must not be taken.

Lichen Planus.—This affection is not common, but it is one in which good nursing can do much. It is characterised by an eruption of small, flattened papules of a dark red or purplish tint, generally seen upon the wrists, shoulders and knees. The papules may run together, forming a "lichen-patch" which, when seen alone, is a very difficult thing to diagnose, for it looks not unlike psoriasis and something like lupus. It may be much thickened and almost warty in appearance, in which case the disease goes by the name of *lichen planus verrucosus*. The disease frequently appears suddenly as the result of some nervous shock or debilitating influence; it lasts some time and fades away gradually. Adults are chiefly affected, lichen planus being very rare in children.

The *treatment* is something like that of psoriasis. Weak tar baths are valuable and should be taken twice a day, after which the ointment that is ordered should be thickly applied to the diseased areas. Arsenic is nearly always given internally, beginning with very small doses and gradually increasing the quantity until some effect is produced upon the skin. The bowels must be allowed to act freely and regularly throughout.

Diseases of the Skin Accompanied by Vesicles or Bullæ.

We have seen that under certain circumstances both eczema and scabies may show vesicles or bullæ. These, however, are not necessary or constant features of all types of eczema, whereas these common primary lesions of the skin occur as the most prominent clinical features of other cutaneous disorders.

Pemphigus.—This is an affection characterised by the appearance of blebs or blisters upon otherwise healthy skin. The bullæ vary in size from that of a pea to that of a Tangerine orange. Their contents are clear at first, but they generally become more or less turbid before they rupture. Any part of the body may be affected, and it is usual for fresh crops of blisters to keep coming out for some time before the disease is cured. At the extremes of life, pemphigus is a serious disorder, so that the prognosis is somewhat grave. Some cases are very chronic, and the patient's general health is apt to suffer from the worry and anxiety attendant upon the eruption.

Arsenic is the remedy upon which most reliance is placed, and next to it comes quinine. Local treatment consists in the application of soothing and sometimes astringent lotions. The bullæ should be gently pricked at their lowest margins with a sterilised needle, but the shrivelled remains of the blister should not be cut away afterwards, in fact the blebs of pemphigus must be treated like those occurring in a severe burn. The ointment may then be laid over the collapsed bullæ with perfect safety. Sometimes gelatin baths are ordered in which the affected

part or limb is soaked more or less continuously, especially in the severer types of the disease. The general strength must be supported by nourishing food.

Pemphigus vegetans and *foliaceus* are severe and happily rare types of this disorder.

HERPES.—In several forms of vesicular skin disease the vesicles are arranged in little groups. Such affections go by the name of herpes, various adjectives being added to signify other characteristics, especially situation.

Herpes zoster, commonly called "shingles,"[1] is an eruption of several groups of small vesicles occurring along the course of a cutaneous nerve. The term was formerly applied only to that eruption appearing round the chest, but many other parts of the body may show this rash at times. The disease commences with a sensation of pricking or burning, and soon crops of small vesicles make their appearance upon a reddened base. The patient feels "out of sorts" and the temperature is slightly raised. The vesicles dry up in a few days' time, and in normal cases they leave no scars. In a series of cases collected by the author, the left side of the body was found to be affected in 63 per cent. When the supra-orbital region is attacked there is some danger of scarring and there is usually some conjunctivitis present also. The after-pain of herpes is often very severe and is neuralgic in character.

Shingles is an affection which has to run its course, but a good deal can be done to alleviate the distress associated with it. Dusting-powders are useful in the early stages as protectives, for all friction with clothing must

[1] Latin *cingulum*, a girdle, of which "shingles" is really a corruption.

be avoided. Sometimes the doctor will order an early patch to be painted with collodion, which may be successful in preventing the full development of the vesicles, and if this is done care must be taken to go a little beyond the actual area of disease. When the vesicles have ruptured, the area may be bathed with warm boracic lotion and then a little boracic or zinc ointment can be applied.

Since it has been proved that herpes zoster of the thoracic type is associated with a lesion, generally a small hæmorrhage of the ganglion situated upon the posterior root of a spinal nerve, this complaint comes under the heading of a nervous inflammation of the skin. Counter-irritation over the point of emergence of the posterior branch of the spinal nerve, along the course of which is the eruption, is sometimes undertaken to relieve pain. This point will be marked out by the doctor, who may order a small blister to be applied over the spot.

Quinine or cinchona bark is a favourite remedy for internal administration. For the after-neuralgia massage or the galvanic current are sometimes necessary.

Herpes labialis is a similar eruption occurring about the lips. It may result from a chill, *e.g.*, sitting in a draught in a railway-carriage, and it is frequently seen as a complication of certain general diseases, such as lobar pneumonia, typhoid fever, and cerebro-spinal meningitis. In the former its appearance is believed by many to be of favourable import. This variety of herpes is apt to be recurrent, and other parts such as the borders of the ears, the buttocks, and the sides of the fingers may be affected. Now and then muscular paralysis is seen in the parts ad-

jacent to the eruption, and the rash occasionally appears after an injury.

Dermatitis herpetiformis is a disease to which the name was given by Duhring in 1876. It is a very rare complaint, characterised by the appearance of symmetrical groups of vesicles, having a resemblance to the patches of true herpes, widely distributed upon the body and limbs. Itching is very severe and the patient is generally run down in health. These cases do well in hospital, good food and nursing accomplishing as much or more than drugs. Cyllin baths form part of the routine treatment, and weak sulphur ointments are useful for relieving itching. General tonics are administered internally in the majority of cases.

Hydroa is a bullous eruption not unlike pemphigus and also resembling Duhring's disease, occurring in the later months of pregnancy (*Hydroa gestationis*) and also upon the faces and limbs of children in hot weather (*Hydroa pnerorum*). The treatment of these types is similar to that of the foregoing eruptions.

Cheiropompholyx or "dysidrosis" is a curious condition in which blebs or vesicles appear upon the palm of the hands and sides of the fingers. The lesions are deeply situated, tense, and somewhat opaque, and they have been compared to "sago-grains". As they approach the surface they become more distended and finally burst, leaving a raw, red surface beneath. Excessive sweating of the hands often precedes this eruption which has a tendency to recur in hot weather.

The *treatment* consists in keeping the hands away from all irritating substances, including moisture. Antiseptic

lotions are employed for bathing, and an ointment of zinc or bismuth oleate is a good application which should be kept on the affected parts continually. Iron and quinine are nearly always indicated internally.

Many occupation-diseases are bullous in character, though they may start as an eczema or an erythema.

Drug Eruptions.

Dermatitis medicamentosa is a general term to indicate certain eruptions upon the skin, usually of inflammatory character, resulting from the use of special drugs which may be applied externally or taken as medicine. Most nurses are familiar with the redness and vesication occasionally produced by an iodoform dressing. Such an eruption is really an iodoform rash, and this is a sign that that particular patient is susceptible to iodoform and cannot bear it. There are just a few drugs in common use which may produce, under certain conditions, special manifestations upon the skin when taken internally. Only the more important will be mentioned here, and it must be understood that these undesirable effects may appear after one or two doses of the drug in question, or not until it has been taken for some considerable period, according to the patient's susceptibility.

Arsenic, although such a valuable remedy in cutaneous affections, may give rise to pigmentation of the skin and sometimes to eruptions of the nature of herpes. Occasionally the palms of the hands show a condition of keratosis, which is a thickening of the epidermis. These effects were well seen among those who suffered in the

epidemic of beer-poisoning due to contamination with arsenic in Manchester in 1900.

Potassium iodide sometimes causes papular and pustular lesions upon the face and other parts of the body, and more rarely purpuric eruptions.

Potassium bromide also produces papular lesions, like acne, and also flattened elevations of an inflammatory type upon the limbs. These phenomena are not uncommon in epileptics and those who are obliged to take bromide for long periods.

These are perhaps the drugs which most frequently cause rashes, but quinine, salicylic acid, antipyrin, chloral, chloralamide, belladonna, copaiba, and turpentine are also at times responsible for many strange eruptions which often cause great difficulty in diagnosis. The only true test by which it may be certain that a given rash is due to a drug is to leave it off and see if the rash gets well. If it does so and reappears on the readministration of the drug, then we may be sure that we are dealing with a case of dermatitis medicamentosa.

Vaccination and Antitoxin rashes are described in Chapter VIII.

Enema Rashes.—Every nurse who has had much experience in giving enemata must have come across cases in which an erythematous rash has appeared soon afterwards upon various parts of the body. The eruption is usually regarded as being quite trivial, in fact hardly worth noticing, and it is frequently overlooked altogether. From eight to twelve hours after the administration of the enema is the average time for the rash to appear, which it does upon the fronts of the knees, the buttocks, thighs,

and lower part of the trunk, gradually spreading upwards to the neck and shoulders. The face is rarely affected. Slight itching may be complained of and there may be a rise of temperature. It lasts about two or three days, and slowly fades away. Young, anæmic, and nervous girls seem to be the most often attacked. In a series of cases collected by the author [1] 63 per cent. were females. Habitual constipation was the rule in nearly all the cases. Some people have thought that the variety of soap employed in the preparation of the enema is responsible for the outbreak of the eruption, believing that it is more general if a hard or soda soap be used. They never occur after nutrient enemata, which, of course, are of a much smaller bulk.

