

SECTION I.

INTRODUCTION.

GENERAL CONSIDERATIONS.

ANATOMY OF THE SKIN.

The skin is composed of three distinct layers, from without inward:

1. The *Epidermis*. This is divided into four layers or strata, *stratum corneum*, *stratum lucidum*, *stratum granulosum*, *stratum mucosum*.

The *stratum corneum* (horny layer, corneous layer), is composed of closely packed, dried, cornified cells heaped one upon the other.

The *stratum lucidum* is made up of several layers of elongated cells and appears as a faint, transparent streak just beneath the horny layer and is regarded by some as a part of it.

The *stratum granulosum* (granular layer) consists of rows of flattened, elongated, granular cells containing a substance known as keratohyaline.

The *stratum mucosum* (mucous layer, rete, rete Malpighii) lies next the *corium* or *cutis vera* and is the deepest and most important layer of the epidermis. It is composed of a germinal layer of small, regularly arranged, columnar epithelial cells containing pigment, and a prickle layer which is applied to the subjacent corium by prolongations of polygonal, nucleated cells supplied with intercommunicating filamentous projections (prickles).

2. The *Corium* (true skin, derma, cutis vera) is made up of bundles of white fibrous and yellow connective tissue, arranged horizontally above, obliquely below, and is divided into two layers, or parts, *pars papillaris* (upper), *pars reticularis* (lower).

The papillary layer interdigitates with the prolongations of the prickle cells from the mucous layer of the epidermis by means of *papillæ* which contain nerve ends, bloodvessels and lymphatics.

The reticular layer consists of loosely arranged connective tissue forming a network and merges imperceptibly into the papillary layer.

The corium contains bloodvessels, nerves, nerve corpuscles, muscle fibres and fat cells, besides glands and hair follicles.

3. The *Subcutaneous Connective Tissue* is composed of loosely arranged fibrous connective tissue in the meshes of which are found fat cells (*panniculus adiposus*), portions of the coil or sweat glands, the

deeper lying hair follicles, lymphatics, bloodvessels and nerves. It serves as a bed upon which the corium rests.

The appendages of the skin consist of nails, hair, sudoriparous and sebaceous glands.

