PRACTICAL

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PRACTICAL DERMATOLOGY

A Condensed Manual of Diseases of the Skin;

Designed for the Use of Students and Practitioners of Medicine

BY

BERNARD WOLFF, M. D.

Clinical Professor of Diseases of the Skin in the Atlanta College of Physicians and Surgeons; Editor of the Atlanta Journal-Record of Medicine; Ex-President of the Atlanta (Fulton County) Society of Medicine; Ex-Secretary of the Georgia State Commission on Tuberculosis, Etc.

Illustrated

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TO

P. G. UNNA, HAMBURG, GERMANY,

this little volume is dedicated as an inadequate acknowledgment of the many kindnesses shown the author while a pupil and a member of his household.

PREFACE

The purpose of this volume is to present in miniature the salient features of diseases in the skin. In its preparation the standard text books as well as the smaller manuals have been freely consulted and the latest and most authoritative views concerning the origin, course and treatment of the diseases considered have been briefly and concisely stated.

I desire to express my thanks for the loan of illustrations to Dr. P. G. Unna, Hamburg, Germany; Dr. A. H. Ohmann-Dumesnil, St. Louis; Dr. Isadore Dyer, New Orleans; Dr. T. C. Gilchrist, Baltimore; Dr. Frank B. Wynn, Indianapolis; Dr. William Perrin Nicolson and Dr. Claude A. Smith, Atlanta; and to Messrs. P. Blakiston's Son & Co. for the use of a number of cuts from Schamberg's Compend of Diseases of the Skin.

It is hoped that the book despite its limitations will prove helpful to the student and busy practitioner of medicine for whom it is designed.

Bernard Wolff.

Atlanta, Ga., August, 1906.

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.

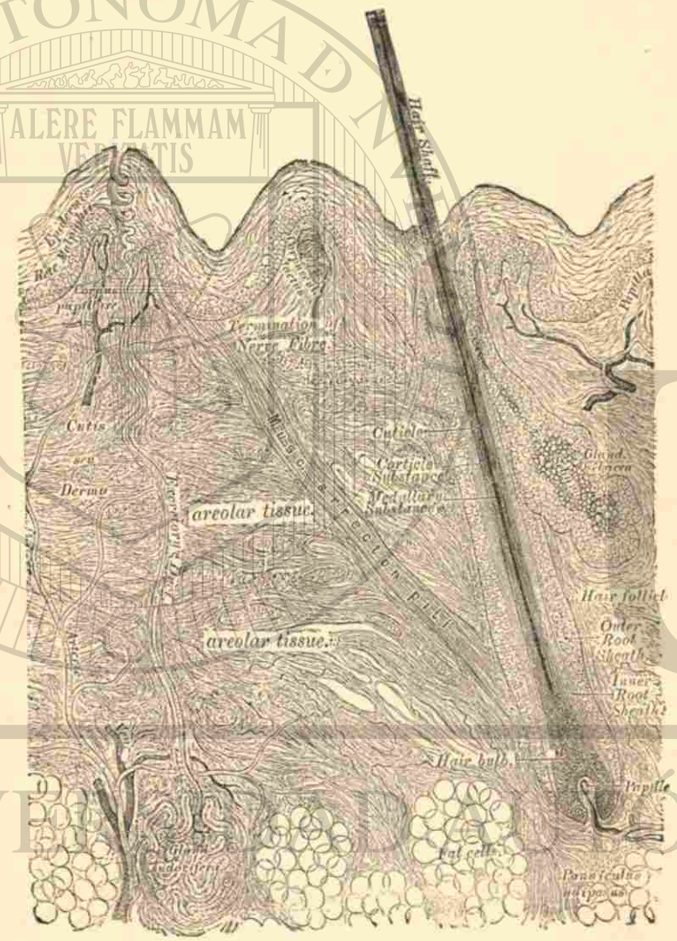

Fig. 1.—Anatomy of Skin (Schamberg).

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*.

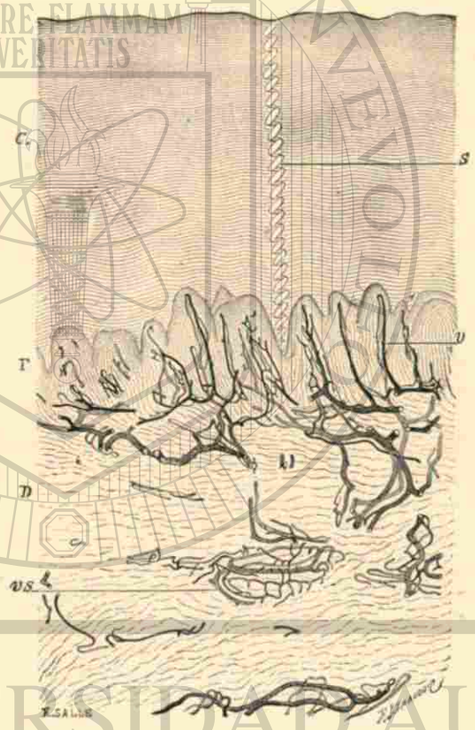

Fig. 3.—Blood supply of Skin (Schamberg). C, Epidermis; S, Sweat-Duct; P, Papillæ; V, Papillary Capillaries; vs, Deep plexus supplying sweat-coils; D, Corium.

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 *sevum*, 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, numbness, 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.

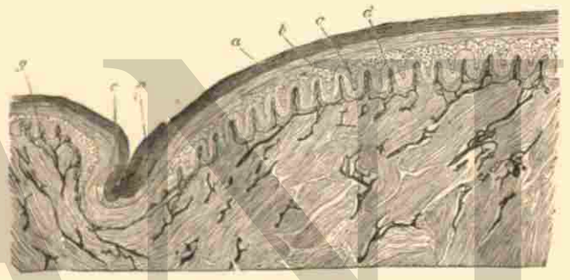

Fig. 4.—Transverse section of a nail made through the proper bed of the nail (Schamberg). a, Nail; b, Loose horny layer beneath it; c, Mucous layer; d, Transversely divided nail ridges with injected bloodvessels; e, Nail fold destitute of papillæ; f, Horny layer of nail fold; g, Papillæ of skin.

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

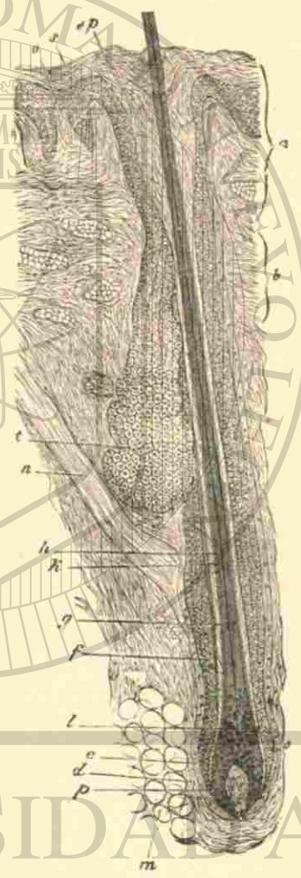

Fig. 5.—Normal Hair of Beard (Schamberg). a, Excretory duct; b, Neck of follicle; c, Dilatation of the hair follicle; d, External sheath of the hair follicle; e, Internal sheath of the hair follicle; ep, Epidermis of external root-sheath; g, Internal root sheath; h, Cortical substance; k, Medullary substance 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.

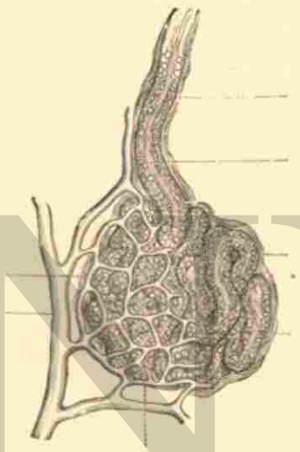

Fig. 6.—Normal Sweat-Gland Highly Magnified (Schamberg). a, Sweat coil with secreting epithelial cells; b, Sweat duct; c, Lumen of duct; d, Connective tissue capsule; e and f, Arterial trunk and capillaries supplying the gland.

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, chancroid, 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. Arsenos.	gr. xj.
Pulv. Piperis Nigris	3iss.
Pulv. Acaciæ	gr. xx.
Pulv. Althææ	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:

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

EXUDATIONS: INFLAMMATIONS: Erythema multiforme, erythema nodosum, pellagra, urticaria, eczema 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, anæthesia, 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, framboesia.

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, trichorrexis nodosa, folliculitis decalvans, dermatitis papillaris capillitii, plica polonica.

NAILS: Onychia, paronychia, atrophy, onychauxis, 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), cysticercus cellulosæ 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

bug), filaria medinensis (guinea worm), pulex irritans (flea), leptus autumnalis (harvest bug), ixodes (ticks), cysticercus cellulosæ 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.

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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

and on the back. The skin covering the lesions is slightly reddened or dusky or livid depending upon the age of the lesion and the amount and nearness to the surface of the imprisoned pus. When incised or ruptured a considerable quantity of pus escapes, together with a moulded or amorphous mass of hardened sebum. Cutaneous abscesses and furuncular lesions may be seen. Owing to loss of tissue from the suppurative process, scarring is apt to result and may be extensive and disfiguring.

Indurated acne is inclined to develop at a later period than the simple form and to persist much longer.

Acne artificialis is the term applied to an acneform eruption occurring among workers in tar or paraffin, or resulting from the internal administration of bromine or iodine salts. The lesions resemble those of both of the foregoing varieties.

Symptoms. The subjective symptoms of acne are slight. A certain amount of tenderness and mild itching may be noted in connection with the newer lesions. The course of acne is essentially chronic, the disease being maintained by fresh additions to the eruptions as the older lesions run

Fig. 7.—Acne Lancet and Comedo Extractor.

their course. Acne vulgaris tends to subside at about the acme of physical development, between the ages of twenty-five and thirty; acne indurata may persist indefinitely.

Etiology. Puberty is the principal predisposing cause of acne. Seborrhœa, the strumous habit, digestive disorders, affections of the genito-urinary organs, debility and anæmia are among other causative influences. Pyogenic micro-organisms are found in abundance in the acne lesions and special bacterial forms have been described by Sabouraud, Unna, Gilchrist and others.

Pathology. Acne is primarily an inflammation of the hair follicle or sebaceous gland aroused by the retention of sebum, or the entrance into the follicle of pus micro-organisms. The perifollicular structures are more or less involved in the inflammatory and suppurative event.

Diagnosis. The diagnosis of acne is based upon the multiformity of the lesions and their occurrence in particular localities associated with comedo and seborrhœa and a history of inveteracy. The acneform pustular syphilide is darker in color, more generally distributed, is not connected with the sebaceous glands and accompanies other manifestations of syphilis.

Treatment. The condition of the general health should be carefully inquired into and if any deviation from the normal be discovered, the

attempt should be made to correct it. Errors of diet, if they exist, should be rectified and the diet regulated in the direction of abstention from those articles of food which tend to produce fermentation, viz., sugars, fried food, *rechauffé* dishes and the like.

A liberal dietary must be arranged as too much restriction begets satiety, disgust and relinquishment. Constipation is to be relieved by a morning draught of Hunyadi water or a dessertspoonful of Epsom salt in a half glass of hot water, or a laxative pill of aloin, strychnine and belladonna may be given on alternate nights. Anæmia should be combatted by appropriate diet and the administration of ferruginous tonics, an ex-

Fig. 8.—Acne Vulgaris.

cellent one being Blaud's pill with arsenic. An occasional mercurial purge is productive of good in patients showing evidences of intestinal auto-toxæmia. The mineral acids, nitro-hydrochloric and sulphuric, are useful, especially when combined with a bitter tonic, as in the following combination:

℞

Acid. Nitro-Hydrochloric,	gtt. xlvij.
Tinct. Gentian. Comp.,	℥j.
Vini Xerici q. s.	ad ℥iij.

M. Sig. Teaspoonful to be taken in water through a tube before each meal.

Tincture of nux vomica given in full doses is an admirable tonic and particularly indicated when constipation coexists with an atonic state.

The sulphur compounds, with the exception of calcium sulphide, when given internally for their effect upon the skin will be found highly disappointing. Calcium sulphide in doses of from one-tenth to one-half grain, in pill form, is frequently of service in acne accompanied by considerable suppuration of the lesions.

Local treatment is more immediately effective than internal. The acne pustules should be incised with a lancet or opened with a sharp needle and their contents squeezed out. It is advisable to go over the face with a sharp curette which tears off the summits of the pustules and rakes out their contents, besides dislodging comedones that might be otherwise overlooked. The comedones should be extracted with the finger nails or an instrument designed for the purpose called a comedo extractor of which there are several models. After the face has been treated in this manner alcohol, or an antiseptic lotion such as a hot solution of boric acid,

Fig. 9.—Dermal Curette.

should be applied, which tends to relieve hyperæmia and destroys the microorganisms of the evacuated pustules.

The most valuable single remedy in the topical treatment of acne is undoubtedly *sulphur*. In the majority of simple cases it is sufficient to produce a cure. In order for the desired effect to be obtained it should be used in sufficient strength to produce a decided diminution in the output of the sebaceous glands. The following lotions containing sulphur are useful:

℞

Zinc. Sulphat.,	
Potas. Sulphid.,	āā gr. xv.
Aquæ Rosæ,	ʒj.
Sulphur. Precipitat.,	ʒj.

M. Sig. Shake and apply locally night and morning.

If this prove too drying a dram of glycerine may be added.

The following is quite stimulating:

℞

Sulph. Precip.,	ʒij.
Spirit. Camphor.,	ʒij.
Liquor. Calcis,	ʒiij.

M. Et ft. lotio.

Another much used sulphur lotion is that known as Vlemingkx's solution. It is a powerful stimulant and should be well diluted before using. It is made as follows:

℞

Calcis Viv.,	ʒiv.
Sulphur, Sublimat.,	ʒvj.
Aquæ Destillat.,	℥vijss.

Boil with constant stirring down to four ounces, then filter.

Lotions as a general thing are to be preferred to ointments and pastes, but they are may be at times substituted by them, particularly when under the use of the former the skin has become harsh and dry. The following pastes are serviceable:

℞

Zinc Oxid.,	ʒj.
Ichthyol,	gtt. xx.
Sulphur. Precip.,	ʒss.
Ol. Lavandul.,	gtt. iv.
Pulv. Amyli,	ʒiij.
Petrolat.,	ad ℥j.

M. et ft. pastam.

A good ointment is one according to this formula:

℞

Sulph. Precip.,	gr. xx.
Acid. Carbolic.,	gt. v.
Ol. Rosæ,	gt. iij.
Petrolat.,	ʒiij.
Lanolin,	ad ℥j.

M. et ft. ung.

The mercurial preparations serve a useful purpose in acne. Sublimate solution 1:3000 may be used as a lotion, the red or white precipitate is of service in an ointment or paste. The following paste is recommended by Unna:

℞

Hydrarg. Bichlorid.,	gr. j.
Resorcin,	gr. x.
Farinæ Pisi,	ʒij.
Glycerin.,	ʒj.
Petrolat.,	ʒiij.
Lanolin,	ad ℥j.

M. et ft. pastam.

Galvanism is serviceable in sluggish cases. Electrolysis may be used to close the dilated orifices of the sebaceous glands when their size and position cause disfigurement. The needle is introduced into the opening and a current sufficient to cause some reaction is used, for the purpose of producing adhesion of the duct walls.

The X-rays have come to be regarded as a very useful therapeutic agent in the treatment of acne. The time of treatment is abridged and the results appear to be permanent. The practical application of radiotherapy requires experience and it is well for him who does not possess it to refrain from using an agent of such power upon so conspicuous a region as the face, lest untoward and undesirable effects be produced.

The massaging ball of Hyde is a helpful adjunct, but massage with a vibrator is probably more effective and easier to use. It possesses worth in stimulating the skin to a better functional activity and thus hastens the process of repair.

Actinotherapy as carried out by the arc light and incandescent lamp has strong advocates who claim excellent results from the method. It is devoid of the dangers which beset radiotherapy.

Prognosis. All cases of acne are amenable to treatment but all are obstinate. The patient should agree to devote time and attention to the details of treatment, else it had just as well not be undertaken.

ACNE VARIOLIFORMIS.

Synonyms: Acne atrophica, acne necrotica.

Definition. Acne varioliformis is a rare, chronic, relapsing, pustular folliculitis occurring on the forehead, scalp, face, chest and back and perhaps upon the extremities (*follicli*s of Barthelemy) and leaving scars resembling those of small-pox.

Course and Symptoms. The affection begins as a red papule with a small hard centre. This becomes surrounded by a ring of pus with a red areola. The central hard spot forms a crust which is sunken and adherent. Or removing the crust a greyish ulcer is seen with its floor covered with sero-pus. The crust, if undisturbed, falls off in two or three weeks revealing a dark red pit which becomes paler and leaves a scar like that of small-pox. The eruption is prone to form in groups about the forehead, scalp, face and trunk. It is painless, indolent and tends to relapse.

Etiology. The predisposing cause is regarded as oily seborrhœa. It occurs chiefly among the poor, in both men and women over thirty. A history of syphilis is sometimes given. The identity of the affection with the small, fat, pustular scrofuloderm has been advanced.