When pronounced in character the occurrence of an enema-rash should always be reported to the doctor. The author well remembers a case in the Tottenham Hospital in which no little difficulty was experienced in deciding between a rash of this nature and true scarlatina. As a rule, however, the mode of onset and distribution of the eruption, together with the presence of constitutional symptoms, should be sufficient for purposes of diagnosis.

The appearance of the rash is most probably due to the liberation of some toxin present in the alimentary canal which manifests itself as a true vaso-motor erythema. A mild saline purge is indicated in some cases and the patient's mind should be reassured.

Hysterical Eruptions.—This will be a convenient place for describing those morbid appearances of the skin which are sometimes seen in hysterical individuals. We

[1] *Medical Times and Hospital Gazette*, vol. xxx., 1902, p. 35.

have already seen that the condition of dermatographia (p. 65) is principally a neurotic manifestation, associated with lack of vaso-motor control. The term "dermato-neurosis" is often employed to indicate such eruptions. *Hyperidrosis*, or increased sweating, is a common symptom of many neurotic conditions. *Dermatitis factitia* or *artificialis* is the name given to an eruption which is self-produced. Cases have been known in which individuals have burned their own skin or painted it with caustic substances in order to excite pity or attention. Such eruptions are nearly always on parts of the body easily accessible to the hands. Direct accusation is seldom possible when the case is seen for the first time, but if the patient be placed under the strictest observation, day and night, some opportunity will occur for noting her general habits and demeanour. The best way of treating such eruptions is to apply some soothing ointment and then to envelop the whole thing with a covering of plaster-of-Paris, which effectually prevents any tampering with the dressing. Rapid improvement generally follows this line of action, but it is frequently necessary to combine it with some form of Weir-Mitchell treatment.

Ulcers of the Leg.

The majority of leg-ulcers are primarily affections of the skin, but they quite as often present themselves in the surgical out-patient departments of our hospitals, and they are of such frequent occurrence in both sexes that hardly a day goes by in the practice of a busy doctor or nurse without one being seen. Moreover, in district nursing, especially in isolated places, the entire treatment

and management of a case often devolves upon the nurse, so that it is important for her to be thoroughly acquainted with the various types of ulceration and the principal methods of dealing with them.

Varicose ulcer is a very common complaint, nearly always associated with a varicose eczema. First come the enlarged veins, then the local congestion and venous stagnation, then, perhaps, an injury of some sort causing a slight abrasion of the skin which, being deficient in vitality and recuperative power, breaks down forming the well-known ulcer. When there is ulceration there must always be loss of tissue, because that part of the epidermis involved dies, exposing the true skin beneath. Loss of tissue means *scarring* when the place is healed up, and the presence of other old scars in the neighbourhood of a fresh ulcer often yields a clue as to the nature of the latter. A varicose ulcer is generally situated in the lower third of the leg, and, perhaps, more often upon the inner side. When placed over the malleolar prominences of the tibia or fibula they are more difficult to cure, and they are also more painful than those occurring higher up the leg. They may be single or multiple and of any size, and their outline is usually oval or only slightly irregular. It is not necessary for the veins of the leg to be very tortuous and knotted in order to produce an ulcer, for sometimes the largest ulceration is seen accompanied by capillary varicosities only. One or both legs may be affected, either together or alternately.

The two most important parts of an ulcer for the nurse to consider are (1) the base, and (2) the edge. The base or floor of a varicose ulcer is raw and "fleshy" looking,

but its actual appearance depends so much upon the degree to which healing has taken place. The small red elevations upon the base are the tops of vascular loops in the papillæ of the cutis, and some of them are newly formed vessels which will assist in the formation of the cicatrix or scar. They may be obscured by purulent discharge or by old adherent ointment, or instead of being nice and red are greyish-yellow. The term "indolent" is applied to the latter condition.

The edge of a varicose ulcer is always paler than the skin a little distance beyond, in fact this is the part where healing takes place, for the edge gradually creeps in towards the centre. If the edge is not kept clean it does not get a proper chance to advance in this manner. In some cases the skin immediately around an ulcer is in an acute state of inflammation akin to a weeping eczema, which, of course, complicates matters somewhat and renders the treatment more difficult.

Traumatic ulcers are those resulting from injury, apart from the presence of varicose veins. They are most often seen on and about the shins.

Syphilitic ulcers may occur upon any part of the legs, but as a rule they are met with higher up the limb than other kinds of ulcers. They have either a "punched-out" appearance, or else their outline is very irregular or serpiginous. The base is often covered by a sloughing mass resembling a piece of wash-leather.

Tuberculous ulcers may occur upon the limbs as elsewhere. Their margins are generally thin and undermined, and possess a dusky hue.

There is one special form of ulceration affecting the

lower limbs in young women known as *Erythema induratum scrofulosorum*. This disease was first described by Bazin in 1861, and it usually bears his name. The distinguishing features of Bazin's disease are (1) the age and sex of the patient, (2) the situation of the ulcers which are most frequently found upon the calves of the legs, (3) the presence of other signs of constitutional disease, such as tuberculosis, either in the patient or in her family.

In all these painful sores the mistake is commonly made of spreading the ointment on too large a piece of linen and placing it indiscriminately upon the affected part. The best way is to cut a piece of lint the same shape and size as the ulcer, spread the ointment that may be ordered upon the smooth side, and fit it gently over the base of the ulcer. The edge should not be covered in, neither should any oiled silk be placed over the lint. If the surrounding skin is eczematous or inflamed, another ointment of a more soothing character is generally prescribed for special application to this part. A thin layer of cotton-wool may then be put over the lint and the whole is then to be carefully bandaged, beginning the first turn at the inner border of the instep, making a neat "figure of 8" around the ankle, and then coming all the way up the leg as far as the knee, employing firm but even "reversings" throughout. Red rubber bandages are to be avoided as being far too heating, an open elastic bandage of the "crêpe" pattern being preferable. Failing this, an ordinary surgical roller bandage may be used. The dressing should be changed morning and night, the ulcer and adjacent parts being carefully bathed with a

mild antiseptic lotion, all old ointment being wiped away very gently before the new is applied. Needless to say, much better results are obtained if the patient can remain in bed, or at least rest up the limb on a cushion in the horizontal or slightly elevated position. Unfortunately, the majority of the sufferers from leg-ulcers are obliged to go about their daily work as usual, so that the healing process takes much longer, if it occur at all. It is quite common to see cases in which the ulcer has lasted for ten, twenty or thirty years.

The favourite ointment for the interior of the ulcer is that of yellow or red oxide of mercury. These salts possess stimulating properties, encouraging the growth of new vessels and epidermis. Peroxide of zinc is also used, and this substance splits up into nascent oxygen and ordinary zinc oxide when in contact with organic matter. Oxygen gas itself exerts beneficial influences over most ulcerations, and the fact that there exists a special institution in London for the treatment of ulcers and other diseases by oxygen baths is sufficient to show the importance of this gas in therapeutics. Milder ointments of zinc and bismuth oleate are often employed over the inflamed area around the ulcer, and Lassar's paste can be used when a specially soothing effect is desired.

The application of Unna's paste, as described on p. 57, is commonly undertaken for leg-ulcers, the paste being applied right up to the margins of the ulcer, and when it is very small and nearly healed up, quite over it. It frequently happens that the granulations, as the loops of new vessels and delicate connective tissue in the base of the ulcer are called, become "exuberant" or too large,

projecting beyond the ordinary level of the skin. They then require to be flattened and kept down with some astringent or caustic application. The solid stick of silver nitrate or "lunar caustic" in a metal handle may be used for this purpose, the granulations being lightly pencilled with the point of the caustic. At other times, lotions of zinc sulphate are employed for bathing them with, and this is a less drastic mode of procedure. If small "islands" of new skin appear as greyish-white prominences in the middle of the base, these are not to be covered in completely with lint, but a hole or window must be cut in this to receive them.

When an ulcer is perfectly healed the patient should still wear a thin layer of boracic wool over the scar kept in place by an elastic stocking which should be of the same material as the "crêpe" bandage mentioned above. The doctor will, of course, advise as to the best methods of dealing with any varicose veins that may be present, for sometimes these may be removed with advantage.

Potassium iodide is frequently given internally in leg-ulcers of a specific character, and cod-liver oil or malt extract in cases of a tuberculous or scrofulous nature.

CHAPTER VII.

Diseases of the Scalp and Face.