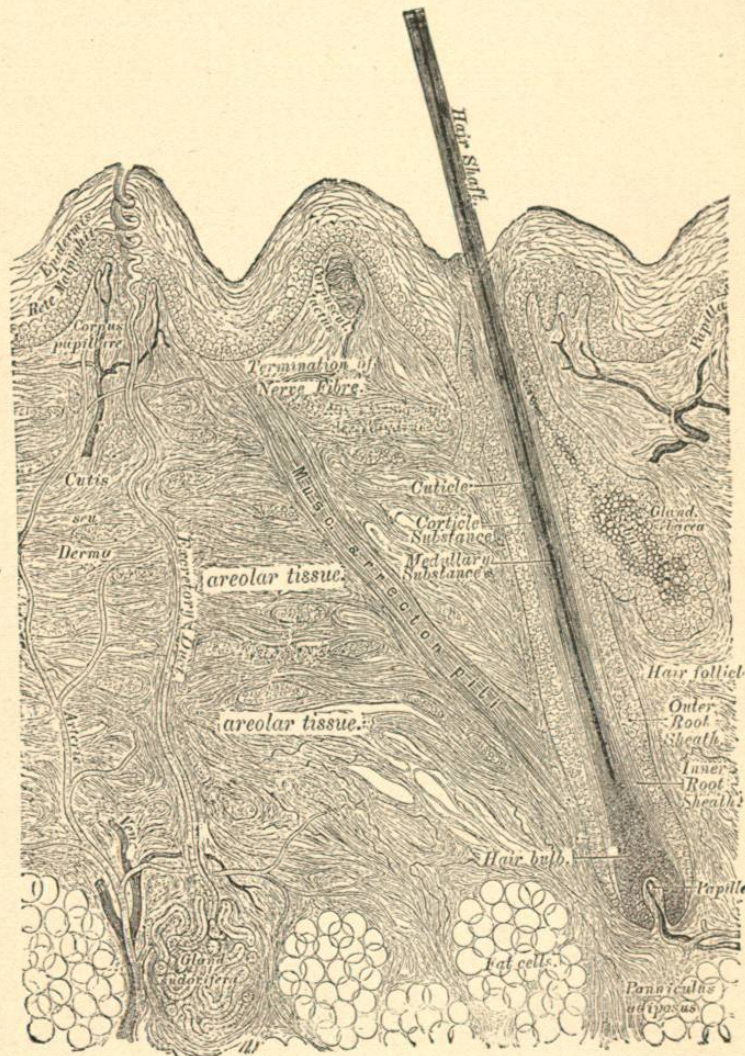


Fig. 1.—Anatomy of Skin (Schamberg).

The Nails. The nail is a modified epidermal structure representing the much thickened *stratum lucidum*. The tissue upon which the nail rests is called the *nail bed*, the proximal portion from which the nail grows is the *matrix*, the clear, half-moon space—the visible part of the matrix—is the *lunula*. The posterior end of the nail is known as the *root* and is received into a groove in the rete Malpighii which forms the *nail fold*. The thin

strip of epidermis covering the proximal edge of the lunula is the *nail skin*, or *eponychium*.

The Hair. The hair is a specialized structure derived from the epidermis.

The hair is round or flattened and is composed of (1) a thin membrane covering the hair, the *cuticle*; (2) a *cortex* made up of elongated, fusiform, longitudinally arranged and closely packed, horny cells, constituting the bulk of the hair; (3) a *medulla* of loosely packed, polyhedral cells situated in the axis of the hair.

That portion of the hair outside the skin is known as the *shaft*, within

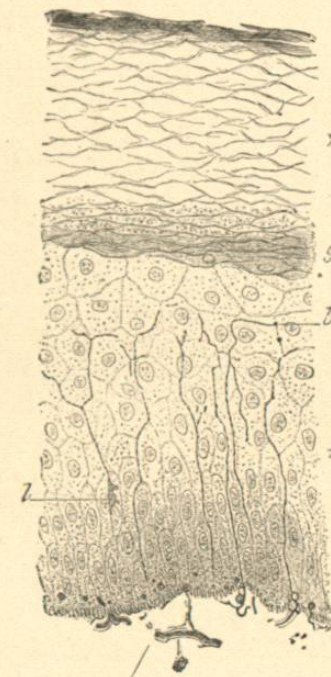


Fig. 2.—c, Horny layer; g, Granular layer; m, Mucous layer; b, Terminal nerve; l, Cell of Langerhans (Schamberg).

the skin, the *root*. The latter terminates in a rounded enlargement, the *bulb*, which is concave to receive the *papilla* at the bottom of the *hair follicle*.

The hair follicle is formed by a dipping down into the corium and subcutaneous tissue in the form of a cylindrical pit situated at varying angles with the surface.

The follicle which supports the hair, and from which it grows, consists of an *outer* or *dermic sheath*, made up of an *external fibrous layer* and an *internal* or *vitreous* or *hyaline layer*; an *inner* or *epidermic sheath* which is a continuation of the rete Malpighii.

The epidermal portion of the follicle is composed of an *outer* and an *inner root sheath*, the latter from within outward consisting of a *cuticular layer*, *Huxley's layer* and *Henle's layer*.

The lower end of the follicle presents a projection from the corium, the *papilla*, which is connected with the hair bulb. The sebaceous glands empty into the upper portions of the hair follicle. A bundle of involuntary muscle fibres extends from the lower end of the follicle to the corium. It is called the *erector* or *arrector pili*.