Pathology. The micro-bacillus of seborrhœa has been found, together with the micro-organisms of pus especially the staphylococcus. An inflammatory œdema with an efflux of leucocytes and the production of tissue necrosis takes place in the lesions.

Treatment. Iodide of potash, also tincture of the chloride of iron, are recommended for internal administration. Locally a mild ointment of calomel or ammoniate of mercury has been found beneficial. Salicylic acid and resorcin solutions are indicated for the associated seborrhœa.

ACTINOMYCOSIS.

Actinomycosis of the skin is nearly always secondary to extension of the disease from its primary situation in the jaw, and is due to the presence of the ray fungus. The skin in the submaxillary region is livid, densely infiltrated and perforated with openings from which pus, containing the characteristic yellow granules of the *actinomyces bovis-Harz*, is discharged.

Fig. 10 a.—Actinomycosis (Dyer).

Diagnosis. The diagnosis is scarcely possible without the aid of the microscope, which reveals the presence of the fungus in the granular masses.

Actinomycosis is a disease of stablemen, millers and farm laborers and is acquired by chewing raw grain or heads of wheat, from chaff, splinters of wood or poultices.

Treatment. Appropriate treatment consists in boring into the infected foci with caustic, or in surgical removal. Internally iodine and its compounds should be administered. Arsenic has been recommended in the more chronic cases. Roentgen-ray therapy would appear to be indicated from its beneficial effect in somewhat similar conditions.

Prognosis, if limited, is favorable, doubtful if extensive. Death occurs from extension and involvement of important organs.

ADENOMA SEBACEUM.

Definition. Adenoma sebaceum is a rare affection of the skin accompanied by the appearance of small, firm, colorless tumors occurring about the forehead, nose and ear. Another type of adenoma sebaceum is congenital and the tumors are yellowish or reddish, telangiectasic, occur chiefly in women and are situated about the mouth and nose, tending to

Fig. 10 b.—Mass of Actinomyces showing Ray Arrangement (Schamberg).

remain stationary. Both of these forms coexist with evidences of sebaceous gland disturbance, acne, comedo and milium.

The *treatment* of adenoma sebaceum consists in destruction of the tumors with caustic or the electric needle, or extirpation with the knife.

The sweat glands may also be affected with a variety of adenoma which is exhibited in small, pale papules arranged in clusters or groups about the face and scalp. When the papules are incised a small quantity of clear fluid escapes. Histologically the glomeruli of the sweat glands are found to be greatly hypertrophied.

The *treatment* of this rare condition is destruction of the papules with the electric needle or chemical cautery.

AINHUM.

Description. Ainhum is a rare disease limited to negroes and the negroid races. It consists in a slowly-narrowing, circular constriction of the little toe at its proximal extremity. The portion beyond the jugulating band becomes the seat of fatty degeneration and if not removed ultimately drops off. The accompanying cut illustrates the condition which had existed in a negress for twenty years.

Etiology. The etiology of ainhum is unknown. It has been ascribed to the practice of wearing toe rings, of going barefooted and to minor injuries to the sulcus beneath the toe.

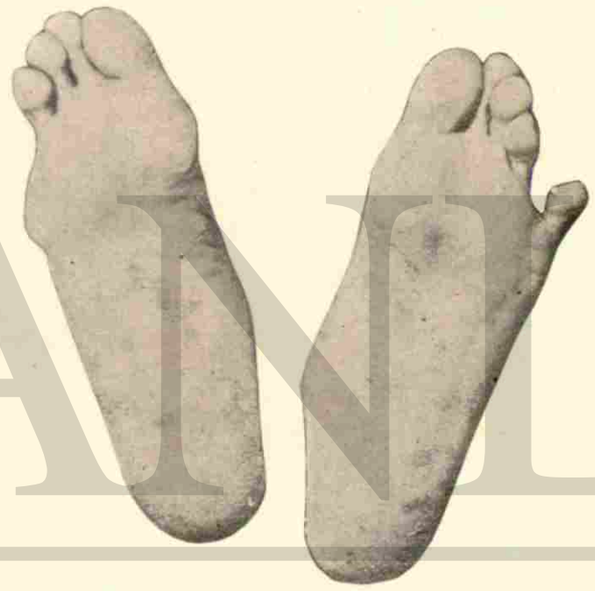

Fig. 11.—Ainhum.

Treatment consists in incising the constricting band if the disease is discovered early in its course; otherwise surgical removal of the toe.

ALBINISMUS.

Description. Albinismus is a congenital absence of pigment in the skin and other tissues. It may be partial or complete. In complete albinism the skin, except where it is thin and the cutaneous vessels may be seen underneath, is of an unnatural whiteness. The hair of the head and body shows entire lack of coloring matter and is bleached or orange white. The irides are pink and, wanting protective pigment in the choroid, there is photophobia with nictitation and nystagmus. This condition of the skin

is observed among all races but more frequently among the colored. It is hereditary and is often seen in several individuals of the same family. It is not uncommonly associated with mental and physical inferiority. Animals are subject to the anomaly.

Partial albinismus is characterized by irregular patches of white skin without surrounding hyperpigmentation. The patches are sometimes arranged in streaks or bands and may follow the course of certain cutaneous

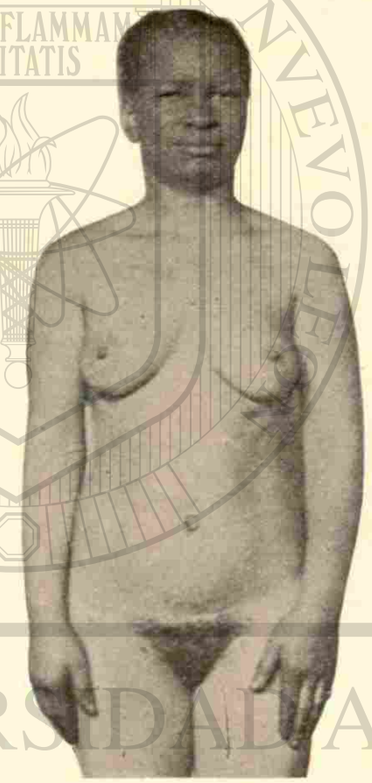

Fig. 12.—Albinism in Negress.

nerves and may or may not be symmetrical. The pigmentless areas are persistent and remain throughout life though they occasionally enlarge and rarely spontaneously disappear. The affection is more common among dark races than white.

Treatment is ineffectual.

Pathology. There is a total lack of pigment in the rete; otherwise the skin is normal.

ALOPECIA.

Synonyms: Baldness, Calvities.

Definition. The term alopecia is applied to partial or complete loss of hair and may occur congenitally, from old age, prematurely without appreciable cause, or as a result of disease.

Varieties. Congenital alopecia (*alopecia adnata*). This condition is rare and, usually, not permanent. When permanent and complete it is generally associated with other anomalies of the skin, and of the nails and teeth.

Senile baldness (*alopecia senilis*). Baldness beginning after the forty-fifth year, without apparent cause, other than as an accompaniment of other degenerative changes in the skin as a result of age, is classed as senile. It may or may not be connected with greyness, and is, as a rule, accompanied by seborrhœa. The loss of hair usually begins at the posterior part of the vertex, and proceeds symmetrically forward and backward with more or less rapidity. The hair of the sides and back of the head is usually spared, of which exemption the patient often takes advantage by borrowing from these regions to supply the deficiency in others. When complete the vertex is glabrous, but for a few widely scattered sprigs, which have escaped the general devastation. The skin is shining, polished and appears stretched. The hair of the axillary, pubic and anal regions, as well as that of the lower two-thirds of the legs, may also be thinned or lost in great part.

Premature baldness (*alopecia prematura*), that occurring among young adults, is idiopathic or the result of disease. In the former instance the thinning process takes place at the vertex or temples, in the latter situation manifesting itself in lateral recessions with the preservation of a central peninsula. This type of baldness is sometimes a family trait, but it is believed by Crocker, G. T. Elliot and others, that a majority of cases of apparently causeless baldness are, in reality, due to an undiscovered seborrhœa or seborrhœic eczema.

Premature baldness as a result of disease (*alopecia prematura symptomatica, alopecia pityroides of Pincus*) may be due to inflammatory, suppurative affections, parasitic diseases, traumatism or seborrhœa, the last named being by far the most frequent cause of premature baldness. In alopecia due to seborrhœa, or seborrhœic eczema (*alopecia seborrhœica*), the scalp is the seat of the dry (dandruff) or oily form, or both combined. The hair is greasy, damp, and clings together; the scalp is covered more or less uniformly with fine, loosely attached scales or masses of unctuous, yellowish squamous accumulations. The loss of hair may occur first at the temporal or coronal regions, and is gradual and progressive. Seborrhœa often antedates the fall of hair by several years, and may be disproportionate in severity to the degree of *alopecia*.

Alopecia seborrhœica may make its appearance at an early adult age,

and is common in both sexes, the male predominating. This type of baldness has been proved experimentally to be contagious, and several microorganisms have been alleged to be the specific cause but none of them has been positively established as such. Too frequent ablutions of the scalp, the wearing of unventilated headgear, gout and dissipation are offered as additional contributing causes.

Treatment. The treatment of congenital baldness is superfluous; the condition rights itself, or does not do so, and in either instance is not affected by treatment. Senile baldness is in itself beyond relief, but its advent may be long deferred by proper prophylactic measures of systematic hygiene and disinfection of the scalp.

Idiopathic premature baldness, unless it be ascertained that idiopathic is a misnomer, and the causative factor eliminated, is likewise unaffected by treatment.

In the treatment of *alopecia seborrhœica* considerable time and attention to detail are required to secure satisfactory results. The scalp should be shampooed with the tincture of green soap or a good tar soap, once a fortnight, and a stimulating lotion, in the absence of much irritation, applied once or twice daily. Resorcin is of great value in this condition, as is also bichloride of mercury. Precipitated sulphur, salicylic acid and hyposulphite of soda are also of value. These remedies may be used alone but are usually combined in the form of lotions such as the following:

℞

Hydrarg. Biehlorid.,	gr. j-ij.
Resorcin.,	℥j-ij.
Tinct. Cantharidis,	℥ij.
Alcohol,	℥j.
Aquæ Rosæ ad,	℥iij.

M. Sig. Apply to scalp with a pipette.

Resorcin may be used in proportion of one dram to three ounces of bay rum, as a simple but effective lotion. It should not be used for too long a time continuously, as it tends to stain the hair.

A solution of hyposulphite of soda ℥j to rose water ℥iij is serviceable, especially when dandruff is abundant.

Ointments are sometimes useful when lotions fail to accomplish the desired results, and the patient does not make too strenuous a protest against their employment. The following combination is recommended:

℞

Sulphur. Precip.,	℥j.
Pilocarpin. Hydrochlorat.,	gr. ij.
Ung. Aq. Rosæ ad,	℥j.

M. et ft. ung. Sig. Apply at night.

The hair should be parted in parallel rows, and the ointment applied to the scalp thus exposed. The scalp may be washed every three or four days.

Lassar's method is more or less used. It is as follows: The scalp is shampooed with tar soap and dried and a solution of bichloride of mercury 1:2000 applied; this is followed by a solution of beta-naphthol five per cent in alcohol. An oil of the following composition is then rubbed in:

℞

Acid Salicyl.,	℥ss.
Tinct. Benzoin,	gtt. xl.
Neat's foot Oil ad,	℥iij.

These manœuvres are to be repeated every night for two or three months. There are few patients who are willing to carry out the irksome details.

Tar is serviceable, but somewhat objectionable on account of its odor.

The oil of cade is the preparation of choice.

Massage and static electricity are both beneficial, especially when the scalp is drawn and tense and the nutrition impaired.

Further particulars of the treatment of alopecia, seborrhœa and seborrhœic eczema, to avoid repetition, will be given under these heads.

Prognosis. The prognosis of senile and idiopathic baldness is bad; that of alopecia seborrhœica favorable, provided the cause is removed. The patient may be given a reasonable assurance that the complaint can be stayed with proper treatment, though the hair lost may not be restored.

ALOPECIA AREATA.

Synonyms: Alopecia Circumscripta, Area Celsi.

Definition. Alopecia areata vel circumscripta is a localized loss of hair, occurring in round or oval patches, and without apparent disease of the skin.

Description. It differs from the other forms of alopecia in its abrupt onset and sharp circumscription. The patch is usually completely denuded of hair, and the skin quite white or pink and smooth. The scalp is the usual seat of the disease, though the eyebrows, beard, axillary and pubic hair may be involved. Occasionally the alopecia is universal and complete.

Etiology. Alopecia areata occurs in both sexes indifferently, and from childhood to old age. It is sometimes contagious, and may be hereditary. The contagious variety is rarely observed in this country. The affection is by some regarded as a tropho-neurosis, and by others as parasitic. It appears likely that there are two forms, the neurotic and the parasitic, the latter being contagious.

Symptoms. The disease begins abruptly as a rule. The patient

notices that in using the brush a tuft of hair comes away. The patch is at first single, and may gradually grow larger, or several small patches may appear simultaneously, either widely separated, or close enough together to merge into each other by extension.

Course and Duration. The disease is essentially chronic. Its duration is at least a year, and possibly longer. The hair may return to the bald patches, and again fall off, or it may appear in an old patch, while a new one is forming. The reappearance of hair, even though temporary, is a favorable sign.

Treatment. The remedies selected for the treatment of *alopecia areata* are those suitable for the relief of any coexisting constitutional disturbance, and locally, stimulating applications to the patches themselves. Tonics and alteratives are often required. The glabrous areas may be painted with irritating and stimulating applications for the double pur-

Fig. 13.—Alopecia Areata.

pose of a parasiticide and a counter-irritant to cause a determination of blood at that point, with consequent improvement of nutrition. The application should be adjusted to the resistance of the skin, the milder remedies being suitable to children. Tincture of iodine may be painted on the patch or patches until desquamation occurs. Vesicating solutions of bichloride of mercury in alcohol (gr. iij-℥j), five to twenty per cent. solutions of trikresol, pure carbolic acid, pyrogallol or chrysarobin in alcohol solution of increasing strength—may all be ventured during the long course of treatment.

Favorable results have been reported from the use of the X-rays and the Finsen light. The former has often been observed to cause a loss of hair from superficial dermatitis, to be followed by a return of the hair in much more vigorous growth. As the disease is self-limited, the result of treatment is sometimes indeterminate, but the prompt results which often take place from the use of the foregoing remedies appear to render persistence worth while.

Prognosis. The prognosis is almost invariably favorable. There is

in the great bulk of cases a complete restoration of the loss of hair. Relapses are not uncommon. In exceptional instances of wide spread alopecia the loss of hair is permanent and the disfigurement caused by the absence of this decorative appendage of the skin is decidedly conspicuous.

ANHIDROSIS.

Definition. Anhidrosis is a functional affection of the sweat glands characterized by a diminution or absence of the secretion. It is localized or general. It occurs in febrile states and is a forerunner of sunstroke. It is characteristic of certain diseases of the skin, as ichthyosis, and patches of inveterate squamous eczema and psoriasis show absence of sweating. Rarely, the sweat function seems entirely in abeyance, which condition while not fatal entails considerable suffering upon the patient.

Treatment. When due to congenital defect of the coil glands no treatment is available. When symptomatic, restoration of the activity of the glands should be induced by the administration of diaphoretics, such as phenacetine, pilocarpine, together with hot baths, and the free imbibition of water.

ANTHRAX.

Synonyms: Charbon, Malignant pustule.

Definition. Anthrax is a constitutional, specific affection with cutaneous lesions resembling a carbuncle.

Etiology. Anthrax is due to inoculation with virus derived from animals suffering from splenic fever and occurs chiefly among butchers, wool-sorters, tanners and the like.

The specific cause of the disease is in the anthrax bacillus.

Symptoms. The disease begins at the point of inoculation as a lesion resembling the bite of an insect. It rapidly becomes bullous or vesicular, and the lesion dries and shows a central area of necrosis, surrounded by a dark-red, densely infiltrated skin. The lymphatic channels and the nearest lymph glands are quickly involved, and constitutional symptoms of a general infection, with chill, deep-seated pains and febrile reaction, ensue.

Death occurs in about thirty-three per cent. of the cases.

The face, hands and arms are the usual seat of the affection.

Diagnosis. Anthrax is to be distinguished from carbuncle and infected wounds by the early occurrence of tissue necrosis, and the rapidity and gravity of the constitutional disturbance.

Treatment. Surgical removal or destruction of the lesion with caustic potash or the actual cautery should be practised if possible before the supervention of systemic infection. Free incision in and around the lesion has been recommended.

Antitoxics such as alcohol, quinine, the salicylates and supportive measures constitute the internal treatment.

ATROPHIA CUTIS.

Definition. Atrophy of the skin is any diminution of the gross structure of the skin or essential degeneration of its component parts. It may be idiopathic or symptomatic, circumscribed or diffused.