Several of the diseases already described affect the hairy scalp more or less, *e.g.*, psoriasis and eczema, but other parts of the skin are usually involved at the same time. There are some disorders which are either limited to the scalp or are met with in this more than in other regions of the body. Such symptoms as falling of the hair or irritation in the head occur so frequently in dermatological practice that the nurse should be fully aware of the different morbid conditions from which they arise.

Seborrhœa Capitis.—An over-activity of the sebaceous glands of the scalp is a very common thing, and in a mild degree can hardly be regarded as an abnormality. When the secretion becomes more profuse some of it remains at or near the mouth of the hair-follicle obstructing its entrance so that the hair is pressed upon. Consequently the nutrition of the latter is interfered with, and, moreover, outward and visible signs of this increased formation of sebum appear in the shape of fine particles of scurf or dandruff, scattered throughout the hair. In advanced cases these particles fall in small showers upon the coat or dress, covering it with a white powder,

Two chief clinical forms of seborrhœa of the scalp are seen, one the dry form and the other the moist or oily, in which there is excessive greasiness of the scalp. Irritation of the head is complained of in both forms, and it is not at all uncommon to find that the sensation of itching is greatest when the amount of seborrhœa is comparatively slight. Both sexes are affected, young adults being especially liable to the disease.

Certain micro-organisms have been described in connection with this affection: they have been found in the dried scales and also in the hair-follicles. These facts serve to show that the malady, if not actually contagious, may at least be transmitted from one to the other through the medium of the barber's brush, the upholstery of railway-carriages, arm-chairs, etc. One thing is certain, namely, that the condition is largely responsible for much of the baldness seen now-a-days. Dr. Elliot, of New York, found evidences of seborrhœa in 316 out of 344 cases of premature baldness. Many people have seborrhœa nearly all their lives and yet do not get bald, but their hair loses its lustre and becomes ill-nourished. Since the hair may start falling out suddenly at any time, it is important to recognise this condition of seborrhœa capitis and to have it adequately treated by properly qualified persons.

A thorough shampooing of the scalp must be undertaken every night, using soap spirit with some energy. After the scalp has been dried, a little of the ointment that is ordered is then to be rubbed well into the roots of the hair with the finger-tips, employing a little rolling movement, or "massage" by the latter. A quarter of

an hour spent in this way is not wasted. Ointments containing salicylic acid, sulphur, resorcin, or red oxide of mercury are generally prescribed. In the morning, all grease is thoroughly removed by wiping the scalp with small pledgets of cotton-wool soaked with a lotion containing spirit or ether in which is also incorporated some medicament, such as cantharidis, to act as a direct stimulant to hair growth. Gentle friction with a brush can be used at this toilet with advantage. After three weeks of this treatment all traces of seborrhœa should be dispelled, and the hair will then be found to be growing better and to have ceased to fall.

Alopecia Areata.—The scientific term for all baldness is "alopecia". When this occurs in patches upon the scalp the condition is known as alopecia areata or "area Celsi," having been known to and described by the great Roman physician Celsus (B.C. 18). These patches are absolutely devoid of hair and are as smooth as a billiard-ball. They vary in size from that of a sixpence to large areas involving the greater part if not the whole of the scalp. In the latter case the condition is spoken of as *alopecia totalis*. The eyebrows and eyelashes may also fall out, and in men the hair of the moustache and beard may be shed either in patches or *in toto*. In very severe cases the hair from other parts of the body shares a similar fate.

The *causes* of alopecia areata are numerous. Some of the cases have been preceded by seborrhœa and others acknowledge to having had ringworm when a child. The onset in other cases is quite sudden, following some nervous shock or debilitating influence. A certain pro-

portion of patients show evidences of some peripheral nerve-irritation, such as eye-strain, greatly decayed teeth, etc., which acts in a reflex manner, producing the baldness. Cases have been recorded in which the hair has begun to grow again when glasses have been fitted or the offending teeth removed. The disease is not contagious and it may occur at all ages. A curious similarity of facial expression has often been noticed between adults of about the same age affected with total alopecia.

The *treatment* consists in the application of stimulating ointments, paints or lotions. Cantharidis has long enjoyed a reputation for curing baldness, but it is by no means a specific. Strong ammonia, acetic acid, chloroform and turpentine are among the remedies commonly employed in lotion form. Ointments containing carbolic acid, red oxide of mercury or cantharidis are also frequently used, being rubbed well over the area at night, and removed in the morning by wiping and rubbing with the lotion. Some of the essential oils, such as those of turpentine, cinnamon or nutmeg, are also useful but strong applications. Blistering of the surface is frequently undertaken, but if this is done time must be given for the blister to heal and the underlying skin to become strong before a fresh painting is applied. Jaborandi is sometimes given internally, or its alkaloid pilocarpine, though this is not a plan very generally adopted. Thyroid extract has a certain influence upon hair growth, and there can be no doubt that this remedy has brought about recovery in many an obstinate case. The constitutional symptoms occasionally produced by this drug must be borne in mind, and any increase in the

pulse-rate or giddiness must be reported to the doctor if the patient is in a hospital ward or nursing home.

One form of alopecia which is not at all uncommon is the gradual and sometimes alarming *thinning of the hair* that occurs after long illnesses, especially typhoid fever. The hair is apt to fall even if it has been cut short at the beginning of the illness, which is advisable for many reasons. Happily this variety of baldness soon yields to the application of stimulating lotions and ointments, but good food, fresh air, and plenty of rest are quite as esssential to the growth of hair as medicines.

A rarer form of baldness is that due to *lupus erythematosus* of the scalp. In this case the bald areas have reddened borders and their centres are frequently depressed below the level of the surrounding skin. The whole patch has a more atrophic look about it than has ordinary alopecia areata.

Small patches of *permanent alopecia* are sometimes seen as a result of too vigorous or mistaken treatment of ringworm (see p. 99), and also from injuries, such as scalp-wounds or burns.

Pediculosis Capitis.—There is a special variety of pediculus, the head-louse, which affects the human scalp. This parasite, when allowed to remain unchecked, is a source of untold mischief, producing, in addition to intense irritation, secondary eczema, enlarged glands, pustules and even abscesses. Such extreme cases are well seen in neglected children of the poorest classes who are compelled to sleep out anywhere. The author has seen children and even adults in whom, without any exaggeration, the scalp has simply been one living mass! Milder

cases are extremely common in out-patient departments of hospitals, in fact it is the exception rather than the rule to find scalps which are absolutely free from the parasites or their eggs. The latter are called *nits;* and they are encased in a hard, oval, resistant shell which adheres to the hairs with great pertinacity. As long as a single nit remains there is always the possibility of its becoming hatched and so causing a fresh outbreak of the trouble. They are easily overlooked or mistaken for scurf, but to the practised eye their glistening appearance and manner of attachment to the hairs are quite characteristic. Hundreds of them may be present in a scalp which the patient firmly declares is "without a blemish," indignantly repudiating the idea of "harbouring anything" in the head! The back of the neck, or occipital region, is a favourite site for pediculosis, especially in children. The parasites themselves or their nits are conveyed by hats and caps, the popular woollen tam-o'shanter being a special offender in this respect. Nurses and others who have to do with children thus affected may accidentally contract the disease.

It is comparatively easy to get rid of the pediculi themselves, as this may be done by vigorous washing with soap and water, but it is much more difficult to destroy the nits, so tightly are they cemented on to the hair. In a bad case of pediculosis capitis a copious shampoo with soft soap and hot water may be given, using a little carbolic acid lotion, one in forty, or a one per cent. lotion of cyllin. In the case of young children the hair may be clipped quite short, but in older children it is wiser to obtain first the permission of the parents before shearing

any locks. It is, technically, an assault to shave the scalp of a female without her express permission, which is best stated in writing. This applies only for purposes of cleanliness, as the case is quite different when the scalp has to be prepared for an operation. Long hair is admittedly an obstacle in the quick treatment of pediculosis, but with patience and perseverance the disease can be completely cured. If there be secondary eczema or dermatitis, very strong lotions must not be used. A simple washing, followed by the inunction of ammoniated mercury ointment, is the best mode of procedure, and this may be undertaken twice a day.

A favourite plan of treatment for ordinary cases is to soak the scalp with common paraffin oil for twelve hours. A piece of linen is saturated with the oil, which may be mixed with an equal part of olive oil to lessen its inflammability, laid upon the head, covered with oiled silk and tied round with a bandage. Upon removal of this dressing, the parasites will be found dead and many of the nits will have become detached. A good shampoo can then be given. Care must be taken when using paraffin dressing to have no naked light anywhere near, and because of the danger of fire it is not an application to be trusted to patients or their friends, especially among the poor and ignorant. No oil must be allowed to run down the neck, as paraffin occasionally sets up an inflammation of the non-hairy skin. Two or three such dressings generally suffice to bring about a cure. If any nits remain, these may be detached by combing the hair with a finely toothed comb dipped in either acetic or carbolic acid lotion, one in twenty. Vinegar has much

the same effect, and it may be recommended for domestic use. A little of the ammoniated mercury ointment should be employed for rubbing into the scalp every night for at least a week after it is believed that all nits have disappeared. Chloroform will also destroy the nits, but it is not a safe application and it should never be used for children. The enlarged glands so often seen in this disease speedily go down again when the source of irritation has been removed.