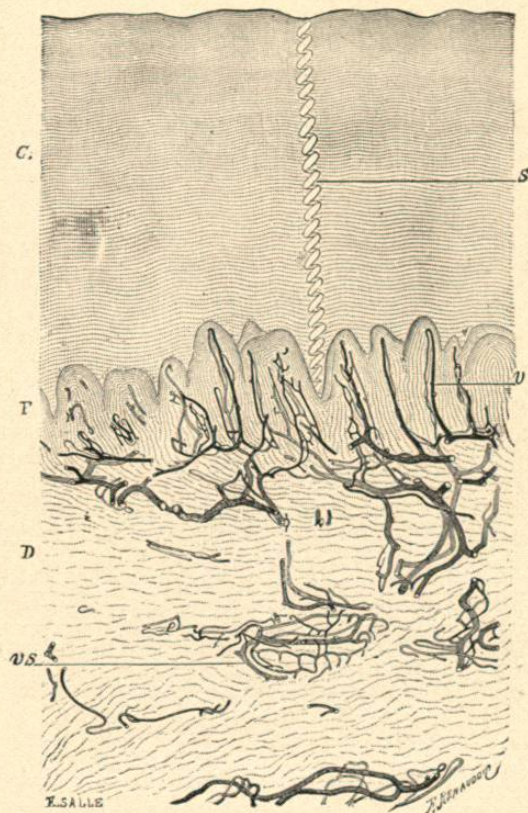


Fig. 3.—Blood supply of Skin (Schamberg). C, Epidermis; S, Sweat-Duct; P, Papillæ; V, Papillary Capillaries; vs, Deep plexus supplying sweat-coils; D, Corium.

Sebaceous Glands. Sebaceous glands are racemose glands situated in the corium and connected with the upper part of the hair follicle into which the secretion, *sebum* or *sebum*, discharges. In certain localities, such as the lips, labia, glans penis, they are not connected with the follicle but empty directly upon the surface.

The glands may be single or consist of several saccules.

The purpose of the sebum is to render the skin pliant and soft and the hair lustrous and flexible. It is composed of fatty degenerated cells and epithelial *detritus*.

Sweat Glands. The sweat or coil glands are simple tubular glands which extend into the corium and subcutaneous tissue, being derived from a downgrowth of epithelium.

The gland consists of two parts, a *secreting part* which is coiled and convoluted in the corium and subcutaneous tissue, and an *excretory duct* which is a simple tube pursuing a more or less wavy course, passing between the papillæ to the epidermis which it traverses in a spiral or corkscrew manner to the surface.

The ceruminous glands of the ear are modified sweat glands.

GENERAL SYMPTOMATOLOGY.

The symptoms of disease in the skin may be *subjective*, *objective* or both combined.

The subjective symptoms refer to those complained of by the patient and consist in sensations of heat, tingling, pain, tenderness, tension, numb-

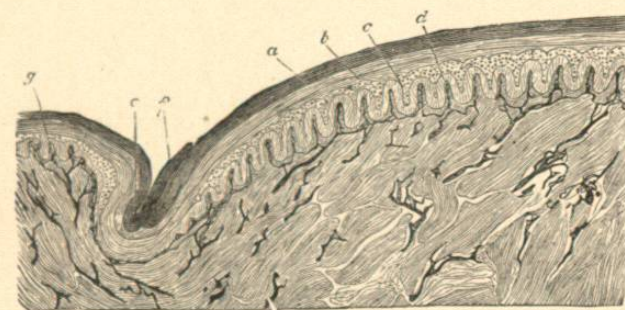


Fig. 4.—Transverse section of a nail made through the proper bed of the nail (Schamberg). a, Nail; b, Loose horny layer beneath it; c, Mucous layer; d, Transversely divided nail ridges with injected bloodvessels; e, Nail fold destitute of papillæ; f, Horny layer of nail fold; g, Papillæ of skin.

ness, hyperæsthesia, anæsthesia and the exclusively cutaneous phenomenon of itching. These symptoms are present in varying degrees of intensity in practically all of the eruptions of the skin with the exception of some of the dermal phases of syphilis.

The objective symptoms refer to disease manifestations appreciable to sight and touch and are of the highest interest to the dermatologist.

The objective symptoms are considered according to the type of lesion as *simple* or *primary*, *secondary* or *consecutive*, the former referring to the original or primary manifestation of the disease, the latter to modifications which result from changes in previous lesions.

1. PRIMARY LESIONS. The primary lesions are *macules*, *papules*, *vesicles*, *tubercles*, *tumors*, *wheals*, *blebs* and *pustules*.

Macules (stains, spots) are circumscribed, variously shaped and sized *discolorations* or *alterations* in the *color* of the skin without elevation or depression. Examples: chemical stains, freckles, purpura, syphilis.