Description. General atrophy of the skin occurs physiologically in old age, from the absorption of fat and increase in yellow connective tissue. The skin becomes velvety, soft, thinned and wrinkled with prominent veins, and frequently shows slightly-raised, scaly or warty patches. Diffuse idiopathic atrophy of the skin is a rare affection, accompanied by

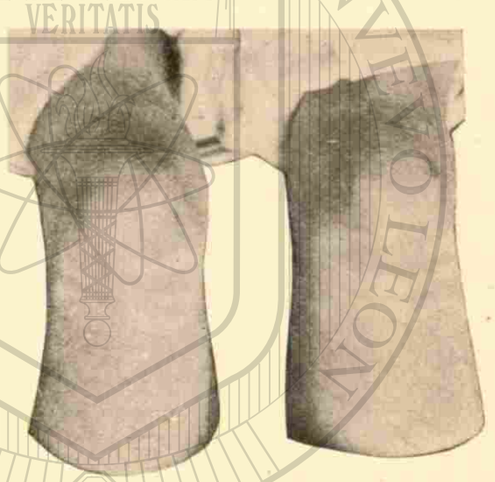

Fig. 14.—Striæ Atrophicæ (Ohmann-Dumesnil).

gradual discoloration and darkening of the skin in patches, which undergo atrophic changes, resulting in contraction and impairment of motion.

Striæ et maculæ atrophicæ. Atrophic lines and spots may be idiopathic appearing as smooth, glistening, lustrous streaks or bands of thinned skin from one-eighth of an inch to one inch in width, and one to several inches in length, or as slightly depressed, scar-like spots from a pin-head to a finger-nail in size. They are generally found upon the trunk, hips and thighs of young subjects. These appearances may be symptomatic, as illustrated by the lines (*liniæ albicantes*) which occur in the skin as a result of pressure from tumors, the pregnant uterus or deposit of fat. They are not, however, genuine atrophies, but the effects of overdistension.

Injuries and diseases of the nerves may be followed by cutaneous atrophy. In the condition known as "glossy skin," the extremities, especially the fingers, become smooth, pinkish or red, with appreciable thinning of the skin giving it a glazed, varnished look.

There is more or less pain of a neuralgic character associated with it and a tendency to fissuring causes the affection to simulate chilblain. Regenerative changes in the nerve tissue tend to cause its spontaneous disappearance.

Cutaneous atrophy is observed to occur as the result of some diseases of the skin, as syphilis, leprosy, morphœa and scleroderma.

Treatment. The treatment of atrophy of the skin is unsatisfactory. Electricity offers some prospect of benefit.

ATROPHIA PILORUM PROPRIA.

Definition and Description. Atrophy of the hair occurs as a symptom, or without assignable cause. It takes place in the course of certain constitutional diseases, as a consequence of seborrhœa and the invasion of the hair shaft by micro-organisms.

In the symptomatic form the hair becomes dry, lustreless, hay-like and easily breaks. When atrophy occurs primarily, the hair shaft splits at the end, or divides along its length and is brittle (*fragilitas crinium*).

In another variety of atrophy (*trichorrexis nodosa*) the hair shows nodular, somewhat glistening thickenings, at which it breaks, leaving brush-like stumps.

Both of these varieties are rare, the latter occurring chiefly in the beard and moustache.

Treatment. Repeated shaving, and the application of lotions of a stimulating and antiseptic nature, have occasionally been followed by good result. Depilation with the X-ray has been recommended for *fragilitas crinium* and *trichorrexis nodosa*.

Prognosis. The prognosis of atrophy of the hair depends largely upon the curability of the disease causing it. The prognosis of the idiopathic form is unfavorable.

ATROPHIA UNGUIUM.

Description. When affected with atrophy the nails become lustreless, striated, reedy, brittle, sometimes pitted, like orange peel. The process may be limited to one nail, or several of both fingers and toes are affected.

The condition is congenital or acquired, the former being of very rare occurrence. If congenital, the nail or nails are thin and distorted, or entirely lacking. If symptomatic, it is thinned, raised from its bed, brittle and friable. Wasting diseases, such as tuberculosis, tabes dorsalis, gout, rheumatism and syphilis may be responsible for ungual atrophy. Eczema and psoriasis not uncommonly attack the nail and produce atrophic degenerative changes. Arrested growth of a nail is sometimes observed after fracture of one of the long bones of the extremities.

The substance of the nail is sometimes invaded by the fungi of ring-

worm or favus, which may lead to partial or complete disintegration. This condition is termed *onychomycosis*.

Treatment. The treatment of ungual atrophy depends upon the cause. The underlying disease demands appropriate treatment. If due to syphilis, it tends to clear up under specific treatment along with other symptoms of the disease.

Onychomycosis requires the use of mercurial preparations employed as ointments or finger baths. Sodium hyposulphite ℥j to ℥j of water has been recommended. Anointing the finger with a two per cent. ointment of salicylic acid, and covering it with a bandage or a finger cot is sometimes of service. The nails should be scraped thin or softened with liquor potassæ or acetic acid before making these applications.

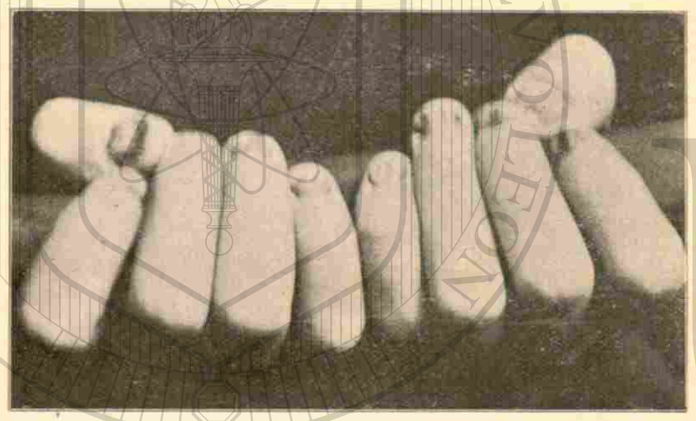

Fig. 15.—Atrophia Unguium (Unna).

Prognosis. The results of treatment are tardy, but owing to the disfigurement of ungual atrophy patients of the better class are usually willing to persist in the treatment. By persistence a fairly good result may often be secured.

BROMIDROSIS.

Definition and Description. Bromidrosis is a functional disorder of the sweat glands characterized by a modification of the normal odor, with or without an increase in the secretion of sweat. The odor is frequently extremely fetid and penetrating, rendering the patient obnoxious to himself and his associates. It is not the odor of stale perspiration but approaches the cadaveric. Instead of being offensive it may resemble the scent of flowers or of fruit.

Bromidrosis is usually limited to the feet, axillary spaces and anogenital region. A certain degree of hyperidrosis is commonly associated with it.

The bacillus fetidus has been found in the sweat of bromidrosis, and is regarded as the provoking cause. Functional disorders of the nervous system probably contribute in its causation.

Treatment. The treatment of bromidrosis consists in cleanliness and the use of absorbent, deodorizing powders and astringent lotions.

If hyperidrosis be a conspicuous feature it should be treated in the manner recommended under that subject. When there is a nerve element, salicylate of soda, in five grain doses three times a day, has been recommended.

CALLOSITAS.

Definition. A callosity is a circumscribed, superficial thickening of the epidermis and is usually situated upon the hands and feet, and arises from long-continued pressure or friction.

Description. Callosities are found upon yielding tissues rather than over bony prominences. On the hands they are occasioned by the use of tools or other implements; on the feet they are due to ill-fitting shoes, excessive walking or the continuously erect posture. Thickening may occur without mechanical irritation, as in eczema and psoriasis.

Symptoms. The subjective symptoms of callosity are absent, unless the thickening is sufficient to produce pressure upon the sensitive structures beneath when sensations of heat and burning are complained of with some pain and discomfort in walking, especially during warm weather.

Treatment. The treatment of callosity is immediately effective, but recurrences are inevitable unless the cause is permanently removed. The calloused areas should be softened with hot water and the surfaces pared with a sharp knife or razor. Liquor potassæ or salicylic acid in saturated solution in collodion will, if painted on for several days in succession, accomplish the same result.

A good plan is to lay a perforated strip of chamois skin along the callosity and attach it to the skin with thin strips of adhesive plaster. This offers a cushion for the yielding tissue upon which the callosity is situated and may cause it to disappear.

Changing the form of shoe will often relieve the annoying condition.

Callosity of the palm is often physiological and desirable and needs no treatment.

CANITIES.

Synonyms: Grayness or Blanching of the Hair; Hoariness.

Description. The hair normally begins to turn gray in middle life The change may take place much earlier under the influence of heredity or decided nutritional disturbance. It appears gradually, a hair here and there, in the temporal or parietal regions, losing its pigment, and progresses until all the hair of the head and also of the beard and moustache and eyebrows is blanched. The process may be much more rapid, even

abrupt, as well authenticated instances of sudden whitening of the hair under the influence of powerful mental or nervous stress are given. The loss of pigment may occur in localized areas, when it is usually due to neuralgia, leucoderma or traumatism, other pilous portions besides the scalp and face being involved. The loss of pigment appears in no wise to compromise the growth or vigor of the hair.

Treatment. Dyeing the hair with solutions of nitrate of silver or lead is resorted to by some, but it is not to be recommended on any but doubtful cosmetic grounds.

CANCER. CARCINOMA CUTIS.

Varieties. The most frequent type of cancer of the skin is epithelioma, and will be described under that title. Other varieties originating in the skin or secondarily developing from growths elsewhere are two, the lenticular and the tuberose. The pigmented or melanotic is now classed with the sarcomata.

Carcinoma lenticulare is the commonest of the scirrhous or fibrous cutaneous cancers. It is characterized by the presence in and upon the skin of smooth, flattened, glistening papules, at first shot-sized, later enlarging. They become disseminated, coalesce, and the skin involved takes on a smooth, shining appearance, and is much indurated. The lymphatic vessels and glands are involved, and the neighboring limb becomes swollen, œdematous and painful. Pain is present to a greater or less extent throughout the course of the disease.

The affection progresses gradually. The papules eventually disintegrate, ulcerate, fungate, and the patient dies from exhaustion or extension of the disease to some important organ. When the skin of the thorax or abdomen becomes so extensively infiltrated as to lose its elasticity and embarrass respiratory movements, the condition is termed cancer *en cuirasse*.

Carcinoma tuberosum. This variety is much rarer than the foregoing, and the nodules are larger. It occurs as hard, round and oval lumps from the size of a filbert to that of a hen's egg. These are situated at first in the deeper portions of the skin but, as they enlarge, approach the surface. The over-lying skin becomes dusky-red or violaceous, breaks down and ulcerates, when the typical appearance of carcinoma is manifested and death sooner or later follows.

Treatment. When practicable the growths should be removed surgically. Failing in this, unless something can be accomplished with the newer physical agents, the X-rays and radium, the treatment is without avail.

CARBUNCULUS.

Definition and Description: Carbuncle is a deep-seated, phlegmonous inflammation of the skin, accompanied by numerous necrotic foci with

sloughing of the tissues involved. It occurs in middle-aged and elderly people as a rule, and is more common in men than in women. It is usually single, but when several occur they are apt to be separated from each other by more or less wide intervals.

Etiology. Debility and diabetes are the most frequent general causes, though carbuncle is not uncommon in those in apparently robust health. The exciting cause is the *staphylococcus pyogenes aureus.*

The seats of predilection of carbuncle are the nape of the neck, face, scalp, upper part of the back, the buttock and thigh.

Symptoms. Carbuncle begins with a flat, more or less circumscribed, dusky-red, painful infiltration in the skin. The area involved measures from two to eight inches in diameter and is of a board-like hardness. The circumjacent skin is red and œdematous. In seven or eight days numerous points of suppuration make their appearance upon the area of infiltration,

Fig. 16.—Carcinoma Tuberosum (W. P. Nicolson).

which in a week more begins to slough and expose dirty, yellowish masses of necrotic tissue accompanied by an ichorous discharge mixed with shreds of tissue. The skin lying between these cribriform openings may become sphacelated and melt away. The slough finally loosens, leaving exposed a deep, irregular ulcer which gradually fills up with granulations and heals with a drawn, irregular scar.

The constitutional symptoms of carbuncle appear early in the course of the disease and are those of toxic absorption, malaise, chill, fever and prostration. In diabetic, feeble, old and infirm people with weakened powers of resistance, septicæmia developing may produce fatal termination.

Pathology. The process begins in the sweat or sebaceous glands, or at the root of a hair. There are numerous inflammatory centres which act independently, up to a certain point, when they fuse together. Gangrene takes place from thrombosis of the vessels.

Diagnosis. Carbuncle has some resemblance to furuncle and anthrax.

but with the former only in the early stages before the sieve-like characteristic openings have been manifested. Carbuncle is flatter than furuncle, single, and the constitutional symptoms are more severe. Its points of differentiation from anthrax have already been brought out in connection with that disease.

Treatment. If detected early an effort may be made to abort the carbuncle by the injection of carbolic acid, either pure or of twelve and one-half per cent. strength in glycerine. The injections should be made with a hypodermic needle at several points, and deep in the infiltrated area. This should be followed by hot boric acid or bichloride fomentations. Ichthyol pure, or in twenty-five to fifty per cent. strength in lanolin or glycerine, may be kept in constant contact with the lesion.

Fig. 17.—Carbuncle.

Surgical measures should be adopted when the constitutional symptoms warrant them. Under a general anæsthetic the whole of the infected area is removed with a circular incision and dissection. The crucial incision is serviceable only in the mildest types of the disease, for by this method all of the suppurating foci are not reached. When sloughing has occurred, the gangrenous tissue should be clipped away with scissors, the base of the ulcer cleansed with peroxide of hydrogen and antiseptic dressings applied.

The general treatment consists in the administration of stimulating and supporting remedies and forced nutrition. Large doses of tincture of chloride of iron, tincture of nux vomica, quinine and alcohol freely assist in the management of the case.

Prognosis. Recovery from carbuncle is the rule, though when the resistance of the patient has been lowered by concurrent disease death is not infrequent.

CHLOASMA.

Synonyms: Liver Spots, Moth Spots.

Definition and Description. Chloasma is an excess pigmentation occurring in irregularly-shaped patches or sheets of a brownish or yellowish-brown color. The affection appears idiopathically after long continued

Fig. 18.—Chloasma with Varix.

exposure to the sun's rays, or from friction or pressure, or it may follow as a symptom of certain disorders of the liver, spleen, adrenal bodies, uterus and its appendages. It is consecutive to a number of cutaneous affections such as leprosy, syphilis or eczema of long standing. Malaria, tuberculosis and cancer produce a cachectic chloasma.

Varieties. The form of chloasma commonly observed is that termed *chloasma uterinum* and is associated with utero-ovarian disease or pregnancy (*chloasma gravidarum*). It occurs in both single and married women but never after the menopause and is seen chiefly upon the face,

especially the forehead, and may extend from the hair-line to the brows. The cheek and lip are often concerned and the discoloration may cover the whole face like a mask. It also appears on the neck, and may be found in scattered patches over the body, particularly along the middle line, about the mammary areola and vulva.

Discoloration of the skin is produced by certain drugs, especially nitrate of silver and arsenic. Under the long continued use of the former, the skin assumes a bluish or bluish-gray, leaden or slate color from the deposit of metallic silver. The condition is known as *argyria* and was formerly much more frequently seen than at present when the treatment of epilepsy with nitrate of silver, once so popular, has fallen into disuse. The discoloration is ineradicable. Arsenic may produce a brown or bronze pigmentation which slowly disappears after the discontinuance of the drug.

Diagnosis. Chloasma resembles *tinea versicolor*, one of the parasitic diseases of the skin, but differs from it in affecting the exposed parts of the body, lacking furfuraceous scaling and not disappearing on pressure. (The last named is a sign which is common to all genuine hyper-pigmentations of the skin.) If doubt exists recourse may be had to the microscope.

Pathology. The granules of pigment lie principally in the lower strata of the prickle cells of the *rete mucosum*.

Treatment. The treatment of chloasma consists in first removing the cause of it, if this can be ascertained.

Locally, applications which cause desquamation or vesication of the discolored skin are to be used. Vesicants should be employed with caution lest the pigment be actually reinforced by the irritation accompanying its removal. The following lotion is much used:

℞

Hydrarg. Bichlorid.,	gr. x.
Tinct. Benzoin.,	
Hydrogen. Peroxid.,	āā ℥j.
Emuls. Amygdal. ad,	℥vj.

M. Sig. Apply to patches several times daily.

Bulkley recommends:

℞

Hydrarg. Bichlorid.,	gr. vj.
Acid. Acetic Dilut.,	℥ij.
Sodii Biborat.,	gr. xl.
Aquæ Rosæ ad,	℥iv.

M. This is to be brushed into the affected parts until they become too scaly, then cold cream is to be applied.

Either of the following ointments may be tried:

℞

Kaolin,	℥j.
Magnes. Carbonat.,	
Zinc. Oxid.,	āā ℥ss.
Glycerin,	℥j.
Vaselin,	℥ss.

M. et ft. unguent. Sig. For local use.

Or:

℞

Acid Salicyl.,	gr. xx.
Ung. Hydrarg. Nitratis,	℥iij.
Ung. Zinc. Oxid. ad,	℥j.

M. et ft. ung. Sig. Spread on a piece of lint and apply to the patch.

Leloir recommends the following procedure: Cleanse the part first with alcohol, then paint over it several layers of a fifteen per cent. solution of chrysarobin in chloroform, then cover with a layer of traumaticin. When the layers begin to loosen and peel they are removed.

Electrolysis may be successfully employed in small patches, using a very fine needle and passing it horizontally just beneath the epidermis.

Prognosis. The prognosis of all types of chloasma is uncertain. If due to some internal cause which can be removed, the discoloration gradually clears up.