Impetigo Capitis.—This affection is common in children but it is also seen in adults. The primary lesion is a small vesicle which quickly develops into a pustule and then forms a scab or crust. The usual aspect of a case is one of crustiness, large, irregular crusts, of a dark yellow or brown colour, being scattered throughout the scalp. If these be felt with the fingers they seem to be of a rocky hardness, matting the hairs together in one crust. As in pediculosis, with which this disease may be associated, secondary eczema and glandular enlargement are common.

The *cause* of impetigo is a germ, one of the pus-producing cocci, so that inoculation of the exuded matter upon other parts of the body or into another individual gives rise to a fresh lesion at that point.

Happily, the *treatment* is simple. The crusts and scabs must first be removed, and in severe cases this is best accomplished by the nightly use of the boracic starch poultices, followed by the application of some ammoniated mercury ointment. Boracic and zinc ointments are useless in this affection.

Ringworm of the Scalp.—One of the commonest

skin diseases, especially in children, is ringworm. Thus, out of 1,695 new cases seen in the skin department of the Tottenham Hospital in 1905, ringworm was responsible for 201. The name is, perhaps, rather misleading, for it is by no means essential that the lesion should be circular in shape for it to be ringworm. Many diseases are called "ringworm" by parents and friends which have nothing whatever to do with the disease simply because of the shape of the patches. On the other hand, numberless cases of ringworm are missed because they do not happen to conform to the popular idea respecting the general appearance.

The first beginnings of ringworm may be nothing more than a little scurfiness localised to one particular spot of the scalp, and as such it is treated by washing, application of patent hair-lotions, or what not, but still the "scurfiness" persists. Presently the hair begins to fall out, leaving an ugly bald patch, and yet people will not avail themselves of skilled aid. Ointments of various sorts are rubbed in under the direction of unqualified persons, *i.e.*, those who are not medical practitioners, but still no progress is made, and thus the case runs on from bad to worse. This is the sort of tale poured into the ears of any physician in charge of a large out-patient department.

The one characteristic and *diagnostic feature* of ringworm of the scalp, or *tinea tonsurans*, as it is known in dermatology, is the presence of one or more "stumps". These are broken off, deformed hairs, which can be seen on careful inspection of the ringworm-patch with the aid of a hand-lens. Their general appearance has been well

likened to "stubble in a cornfield," or to "bent fingers". Sometimes they are very numerous and at others they require careful searching for. If these stumpy hairs are really seen, there can be no doubt whatever as to the diagnosis, but in doubtful cases the use of the microscope is necessary in order to detect the presence of the fungus.

The real *cause* of ringworm is a special *fungus* or mould, a vegetable parasite, which grows in the hair-follicles and destroys the hair-shafts. There are at least two varieties, the small-spored and the large-spored fungus, the former of which is more common in this country. The nurse will not be concerned with the detection of the fungus, but she should know that the disease is most contagious, being readily transmitted through combs, brushes, hats and towels. Any suspicious scaly part upon the scalp, whether in a child or in an adult, should always be reported to the doctor. As a matter of fact, adults do not get ringworm of the scalp, but they may contract the disease upon the hands or face.

All cases of tinea tonsurans do not conform to the above type, but present certain unusual features. The so-called "bald ringworm" looks very like alopecia areata, save for the presence of a few scattered black dots upon the surfaces of the patch. In such a case the nurse will do well to express no opinion as to the contagiosity of the disease, as the diagnosis may be very difficult, even to an expert. Some cases are accompanied by crusting and may thus resemble ordinary impetigo. The real nature of the complaint is frequently overlooked, for it is not suspected that an innocent-looking crust

may harbour beneath it a stumpy hair affected with the ringworm fungus.

Inflammatory ringworm is known as *kerion*. The diseased area is red, lumpy, and sodden with pus which may exude from many small openings upon the surface. This state of affairs may appear spontaneously, but it is generally the result of rubbing in too vigorously some strong ointment, such as one containing salts of mercury or carbolic acid.

For the successful *treatment* of scalp ringworm it is essential that the affected part should be shaved. Clipping with scissors is not so good, as the ointments used cannot penetrate into the mouths of the hair-follicles so well as when regular shaving is undertaken. The author is in the habit of giving the following paper of printed instructions to parents and others in all cases of ringworm brought to hospital :—

Directions for Parents with Children Suffering from Ringworm.

All the hair of the child's head must be SHAVED OFF, and this should be repeated every ten days. The ointment supplied is to be well rubbed in to the patches with a new tooth-brush for five minutes, night and morning, and a little of the ointment smeared *lightly* over the rest of the scalp once a day. Several old linen caps must be made, and one is to be constantly worn day and night. The caps can be burnt or washed when soiled. Every comb, brush, towel, flannel, sponge and head-covering must be kept SEPARATELY for the child's own use and must NOT be used for other children.

It is only by the strict carrying out of these rules that the disease can be cured.

The above rules practically embody all the essential

points in the management of a ringworm case. School attendance can only be allowed if the affected part of the scalp be "isolated," *i.e.*, covered in by a film of collodion or zinc-gelatin, under which may be the ointment. This should be removed at night, the affected part being well rubbed with the ointment that is ordered and the whole re-applied. The lining inside the hat or cap should be removable and washable, or else it should be of such cheap material that it can be burnt when soiled.

More recently the X-rays have been employed in the treatment of ringworm, the method having been in use for some time in the Municipal School in Paris, where it has been practised by M. Sabouraud with great success. The affected area is exposed to the rays once, the object being not to destroy the fungus but to cause a speedy fall of the hair, the fungus coming away with it. An artificial alopecia is therefore produced which begins about a fortnight or so after the application of the rays and is complete in a week. In six weeks' time healthy hairs begin to grow again upon the previously diseased patch, and in three months the condition is cured. Much saving of time and expense is thus ensured, but it must be remembered that the treatment is not altogether without its risks. No X-rays should ever be employed for any therapeutic purposes except by a duly qualified medical practitioner.

Early cases of tinea capitis can be cured by almost any anti-parasitic remedy, the most popular being tincture of iodine. Ink has long been the favourite domestic application, but it is not superior to iodine, turpentine, or creosote. Carbolic acid, chrysarobin, and salicylic acid

are commonly employed for rubbing into the patch. Upon the appearance of any signs of irritation, such as small pustules or erythema, the ointment should be stopped and the condition at once reported to the doctor. If chrysarobin be employed the same precautions must be observed with it as were described in the treatment of psoriasis (p. 61). Formalin has been vaunted of late as a "ringworm-cure". Its virtues, however, disappear somewhat in the light of everyday practice, for if used in sufficient strength to destroy the fungus it may produce permanent baldness, a most undesirable result. Too frequent washing of the scalp is harmful in ringworm, in fact the drier it is kept the better. When a shampoo is necessary a little ethereal soap is useful for dissolving greasy matter.

The question as to *when the disease is really cured* is one that is sure to come up. It is almost impossible to lay down any definite time-limit, as so much depends upon circumstances, such as the co-operation of parents, the regularity with which the treatment is applied, etc. If no more "stumps" are seen upon careful examination, and the growth of the new hairs over the patch be uniform in direction, the disease may be pronounced cured, but it is as well, for safety's sake, to continue rubbing in the ointment at night for about three weeks after this.

General Care of the Hair.

The growth of hair is like that of flowers; it requires careful tending in order that it may flourish to perfection. Some people never trouble about their hair at all, regard-

ing the periodic shampoo as a necessity to be got over as quickly as possible, and applying anything in the shape of a lotion or cosmetic that may be recommended by the barber. The remarks of the loquacious hairdresser who talks glibly about the necessity for singeing the hair in order to "seal up the pores after cutting" are, in nine cases out of ten, taken quite seriously, resulting, it is to be feared, in the customer getting the worst of the bargain. Others, alarmed, it may be, by threatening loss of hair, try one thing after another with little or no benefit, finally getting into the clutches of one of the so-called "hair specialists," who are ignorant of the most elementary principles of medicine. Last of all the dermatologist or physician is consulted when the trouble has advanced almost to a hopeless extent.

The majority of "hair-restorers" are absolutely useless, any good that may accrue resulting solely from the friction employed in their application. Hair that is naturally greasy is not improved by greasy washes, spirituous or ethereal sprays being then indicated. A very dry scalp, showing a tendency to a seborrhœa sicca,[1] is only made worse by these and requires an ointment to combat the scurfiness. Liquid paraffin is very popular as a cleanser of the scalp; it acts better upon dry scalps than upon those which are naturally oily. All harsh and irritating substances should be avoided, especially when shampooing, strong soda or ammonia being especially deleterious. The yolk of an egg, beaten up with half an ounce of the best soft soap and a dessert-spoonful of spirits of wine, makes a useful julep or shampooing material. Special

[1] *Sicca* = dry, as distinguished from *oleosa* = oily.

cases of scalp trouble need, of course, their own appropriate treatment, but there is no harm in the habitual use of a little rosemary lotion, combined with gentle brushing of the hair with a moderately stiff brush.