Papules (pimples) are solid, circumscribed, *elevations* above the skin from a pin-head to a pea in size, round, flat, acuminate or conical. Examples: lichen, eczema, acne, etc.

Vesicles (blisters) are circumscribed *elevations* above the skin from

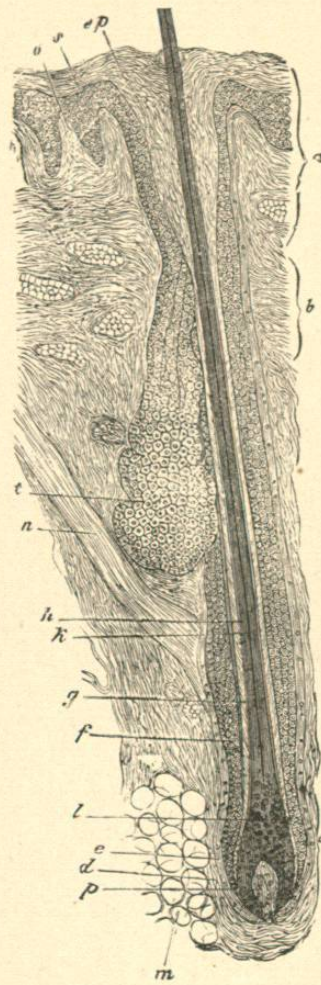


Fig. 5.—Normal Hair of Beard (Schamberg). a, Excretory duct; b, Neck of follicle; c, Dilatation of the hair follicle; d, External sheath of the hair follicle; e, Internal sheath of the hair follicle; ep, Epidermis of external root-sheath; g, Internal root sheath; h, Cortical substance; k, Medullary substance of hair-shaft; l, Root of hair; n, Arrector pili; o, Papillæ of skin; p, Papilla; s, Rete mucosum; t, Sebaceous gland.

a pin-head to a pea in size and contain a *clear* or *opaque fluid*. Examples: herpes, varicella, etc.

Tubercles are *solid* epidermal *elevations* larger than a pea in size. Examples: lupus vulgaris, epithelioma, syphilis.

Tumors are *elevations* larger than tubercles. They are of varying construction and variously shaped. Tumors may be *sessile* or *pedunculated*, prominent or deep-seated.

Wheals (*pomphi*) are *solid*, œdematous, pink *elevations*, oval, round or segmental and usually transitory. Examples: urticaria, insect stings or bites.

Blebs (*bullæ*) are round or irregularly-shaped *elevations* above the skin, from a pea to an egg or larger in size, and contain a *clear* or *opalescent* fluid. They are giant vesicles. Examples: bullous syphilide, pemphigus, scalds.

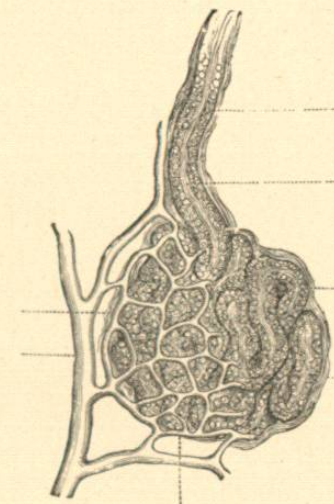


Fig. 6.—Normal Sweat-Gland Highly Magnified (Schamberg). a, Sweat coil with secreting epithelial cells; b, Sweat duct; c, Lumen of duct; d, Connective tissue capsule; e and f, Arterial trunk and capillaries supplying the gland.

Pustules are circumscribed *elevations* above the skin from a pin-head to a pea in size and contain *pus*. Examples: acne, variola, eczema.

2. SECONDARY LESIONS resulting from alteration in one or more of the primary efflorescences are *excoriations*, *scales*, *crusts*, *fissures*, *ulcers*, *scars*, *pigmentations*.

Excoriations (*excoriationes*) are *losses* of *substance*, as a rule not extending beyond the corium. Examples: scratch marks, the floor of a bulla.

Scales (*squamæ*) are *dried* white or discolored *lamellæ* shed from the surface of the skin as a result of *non-exudative*, *inflammatory cuticular hyperplasia*. They are primary in certain affections, as psoriasis, ichthyosis, or consecutive to inflammation, as in desquamation from the exanthemata. When scales are small, thin and branny the desquamation is called *furfuraceous*.