When the treatment is entirely local, the prospect of ultimate removal of the disfigurement is far from flattering.

CHROMIDROSIS.

Synonym: Colored Sweat.

Definition and Description. Chromidrosis is a disorder of the sweat secretion manifested by a bluish or bluish-black discoloration of the fluid. It is very rare and is, as a rule, limited to the face, though it may occur elsewhere. The color is usually sepia black, or black with a bluish tinge. It appears rapidly or gradually and is accompanied by a deposit on the skin of a granular, powdery substance. Hyperidrosis coexists.

The character of the coloring matter secreted by the sweat has not been ascertained, but has been variously ascribed to indican, a micro-organism, phosphate of iron, compounds of cyanogen.

The sweat may be colored green from the presence of copper in the system, or red, or yellow from a growth of parasites upon the hairs, especially those of the axilla.

Etiology. The affection is probably a neurosis aggravated by uterine

disorders and chronic constipation. Two-thirds of the cases have, according to Crocker, occurred in young, unmarried women of highly nervous organization. Some writers are inclined to regard the affection as an imposture, but there seems to be no doubt as to the reality of its occurrence.

Treatment. The treatment of chromidrosis is directed at the removal of any disturbance of the general health, especial attention being given in the relief of constipation.

Locally, astringent and stimulating applications may be employed. Van Harlingen recommends the following:

℞

Acid Boric.,	gr. x.
Acid. Salicyl.,	gr. xv.
Ung. Aq. Rosæ ad.,	℥j.
M. et ft. ung.	

Prognosis. The outcome of the disease is good, the patient ultimately recovering. The duration depends upon the cause and its removability.

CHROMOPHYTOSIS.

Synonyms: Tinea Versicolor, Pityriasis Versicolor.

Definition. Chromophytosis is a disease characterized by finely scaling, yellowish or yellow-brown patches or sheets occurring chiefly on the trunk, and due to the presence of a vegetable parasite, the *microsporon furfur*.

Symptoms. The affection begins with macules, the size of a pin-head or larger, which gradually extend, unite with other macules and form patches. The color varies from a brownish-yellow to a light-fawn, even pink. The surface of the patch is covered with very fine scales, which may be scraped off with the finger nail. Slight itching, especially in warm weather, is usually complained of, though it may be absent. The sternal and interscapular regions are the usual locations. If the disease has existed for a long time without treatment it may spread over the whole front of the trunk, extending from the clavicles to the pubes in a continuous sheet, and on the back in large patches with smaller satellites, the "bathing suit" area. The face and extremities generally escape.

The affection is chronic, and, if undisturbed, will exist for years.

Etiology and Pathology. The *microsporon furfur*, a fungus of the mushroom type, is the cause of the disease. It invades the horny layer and grows luxuriantly. The spores of the mycelium are highly refractive, and show a marked tendency to grouping. The affection is confined to adults, and is but slightly contagious.

Diagnosis. The diagnosis is usually easy, and rests mainly upon the

location and furfuraceous scaling. It may be definitely established by microscopic discovery of the fungus in scrapings from the patches.

Treatment. The treatment is rapidly effective, but must be thorough, else relapses will occur. The patches are scrubbed with tincture of green soap, which is then washed off and a saturated solution of hyposulphite of soda applied. This usually suffices to relieve the trouble in a few applications. Other remedies are equally serviceable. Ammoniate of mercury, ten grains to a half-dram to the ounce of cold cream; resorcin ten to

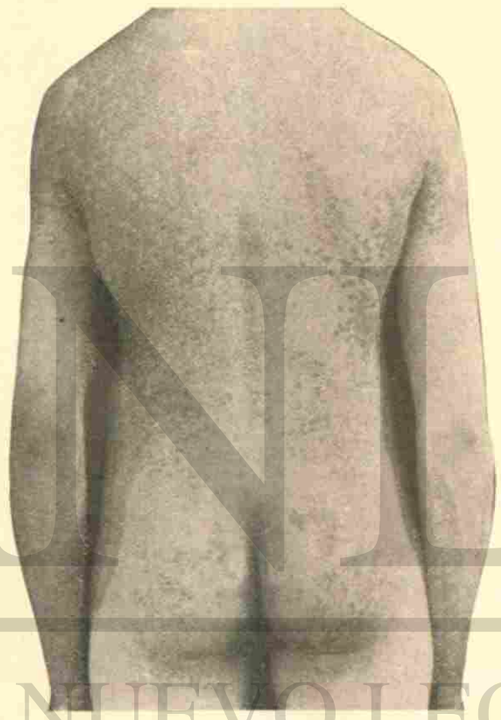

Fig. 19.—Chromophytosis (Dyer).

twenty grains to the ounce of alcohol; freshly prepared sulphurous acid; will all promptly remove the discoloration. Stelwagon recommends:

℞

Sulph. Precip.,	℥ss.
Saponis Viridis,	℥xij.
M. Sig. Apply with friction.	

In carrying out the treatment the smallest macule must not be overlooked, otherwise it will form a focus for future development.

CLAVUS.

Synonym: Corn.

Definition and Description. A corn is a small, flattened, round or oval, horny formation seated in the skin usually about the toes. It has a harder central portion, the core, which is conical in shape, the apex resting upon the sensitive corium.

The corn may be single or multiple and is usually situated upon the dorsal aspect of the toes, or the outer side of the little toes. When located between the toes from warmth or moisture the corn becomes macerated and is then called a "soft" corn," having often a deep pit in the centre instead of a core.

Fig. 20.—Microsporon Furfur x 700 (Schamberg).

Corns are caused by friction and pressure. They are tender and spontaneously painful. Corns sometimes become inflamed and follow the course of inflammation elsewhere, ending in suppuration and ulceration.

Treatment. Ill-fitting shoes should be discarded to relieve friction or pressure, and the corn then not infrequently disappears spontaneously.

A simple method of treatment, and the only one usually adopted by the laity, is to soak the foot in hot water and then cut or rasp away the outer layers of the corn. This procedure must be repeated at short intervals.

A corn plaster, which is a disc of felt with a central opening, may be worn to form a cushion against undue pressure.

A saturated solution of salicylic acid in collodion may be painted on the corn twice daily for a week. This will remove most, if not all, of it,

and may be repeated if necessary. Salicylic acid plaster ten to twenty per cent. may be cut in appropriate pieces and applied to the corn, the whitened skin being removed with a knife before each application. Soft corns should be treated in the same manner and when the mass is removed the surface left should be touched with nitrate of silver or carbolic acid.

If the corn prove obstinate a good plan is to extirpate the growth surgically. Cocaine anæsthesia is used, an elliptical incision is made, and the corn excised; the wound is then sutured to form a small, linear cicatrix.

COLLOID DEGENERATION OF THE SKIN.

Synonym: Colloid Milium.

Definition and Description. Colloid degeneration of the skin is an exceedingly rare disease, only about six cases having been reported. Millet-seed or pea-sized, glistening, rounded papules appear about the upper part of the face, conjunctivæ and septum of the nose, or upon the back of the hands. They are of a bright-lemon color or yellowish-brown and translucent. When punctured a transparent material can be pressed out. The lesions do not coalesce, but remain separate. They differ from milium in color and consistence, and are much smaller and more translucent than xanthoma.

Treatment. The lesions should be incised and their contents expressed, or they may be destroyed with the electric needle.

COMEDO.

Synonyms: Flesh worm, Blackhead.

Definition and Description. Comedo is an affection of the sebaceous glands in which the excretory ducts become filled with plugs of sebum, showing as minute black points on the surface of the skin. They occur upon the face, back, shoulders, and also on the genital organs and about the margin of the anus. The demodex follieulorum, a grub-like insect, is occasionally met with in the comedo. The hardened secretion may be readily extracted with the finger nails or an instrument devised for the purpose called the comedo extractor of which there are several forms. When thus extracted, the comedo consists of a cube of solidified sebum with its aerial extremity much darker than the remainder; or the mass may be semi-solid, formless and white, frequently with an odor resembling that of sour buttermilk.

Comedo may appear in groups and is occasionally double. The black extremity is due to dirt or a chemical change in the secretion. The affection occurs as a distinct disease, but is usually a concomitant of seborrhœa and acne, being largely concerned in the pathogenesis of the latter.

Comedo occurs in young adults and is an exceedingly common disease. It is more or less dependent upon a sluggish, atonic condition of the skin and is frequently associated with digestive disorders, menstrual derangements, anæmia and chlorosis. These conditions may, however, be con-

spicuously absent and the patient present, with the exception of comedo, every appearance of robust health. The cause is then to be looked for in some feature inherent in the skin, and is found in its quality and texture.

The affection tends to disappear with increased age and its course is essentially chronic.

Treatment. The constitutional treatment is carried out on principles of general medicine, and is directed at the relief of any disturbance of health that may be found associated with comedo.

Local treatment is practically identical with that of acne vulgaris. The comedones must be removed and such remedies applied as tend to stimulate the sebaceous glands to better functional activity. Compresses of hot water should be applied to the face, followed by frictioning with tincture of green soap, full strength or diluted with water. A lotion of bichloride of mercury 1:1000 may be applied after the soaping process. Weak sulphur lotions or ointments may be used with advantage, such as these:

℞

Sulphur. Precip.,	ʒj.
Spirit. Lavandul.,	ʒij.
Aquæ Rosæ ad.	℥ij.

M. Sig. Shake and use locally.

℞

Sulphur. Precip.,	ʒij.
Ung. Aq. Rosæ,	ʒj.

M. et ft. unguent. Sig. Rub in well on retiring.

If the trouble prove rebellious the X-rays may be employed for their effect upon the cutaneous glandular system. Under their influence there is an atrophy of the sebaceous glands and a disappearance of the comedo, but the treatment must be carried out with every caution, and not every one possesses the experience necessary to minimize the risk in employing so potent a remedy.

Actinotherapy is also serviceable and devoid of risk. The 2-500 candle power lamp may be used for this purpose.

Massage and electricity are both beneficial from their tonic effect upon the skin.

Prognosis. While the prognosis of comedo is favorable, it must be remembered that the process is wide spread and indolent, and both time and fidelity to treatment are required to obtain successful results.

CORNU CUTANEUM.

Definition and Description. Cutaneous horns are growths or excrescences from the skin of varied shape and size, which when fully developed

are of similar structure to the horns of lower animals except that they are not situated upon an osseous base.

Cutaneous horns are elongated, twisted, conical or irregularly shaped, hard and dry, grey, black or brownish in color. They are usually single, and occur chiefly upon the faces and ears of old people, though no age or region of the body is exempt. They occasionally spring from the remains of a sebaceous cyst and are not infrequently associated with epithelioma.

Histologically, cutaneous horns are composed of lamellæ of cornified cells with the papillæ of the base greatly elongated. Their structure is similar to that of a wart.

Fig. 21.—Cutaneous Horns (Van Harlingen).

Treatment. The treatment of cutaneous horn consists in avulsion and cauterization of the base, or excision and suture. Unless thoroughly removed they tend to return.

CYSTICERCUS CELLULOSÆ CUTIS.

When *cysticerci* are present in the skin and subcutaneous tissue, they appear as pea- to filbert-sized, firm, rounded, freely movable tumors which attain a certain dimension, and then tend to remain stationary for months. The parasites are discovered by microscopic examination of the tumors, or the fluid obtained by incision. They are the scolex of the tenia solium, or tape worm.

DERMATALGIA.

Definition and Description. Dermatalgia is an affection of the skin accompanied by pain without appreciable lesion. It is secondary to some nervous disorder, such as locomotor ataxia, or some constitutional disturbance, such as rheumatism. The pain occurs spontaneously and is burning and continuous, or sharp and paroxysmal. It varies in intensity, and is increased by pressure. Inspection of the skin reveals no departure from the normal. The pain is usually localized and chiefly affects the hairy portions of the body, especially the scalp.

Treatment. The treatment of dermatalgia consists in removing the cause if possible. The salicylates are to be given if rheumatism be suspected. Locally, galvanism or the static currents may be used. Evaporating lotions of menthol or camphor will afford temporary relief. Crocker advises a mustard leaf applied to the centre from which emanates the nerve to the affected region.

The disease tends to spontaneous disappearance with more or less frequent recurrences.

DERMATITIS.

Definition. Dermatitis is the term applied to acute inflammation of the skin due to some known irritant.

Varieties. Several varieties of dermatitis are distinguished on the basis of causation, and include those due to external violence; to contact with irritant plants; to the internal exhibition of certain drugs; to the effects of heat and cold; and to physiological and pathological secretions.

Dermatitis may be exceedingly mild in character, amounting to a merely temporary redness; or a severe process ending in ulceration and gangrene.

The several forms of dermatitis to be considered are as follows:

Dermatitis traumatica. Traumatic dermatitis includes all forms of cutaneous inflammation due to mechanical injury, such as friction, pressure, scratching and the like. The condition of the patient as to the general health influences the degree of dermatitis occasioned by these causes. The effects are apt to be greater in those suffering from some nutritional disturbance, local or general.

The treatment depends upon the exigencies of the individual, the cause and severity of the reaction.

Dermatitis medicamentosa. Under this head are included inflammatory conditions or eruptions of the skin due to the ingestion of certain substances classed as medicine or food. The eruption thus engendered is usually of the erythematous or urticarial type, though less commonly it may be papular, pustular, bullous or hemorrhagic. There are certain conditions which favor the occurrence of drug eruptions, and which consist

in long-continued use of a drug, especially in large doses, excessive activity of the glandular system of the skin, defective elimination by the intestines and kidneys, and personal peculiarities.

Idiosynerasy is accountable for many of the eruptive states consequent upon indulgence in certain articles of food, as strawberries, tomatoes, shellfish, or from the administration of such drugs as quinine, belladonna, the salts of iodine. The reason for this susceptibility of some individuals, and the immunity of others, is unknown.

There is nothing distinctive about the eruptions caused by drugs except in a few instances which draw out from the throng with some particularity. Among these exceptions are the erythema resembling scarlatina from belladonna; the acneform lesions from potassium iodide; the urticarial maculo-papules from balsam of copaiba; the bullous and papillomatous eruptions from potassium bromide.

Treatment. The treatment of dermatitis medicamentosa consists in the discontinuance of the drug causing it, and attention to the special condition obtaining. Prompt disappearance of the eruption follows the withdrawal of the drug, except in case of the slowly eliminated substances like the bromide and iodide of potash, when the subsidence is gradual.

The following is a partial list of drugs which may produce an eruption, together with the relative frequency and the salient characteristic of the lesion.

Arsenic. Rare. Lesion urticarial, less often erythematous, papular or vesicular. Pigmentation follows long continued use. Keratosis of the palms and soles occasionally noted.

Belladonna. Not common. Scarlatiniform erythema on the chest, flushing of the face and dilatation of the pupils.

Bromides. A pustular eruption is the most frequent. Less frequent are fungating, purulent lesions resembling condylomata, especially in children.

Chloral. Occasional. Usually erythematous, may be papular and urticarial.

Copaiba. Not infrequent. Bright-red, maculo-papular patches, sometimes like scarlet fever or measles.

Cubebs. Less frequent and resembles copaiba.

Iodides. Common. Papulo-pustular on the face, neck and back; may be erythematous with swelling, sometimes hemorrhagic, bullous or fungating.

Mercury. Uncommon. Erythematous.

Opium. Not uncommon. Maculo-papular; erythematous and urticarial. Itching.

Quinine. Common. Erythematous with desquamation; urticarial, purpuric, vesicular or bullous. Itching.

Salicylic Acid. Rare. Erythematous; sometimes wheals.

Turpentine. Rare. Erythematous; vesicular.

Dermatitis Calorica. This title embraces inflammation of the skin produced by the extremes of heat and cold. When due to the former, the condition is called *dermatitis ambustionis* (burn); to the latter, *dermatitis congelationis* (chilblain, frostbite).

Dermatitis ambustions. According to the severity and length of exposure to heat the inflammation may be a slight and transient erythema or

Fig. 22.—Dermatitis Arbustionis (Ohmann-Dumesnil).

vesicles or bullæ may form from deeper effect, or the skin may be entirely destroyed and sloughing and gangrene take place. In extensive burns or scalds constitutional symptoms arise, and if as much as half the body surface be involved, death is practically certain to follow.

The dermatitis that follows exposure to the rays of the sun (sunburn) is not in a strict sense a burn but is due, according to Finsen, to the effect of the actinic rays at the violet end of the spectrum.

Treatment of Dermatitis Ambustionis. The indications are for protective and sedative dressings and the exclusion of air in the treatment of simple burns. Bicarbonate of soda in powder or lotion, a one per cent. solution of picric acid, carron oil (linseed oil and lime water, equal parts), lead and opium wash, a two to five per cent. aqueous solution of ichthyol, are all serviceable.

In burns of the second degree with vesicles and bullæ, the lesions should be opened and drained, allowing the loosened epidermis to rest on the raw surface where it may retain some of its vitality, and adhere after the manner of a graft. Spread plasters of bismuth and petrolatum secured in place with bandages are comforting. When the surface begins to granulate, applications of balsam of Peru in water or castor oil will hasten the process of repair. Lister recommends covering the surface with lint soaked in a three per cent. carbolized oil, over which is placed gauze and rubber tissue. As the gauze becomes saturated with exudation it is replaced, but the lint is left undisturbed. Absorbent cotton, owing to the difficulty of removing it, should not be applied to a raw surface.