Premature greyness or *canities* is a source of much vexation to sensitive individuals who will resort to the most extraordinary practices in the hope of preserving the appearance of perennial youth. In many families there exists a special tendency for the hair to "turn" in young adult life or even in childhood, in spite of every care and attention. The use of *hair-dyes* is not to be recommended, many of these applications being of a most dangerous character, producing rashes upon the skin and sometimes symptoms of poisoning. The same dye may be used for years without any harm resulting, and then, quite suddenly, one day the scalp becomes red and an eruption breaks out upon the arms, neck, and hands. These diseases are generally most difficult to get rid of. In early cases of premature discoloration or ageing of the hair it is better to pay attention to the general style of living, hygienic arrangements, etc., than to run any risks of this nature by the use of unnatural means of hiding what, in the majority of cases, is only a becoming defect. In men, hard-brimmed hats are to be avoided, and any seborrhœa that may be present, however slight, should receive adequate medical attention. There is something to be said in favour of the "hatless craze," though in our treacherous climate it cannot be recommended. The hair, in common with other tissues of the body, needs the regenerating influences of the oxygen of the atmosphere, and for this reason it is good for those

sufferers from alopecia who are compelled to wear complete wigs when attending to their work to discard these when indoors, especially if under medical treatment. A hairless scalp is certainly not a "thing of beauty," neither is the average wig, but the skin over the head must be given a chance to grow new hairs again by placing it under the most favourable conditions possible.

Common Skin Disorders of the Face.

Most people will endure the presence of a skin disease with fortitude, or even with indifference, so long as it does not affect the face. Once let the countenance become disfigured with spots or blemishes of any kind and the sufferer therefrom immediately seeks advice and treatment. A fair complexion, with its delicate peach-bloom, is a rare asset belonging only to a chosen few, but if absolute perfection be unattainable by the majority, they can at least, by appropriate treatment, manage to secure a very passable imitation.

Acne Vulgaris.—One of the most frequent cutaneous affections of the face is common *acne*, which consists of an eruption of small papules upon the forehead, close to the hair-margin, the chin, and nasal region. The lesions may be of any size up to that of a pea, and there are usually found interspersed between them minute black dots, called comedones or "black-heads". If the latter be pressed upon with the traditional watch-key, a small worm-like body, the *comedo*, which consists simply of a fatty plug, can be extracted. In many cases the whole integument of the face is more or less greasy and the lesions may spread to the back and shoulders. The inter-scapular

region is a very likely part to be attacked. The condition is called *acne pustulosum* when the papules develop into pustules; *induratum* when they become chronic and hard.

The disease is especially common at the time of puberty and in young adults. The digestive system is often out of order and the patients suffer from chronic constipation. Acne is also seen in epileptics and others who have taken bromide of potassium, while it is not uncommon among workers in tar.

The *treatment* is both local and constitutional. Mild sulphur lotions are favourite applications, and ichthyol or marble-sand soap is useful for washing after steaming the face over hot water. The blackheads should be carefully squeezed out with a proper extractor. Many of the larger papules require treating upon surgical lines, with regard to which the doctor will, of course, decide. The diet must be regulated, such things as pickles, vinegar, pastry, cheese and pork, being particularly harmful. An aperient mixture containing a little iron, the "Mist. Ferri Aperiens" of most hospital pharmacopœias, is successful in those cases where some degree of anæmia is present. Cases of drug-acne get well when the drug is discontinued.

Rosacea.—This complaint, formerly known as acne rosacea, has really little in common with ordinary acne. The latter is caused by a blockage of the sebaceous ducts, whereas rosacea is a congestive disease In its mildest forms there is simply a tendency to flush up around the nose after meals or drinking anything hot. This may develop into a permanent erythema of these parts, and in advanced cases papules may form upon the erythema which may ultimately become pustules. Dilated capillary

vessels are usually seen over the malar and nasal regions as well as the chin. Unfortunately, this affection is apt to convey with it the impression that the sufferer is addicted to habits of intemperance. Although it is true that the worst cases are generally seen in chronic alcoholics, yet it occurs equally in the chronic dyspeptic, who may have been a strict teetotaller all his life, as the author has shown elsewhere.[1] Hypertrophy of the tissues of the face, and especially about the tip of the nose, with enlargement of the follicles, may be present in the most severe cases.

The main points in the *treatment* are (1) to remove any constitutional cause of the disorder, and (2) to apply soothing and astringent remedies. Any accompanying dyspepsia requires to be set right, and as in common acne the diet must be carefully overhauled, strong tea and all alcoholic liquors being forbidden. Sometimes sulphur lotions are ordered, but in acute cases the calamine lotion affords the best relief. Adrenalin is useful in overcoming severe congestion, while salicylic acid, sulphur, ichthyol and resorcin all find their place in ointments for this troublesome and disfiguring affection. A course of treatment at Harrogate or Schinznach, where sulphur waters may be taken, is often most beneficial for those whose means can afford it.

Mention must be made here of the exceptionally severe cases of pustular acne which are really allied to the condition known as *furunculosis*, popularly called "boils". Some people are very subject to these when they are at all run down in health, and they may appear upon any

[1] *British Journal of Inebriety*, 1904, p. 274.

part of the body. The urine should always be carefully tested for sugar, as boils are a frequent cutaneous complication of diabetes. The injection of staphylococcus vaccine, as practised by Professor Wright, has been employed of late most successfully in this type of disease.

Yeast, or one of its dried preparations, given internally, sometimes produces remarkable results in pustular acne or furunculosis. It may be given in teaspoonful doses, in milk, two or three times a day. Calcium sulphide, in pill form, is also of service.

Eczema may attack the face either alone or in common with other parts of the body. One type, that in which rounded patches of scaliness or roughness are found, is sometimes mistaken for ringworm, but no fungus, of course, is present. Between this simple form and a mere roughness and irritability of the skin there is no hard and fast line. This condition is worse in cold weather and after exposure to brilliant sunshine. Simple cold cream and the use of a superfatted soap will generally bring about a cure. The treatment of the acute, erythematous eczema which affects the face is described on p. 54.

Impetigo.—This disease is very common in all skin out-patient departments, especially among school-children. The scalp may be affected at the same time. It is hardly possible to mistake the deep yellow crusts of impetigo contagiosa for anything else. After the removal of the crusts, an ointment of ammoniated mercury, well applied, will speedily cure the complaint.

Lupus Vulgaris.—The common type of lupus is really a cutaneous form of tuberculosis and is of comparatively

slow growth. The disease generally begins as a small, dark red papule which gradually spreads and shows a tendency to break down or ulcerate in some part. The necrotic area then heals, leaving a scar, but fresh centres appear in the adjacent parts of the skin. It is non-contagious, but it would be quite possible to infect another part of the body or somebody else with the disease by inoculation of the discharge into some small abrasion. The cheeks, nose and ears are favourite sites for the disease, but it may appear upon the body or limbs also. The diagnosis is sometimes difficult, but on deep pressure with a watch-glass the characteristic yellowish-brown nodules of lupus can be seen which have been likened in tint to that of apple-jelly. These are the active foci of the disease.

The *treatment* consists in active destruction of the lupoid patch either by caustics, ointments, surgical operations or, better still, by the X-rays or Finsen light. Early cases may be dealt with quite successfully by scraping under anæsthesia and touching the area with such a powerful caustic as the acid nitrate of mercury. Larger areas may require skin-grafting. Severely ulcerated patches are suitable for X-rays, as well as the more chronic and warty forms. Full information with regard to "phototherapy" is given in special text-books, to which the reader is referred. Internal treatment is nearly always called for in lupus. Cod-liver oil, malt extract, good food, rich in fats and cream, and plenty of fresh air, are valuable adjuvants to any local application.

Lupus Erythematosus.—This disease has little, if anything, in common with the preceding, indeed, it is

somewhat unfortunate that its first name should be the same, as it is apt to frighten patients unduly. A better name is that suggested by Unna of "Ulerythema centrifugum". This term sums up in Latin the main clinical features of the disease, *viz.*, an erythema which leaves scars and heals in the centre. It is more common in women between the ages of thirty and fifty, and affects the central portion of the face, very often assuming an outline resembling that of a butterfly with its wings expanded. The fully developed patch sometimes goes by the name of the "butterfly patch". The area affected shows a dusky red border with a healing centre and is slightly scaly upon the surface. Ulceration is rarely or never met with in ulerythema, a valuable distinguishing point from lupus vulgaris. When the term "lupus" is used without any qualifying adjective, it is the tuberculous variety which is meant.