Crusts (*crustæ*) are masses of *dried exudation* usually consisting of

pus, blood and epithelial débris and are the result of previous diseases or injury. They are found in ecthyma, eczema, variola, syphilis, etc.

Fissures (rhagades) are *linear cracks* or wounds of varying depth due to inelasticity of the skin from infiltration. They occur chiefly at the flexures of the joints and about the orifices of the body and are found in eczema, syphilis, psoriasis, etc.

Ulcers (ulcera) are local losses of tissue, due to disease, extending into the corium and generally followed by cicatrices. They occur, for example, in syphilis, chaneroid, furuncle, herpes zoster.

Scars (cicatrices). A scar is a *growth* of fibrous tissue which takes the place of that which has been lost as a result of disease or injury. Scars follow ulcerative diseases of the skin and furnish valuable aids in retrospective diagnosis.

Pigmentations (pigmentationes) are stains left in the skin from former lesions. Examples: syphilis, eczema.

GENERAL DIAGNOSIS.

To facilitate diagnosis as much of the patient's clothing should be removed as is necessary to obtain a comprehensive view of the eruption, and the examination should be conducted in the daylight, preferably in steady, clear, north light. Artificial light is unsatisfactory and confusing.

Conduct the examination in a leisurely manner, scrutinize the affected areas carefully, and avoid immature, "snap" judgments.

The *portion of the body* upon which the eruption is situated is often suggestive of its nature. Certain diseases show marked preferences for particular localities. Thus the sides of the fingers, the penis in men and mammary areola in women, are the favorite sites of scabies; the cruro-scrotal fold of ringworm and intertrigo; the lower lip of epithelioma; the bearded face, especially the upper lip, of sycosis; the front of the chest of tinea versicolor; the forehead of the late syphilides; the scalp of seborrhœic eczema.

The *distribution and configuration* of an eruption afford valuable aids to diagnosis. An eruption may be generalized or universal according to the area of body surface involved; it may be symmetrically disposed upon corresponding sides of the body, or *unilateral*; irregularly disseminated or more or less closely aggregated.

Lesions may be *single* or *multiple*.

When the component elements of an eruption remain separate, it is said to be *discrete*; when a number tend to unite, it is called *confluent*. When the lesions form groups with or without coalescence of the constituent elements, the appearance is termed a *patch*.

The *color* of an eruption forms one of the factors in establishing a diagnosis. It varies within considerable limits and as a rule concerns some shade of red or blue. The color of the syphilides is characteristic, as well as that of several of the exanthems.

The *age, sex, occupation, race* and *general condition* of the patient are objects of inquiry in the construction of a diagnosis.

The microscope is often called into requisition and is frequently necessary in verifying the diagnosis of parasitic dermatoses. A hand lens or a glass pleximeter pressed against the skin are also serviceable adjuncts.

Aside from these more or less relevant considerations, which should be held in mind always when seeking to identify a disease of the skin, a careful, painstaking, minute examination and analysis must be made of the lesions themselves. All eruptions are made up of the primary and secondary forms enumerated and it is the object of the examination to establish the predominant element and salient characteristic of the morbid picture presented to view. By this means the disease is placed in its proper category and whether or not it be definitely recognized by name a long stride has been made toward the application of intelligent treatment. A proper conception of the existing condition is more to be desired than the ability to recollect a name, so often arbitrarily applied.

GENERAL ETIOLOGY.

The precise cause of the greater portion of diseases of the skin is unknown. As the skin is not only a specialized organ, but a part of the general system, it readily may be seen that disease can be provoked through conditions resident in the structure itself, as well as through disturbances of other organs with which the skin is physiologically more or less intimately connected. By reason of its wide extent and exposed position the skin is peculiarly vulnerable to hostile influences from without, such as the invasion of micro-organisms, and irritation and injury from contact with poisonous plants and chemical substances, while as an important organ of excretion it participates in disturbances arising from within.

The subject of etiology therefore belongs more especially to the individual affection and will be dealt with more fully in the proper connection.

GENERAL TREATMENT.