Burns of the third degree are treated with mild antiseptics such as boric acid, and, if extensive, with Hebra's continuous bath. To carry out this the patient is suspended in a sheet attached to the sides of a bath tub, the water of the bath being kept at about the body temperature.

Treatment of Dermatitis Congelationis. In frostbite the local heat is to be restored by rubbing with snow or immersion in cold water. In severe frostbite soothing and antiseptic remedies are required. In those subject to chilblains stimulating applications, such as the tincture of iodine, itchthyol, oil of turpentine or ointments of nitrate of silver, carbolic acid, or balsam of Peru, may be employed with advantage. Tonics and reconstructives are as a rule indicated.

Dermatitis Venenata. Dermatitis venenata is the term applied to simple inflammation of the skin caused by a local application of chemical irritants. In this instance, as well as in dermatitis of other origin, idiosynerasy plays an important rôle, though its responsibility is naturally limited. The irritant may be applied designedly for therapeutic purposes, as in the use of mercurial preparations, arnica, cantharides, stimulating liniments and embrocations containing turpentine or strong alkalies, aniline dyes, strong acids, or it may arise from contact with physiological and pathological secretions and discharges, from wounds or from cavities of the body, from many irritant plants, such as stinging nettle, cowhage, poison oak and poison ivy. The sting of certain insects, the secretion from jelly fish, contact with some varieties of caterpillar, are also capable of producing inflammatory reaction in the skin.

The most important form of dermatitis venenata to the dermatologist is that caused by poisonous plants, especially those belonging to the *rhus* family, poison oak or ivy (*rhus toxicodendron*) and poison sumach or

poison elder, or dogwood, as it is variously known (*rhus venenata vel r. glabra*). The gum resinous substance obtained from the lacquer tree (*rhus vernicifera*), and used in making Japanese lacquer work, is also capable of causing a dermatitis.

Dermatitis venenata of this form is common in spring and autumn. Some persons allege a special susceptibility to the poisonous effects of the plant and there is a notion current among the laity that the eruption recurs at stated times each year, and that it is the forerunner of eczema and other skin diseases.

The eruption first appears in the regions exposed, and is then conveyed to other portions of the body. It especially affects the face, hands and ano-genital region where it assumes the form of patches of thickly-set vesicles or blebs, the skin upon which they are situated being red and swollen. Itching and burning are intense, sometimes even agonizing. Lax

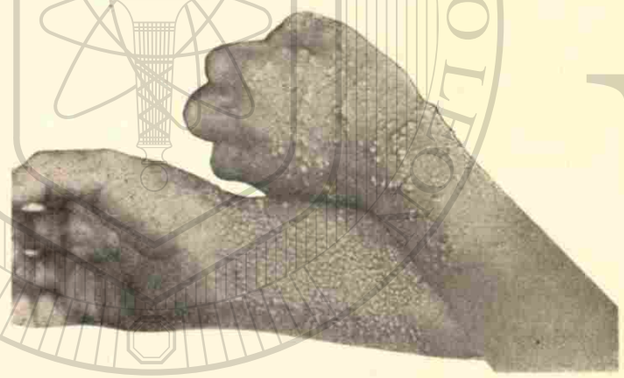

Fig. 23.—Dermatitis from Poison Ivy.

tissues, such as that of the scrotum and lids, become greatly swollen and œdematous. The eruption appears soon after contact with the irritant, and lasts from one to four weeks.

The diagnosis is made by the location of the eruption, the rapidity of its development, the severity of the subjective symptoms and the history of exposure. Frequently careful inspection will reveal by the sharp circumscription of the erythematous patches, or linear arrangement of the vesicles, the exact points of contact with the plant.

Treatment. The number of remedies for which specific virtues are claimed occasions an embarrassment of riches and leads to the belief that among them there is no primacy of excellence. The irritant substance of the plant is said by Pfaff to be a volatile oil soluble in alcohol and precipitated by subacetate of lead. Alcohol and lead water would therefore appear to be the chemical antidotes. Sweet spirit of nitre, the fluid extract of *grindelia robusta*, a decoction of American spice bush (*benzoin*

odoriferum) have all been recommended as especially effective in abridging the course of the eruption. As a matter of fact, the eruption tends to subside when the skin is protected and soothed, and to this end sedative, antipruritic applications, with the exclusion of air, such as are of service in acute eczema, yield the best results. Solutions of bicarbonate of soda, two drams to eight ounces of water; saturated solutions of boric acid; calamine and lime water; ichthyol and glycerine; sodium hyposulphite, one dram to four ounces of water; are all useful.

The remedies should be employed until active inflammation has subsided, when an ointment of carbolic acid, ten drops to the ounce of petrolatum, or boric acid twenty grains to the ounce, may be substituted.

Internally, there is no special indication though for the nerve dis-

Fig. 24.—Dermatitis Venenata (Rhus Poisoning).

turbance brought about by the pain and itching it may be advisable to administer an anodyne, such as Dover's powder or codeine.

Dermatitis Gangrenosa vel Sphacelo derma. Gangrene of the skin may be due to many causes. It may follow severe traumatism, contusions, burns or caustic applications. It may ensue from trivial injuries in diabetics and in those in whom the nutrition of the skin has been impaired as a result of albuminuria, disease of the heart or trophic disturbances, or from affections of the nervous system. It is also secondary to anthrax, carbuncle and cellulitis. It sometimes occurs without apparent cause in hysterical individuals in which instance the possibility of self-infliction should not be forgotten.

There are two forms of *dermatitis gangrenosa* which must be considered separately. They are *symmetrical gangrene*, local asphyxia or Raynaud's disease, and *dermatitis gangrenosa infantum*.

Symmetrical Gangrene was first described by Raynaud in 1862. It is rare in the severe form, but not uncommon in the milder. It affects the last phalanges of the fingers and toes, and less often the tip of the nose and the ears. The part becomes white, cold, numb and tingling. This lasts for a time, then passes off and constitutes the so-called dead finger or toe. Instead of returning to the normal the part may become dry, scaly and atrophied, or bullæ may form with sloughing, gangrene and loss of the part. Recurrences are apt to take place.

The disease is neurotic in origin, influenced by the existence of gout, or malaria, and provoked by exposure to cold. It occurs at any age and in men rather than women.

The *treatment* is that of the underlying cause. Galvanism is indicated. If sloughing take place the treatment is on surgical principles.

Fig. 25.—Dermatitis Congelationis with Gangrene (Ohmann-Dumesnil).

Dermatitis Gangrenosa Infantum. This is the term applied by Radcliffe Crocker to a gangrenous affection of the skin, following the pustular dermatoses and the eruptive fevers, especially varicella. When it occurs during varicella one or several vesicles become converted into blebs or dark, peripherally enlarging crusts. Necrosis takes place, giving rise to deep, punched-out ulcers which discharge freely. If the gangrenous process be extensive, marked constitutional symptoms supervene and in feeble and debilitated children death is apt to ensue.

Pulmonary infarctions are common, and many of the children are the subjects of acute tuberculosis. The disease is probably of bacterial origin. In case of recovery considerable scarring remains.

The treatment is supportive, and locally antiseptic applications are to be made

Dermatitis Exfoliativa. Exfoliative dermatitis is an acute affection

of the skin, accompanied by more or less generalized erythematous inflammation with free exfoliation or desquamation during the course of the disease, or subsequent to it. It may be developed suddenly without apparent cause, or gradually from an already existing dermatosis. Constitutional symptoms are generally present and vary in severity with the extent of the eruption. The disease tends to run its course in a month or six weeks, but exhibits a marked disposition to relapse and recur. The desquamation which is the salient feature of the disease may consist of fine, dry, papery scales, or large pieces of skin may be detached, especially from the palms and soles. The nails are sometimes shed, and the hair much thinned. Itching and burning are present to a greater or less extent.

The disease is distinctly rare.

There is a variety of exfoliative dermatitis which occurs in infants, and runs a rapid and often fatal course. It begins as redness and fissuring about the mouth, and spreads to involve more or less of the entire surface of the skin. It is accompanied by free desquamation, and when moist resembles eczema.

Pityriasis rubra is sometimes described under the head of *dermatitis exfoliativa* but deserves a special notice.

Treatment. The treatment is internal and local. The internal treatment consists in the administration of reconstructives, and tonics, and concentrated nourishment. Crocker recommends quinine. Diuretics and saline aperients are indicated. In severe cases the patients should be kept in bed. Local treatment consists in the use of bland ointments, such as oxide of zinc, and oily applications as carron oil, or of calamine and lime water.

DERMATITIS BLASTOMYCETICA.

Definition and Description. Blastomycetic dermatitis is a rare and chronic disease due to the *blastomyces* or yeast fungus. Its characteristic features are the development from a nodule situated upon the hands, face, feet, thigh, scrotum or back, of a slowly growing, verrucous patch studded with minute abscesses.

Blastomycetic dermatitis resembles *tuberculosis verrucosus cutis* and the tubercular syphilide, but is usually multiple, or becomes so. The fungus may be found in the miliary abscesses.

Treatment. Antiseptic and parasiticidal remedies are to be used locally. Erasion with the curette is the speediest and most reliable method of treatment. Internally, potassium iodide exercises a decidedly beneficial effect upon the lesions. The disease offers a legitimate field for use of the X-rays and the Finsen light.

DERMATITIS HERPETIFORMIS.

Synonym: Duhring's Disease.

Definition. *Dermatitis herpetiformis* is a chronic, relapsing disease of the skin characterized by a complexity of lesions consisting of macules,

superficial erythematous patches, papules, pustules, vesicles, bullæ, or wheals, accompanied by considerable itching and burning, and slight constitutional symptoms. The disease is rather rare, and was first described by Duhring, of Philadelphia.

Symptoms. Slight constitutional symptoms, constipation and moderate fever precede the attack. One of the primary efflorescences may characterize the outbreak, or it may occur in a riot of forms. Multiformity and herpetiformity are the salient features of the disease. It runs a chronic course with varying intermissions.

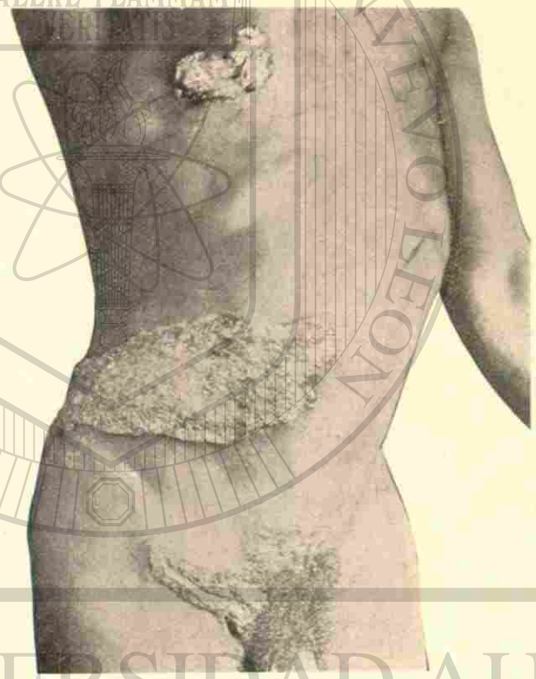

Fig. 26.—Dermatitis Blastomycetica (T. C. Gilchrist).

The eruption is usually symmetrical, and commonly appears on the flexor surfaces of the forearms, chest, abdomen, buttocks and outer aspects of the thighs. The mucous membranes may be affected. Special types of the disease, while rarely persistent are as follows:

Erythematous, characterized by more or less circumscribed redness, which resembles erythema multiforme and undergoes changes in hue. The erythema occurs in crops.

Vesicular. This form is most commonly present. The vesicles are plump, pin-head to a pea sized, clear or yellowish and occur in groups with or without erythematous bases. They do not tend to rupture and may

run together as in herpes zoster. The itching is usually severe until the vesicles are broken, when it is abated. Blebs are formed by fusion of vesicles and occur in clusters surrounded by small pustules or vesicles.

Pustular. This form is not usual, and is more persistent than the foregoing types. The pustules are primary, and, like the vesicles, may be large or small.

Papular. The papular type is the mildest and most uncommon. The papules tend to become vesicular at their summits.

Mixed or Multiform type. This variety shows a general intermingling

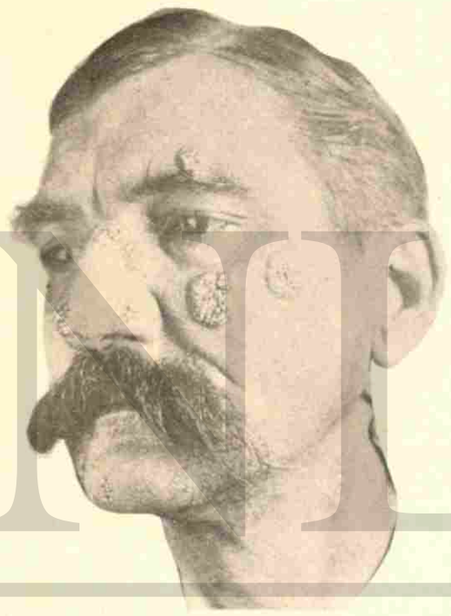

Fig. 27.—Dermatitis Blastomycetica (Gilchrist).

of the primary forms with the addition of excoriations, blood crusts and pigmentation.

Etiology. Dermatitis herpetiformis occurs as a rule in adults and is probably dependent upon some disturbance of the nervous system. It has been known to follow severe physical or mental shock. A patient, a young married woman, developed the disease as a consequence of a fall from a horse. Pregnancy, menstrual irregularity, renal insufficiency, are among other contributing causes.

Diagnosis. The multiformity of the lesions with marked herptiform characteristics, the intense itching, the history of chronicity and tendency to recurrence are sufficient to enable one to establish a diagnosis. It is to

be distinguished from impetigo herpetiformis, an exceedingly rare and usually fatal disease of pregnant and puerperal women; from pemphigus

Fig. 28.—Dermatitis Herpetiformis (Dr. Isadore Dyer).

by the primary character and persistency of the blebs of this disease; from eczema and erythema multiforme by the characteristic course of these

affections, the small vesicles of the former and the absence of marked itching in the latter.

Treatment. The treatment of dermatitis herpetiformis consists in endeavoring to relieve the causative condition which usually resides in the nervous system. There are no special indications beyond the use of nerve tonics, iron, quinine, strychnine, and especially arsenic, with concentrated nourishment during the attack. Nerve sedatives, as valerian, cannabis indica, antipyrine or phenacetine may be required to relieve the nerve storm accompany intense itching.

Locally, in the pustular and vesicular types, strong sulphur ointments are recommended; in the erythematous, carbolized oil and lime water, equal parts, ichthyol, two to ten per cent. with olive oil or lime water. *Liquor carbonis detergens*, and ointments of salicylic acid and boric acid are said to be useful. Bullæ should be punctured and the contents evacuated. The lesions on the mucous membranes are treated with nitrate of silver solutions.

Prognosis. The prognosis as to cure is uncertain. Except in rare instances of the bullous or pustular forms, the disease is never fatal. Relapses are the rule.

DERMATITIS PAPILLARIS CAPILLITII.

Definition and Description. This affection is of a mildly inflammatory nature and consists of firm, vascular papules which enlarge, coalesce and form keloidal masses. It affects chiefly the back of the neck near the edge of the hair, and sometimes extends upward upon the scalp. The front of the neck and inframaxillary regions are also affected, but with the smaller form of papules which tend to remain discrete.

When located on the neck there is usually some loss of hair; the beard seems unaffected.

The disease is common in full-blooded negroes but rare in the white race. It developes about the age of puberty, and is very chronic, showing no tendency to spontaneous cure and may remain practically unchanged for years. The smaller papules tend to become flattened with age, and assume an ashen hue.

The cause of the affection is unknown, but the marked tendency to hypertrophy among negroes may be taken as a causative factor.

Treatment. The papules which are in effect miniature keloids may be removed with the knife, electric needle, or destroyed with caustic potash on a tooth-pick. Epilation and the use of a strong sulphur ointment have been recommended. The growths are prone to return after the manner of keloid.

DERMATITIS FROM THE X-RAYS.