Treatment consists in the application of stimulating paints which are generally put on by the doctor. Ointments of salicylic acid or ichthyol are also ordered. Internally, quinine or salicin are frequently given. The prognosis of ulerythema is much more hopeful than that of lupus vulgaris.

Rodent Ulcer is a variety of malignant disease which has a special predilection for the face, occurring most often in the angle between the eye and bridge of the nose and upon the temples of persons over forty-five. The only form of treatment is excision or exposure to the X-rays. The application of *radium* has been successful in a few cases.

Sycosis is a disease affecting the beard and moustache

region in men. It is characterised by the appearance of pustules and small lumpy swellings of these parts produced in two ways, (1) by the ringworm fungus, or (2) by pyogenic micro-organisms (cocci). It is contagious and inoculable. The hair should be clipped short, the parts bathed with cyllin lotion, and the ointment that is prescribed, containing sulphur, ammoniated mercury, or sulphide of mercury, well rubbed in.

Care of the Complexion.

In general terms it may be stated that the sounder the general health the more perfect will be the complexion. Anything which renders the blood less pure, such as heated or stuffy rooms, an excess of animal food and rich dishes, indulgence in any kind of excess, including alcoholic stimulants, strong tea, and too much smoking, is bound, sooner or later, to leave its mark upon the skin of the face. The habit of constantly worrying over any little facial blemish and immediately flying to washes, plasms, paints, dyes, and powders, is simply vanity and vexation of spirit. It is hard, doubtless, to lead the "simple life," but there would be less rushing off to so-called "beauty-specialists" if more people would observe the laws of nature.

Much time is lost and money wasted by consulting unqualified persons who pose as "complexion-specialists," and who beguile their victims with "skin-force" and such-like abominations, holding out promises of peach-like complexions for evermore, and similar absurdities. The removal of moles, superfluous hairs, warts, etc., requires just as much medical training as the performance of an operation for appendicitis. It is not because doctors have

not made a study of facial skin disease that so much quackery exists, it is probably because the public has not yet learned that such disorders are not too trivial for their notice. At any rate, the fact remains that all skin troubles, whether of the face or elsewhere, require the most careful and painstaking examination, the most accurate diagnosis, and the most delicate and scientific treatment, which, obviously, cannot be found except at the hands of the duly qualified medical practitioner.

Disorders of the Sweat-Glands.

Practically, the diseases in which the sweat-glands are concerned may be divided into two groups, (1) those in which the natural secretion is excessive, and (2) those in which it is deficient or absent.

Hyperidrosis, or excessive sweating, may be (*a*) localised, or (*b*) general. Sweating of the hands and feet is not uncommon in young, anæmic individuals. It is largely a nervous phenomenon, but it is none the less unpleasant for the sufferer who may be positively afraid to appear in society, so profuse is the perspiration. Accumulated sweat, even in the slightest degree, leads to a partial maceration of the epidermis upon which micro-organisms flourish with vigour, so that *hyperidrosis pedum*, or sweating feet, is generally the precursor of a troublesome form of eczema in which the skin between the toes becomes sodden and tender, rendering walking most painful. When the secretions are very offensive the term *bromidrosis* is applied to the condition.

The most scrupulous cleanliness must be insisted upon, and the feet may be bathed with a weak lotion of cyllin,

or a foot-bath may be given containing a little formalin. After soaking in the antiseptic for ten minutes, they must be carefully dried, when a dusting-powder should be applied. Tannic acid, boracic acid, alum, or salicylic acid, are all employed for this purpose. The following is a good formula:—

℞ Acid Salicyl., gr. 10.
Aluminis, dr. 3.
Amyli Talci, āā, p. aeq. ad 1 oz.
Misce, ft. Pulv.

Sig. "To be dusted upon the affected parts."

A little boracic ointment may be used at night-time if the skin be very sore.

Excessive perspiration is occasionally *localised* to a portion of the face, such as the extreme tip of the nose, or the upper lip only. These cases are rare, and are often accompanied by other symptoms of nervous disease, functional or organic.

More generalised sweating occurs in excess in certain diseases of other systems of the body, notably in phthisis.

The *dysidrosis*, or painful sweating, which is at the root of cheiropompholyx, is described on p. 77.

The opposite condition is *anidrosis*, which may be relative or absolute. Many people have abnormally dry skins and scarcely sweat at all except after severe exertion. The condition known as *xerodermia* is characterised by a harsh, somewhat coarse integument, but in this affection the secretion of the sebaceous glands as well as that of the sweat-glands is deficient. Such skins are rather liable to get eczema and they require to be well protected from cold.

The disease formerly spoken of as "flannel-rash" is really a form of seborrhœa of the body. An over-production of sebaceous matter by the sebaceous glands gives rise to a special disease, as we have seen in the case of the scalp (p. 87), and a similar condition obtains upon the body. *Seborrhœa corporis* is closely allied to psoriasis and also to eczema. An irritation of the skin over the breast-bone and between the shoulders, accompanied by a fawn-coloured eruption, is frequently associated with scurfiness in the head. In other words, the whole process is one of seborrhœa.

One rash which bears a close resemblance to seborrhœa of the body may be mentioned here, though it has a very different pathology, namely, *tinea versicolor*. This disease occurs in brownish patches upon the trunk which itch a good deal. On scraping the surface of these and examining under the microscope a special *fungus* is found, so that this disorder is grouped among the parasitic diseases. It is supposed to occur more frequently in phthisical individuals, who generally sweat profusely, a suitable soil being thus provided for the growth of the parasite.

Tinea versicolor can be easily cured by a sulphur lotion or one containing hyposulphite of soda (ordinary photographer's "hypo") in the strength of one or two drachms to the ounce of water.

CHAPTER VIII.

Skin Disease in Children.

The skin of a healthy child has long been regarded as the standard of cutaneous perfection. The aim of every physician and nurse in charge of a skin patient is to restore the diseased integument as quickly and as pleasantly as possible so that it shall become "like unto the flesh of a little child". Some skin affections are only seen in children, while others are modified in their appearance as well as in their course. Ringworm of the scalp, for instance, is practically confined to childhood, while rodent ulcer is unknown at this period of life. Again, most skin diseases that occur at any age, such as psoriasis or lichen planus, are less frequent in children, but, happily, they respond to treatment more quickly than in adults.

From the very moment of birth the infant's skin is constantly being subjected to a series of shocks. Nature's protective, the *vernix caseosa*, is washed away with soap and flannel, both these being distinctly foreign bodies to the epidermis to which it must learn to become accustomed. It is rare for an infant to be born with a skin disease, but in the case of congenital syphilis a

rash may appear on the buttocks, soles, palms, face and trunk at any time within the first six weeks of life. A doctor must always be consulted when there is anything wrong with a baby's skin. Sometimes ointments are ordered to be rubbed into the abdomen. It must be remembered that much weaker applications are necessary for a young child than for an adult, and this applies especially to lotions. No strong carbolic or tar lotion should ever be used for an infant, and if they be ordered at all, it is safer to ask the doctor what strength they are to be.

Erythema Intertrigo is a redness, perilously near eczema, occurring in the folds of the groins, axillæ, perinæum, and in the bends of the joints. No harsh or common soap should be employed, the skin being merely bathed with bran or oatmeal water. Dusting-powders are then applied over the red areas, and strict cleanliness and dryness must be ensured.

Urticaria Papulosa or Lichen Urticatus is a very common affection of infancy, generally making its first appearance about the seventh month, *i.e.*, coincident with the period of eruption of the first milk-teeth. Troubles connected with dentition are responsible for many cutaneous disorders of childhood, but papular urticaria is one of the commonest deviations from the normal. The eruption takes the form of small, hard papules which are said by the mother to begin as "heat-bumps" or "water-blisters". The primary lesion is a small papular wheal situated upon a reddened inflamed base which itches a great deal so that the child is continually rubbing and chafing the affected parts. The back, loins and lower

limbs are favourite places for the rash to appear, and "scratch-marks" are plentiful. Fat, chubby infants seem to be affected more often than lean and emaciated ones. Too much starchy food in the diet causing fermentative changes in the alimentary canal is an important predisposing factor.

Treatment consists in the application of soothing lotions and ointments. The character of the stools must be inquired into, and if these contain undigested milk a little meat-juice or whey may be substituted for the ordinary food for a day or two. All cakes, biscuits, and other unsuitable food for infants must be given up at once, if they have been used. Grey powders are frequently ordered, and sometimes salol in a mixture.

Eczema is often very obstinate in childhood, the crusty forms predominating. As the irritation in this disease is very severe it is a good plan to tie up the hands of a young child so that it cannot inflict injury while asleep. The forearms may be placed in light cardboard splints which should reach beyond the fingers and nearly up to the axillæ; these will be sufficient to restrain the movements and will do no harm to the child. In widespread cases involving the face and scalp a complete suit of linen may be made with advantage, upon the interior of which the ointment may be spread, a mask being cut to fit the face. This latter is best kept in position by tapes fastened at the sides of the neck, taking care that the knot does not come over an inflamed part. As little exposure of the surface as possible should occur when dressing, and all lotions must be used pleasantly warm. If a dressing is at all adherent, it

must not be pulled off harshly, but gently moistened with the lotion first until it comes away easily and without pain. Attention to such small details makes all the difference between a pleasant dressing and one which is looked forward to with terror by the little patient and dislike by the nurse.