The treatment of disease of the skin is both constitutional and local.

The general, or constitutional, treatment leads widely into the domain of general medicine and offers but little particularity. To hope to combat successfully with many cutaneous disorders of obscure causation one must be well grounded in the principles of therapeutics and the general management of disease.

There are no special rules to be observed in the constitutional treatment of skin disease. The chief object in view is the relief or cure of any departure from a normal state of health which may serve to induce or maintain the skin affection. This is a matter of the personal equation and of the individual case.

There are, however, certain remedies which, in addition to their sys-

temic influence, are held to have a special and direct effect upon the skin. Among these are arsenic, the salicylates, calcium sulphide, ichthyol, antimony and certain animal extracts, such as extract of thyroid gland and of the suprarenal gland.

Arsenic should be limited in administration to subacute and chronic, dry, squamous affections and is to be avoided in all acute conditions. It is best administered in the form of Fowler's solution, beginning with three drops three times daily, liberally diluted and taken on a full stomach. This dose is to be increased gradually until mild toxic symptoms occur when it should be diminished or withdrawn. Some given preference to the Asiatic pill which is made according to the following formula:

℞	
Acid. Arsenios.	gr. xj.
Pulv. Piperis Nigris	ʒiiss.
Pulv. Acaciae	gr. xx.
Pulv. Athaeae,	gr. xxx.
Aq. Fontan. q. s. ut ft. pil. No. 100,	
Sig. One pill after each meal.	

Cacodylate of soda is the favorite of some clinicians and is administered hypodermatically or in a hard pill containing one-twelfth of a grain, of which three are given daily.

The *salicylates* are used under somewhat the same conditions as arsenic.

Salicin is a substitute for the salicylates and lacks many of their disagreeable features. It is strongly commended by Radcliffe Crocker in the treatment of pityriasis rosea, severe psoriasis and lichen planus. Salicin is given in doses of at least fifteen grains three times a day.

Calcium sulphide has proven itself of value in suppurative affections of the skin, such as acne and furunculosis. It is given in the form of a pill one-half to one-tenth of a grain, three times daily. To be effective it must be freshly prepared as the substance deteriorates rapidly and becomes inert.

Ichthyol is useful as a corrective of the fermentative dyspepsia which usually accompanies rosacea, and has an additional merit in such cases of contracting dilated capillaries. It is best administered in capsules containing two grains each.

Thyroid extract is of undoubted value in psoriasis, lupus vulgaris and ichthyosis. Its dose is from three to five grains in tablet form. The substance is capricious in its effects and its employment is not free from danger.

Suprarenal extract, or its derivative, adrenalin chloride, is sparingly used in psoriasis and in general pruritus, in the latter case for its effect in relieving cutaneous hyperæmia by vascular constriction. The dose of

the extract is three to five grains, that of adrenalin chloride five to ten minims of the 1:1000 solution.

Wine of antimony is recommended by Jonathan Hutchinson and Malcolm Morris in doses of three to six minims in acute and subacute eczema in robust individuals. It must be used with caution and in selected cases.

Iodine and its compounds are exceedingly useful for their alterative effect in strumous and cachectic conditions. Iodine may be administered in the form of cod liver oil, syrup of the iodide of iron, syrup of hydriodic acid, and must be continued for a considerable length of time to secure the desired results.

LOCAL TREATMENT OF DISEASE OF THE SKIN.

The local treatment of disease of the skin will be found detailed in connection with the separate affections, but the indications for the use and modes of application may be considered appropriately in a general way.

Remedies are applied to the skin in the form of lotions, pastes, ointments, powders, plasters, soaps, and by means of special fixed dressings.

Lotions are indicated in conditions accompanied by irritation, inflammation and exudation in which a superficial action alone is required. The excipient is usually water, alcohol or oil, singly or combined, and the remedy is contained in a state of solution or suspension.

Pastes find their special sphere of usefulness in subacute, rather dry eruptions and are made by the addition of an inert powder, such as starch, talcum, infusorial earth, or carbonate of magnesia to an unctuous base. The remedy or remedies are incorporated and thoroughly worked up in the mass, which is applied to the skin after being spread upon linen or gauze.