Prolonged exposure to the emanations from an excited Crookes' tube, or short exposures frequently repeated, are liable to produce reaction in the skin of a varying degree of intensity and severity. There may be sim-

ply a dusky redness of the exposed part, which persists for a week or ten days, and passes off to leave the skin somewhat tanned. This degree of reaction is frequently designedly brought about, not a few radiologists maintaining that favorable results are not forthcoming until this condition is produced. The reaction may be of considerably higher grade with vesiculation and desquamation. Rarely there is such an impairment of the vitality of the skin as to occasion necrosis with sloughing and ulceration, the ulcers being painful, indolent and very rebellious to treatment. With

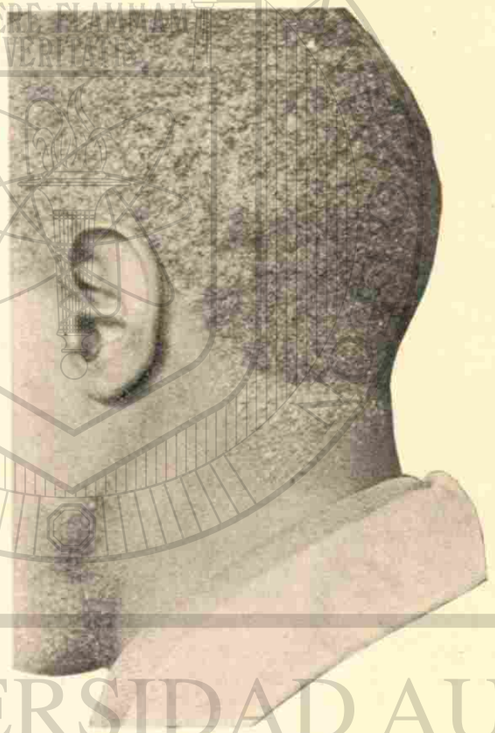

Fig. 29.—Dermatitis Papillaris Capillitii (mild form).

advance in knowledge of the action of the X-rays the severer forms of dermatitis have become much less frequent than at an earlier period of Röntgen therapy. It should be borne in mind that some individuals are more susceptible than others to the influence of the rays and that reaction occasionally occurs some time after exposure to the rays. These facts should beget an abundance of caution in those who are beginning to avail themselves of a most valuable, as well as a most powerful, therapeutic agent.

Treatment. Slight X-ray reaction requires no treatment as it tends to disappear rapidly and spontaneously. Ointment of rose water may be used if the subjective symptoms cause any annoyance. In the severer grade of reaction, the itching and burning may be alleviated with an ointment of boric acid, or zinc oxide ointment. In the rarer forms of sloughing with ulceration the general principles of surgery apply in the matter of treatment. Static electricity and the high frequency currents give promise of hastening the work of repair.

DERMOLYSIS.

Definition. Dermolysis is a rare congenital anomaly of the skin, characterized by its extreme elasticity from loose subcutaneous attachment. The skin may be grasped in the hand and drawn out a distance of a foot

Fig. 30.—Dermatitis Papillaris Capillitii (I. Dyer).

to half-a-yard from the body and on being released returns to a normal position without folds or irregularities. Individuals presenting this peculiarity are sometimes exhibited as side-show freaks under the name of "loose-skin" men. Histologically there is a "transformation of connective tissue of the dermis into unformed tissue like a myxoma, with total disappearance of the connective tissue bundles." The elastic tissue is normal. The condition may be limited to particular regions of the body or the entire skin share in it.

Under the caption dermolysis is sometimes included hypertrophy of

the skin with a tendency to slipping down in folds or pendulous masses, but this condition more properly belongs to fibroma and the term dermolysis is reserved for laxity of the skin without hypertrophy.

DHOBIE ITCH.

Definition. Dhobie itch is the name given to a large number of itching parasitic diseases found in the tropics.

Varieties. Three varieties are distinguished: an eruption resembling erythrasma and due to the *microsporon minutissimum;* a variety apparently identical with ringworm and due to the *trichophyton;* a form distinguished by the presence of pemphigoid vesicles or blebs, and termed by Manson *pemphigus contagiosus*, and according to him also occasioned by a diplococcus.

Symptoms. The eruption may occur anywhere on the body, but usually in the axilla, crotch, soles of the feet and between the toes. It is conveyed by means of clothing, sexual intercourse and bathing in sluggish streams and tanks. The mycotic forms affect the region of the perineum and axilla and resemble ordinary ringworm. From these localities the disease is conveyed to other regions of the body. The margin of the patches is scaly, the patches themselves are slightly raised and present red, shining, glossy centres.

Smarting and itching are often severe. Unless vigorously treated the disease tends to spread and may continue to do so until the advent of cool weather, when it subsides to recur at the next approach of hot weather.

Pemphigus contagiosus occurs as vesicles or blebs which rupture, leaving a red, shining, denuded surface with a surrounding zone of raised epidermis. The eruption may be limited to the axilla or crotch, or may be scattered over the whole body when, if the vesicles are small, it presents a close resemblance to chicken-pox, wanting, however, constitutional symptoms.

Treatment. The treatment should be vigorous. The parts are scrubbed with tincture of green soap and some active parasiticide applied, such as Vlemingkx's solution of the sulphuret of calcium. Oleate of mercury, or chrysarobin, or pyrogallol are recommended, as is also painting the surface with tincture of iodine or salicylic-collodion.

The danger of reinfection is considerable and must be guarded against so far as practicable.

Pemphigus contagiosus is best treated with lotions of bichloride of mercury according to Keiffer (to whom much of this description of dhobie itch is due). Dusting powders are used to keep the parts dry.

DYSIDROSIS.

Synonyms: Cheiro-pompholyx, Pompholyx.

Definition. Dysidrosis consists in an eruption of vesicles or bullæ usually on the hands, more rarely on the feet, and generally associated

with hyperidrosis. The disease may occur at any age, but is seen chiefly in neurotic and debilitated young adults.

Symptoms. The vesicles appear on the palm and sides of the fingers, rarely the entire hand. They are embedded in the skin or slightly raised above it, and are of a grayish, translucent appearance, resembling boiled sago grains. Smarting and itching accompany the eruption. The vesicles remain discrete with little tendency to rupture and are absorbed, or clusters coalesce to form flat or prominent bullæ which are also absorbed, leaving the epidermis covering them to be exfoliated or removed. New lesions appear in crops until the disease begins to subside. There is little or no inflammation accompanying the vesicle formation.

The affection occurs in the spring and autumn with the transition of cold to warm weather, or the reverse.

Etiology. Divergent views are entertained of the nature of the disease. It is held by some to be neurotic in origin, others maintain that the process is local. Unna regards the affection as due to a micro-organism which flourishes in the sweat secretion. The bulk of the evidence seems against its being a disorder of the sweat glands, as its name, which was bestowed by Tilbury Fox, implies.

Diagnosis. Dysidrosis is distinguished from vesicular eczema by its situation, character of the vesicles and course, and from pemphigus by the formation of vesicles not primarily but from fusion of vesicles.

Treatment. General tonics are usually indicated. Arsenic has been strongly recommended.

Locally, applications suitable to acute eczema are advised. The oleates are serviceable, and a ten to twenty per cent. solution of formalin may be used in the mild cases to check the free sweating which usually coexists. A two per cent. solution of salicylic acid in alcohol will be found very useful.

Prognosis. Severe types of the disease are rare; mild are very frequent, and all tend to spontaneous recovery in a few weeks. Seasonal recurrences are common.

ECTHYMA.

Definition and Description. Ecthyma is a cutaneous disease manifested by the appearance of one or several flat, dime-sized, discrete pustules situated upon a markedly inflamed base and surrounded by an areola. The pustules are usually located upon the legs and are at first small, lax and flabby; later, they tend to enlarge, and their contents from being yellowish becomes stained with blood. They finally dry into heavy, brown crusts which, when removed, reveal very superficial ulceration. The pustules occur in crops, new lesions springing up at longer or shorter intervals.

Itching is slight, burning pain and tenderness may be present. Slight scarring with pigmentation may follow healing.

Etiology. Ecthyma is due to pus micro-organisms and occurs chiefly

among the poor, ill-nourished and unwashed of the population. It ensues upon slight abrasions from scratching or other mild traumatism, or from the bites of insects. It is but slightly contagious and is seen chiefly in men.

Diagnosis. Ecthyma is to be distinguished from *impetigo contagiosa* which it closely resembles. It differs from it in being more inflammatory, less auto- and hetero-inoculable, in its occurrence in adult males, and its situation. From *ulcerative pustular syphiloderm* it is distinguished by the deep ulceration, distribution and the more deliberate course of the syphiloderm and the contributory evidences of syphilis.

Treatment. The disease is readily cured by the local use of antiseptics, after the crusts have been removed. The following is effective:

℞

Hydrarg Ammoniat.,	gr. x-xx.
Acid Carbolic.,	gtt. x.
Unguent. Aq. Rosæ ad.	℥j.
M. Fnt. Ung.	

Lotions of bichloride of mercury 1:1000, or of boric or carbolic acid are equally good. The part must be kept protected by a bandage from further contamination.

For the general treatment, nutritious food, improvement in personal cleanliness and hygiene, and tonic remedies are required.

ECZEMA.

Synonyms. Tetter, Salt Rheum.

Definition. Eczema is a catarrhal inflammation of the skin, acute or chronic, accompanied by a multiformity of lesions and having as a chief characteristic itching, serous or pustular exudation, desquamation and infiltration.

Eczema is the most frequent of all diseases of the skin, and shows the widest diversity in appearance.

Varieties. According to the predominant type of lesion several forms of eczema are recognized. They are the *erythematous, papular, vesicular* and *pustular.* The disease process ordinarily begins with one or more of these primitive forms but in its course there is a proneness to the intermingling of forms and a termination in one of the secondary clinical conditions.

The most frequently encountered secondary clinical forms are *eczema rubrum, eczema squamosum, eczema fissum* or *rimosum, eczema sclerosum, eczema verrucosum.*

Eczema Erythematosum. Erythematous eczema begins as an iching or burning in one or more places in the skin, which is followed by the appearance of ill-defined, red patches which tend to spread and intermingle. The erythema may be limited to a small area, or it may cover large surfaces.

When it has reached its maximum the skin is either a dusky or a bright red, or mottled and sometimes even violaceous. Later it becomes dry, rough, slightly scaly and has a thickened, swollen appearance.

Its favorite seats are the face, forehead, between the eyebrows especially, the genital organs and the flexures of the joints. When occurring under pendulous breasts, between the scrotum and thigh, or in the folds of skin in babies and fat people, it has received the special appellation of *intertrigo.*

Erythematous eczema may remain considerably thickened, lined and scaly (*eczema squamosum*), or pass into the moist, crusted form (*eczema rubrum*).

Fig. 31.—Eczema of Digits.

Eczema Papulosum. In papular eczema the papules are small, discrete or thickly set, flat, round or acuminate and usually of a reddish tinge. They show a decided predilection for the extremities.

The lesions are intensely pruriginous, and are frequently capped with a small vesicle. When closely assembled the papules form large or small patches, and the primary lesions finally melting into the mass by reason of the obliterating effect of scratching provoked by the intense itching, show numerous small excoriations and blood crusts. Vesicles are seen scattered among the papules.

This form of eczema is troublesome, refractory to treatment and prone to relapse. This is probably due to the intensity of the itching, very small papules giving rise to astonishingly acute and severe itching.

Eczema Vesiculosum. This is the most frequent type of the disease, and one to which formerly the term eczema was exclusively applied.

Burning or a feeling of heat are the usual precursors of an outbreak of acute vesicular eczema. The skin is somewhat reddened, and the vesicles vary in size and depth of situation with the locality affected. They are usually small, the size of a pin-head or less, agminate, thin-walled, soon become confluent and rupture, the contained fluid drying in crusts. When crowded closely together and broken the appearance is that of a red patch picked out with numerous small pits, each containing a droplet of sticky fluid which stiffens linen and is characteristic of the disease.

The process is acute; the itching intense and paroxysmal. Rupture of the vesicles somewhat relieves the itching, but it recurs as the vesicles reform.

This form of eczema is apt to pass quickly into one of the secondary clinical conditions as *eczema rubrum* or *eczema squamosum*, or assume the pustular phase from invasion of the vesicles with pus micro-organisms.

When there is no distinct vesicle formation but the epidermis is raised up by the pressure of serum and exposes a raw, oozing surface the condition is termed *eczema madidans.*

Vesicular eczema occurs principally on the faces of infants and young children and upon the hands and feet of adults.

Eczema Pustulosum. This variety is often found upon the hairy regions of the body, especially the scalp in children, the presence of hair favoring the harboring of the micrococci of suppuration. A few pustules are, however, commonly associated with all varieties of eczema.

Pustular eczema is primarily pustular, or represents the pustulation of vesicles. The pustules readily rupture, their secretion drying into dirty brown, greenish or yellowish crusts, the exudation imprisoned beneath soon decomposes and gives rise to a disagreeable odor.

The itching is much less than in other varieties of eczema.

Eczema Rubrum represents a clinical condition which results from alterations in one or more of the primary lesions of the disease. The favorite sites of eczema rubrum are upon the scalp and face of children, the legs of middle-aged, stout people, at the flexures of the joints and beneath overhanging folds of skin. The surface is red, raw, oozing and denuded or crusted.

Swelling and infiltration are present. Subjectively there is burning and itching.

Eczema Squamosum. This secondary clinical form commonly proceeds from a foregoing erythematous or papular eczema. It is characterized by reddened, infiltrated, scaly patches, the scales representing the abortive effort at regeneration of the horny layer. They are small, thin and non-adherent. Erythema coexists.

When squamous eczema occurs about the joints or near the orifices of the body where motion is free and more or less constant, the infiltrated

skin loses its elasticity and cracks. This is observed about the lips, anus, fingers and palm. Chapping is produced in the same manner. The condition thus brought about has received the name of *eczema fissum* or *rimosum.*

Eczema Sclerosum. This type is usually seen on the palms and soles. The skin is thickened, hard, inelastic and approaches horn in consistence.

Fig. 32.—Papulo-Squamous Eczema.

It displays but little inflammatory reaction and is quite refractory to treatment.

Eczema Verrucosum occurs as hard, warty elevations usually on the dorsum of the fingers and on the inner side of the index finger. There is sometimes an ill-smelling discharge which issues from between the clusters of hypertrophied papillæ.

Symptoms and Course. Eczema may be either acute or chronic. The term chronic has no reference to the length of duration of the dis-

ease but to the pathological condition, usually infiltration, which is present. A chronic eczema may at any time become acute.

Itching is the most constant symptom of the disease. It varies in intensity and is more or less intermittent and spasmodic.

There are few or no constitutional symptoms of eczema unless such as are occasioned by the circumstance of loss of sleep from itching.

Patches of eczema are usually ill-defined, fading gradually into the surrounding skin and offering a feature of differentiation from the sharp circumscription of certain parasitic affections.

The disease is influenced by season and meteorological conditions. It is aggravated by exposure to cold and wind and sea air.

Fig. 33.—Eczema Verrucosum (Unna).

The duration of eczema is in the highest degree uncertain and cannot be forecasted. It manifests but little tendency to spontaneous disappearance.

Etiology. The causes of eczema are constitutional and local, or both combined. It is not contagious nor in a strict sense hereditary, though a dermal quality that seems to offer feeble resistance to the occurrence of eczema may be transmitted through many generations.

Constitutional Causes. The gouty or rheumatic diathesis is an undoubted cause of eczema, although the ever-changing theories regarding uric acid have as yet failed to supply an explanation of the connection which is entirely satisfactory. Constipation, dyspepsia, deficient renal elimination, functional disorders of the nervous system, diabetes, albuminuria and debility, struma, dentition, pregnancy and uterine disease, may be among the factors which are, in a measure, responsible for eczema.

Local Causes. Any irritant, mechanical, thermal, chemical or parasitic, sufficient to produce a dermatitis, may also cause eczema. Scratching, strong soap, strong acids, dye-stuffs, poisonous plants, extremes of heat and cold, parasites, physiological or pathological secretions, are among the most frequent sources of irritation which are competent to call forth an eczema.

Pathology. The process is one of inflammation of varying intensity. The changes begin in the upper part of the corium and epidermis and only in inveterate cases extend into the subcutaneous tissue. The papillæ are hypertrophied and frequently elongated by a downgrowth of the interpapillary portion of the prickle layer. The bloodvessels are dilated, with the production of cellular œdema and infiltration. Parenchymatous œdema of the cells prevents proper keratinization of the horny layer, and as a result the cells retain some of their moisture (*parakeratosis*, of Unna) and cohere in the form of scales. Hyperplasia of the prickle layer produces the papular elements (*acanthosis*), or the cells are pushed apart, their prickles forming a network which becomes soaked with fluid, gradually rising to the surface as weeping or oozing. In the construction of a vesicle the horny layer constitutes the roof and the rete cells are flattened by pressure of the fluid. In eczema rubrum this layer is raised off exposing the *stratum mucosum*, partly denuded, partly crusted or entirely concealed beneath crusts.

Diagnosis. The diagnosis of eczema is, as a rule, easy, although the protean character of the disease is capable of producing perplexity. There are certain cardinal features which if held in mind will materially assist in removing diagnostic difficulties.

Symmetrical distribution, swelling and œdema, exudation of albuminous fluid, infiltration, poor definition of the patches, polymorphism of the lesions, and, subjectively, itching, make up a symptom-complex that should prevent eczema from being confounded with another affection.

The specific points of difference between eczema and certain common affections, which in some of its phases it may resemble, may be briefly considered.

Erysipelas may be mistaken for eczema, but is to be distinguished from it by being essentially acute, frequently beginning from a small abrasion. The patches of erysipelas are smooth, tense, glazed, dusky-red, sharply-defined and painful. There is considerable œdema and swelling, with discrete vesicles and bullæ. Constitutional symptoms (chill, fever) begin early and may be severe.

Psoriasis is diagnosticated from squamous eczema by its dry, sharply-circumscribed, round or oval patches, covered with adherent, papery, silvery scales. Itching is inconspicuous. Psoriasis shows predilection for the scalp, knees and elbows.

Tinea Circinata. Ringworm of the body presents marginate, usually

circular patches which clear in the centre and extend peripherally. Itching is slight and the diagnosis may be fixed by the discovery of the trichophyton in the scales. Disseminated ringworm of the scalp is often difficult to distinguish from a scaly seborrhœic eczema without the aid of the microscope.