Some children have *congenitally rough* or harsh skins, and such are very liable to have eczema. Unsuitable soaps, such as those of carbolic acid, should be avoided in all eczematous cases in children, a little bran or fine oatmeal being employed instead. Crusty eczema of the scalp may need the application of the boracic starch poultice.

In eczema of the face, the nurse should be on the look-out for the presence of any discharge from the ear or nose. A neglected otorrhœa or a chronic nasal catarrh associated with adenoids is often the primary cause of a troublesome form of eczema in children. Careful distinction must be drawn between a discharge which really comes from the external auditory meatus, which is always of serious import, and the watery, serous discharge coming from an eczema of the external ear (auricle) or from the fold behind the ear. Friends and parents cannot be expected to notice such points, but, nevertheless, they have considerable significance.

In many quarters there exists a strange prejudice against the TOO RAPID CURE of an eczema, or, indeed, of any skin disease, in childhood. It is stated that fits may occur if the "eczema be closed up" or "driven inwardly". Like all popular superstitions, this one contains a germ of truth, for it sometimes happens that

bronchitis or asthma may alternate with eczema in a curious manner, so that when one is worse the other is better. The moral is this, that the whole condition of a sick child must be carefully taken into account, and not the skin only, even in disease of that organ alone.

The *treatment* of infantile eczema illustrates a most important general principle to be observed whenever we have to deal with a cutaneous disorder in childhood, namely, that if two ointments will cure an eruption, THE WEAKER ONE IS TO BE CHOSEN. The child's skin responds quickly to treatment, and a great deal of harm may soon be done quite unwittingly by the application of a remedy, lotion or ointment, that is needlessly strong. There is also the *risk of absorption* to be remembered. Thus, it is not safe to use ointments containing powerful poisons like mercury or carbolic acid over a very large surface of the body. Even tar baths, when used for children, have to be made much weaker than they would be for an adult.

PRURIGO.—This is a common disorder of childhood characterised by the appearance of papules upon the back and lower extremities. It resembles urticaria papulosa, but there are no wheals, and the glands in the groins and axillæ may become enlarged. It generally occurs in rather older children than those who suffer from lichen urticatus, but the pruritus is much the same in both diseases. The *treatment* is similar to that of urticaria papulosa, and cod-liver oil or malt extract is frequently necessary.

TINEA CIRCINATA is ringworm of the body. It appears as small ring-like scaly patches which may not itch.

Sometimes the border of the patches presents a number of small pustules. The disease is very contagious and it may be associated with ringworm of the scalp. When it is limited to the body or limbs it is easily cured, almost any parasiticide will suffice. Since true tinea circinata may resemble many other skin diseases it is important that the diagnosis should be made by the doctor.

Insect Stings may give rise to troublesome manifestations upon the skin, and in a child a mosquito-bite may become inoculated with septic micro-organisms so that the condition may be indistinguishable from an ordinary impetigo. Some cases may rapidly develop into a severe cellulitis with a temperature and enlargement of lymphatic glands.

Immediately after the sting, the spot may be bathed with an alkaline lotion containing a drachm of sodium bicarbonate to the ounce of water, or dabbed with aromatic spirits of ammonia or hartshorn, which will relieve the itching. When the place threatens to inflame hot boracic fomentations may be safely applied, but medical advice should be sought in such cases, since inflammation has a way of travelling very quickly in a young child.

Warts upon the hands and face are a source of much annoyance to parents, and often cause great disfigurement. They may appear suddenly in crops, for no apparent reason, upon the forehead and cheeks, when they are usually flat and colourless, or they are found upon the sides of the fingers and backs of the hands, where they may grow and become rough and thickened. The flat ones may disappear as mysteriously as they came, after a change of air. In olden times "charms" were much in

vogue for the cure of warts, and many quaint recipes are given in books of "folk-lore". Occasionally, the administration of Epsom salts internally in the form of the familiar "Mistura Alba" has an effect in dispersing these little growths, but the larger and more chronic ones require the application of some caustic.

Ointments containing salicylic acid are often given, or the warts are ordered to be painted once a day with collodion in which this remedy is dissolved. The doctor may himself apply a little acid nitrate of mercury which blackens the surface of the wart and loosens its base. Acetic or nitric acids, both popular remedies, require to be used with great caution, as the surrounding skin may be injured by an unskilful application. It is not advisable to allow the mother to apply these agents herself. If the nurse is called upon to do so, the wart should first be ringed round with a little vaseline or boracic ointment to protect the healthy skin, after which the top of the wart may be touched with a pointed wooden match dipped in the acid, any excess being carefully mopped up with a pledget of cotton-wool.

Naevi are small dilated capillary vessels which may be found upon any part of the body. When at all extensive they constitute one variety of birthmark known as "port-wine stain". Small patches can be treated in a similiar manner to warts, but larger ones may require more active surgical measures. The application of radium has been successful in a few instances.

Vaccination Rashes.—The minor operation of vaccination is one which is believed by many to be responsible for sundry cutaneous eruptions other than that due to the local

inoculation of the lymph itself. Formerly these untoward complications were much more frequent than they are at the present time, because greater care is now taken in the preparation of the lymph and the whole process is conducted with the strictest aseptic precautions. In spite of all care, however, the dressing or pad is apt to get rubbed off and the vesicles are then brought into contact with dirty clothing, etc., so that a "bad arm" naturally results. Erythematous rashes may also appear over any part of the body, but these are of little consequence. A rare accident is the occurrence of the typical vaccinia pustules upon other parts than the seat of inoculation, and "multiple vaccinia," as the condition is then called, often necessitates the little patient's admission into hospital. Impetigo may, of course, be engrafted upon a vaccination wound just as much as it may upon any other abrasion of the surface, but it would be obviously incorrect to say that vaccination was here the cause of impetigo.

Antitoxin Rashes.—After the subcutaneous injection of diphtheria antitoxin erythematous or urticarial rashes sometimes appear upon the back, buttocks, and limbs. These are alarming at first sight, but are not of serious import.

Pernio or Chilblain is not, strictly speaking, a skin disease, being a disorder of the circulatory system, yet children very often come to skin departments of hospitals with ulcerated or broken chilblains. These troublesome manifestations are most common about the fingers, toes, heels, ears, and the tip of the nose. The condition is one of passive congestion due to the action of cold, and the itching which is produced is sometimes out of all proportion to the size of the lesion.

As chilblains are really a constitutional malady, tonics, such as nux vomica, arsenic, or cod-liver oil, are often given internally. Plenty of fresh air and exercise should be allowed. An occasional painting with tincture of iodine or collodion is useful as a local stimulant. When they are broken, they may be bathed with weak calamine lotion, and an ointment containing a drachm of balsam of Peru to the ounce of vaseline or lanoline may then be applied. Warm water, but not hot, should be used for washing the hands by those subject to chilblains, and the hands should be most carefully dried afterwards.

The various rashes of the acute specific fevers are not described here, as full accounts of them may be found in any book on systematic medicine.

Glossary and Brief Notes upon some of the Rarer Skin Diseases.

Acanthosis Nigricans.—A grave malady characterised by pigmentation of the skin, and the development in certain regions of dark, warty growths. It is frequently associated with cancer of the internal organs.

Actinomycosis.—A fungus-disease of the skin usually attacking the integument over the lower jaw, face and neck. Sinus-formation, with the discharge of a yellow granular material, is a characteristic feature. The "ray-fungus" can be obtained from the little granules.

Adenoma Sebaceum.—A condition in which small nodules or tumors of sebaceous origin appear around the nose, generally associated with some form of mental deficiency.

Angioneurotic Oedema, sometimes called "Quincke's

disease," is the same as giant urticaria, described on p. 64.

ANTHRAX.—Cutaneous anthrax more often comes under the care of the surgeon than the dermatologist. As "malignant pustule" it is met with as a dusky, painful carbuncle, especially among those who handle the hides of animals. The characteristic anthrax bacillus can be found in the pus. The condition demands radical surgical treatment.

BLASTOMYCOSIS.—This is another fungus-disease which has only been recognised since 1896. The hand, face or leg are affected with papules which slowly ulcerate and spread, the condition resembling somewhat a form of lupus. Curious yeast-like cells may be obtained from the discharge.

CHROMIDROSIS is an affection in which the sweat is coloured. The condition is very rare and is essentially a nervous phenomenon.

CORNU CUTANEUM is a disease in which horny growths develop from any part of the skin, sometimes as large as a small horn. The sides of the fingers, toes or forehead are favourite places for their appearance.