Ointments are useful in a wide range of affections. They should, as a rule, be avoided where there is much moisture and exudation and must be used with an eye to individual peculiarities.

Ointments are made with lard, plain and fresh, or benzoinated, petrolatum or lanolin. The last named is too tenacious and tough to be employed alone as a base and must be thinned with oil or one of the other ointment bases.

Ointments are stiffened with paraffin, resin or wax and are thinned with oil or water.

Powders are employed for their protective and drying influence in inflamed, oozing and pruriginous eruptions. The oleates and stearates being slightly unctuous and adhesive, are especially useful.

Soaps are combinations of fatty acids and alkalies. When the fatty acid is saponified with potash lye, soft soap is produced; hard soap is made from the saponification of fat by soda lye. Soap is said to be neutral when all the alkali is combined with the fat.

Soaps are variously medicated with sulphur, tar, resorcin, ichthyol and the like and are used therapeutically by allowing the lather to dry on the part. With the exception of green soap and tincture of green soap (*spiritus saponatus kalinus* of Hebra) which are stimulating and of high merit in removing infiltration, the remedial value of soaps is slight and they make but indifferent substitutes for ointments.

Plasters are used when a more or less prolonged effect is desired. The best known are soap plaster (*emplastrum saponis*), and lead plaster (*emplastrum plumbi*).

Unna's plaster-muslins, made by Beiersdorf, of Hamburg, are elegant preparations and are medicated with a great variety of ingredients of which the mercury-carbolic is probably the most useful. They are of limited use owing to their expense. They are applied to any but a mucous or exuding surface and remain in smooth contact for several days, despite more or less motion of the part treated.

Fixed dressings consist of combinations of glycerine, water and gelatine, called glyco-gelatines, and varnishes containing glycerine and tragacanth or its derivative, bassorine, and water.

The gelatine preparations are intended for use in a number of conditions unaccompanied by suppuration and exudation as they permit of no drainage. The preparation is melted over a water bath and applied with a brush while still warm, and on cooling is dabbed over with cotton or covered with a gauze bandage. The result is a smooth, pliant and cleanly dressing.

Various drugs may be incorporated with the glyco-gelatine, ichthyol being the most popular.

The varnishes are applied by painting over the surface and form a smooth, inconspicuous but not very comfortable covering. Some varnishes are insoluble in water, such as collodion (to a certain extent) and traumaticine, a fifty per cent. solution of gutta percha in chloroform.

Baths are employed to some extent in generalized, dry and scaly eruptions, such as psoriasis, in superficial and extensive burns, and in urticaria and pruritus. They may be medicated with various substances, as bicarbonate of soda, potassium sulphide, or starch or bran may be added.

Vapor baths containing the medicament in a volatile state, or used simply to increase the elimination from the skin, often serve an excellent purpose.

Electricity, especially galvanism and the static modalities and high frequency currents play a more or less effective part in the topical treatment of skin disease, while radiotherapy and phototherapy, especially the former, are assuming a position of increasing importance in the armamentarium of the dermatologist.

GENERAL CLASSIFICATION.

The following classification has been adapted from that of H. Radcliffe Crocker:

HYPEREMIAS: CONGESTIONS: Erythema simplex, erythema scarlatiniforme, erythema pernio, erythema intertrigo.

EXUDATIONS: INFLAMMATIONS: Erythema multiforme, erythema nodosum, peilagra, urticaria, eezema seborrhœicum, impetigo contagiosa, dysidrosis, folliculitis, herpes simplex, herpes zoster, pemphigus, epidermolysis bullosa, equinia, dermatitis herpetiformis, hydroa vacciniforme, psoriasis, pityriasis rosea, pityriasis rubra, pityriasis rubra pilaris, lichen planus, lichen ruber, lichen scrofulosorum, prurigo, furunculus, carbunculus, anthrax, erysipelas, impetigo herpetiformis.

HEMORRHAGES: Purpura.

HYPERTROPHIES: Ichthyosis, keratosis pilaris, keratosis nigricans, porokeratosis, verruca, clavus, callositas, cornu cutaneum, scleroderma, morphœa, sclerema neonatorum, œdema neonatorum, elephantiasis, tylosis.