Sycosis may be confounded with pustular eczema. Sycosis is a disease of the bearded face and begins in the hair follicles. The pustules are discrete, flat, rupture with some difficulty and are pierced by hairs. The skin is livid or lurid red and small, deep-seated cutaneous abscesses are sometimes seen. Sycosis is also very rebellious to treatment and displays a marked tendency to recur.

Impetigo contagiosa differs from eczema in that it is contagious, begins as a flabby, discrete vesicle or bulla, springing from a slightly inflamed base. The roof of the vesicle or bulla partially slips off disclosing a shallow, raw floor which is quickly covered with loosely adherent, dark crusts. Itching is very slight. It is readily curable under treatment with antiseptics.

Herpes zoster has a slight resemblance to vesiculo-pustular eczema but the grouping of the vesicles in the former affection, their distribution and the precursory and actual pain will serve to establish its identity.

Scabies closely resembles vesiculo-pustular eczema and in fact the two may coexist when vigorous treatment has failed to entirely subdue the itch, but has in addition engendered an eczema from irritation. The general picture of scabies, its location, the linear arrangement of vesicles and pustules, the nocturnal character of the itching, should lead to a correct diagnosis, while the discovery of the acarus in the cuniculi puts it beyond doubt.

Treatment. The treatment of eczema is both general and local. In the former instance the cause should be reached and, if possible, removed. Failing in this only the most general rules apply. Tonics such as quinine, iron, arsenic and nux vomica, the reconstructives, as cod liver oil and the malt preparations, are in frequent requisition. Alkaline diuretics and the free drinking of water are beneficial. The tonic diuretic Basham's mixture is valuable especially in children. Malcolm Morris recommends wine of antimony during the acute stage of the disease, and an emulsion of turpentine during the same period is suggested by Crocker.

Laxatives are often demanded for the relief of constipation. The following is serviceable for atonic dyspepsia with constipation (Schamberg):

℞

Tinct. Nucis Vomicæ,	
Acid. Hydrochloric. Dilut.,	āā ʒss.
Fluidextract. Cascaræ Sagrad.,	
Tinct. Cardamom. Co. āā q. s.,	ad ʒiij.

M. Sig. Teaspoonful three times a day after meals.

Tincture of *viola tricolor* (pansy) and extract of *rumex* root have been highly praised in the treatment of eczema, though the results obtained seem scarcely to measure up to specifications.

Arsenic is directly beneficial only in such chronic conditions as squamous and papular eczema, and when used under these circumstances should be pushed to the limit of tolerance.

Diet and hygiene are of importance. The former should be regulated with a view to elminating any disturbing factor that may proceed from the digestive tract. Highly seasoned, greasy food, salt fish and meats, cheese, pickles and other condiments should be interdicted. Sugars and starchy foods are to be avoided. Tea and coffee had best be discontinued, and alcohol forbidden.

Local Treatment. The local treatment of eczema is of the highest importance and calls for the exercise of much skill and patience to secure the desired result. The choice of remedies and strength of application must be regulated by the degree of inflammatory action, the stage at which the disease is encountered, and its extent. One of the guiding principles is to use sedation in the acute stages, stimulation in the chronic.

Water has a deleterious effect during periods of activity and should be used under this condition no more than is consistent with cleanliness. It removes the oil from the skin and retards keratinization. It may be made less harmful by the addition of starch, bran, oatmeal or borax. In the chronic states hot water is frequently of service in energizing an indolent process.

When the eczema is moist and oozing, lotions and powders are the remedies to be preferred, as unctuous substances do not adhere to a wet surface and may do actual harm.

Ointments and pastes should be reserved for subacute and chronic eczemas where exudation has abated.

Before beginning local treatment crusts must be removed with vaseline, olive oil, or potato or starch poultices.

Acute eczema. In acute eczema of the erythematous or vesicular type, lotions are used to advantage. The following are good examples of their class:

℞

Calamin.	
Zinc Oxid.,	āā ʒij.
Acid Carbolic.,	ʒj.
Aquæ Calcis,	ʒij.
Glycerin,	ʒj.
Aquæ Rosæ ad,	ʒviij.

M. Sig. Shake and apply locally every two or three hours.

℞

Hydrarg. Chlorid. Mitis,	gr. xxx.
Mucilago. Tragacanth,	℥j.
Aquæ Calcis,	℥viij.

M. This may be used pure or diluted.

Weak solutions of lactate or subacetate of lead, saturated solutions of boric acid, lead and opium wash, are all appropriate to acute eczema and are more or less dependable.

This combination of ichthyol will be found beneficial:

℞

Ichthyol,	℥j.
Zinc. Oxid.	℥j.
Glycerin.	℥ss.
Aquæ,	℥iij.

M. Ft. lotio.

Bulkley recommends a solution of potassium permanganate, two grains to the ounce of water.

In circumscribed, acute eczema with weeping, painting the surface with a solution of nitrate of silver gr. x to spirit of nitrous ether ℥j will often promptly convert it into a more manageable squamous eczema. A solution of subacetate of lead and liquor carbonis detergens, each one dram, to an ounce of water, will serve the same purpose. Liquor carbonis detergens is made from tincture of soap bark, nine ounces, coal tar, four ounces. Digest for eight days and filter. It is the mildest of the tar preparations.

Dusting powders are useful in erythematous and vesicular eczema to soothe and protect the inflamed surface. Many powdered substances are used for this purpose, those in general use being flour, starch, the oleates and stearates, boric acid, talc, zinc oxide and magnesium carbonate. These may be used singly or several may be combined. The addition of carbolic acid or camphor to the powder increases its antipruritic effect. The following may be used:

℞

Pulv. Camphor.,	℥ss.
Pulv. Zinc. Oxid.,	℥iss.
Pulv. Amyli,	℥vj.

M. Sig. Dusting powder.

When exudation has been checked with lotions or powders, ointments may be used. The medicaments may be incorporated with lard, plain or benzoinated, petrolatum, lanolin or cold cream. The last named should not be employed as an ointment base for a fluid as it already contains rose

water to the point of saturation. The ointments used in this stage of the disease must be bland and unirritating and should be made up of such remedies as oxide of zinc, boric acid, magnesium carbonate, ichthyol or small proportions of salicylic acid.

The diachylon ointment of Hebra is time-honored and meritorious. It should be used fresh and is thus prepared:

℞

Ol. Olivar.,	℥xv.
Litharg.,	℥iij ℥vj.
Aquæ q. s.	
Coque et adde Ol. Lavandul.,	℥iii.

Ft. unguent. Sig. Apply as a spread plaster.

Pastes also serve a good purpose in subacute eczema without much exudation. They are made from ointments by the addition of inert powders as starch, talc, infusorial earth, magnesium carbonate.

Lassar's paste, which is in general use, is composed as follows:

℞

Pulv. Zinc. Oxid.,	
Pulv. Amyli.,	āā ℥ij.
Vaselin.,	℥ss.

To this may be added any of the drugs mentioned in connection with ointments.

Ihle's paste resembles Lassar's, with the addition of lanolin.

Pastes are spread on linen or gauze and applied to the affected part. They require to be changed less frequently, and are more cleanly and agreeable than ointments.

Local treatment of Chronic Eczema. Ointments are especially serviceable under these conditions and offer a formidable list from which to select.

The tarry preparations are particularly beneficial in the dry and scaly phases of the disease. Of the preparations of tar, pix liquida, oleum rusci, oleum cadini, are the most employed, and usually in the form of a five to ten per cent. ointment. Bulkley's *liquor picis alkalinus* (pix liquida ℥j, caustic potash gr. xv, distilled water ℥v; dissolve the potash in the water, add the tar slowly and rub up together in a mortar) is employed as a lotion, diluted in proportion of one dram to an ounce of water, in chronic eczema and old, thickened, itching patches.

Oil of cade may be used under the same conditions and is applied with a stiff brush. The oil of cade may be employed in solution in collodion, with a little castor oil added if the collodion is disposed to make the skin crack.

Pix liquida may be used in the same manner as the oil of cade but is more stimulating and requires the after use of a bland ointment.

Tar should always be used cautiously as it is not well borne by some individuals and may even produce general toxic symptoms.

Green soap is useful in chronic eczema.

In infiltrated, inveterate eczema the Vienna plan of scrubbing the part with green soap, following with diachylon ointment, will often serve to clear up the thickening. Though apparently harsh, the method is often followed by surprisingly good results.

Other remedies for chronic eczema are preparations of mercury, calomel, red and white precipitate, fifteen to thirty grains to the ounce, in ointment form, salicylic acid in ointment, paste or plaster, resorcin, ichthyol, iodine.

The strength of these preparations must be governed by individual requirements. It is best to begin with small proportions and gradually increase them.

Fixed dressings are employed especially in dry and scaly eczemas although their use is by no means confined to such cases. Erythematous eczema of the body is often effectively treated by these means. The glycogelatine devised by Unna is made according to the following formula:

℞

Zinc. Oxid.	
Gelatin.,	āā ℥j.
Aquæ Destil.,	℥iij.

The gelatine is melted over a water bath and the zinc oxide added.

Two per cent. of ichthyol is a useful addition, and other drugs may be incorporated.

The dressing is applied by first melting it over a water bath, then brushing it over the surface. When nearly dry, cotton should be freely dabbed upon the dressing, or it may be covered with a thin gauze bandage. It is designed to remain in position for several days.

Linimentum exsiccans of Pick is designed for a similar purpose. It is composed of Acid. Boric. ʒss., Gummi Tragacanth. ʒj, Glycerin. ʒss, Aq. Bullientis ℥iij. Zinc oxide may be added to stiffen the preparation. It is used as a varnish but is not very comfortable.

Elliot has substituted for tragacanth in the above formula its derivative, bassorine. His bassorin-dextrin paste is composed of bassorin, one ounce and a half, dextrin, six drams, glycerin, two drams, and water sufficient to make three ounces.

Plaster-muslins are made by Beiersdorf, of Hamburg, under Unna's direction. The medicament is incorporated in the oleate of alum and spread upon a thin sheet of gutta percha backed with muslin. The muslins are divided into squares, each square containing a definite amount of

the ingredient. The most generally useful is the mercury-carbolic, which acts well in the treatment of circumscribed patches of chronic eczema. They are expensive and can be used only by the better class of patients.

Unna's salve-muslins are in effect spread plasters of elegant appearance and great adaptability for use on the extremities, but their price is a serious obstacle to their more general employment.

REGIONAL AND SPECIAL VARIETIES OF ECZEMA.

Eczema of Children. Owing to the delicate texture of the skin in infants and young children eczema is usually acute and of the erythematous or vesiculo-pustular form. The scalp is more frequently attacked than elsewhere, while next in frequency come the face, creases of the neck, flexures of the joints and ano-genital region.

A large number of infantile eczemas are undoubtedly due to disorders of digestion arising from over-feeding or injudicious feeding. Struma and debility are responsible for others, but there is left a not inconsiderable class in which all of these factors are absent and the origin of the disease remains obscure.

Treatment. The treatment of eczema of children must be directed on general lines, with such advice and admonition in the matter of diet as appears applicable to the case. The disease is aggravated by scratching, which is usually freely indulged in, as but few children are capable of resisting the impulse. Eternal vigilance on the part of the attendants is required to prevent the patient from undoing, by a sudden and furious scratching, the work so laboriously built up. It may be necessary to confine the hands by pinning together the opening in the sleeve of the dress, or even applying a plaster of Paris bandage around the elbow joints to limit the motion of the arms and prevent the child from reaching its face to scratch it. The finger nails should be kept closely cut.

The local treatment is not different from that laid down for adults except that special caution should be exercised in the matter of strength of the application as the skin of a child is much less resistant than that of maturer persons.

Eczema of the Scalp in Children. Eczema of the scalp in children is usually of the pustular variety. Pustules form, rupture and their contents dries in crusts in which the hair becomes entangled. When the crusts are removed a red, raw surface is exposed. The post-cervical glands are apt to be enlarged.

Pediculi are sometimes present and it is always advisable in this form of eczema to look for nits clinging to the hair shaft, the presence of these ova offering incriminating evidence even when the agility and wariness of the mother louse has enabled her to escape detection.

Eczema capitis in children ordinarily causes a transient loss of hair. The brown, adherent crusts (*crusta lactea*) found on the heads of infants

unless removed, or if removed too vigorously, may become the starting point of a genuine eczema.

Treatment. The crusts are removed with a solution of bicarbonate of soda or borax, or they may be softened with olive oil and slipped off. The remedies are then applied in the form of aqueous or oily lotions and ointments. Some typical lotions are the following:

Fig. 34.—Seborrhœic Eczema (Unna).

℞

Acid. Salicylic.,	gr. xv.
Glycerini,	ʒss.
Aquæ Rosæ,	ʒij.

Saturated watery solutions of boric acid.

Resorcin, two grains to the ounce of water.

These are serviceable in acute eczema; later ointments of tar, sulphur, salicylic acid, ammoniate of mercury are indicated. The strength of the ointment must be regulated by the degree of stimulation desired.

When pediculi and nits are discovered the hair should be shingled.

Eczema of the Face in Children. Eczema of the face in children is ordinarily of the vesicular or pustulo-vesicular variety, and is accompanied

by exudation and crusting. The itching is severe and there is not lacking abundant evidence of rough handling by the patient's nails.

Frequently the entire face, with the exception of the lips, lids and nostrils, is involved.

The orificial borders are sometimes concerned in a form of eczema of a moist or squamous type in strumous or debilitated children, which is quite distinct from the type of the disease under consideration and shows no disposition to assume its florid tendencies. It is sometimes called *strumous eczema.*

Treatment. The crusts are removed and soothing, drying lotions applied. Ichthyol in watery solution five per cent. strength, calamine and

Fig. 35.—Eczema of Face and Scalp (Unna).

lime water, carbolic acid solution 1:100, or lotio nigra (calomel and lime water) may be used.

Lassar's paste is useful when the exudation is checked.

Ointments containing a small percentage of tar or salicylic acid are serviceable when exudation is scanty and moderate stimulation is required. The ointment may be spread on the woolly side of canton flannel, cut as a mask and held in position by strings tied behind the head.

Diachylon ointment must be remembered in this connection. Fox advises the official unguentum zinci oxidi.

Eczema of the Face and Scalp in Adults. Eczema in these localities, especially the former, is usually of the seborrhœic variety and will be considered more fully under that title.

Erythematous eczema is common on the face and is usually acute. When, instead of disappearing, it remains to assume the chronic form, the

skin becomes dusky-red, thickened, deeply-lined and slightly scaly. The ears are frequently involved and become swollen, thickened and leathery. The meatus is narrowed by swelling and the walls of the auditory canal are thickened and scaly. This condition may also affect the membrana tympani and produce impairment of hearing.

Itching is usually intense.

Treatment. The face should be protected against exposure to cold and wind. Calamine and lime water may be used during the day, and ichthyol 1:8, at night. Stearate of zinc is serviceable as a dusting powder to protect the skin, and Pick's varnish may be used for the same purpose. Liquor carbonis detergens in varying proportion is also beneficial.

Chronic cases require stimulation, the stronger tar ointments being especially valuable. Painting the face with glyco-gelatine at night and removing it in the morning, and anointing the face with cold cream is a plan that often proves effective.

Eczema of the auditory canal will frequently yield to applications of nitrate of silver (gr. x to ℥j), followed by mild salicylic ointment.

Bier's congestion method has been successfully applied to eczema of the face. It consists in passing an elastic band around the neck tight enough to produce a certain amount of congestion, but not enough to impede respiration.

Eczema of the Hands. The hand is a very frequent seat of eczema, where it may manifest itself under several forms.

In "occupation" eczema, the skin of the palms is thickened, more or less scaly and fissured. From elasticity of the skin the hand is held in a half-closed position. The whole palm may be involved in eczema of the hand, or the eruption occur in circumscribed patches. The finger tips alone, or the tips and sides of the fingers, may be concerned. In the former the palps of the fingers near the nail become hard and fissured.

Another variety, commonly vesicular, may coexist with eczema elsewhere and generally proceeds from digestive disturbances.

There is also a neurotic type which displays vesicles situated along the course of the cutaneous nerves; and a gouty type which is circumscribed, scaly and itchy.

Unna regards eczema of the hands as a frequent concomitant of seborrhœic eczema elsewhere.

Treatment. The treatment of "occupation" or "trade" eczema consists in removal of the cause. If this is not feasible, some effort at protecting the hands must be made. Rubber gloves, or kid gloves with the tips of the fingers cut off, offer some protection and should be worn where the nature of the patient's occupation admits. Pick's varnish or salicylic acid in collodion may be used.

In eczema of the dry, thickened type, keratolytic agents and stimulating ointments are required. Liquor potassæ, or salicylic acid, twenty to eighty grains as a spread plaster, or a twenty per cent. salicylic acid plaster, or the same drug in collodion, may be applied to remove the thickening. Tar in the form of a strong ointment of the oil of cade, or pix liquida, is frequently of great service, as is also ammoniate of mercury, twenty grains to a dram to the ounce of cold cream.

Vesicular eczema of the hand is treated with a saturated solution of boric acid, black wash or a solution of resorcin, five grains to the ounce of water. These applications should be followed by a mild ointment such as diachylon or zinc ointment.