CREEPING ERUPTION is the name given to an extraordinary affection produced by the larva of a fly (*Oestrus*) burrowing under the skin and leaving a little chain of scars in its track with a small papule at one end.

DARIER'S DISEASE.—This affection is characterised by the eruption of small warty papules upon the abdomen, groin and back, giving the skin a peculiar rough and dirty appearance.

DERMATITIS EXFOLIATIVA.—In this disease there is an

acute, widespread inflammation of the skin accompanied by much desquamation. It resembles a very acute eczema, but it is a more serious affection and the patient's general health suffers considerably. Confinement to bed is essential.

Epidermolysis Bullosa Hereditaria is characterised by the eruption of blebs or bullæ upon any part of the skin after a slight knock or irritation. Sometimes the blisters are hæmorrhagic. They disappear completely as a rule. The malady is hereditary and generally begins to show itself in infancy.

Erythromelalgia.—This condition is sometimes seen in the medical wards of hospitals as a painful redness of one or more extremities, worse when the part is allowed to hang down. Angina-like attacks may occur with painful arterial throbbing. The affection is nervous in origin and is allied to Raynaud's disease.

Favus is a species of ringworm affecting the scalp and more rarely non-hairy parts. It is commoner in Scotland and the North generally than in London. It usually presents itself in the form of yellowish crusts or cups having a peculiar "mousy" odour. The fungus which causes favus is different from that in ordinary tinea tonsurans and it is more difficult to eradicate. The X-rays have been employed with success in several cases.

Frambœsia or "Yaws" is a tropical skin disease in which papules develop, as a rule, upon the face or neck, soon becoming crusted. The crusts fall off leaving a raw raspberry-like surface. It is communicable by direct contact. If neglected the disease may last for years, but it usually responds to antiseptic treatment and potassium iodide or mercury internally.

Hypertrichosis is a condition of superfluous hair. This may occur upon the face in women, which is most disfiguring and unsightly. In other cases large tufts of hair occur upon the back or limbs. Hairy moles are birthmarks in which hairs grow upon a warty base. Electrolysis is the means usually adopted for the removal of superfluous hairs.

Ichthyosis.—This is a chronic disease of congenital origin characterised by a harshness, roughness, or scaliness of the limbs or sometimes of the whole body. When the scaliness is very severe the term "fish-skin disease" is applied, in which case the legs are generally the most affected. *Ichthyosis hystrix* is an exceedingly rare type in which horny growths, like small spines, are superadded, hence the terms "rhinoceros skin," "porcupine skin," applied to extreme cases. Friction with salicylic acid vaseline is often beneficial and thyroid extract may be ordered internally.

Keratosis Palmare et Plantare signifies a chronic thickening of the epidermis of the palms and soles, sometimes known as *tylosis*. It is a troublesome affection and is often hereditary.

Lepra or leprosy is a chronic disease produced by the leprosy bacillus, in which certain changes are found in the skin, notably an outbreak of nodules and macules associated with anomalies of sensation and thickening of nerve trunks. In the later stages, gangrene and ulceration of the extremities occur. Cases not infrequently present themselves at skin clinics, and much can be done in the way of relieving the early symptoms and checking the progress of the disease. Leprosy is not contagious

in the ordinary sense of the term, hence it may be nursed in hospital wards with as little risk as cases of phthisis.

Leucoderma is a pigmentary disorder in which areas of white skin appear upon the neck, arms or trunk. It is sometimes associated with *Melanoderma*, in which patches of darker colour manifest themselves. Little is known as to the pathology of these affections. Sometimes the lighter areas may be suitably stained to match the surrounding skin. At other times lotions of mercury seem to be beneficial.

Leucotrichia Annularis or "ringed hair" is a rare affection in which the hairs of the scalp present a regular beaded or ringed appearance, due to loss of pigment at these spots.

Lichen Scrofulosorum appears as an eruption of small, dull-red papules chiefly affecting the lower part of the trunk, and later the limbs in children and young adults of scrofulous tendencies.

Lymphangioma Circumscriptum is a rare affection characterised by an eruption in patches of small, closely-set vesicles, many of which are hæmorrhagic at their apex. Sometimes nævoid tumors are associated with the patches. The shoulders, neck and axillæ are favourite situations.

Miliaria or Sudamina is the name given to the crops of minute vesicles, like dewdrops, seen upon the trunk in the course of severe illnesses, such as rheumatic or typhoid fever. They have no prognostic value and are usually quite evanescent.

Molluscum Contagiosum.—This disease is commonly

mistaken for warts, but on close inspection it will be seen that the so-called wart has a glistening aspect, like mother-of-pearl in well-marked cases, with a minute depression in the centre. The little tumours appear on the neck, face, or, in severe cases, all over the body. Each one requires to be dealt with separately, and the doctor will usually incise the small lesion with a scalpel, press out the milky contents, and apply a drop of some caustic liquid. The malady is feebly contagious.

Mycosis Fungoides is a serious affection, chronic in character, which begins like an eczema, but subsequently small tumours, some of which may become ulcerated, may appear. In the later stages of the malady, which is an uncommon one, the general health is much affected.

Onychogryphosis is a condition in which the nails, especially of the toes, become elongated into veritable horns. The hypertrophied nail becomes dirty yellow, brown or black.

Onychomycosis is the term applied to ringworm of the nails. The nail-plate becomes rough, thickened and friable. The diagnosis is generally made by examining scrapings of the nails in potash under the microscope.

Parakeratosis Variegata is a rare mottling of the skin accompanied by erythema or lichen-like papules. The trunk is chiefly affected.

Pityriasis Rosea consists of an eruption of small, pinkish or fawn-coloured spots, slightly scaly upon the surface. One of the spots, the so-called "herald-patch," generally makes its appearance before the rest. The trunk and upper limbs are most often affected, and the disease usually appears in young people. It is apt to

be mistaken for tinea circinata, seborrhœic dermatitis, or psoriasis.

Pityriasis Rubra, literally signifying "red-scaliness," is identical with dermatitis exfoliativa.

Sarcoma Cutis is a form of malignant disease affecting the skin in the shape of small tumours of a pale red or bluish tint. Secondary involvement of internal organs always results.

Scleroderma is a chronic disease in which the skin becomes stiffened and hide-bound. It may be more or less generalised or quite local. The former is a dangerous condition accompanied by constitutional symptoms, sometimes occurring in young infants (*Sclerema neonatorum*). The latter generally occurs in the form of a band or streak. Any part of the body may be affected. Gentle friction with oils or ointment is usually undertaken for this complaint, and the X-rays are also employed with a view of rendering the skin more supple.

Trichorrexis Nodosa is a curious condition of the hair which is split up at intervals throughout its length into minute, brush-like swellings, causing the hair to become brittle at these points.

Tuberculosis Verrucosa Cutis exists in the form of warty patches upon the back of the hand. It is sometimes seen in association with phthisis and is of a very chronic character.

Uridrosis signifies that the secretion of the sweat-glands contains urea. The normal sweat always contains traces of this substance, but sometimes in renal disease the amount is so great as to be noticeable in the form of a whitish powder like hoar-frost. It is a bad omen, being

nearly always associated with partial or complete suppression of the urine.

VERRUCA NECROGENICA is a special form of cutaneous tuberculosis occurring in wart-like form upon the knuckles of butchers, mortuary attendants, and sometimes medical students. Antiseptic applications and strong salicylic acid plasters are recommended, but sometimes the lesions need to be curetted under chloroform.

VITILIGO is a synonym for leucoderma.

XANTHOMA is a variety of new growth of the skin occurring in three principal forms, (*a*) *xanthoma planum*, consisting of the smooth yellowish patches seen near the eyelids, especially in women ; (*b*) *xanthoma multiplex*, met with as small yellow nodules about the elbows, buttocks, knees and face, nearly always associated with jaundice ; (*c*) *xanthoma diabeticorum*, an eruption of pale red nodules or papules affecting the extensor surfaces of the forearms and legs, as well as other parts, of patients suffering from diabetes.

XERODERMA PIGMENTOSUM, or "Kaposi's disease," is a rare malady commencing with freckle-like spots upon the face, neck, shoulders and hands, followed by increased pigmentation of the skin, warty growths, and, finally, larger tumours of a malignant character.

X-RAY DERMATITIS, or "X-ray burn," is a form of cutaneous inflammation set up in susceptible individuals through the action of X-rays. The earliest appearance is a peculiar reddish blush or erythema, not unlike a sunburn, which does not show itself until some days or even weeks, it may be, after exposure. In severe cases vesicles form upon the area, which may then present all the features of an acute eczema or "professional derma-

titis". More rarely, an indolent form of ulceration, very difficult to heal, ensues, accompanied by considerable pain. The condition is generally supposed to be of the nature of a trophoneurosis, and it has been known to follow a single exposure to the rays. For the treatment and prevention of X-ray burns the reader is referred to special text-books upon radio-therapy.

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