ANOMALIES OF PIGMENTATION: Chloasma, lentigo.

ATROPHIES: Albinism, leucoderma, atrophia cutis, atrophia pilorum propria, atrophia unguium, lineæ striæ et maculatæ, xeroderma pigmentosum, ainhum.

SENSORY NEUROSES: Hyperæsthesia, dermatalgia, pruritus, anæsthesia, perforating ulcer of the foot.

NEOPLASMS: Molluscum, colloid degeneration of the skin, xanthoma, lupus erythematosus, lupus vulgaris, tuberculosis cutis, scrofuloderma, erythema induratum, syphilis cutanea, lepra, rhinoscleroma, leucoplakia, keloid, fibroma, myoma, neuroma, nævus vasculosus, nævus pigmentosus, rosacea, dermolysis, lymphangioma, carcinoma, Paget's disease, epithelioma, sarcoma, mycosis fungoides, frambœsia.

DISEASES OF THE APPENDAGES OF THE SKIN: SWEAT GLANDS: Hyperidrosis, bromidrosis, chromidrosis, uridrosis, anidrosis, miliaria, hydrocystoma.

SEBACEOUS GLANDS: Seborrhœa, milium, comedo, acne, acne varioliformis, steatoma, adenoma sebaceum.

HAIR: Hypertrichosis, atrophy, alopecia, alopecia areata, canities, sycosis, keratosis pilaris, trichorrexia nodosa, folliculitis decalvans, dermatitis papillaris capillitii, plica polonica.

NAILS: Onychia, paronychia, atrophy, onychia, leucopathia unguium.

PARASITES: VEGETABLE: Tinea favosa, trichophytosis, chromophytosis, erythrasma, mycetoma, actinomycosis, blastomycetic dermatitis. **ANIMAL:** Scabies, demodex folliculorum, pulex penetrans (chigoe, jigger, red

bug), *filaria medinensis* (guinea worm), *pulex irritans* (flea), *leptus autumnalis* (harvest bug), *ixodes* (ticks), *cysticereus cellulosa cutis* (young of the tape worm), *pediculi* (lice), *cimex lenticularis* (bed bug), flies, mosquitoes, gnats and other dipterous insects.

SECTION II.

SPECIAL DISEASES OF THE SKIN.

ACNE.

Definition. Acne is a chronic, inflammatory affection of the sebaceous glands and periglandular tissue, characterized by papules, pustules and tubercles situated for the most part upon the face, back and upper part of the chest.

Varieties. There are two principal forms of acne, *acne vulgaris* and *acne indurata*, with the several terms appended indicative of the lesion present.

Acne vulgaris begins about the age of puberty with the appearance upon the face, shoulders, back or upper part of the chest, in any or all of these regions, of pin-head sized papules (*acne papulosa*) which are red or pink in color, firm, and present a central opening usually occupied by a plug of hardened sebum, the blackhead or *comedo* (*acne punctata*). The summit of the papule as a rule becomes pustular (*acne pustulosa*). The lesion then represents a pustule situated upon a firm, inflamed base and generally showing a comedo. This is the appearance that is accepted as typical of *acne vulgaris*. The pustules are variable in size, small and pointed or large and flat. The contents when squeezed out is composed of pus mixed with hardened sebum. The skin of the affected regions is greasy, dull and dirty looking, or polished and shining, especially the nose and forehead. Comedones are scattered about among the lesions and *milia* are frequently seen about the malar prominences and lids. The lesions are often of a mixed type as regards size and may be few and scattered or numerous and closely assembled. The conjunctivæ are frequently injected and there is a hypersecretion of the Meibomian follicles and the scalp is seen to be the seat of an oily seborrhœa.

The individual lesions of *acne vulgaris* are of short duration, lasting three or four days and drying into a crust, which, falling off, leaves the skin unaltered or with a red spot which may linger for weeks before finally disappearing. Scarring is not a feature of this variety of acne.

Acne indurata. In this variety of acne which often coexists with the simple form, the pustules are larger and the surrounding inflammatory infiltration greater. The lesions are apt to be deep-seated and may be felt as shotty masses in the substance of the skin, papular or tubercular in size. They occur with especial frequency about the angle of the jaws