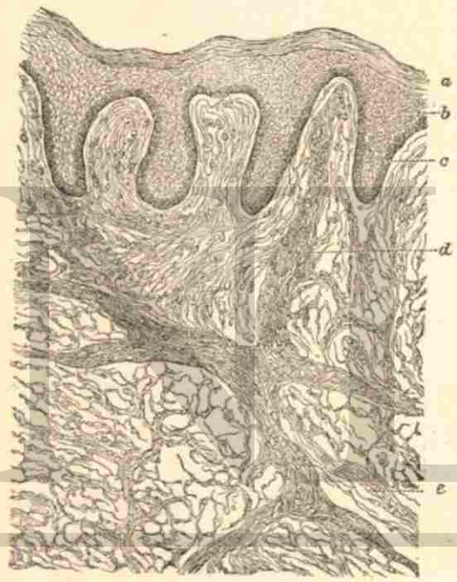

Fig. 36.—Section of Skin from Chronic Eczema (Schamberg): a, Epidermis; b, Rete malpighii; c, Pigmented cells and enlarged papillæ; d, Cellular hyperplasia around bloodvessels; e, Diffuse cell infiltration.

A good plan of treatment is to rupture the vesicles, then apply a solution of liquor plumbi subacetatis, liquor carbonis detergentis, each one dram, rose water, one ounce. This will check the exudation, after which a paste containing ten grains of salicylic acid to the ounce is spread on gauze and the parts bandaged.

Arsenic is valuable internally for the neurotic type of eczema of the hands.

For gouty eczema, Startin's mixture will be found admirable. It is as follows:

℞

Quinin. Sulph.,	gr. xxiv.
Magnes. Sulph.,	ʒvj.
Ferri Sulphat.,	ʒj.
Acid. Sulphuric. Dil.,	ʒij.
Tinct. Nucis Vomicæ,	ʒij.
Syrup. Pruni Virgin.,	ʒj.
Aquæ ad,	ʒiv.

M. Sig. Teaspoonful in water after meals.

Eczema of the Nails. The nails are usually secondarily involved, one or more of them being affected, rarely all. The nails lose their lustre, become rough, uneven and as the disease progresses, thick, shortened and brittle. Occasionally they may be shed.

The treatment is largely that of eczema of the hand with which it is associated, especially when the former occurs at the tip of the finger or the root of the nail. Painting the nail with a solution of silver nitrate, thirty grains to the ounce, or with a ten per cent. alcoholic solution of pyrogallol, in each case followed with salicylic or resorcin ointment, will sometimes succeed in relieving the condition.

Eczema of the Genitals and Anus. Eczema of the genitals occurs in both sexes. In women the labia are the usual site, though the eruption may extend upward to the mons veneris, or laterally to the thighs, or posteriorly to the perineum and anus.

The eruption is generally of the erythematous, papular or squamous type and dry, though at times the exudation may be very great. In protracted cases the skin becomes reddened, swollen, lined, infiltrated, thickened and fissured.

Itching is often intense and constant rubbing and scratching may establish the habit of masturbation, with its attendant train of ills.

Diabetes with decomposition of saccharine urine, or from the disposition of the disease to induce low forms of inflammation, is a cause and this fact should be borne in mind and an examination of the urine made in every case of genital eczema in women.

Albuminuria is also a predisposing cause, while, locally, irritating vaginal discharges, friction from opposing surfaces, venous congestion from pressure by uterine tumors or pregnancy, may give rise to an eczema.

In men the penis and scrotum are concerned, with or without involvement of contiguous parts. Here, as in women, the eczema is of the erythematous, papulo-pustular (of the scrotum) or squamous variety. It is usually dry but may be moist, the discharge at times being so profuse as to soak through the dressings and soil the clothing. The skin in well established cases, is red, thickened, leathery and slightly scaly. The folds of the scrotum are deepened, the bottom of a fold sometimes escaping

while the raised edges are attacked. The itching is often very severe, at times disabling.

Eczema of the anus may be limited to the margin or represent an extension from neighboring parts. It is of the thickened, infiltrated, fissured variety when at its maximum development. The itching is marked and the fissures painful, especially during defecation. An ill-smelling moisture is frequently present which gives to the parts a sodden, macerated appearance. Constipation and hemorrhoids favor the occurrence of the disease.

Treatment. The constitutional treatment of eczema of the genitals and anus is that of the provocative cause.

Locally, black wash, calamine and lime water lotion are both useful in the acute stage. Weak solutions of ichthyol or boric acid lotion applied hot are also serviceable. Hot water alone gives temporary relief to itching.

The tarry preparations are useful in the subacute and chronic stages. Unna recommends resorcin, glycerine, each five parts, alcohol, one hundred parts. Dilute with three parts of warm water and apply on absorbent cotton, covering it with rubber tissue.

Nitrate of silver painted on at intervals, followed by Lassar's paste with the addition of ichthyol and carbolic acid, is to be recommended.

In eczema scroti a suspensory bandage should be worn.

Eczema of the anus is an uncommonly obstinate affection and will often prove resistant to treatment. In the acute cases the same treatment is applicable as in eczema genitalium. Chronic cases require stimulating ointments of mercury and tar. The X-rays have proven beneficial in eczema of the anus but care will have to be taken to avoid causing azoospermia from exposure of the testicle. When the eczema is acute, hot boric acid solutions, followed by an antipruritic dusting powder, will afford some relief. An ointment of tar or oil of cade, or one containing ten per cent. of orthoform may be tried. A saturated solution of nitrate of silver in sweet spirit of nitre has proven curative. Brŏnson's antipruritic solution, composed of carbolic acid, liquor potassæ, each one dram, and linseed oil, one ounce, may be brushed on after the parts have been carefully dried. Carbolic acid will not act as a cauterant in this proportion when combined with linseed oil, but must be used with some caution where the skin is delicate.

Grindon recommends the following:

℞

Cocain. Hydrochlorat.,	āā gr. xv.
Morphin. Hydrochlorat.,	
Ichthyol.,	ʒj.
Pulvis Amyli,	ʒijss.
Petrolat.,	ʒss.

M. Ft. ung.

Eczema of the Legs. Eczema of the legs is usually of the type of *eczema rubrum* or *eczema madidans.* Its favorite site is the lower anterior third of the leg, with the ankle. The skin is as a rule much thickened, sometimes elephantiasic. The surface is crusted and when the crusts are removed the skin beneath is raw, red, oozing and infiltrated.

Small cutaneous abscesses and larger ulcers which give rise to scars when the eczema is healed, are frequently accompaniments.

Varicose veins with consequent sluggish venous circulation often complicate the disease and are probably potent factors in its production.

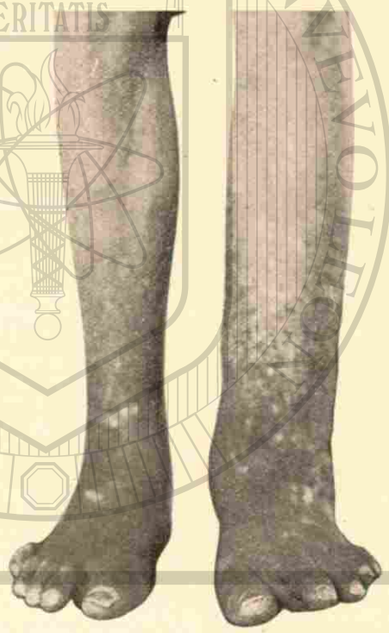

Fig. 37.—Chronic Eczema with Elephantoid Thickening (Dyer)

Treatment. Removal of the varicosed vessels is not infrequently followed by a disappearance of the eczema. In every case bandages, cotton, flannel or rubber, should be used to support the limb and aid return circulation. In cases with but little discharge, pastes of ichthyol, salicylic acid, tannic acid or precipitated sulphur act well, as does the glyco-gelatine fixed dressing. The latter will not serve well in hot weather as it tends to soften and become thin from heat and retained secretions.

As a *tour de force*, Hebra's plan of scrubbing the surface vigorously with green soap, then applying diachylon ointment, should be given a trial.

Rest in bed with the limb elevated should be practised whenever practicable.

Eczema of the Nipples. In this situation eczema is commonly of the fissured type, and occurring frequently in nursing women gives rise to much pain. Abscess of the breasts may be occasioned by infection through the fissures.

The cracks should be painted with nitrate of silver, ten grains to the ounce, or with compound tincture of benzoin. Orthoform (new) applied a short time before nursing and then wiped off will give some relief from pain.

Nipple shields are rarely successful.

Fig. 38.—Chronic Eczema of Leg.

It should be borne in mind that the region of the nipple is greatly affected by the acarus scabiei.

Eczema of the Lips is of the squamous or exuding variety. It may affect one or both lips. There is often a strumous element or a history of digestive disorders.

The treatment is not different from that of eczema elsewhere, except that poisonous substances are to be avoided. McCall Anderson recommends painting the lips with liquor potassæ, and washing them frequently in cold water. Frequent painting with compound tincture of benzoin will occasionally yield good results. An ointment of salol, five per cent., will be found helpful.

ECZEMA SEBORRHŒICUM.

Synonyms: Dermatitis seborrhœica.

Definition. Seborrhœic eczema is the name given to a class of cutaneous affections resembling eczema, but differing from it in certain clinical and morphological peculiarities. It was first described by P. G. Unna, of Hamburg, in a communication to the International Medical Congress held at Washington in 1887.

Symptoms. Seborrhœic eczema originates in the scalp and from thence by slow progression extends to other parts of the body rich in sebaceous

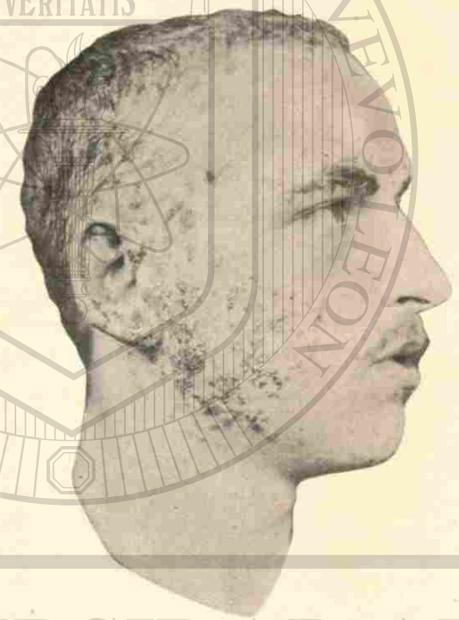

Fig. 39.—Seborrhœic Eczema of Face and Head (Unna).

glands and hair follicles, such as the eyebrows, beard, sternal region, axillary spaces and cruro-genital folds.

The eruption appears as a more or less diffused scaliness of the scalp, accompanied by some loss of hair. The hair is oily, dank and adherent from an excess of sebum, or dry, hay-like and lustreless. This condition constitutes what is known as dandruff and the loss of hair associated with it has received notice under the term *alopecia seborrhœica.*

In another variety of seborrhœic eczema the skin is more severely involved. The surface is hyperæmic and slightly infiltrated, the scales thick and greasy and surround the hair like a cuff. The eruption extends to the

hair margin where it may be seen entirely or in part encircling the head, *corona seborrhœica,* the *seborrhœic diadem.* In this condition the disease may spread to the face and ears.

In a still more advanced type the inflammatory feature becomes pronounced, with more or less tension, swelling and exudation. It extends to the ears and may produce fissuring at the auriculo-mastoid sulcus; from thence, especially in infants, it reaches forward to the face, neck, the scalp in the meantime tending to assume a state of dry scurfiness. This condition is essentially chronic, waxing and waning with the seasons and influenced to some extent by the condition of the general health.

Next to the scalp the mid-sternal region, especially in men, is the

Fig. 40.—Crusted Eczema (Unna).

favorite location of seborrhœic eczema. It is manifested in the form of one or more patches of greasy scales, seated upon a yellowish-red base and tending to assume a circular outline. The itching, except in hot weather and with active sweating, is slight. The patches are small, rarely ever exceeding the dimension of a five-cent piece.

Etiology. According to Unna seborrhœic eczema is due to the presence of the morococcus. It is mildly contagious. Unna includes under the name many more conditions than are generally yielded as properly belonging to seborrhœic eczema, yet the present state of our knowledge of eczema is too inchoate to admit of gainsaying him.

Treatment. The treatment of the milder forms of seborrhœic eczema of the scalp has been considered under alopecia (q. v.).

Lotions of resorcin, salicylic acid, and ointments of sulphur are among the most serviceable remedies. Sulphur ointment consisting of precipitated sulphur, one dram; cold cream, one ounce, may be used when there is no particular objection to its use on the part of the patient, and is often more effective than a lotion, as it remains longer in contact and does not have to be repeated at so frequent intervals. The ointment may be applied to the scalp along parallel lines and rubbed in well, avoiding, so far as possible, unsightly greasing of the hair.

For seborrhœic eczema of the face, lotions of ichthyol or salicylic acid are useful, as is creosote in an ointment or lotion. The following paste is helpful:

℞

Sulphur. Precip.,	ʒj.
Zinc. Oxid.,	
Pulv. Amyli,	āā ʒj.
Acid. Carbolic.,	gtt. v.
Ichthyol.,	gtt. xx
Petrolat. ad,	ʒj.
M. ft. past.	

Lassar's paste with the addition of five to ten grains of salicylic acid will generally relieve the eczema of the back of the ear.

For seborrhœic eczema of the chest this ointment may be rubbed in briskly twice a day:

℞

Hydrarg. Ammoniat.,	gr. xx.
Acid. Carbolic.,	gtt. v.
Unguent. Aq. Rosæ ad,	ʒj.
M. et ft. ung.	

ELEPHANTIASIS.

Definition. Elephantiasis is a chronic, non-contagious disease characterized by intermittent febrile attacks, each attack being attended with inflammation and progressive hypertrophy of the skin and subcutaneous tissue of an extremity or the genital organs. There is an enlargement of the lympathics of the parts affected, pigmentation and warty growths.

The disease is common in tropical and subtropical countries.

Symptoms. The disease begins with a rigor, followed by fever and sweating, the so-called elephantoid fever.

The local symptoms appear as an erysipelatous inflammation of the extremities, the scrotum, labia or breast. The lymphatics are swollen and tender and the neighboring glands somewhat tumefied. The local disturbance subsides but the swelling does not disappear.

These attacks occur at regular intervals until the part affected becomes chronically swollen, œdematous and hypertrophied. The skin is immensely thickened, its surface rugous, deeply-pigmented and studded with warty growths. There is more or less fissuring, with the escape of a foul-smelling, mucilaginous discharge. Eczematous inflammation with ulcers is often superadded.

Fig. 41.—Elephantiasis (Dr. Ohmann-Dumesnil).

The general health is not as a rule notably affected, though the patient may be disabled from the weight of his encumbrance.

Etiology. The etiology of elephantiasis is obscure. Adults suffer more than children and the dark races more than the white. It is a disease of hot, moist climates and is especially frequent in Samoa. Manson and other observers regard the disease as due to a microscopic thread worm, the *filaria sanguinis hominis*, the same parasite that occurs in lymph scrotum. These

offer obstruction to the lymph channels which leads up to the morbid changes.

Pathology. The disease shows an immense hypertrophy of the skin and subcutaneous tissue. The corium and subcutaneous tissue are greatly thickened and tough; the lymphatics dilated and filled with a mucilaginous fluid; the bloodvessels are enlarged, as are sometimes even the nerves and bones. There is considerable degeneration and occasionally areas of calcareous infiltration are observed. In the male subject the genital organs, penis and testicles, though imbedded in the hypertrophied mass, remain normal. Hydrocele is, however, not uncommon.

Treatment. Removal to a different climate may arrest the disease in its early stages. In the acute stage quinine or Warburg's tincture may be given. Tonics are required during the course of the disease.

When elephantiasis is developed, bandages are to be applied to the affected part and absorbents, such as preparations of mercury, iodine and the like, are used. Galvanism is indicated. Surgical treatment may be employed in some instances and consists in amputation, excision or arterial ligation. Eczema and varicose ulcers are to be treated according to the usual methods.

EPIDERMOLYSIS BULLOSA.

Definition. Epidermolysis bullosa is a rare cutaneous affection characterized by the occurrence of bullæ and vesicles which arise from a trifling injury. The disease is usually congenital and occasionally hereditary.

Symptoms. The bullæ vary in size from a pea to a goose egg, are more or less well filled and occur upon parts of the body most exposed to traumatism. The contents is at first clear but soon becomes cloudy and then blood-stained. The bullæ rupture, dry into crusts and rapidly heal. The appearance of the bullæ is somewhat intermittent; at times they are very numerous, at other times, few.

The disease is less marked in winter.

The skin of the palms and soles is much thickened and calloused.

The lesions are produced by the most trifling injury. A patient of the writer's, a young student at a military school, always found that a crop of bullæ followed upon wearing his sword belt.

Pathology. Elliot regards the disease as due to an acquired or hereditary exaggerated irritability of the cutaneous vascular system. Engman and Mook found a practical absence of elastic tissue in the papillary and subpapillary regions of the derma, and a sparse distribution and deformity of it in the deeper layers. The capillaries and lymphatics, lacking this support, the tissues become sodden and the epidermis is readily loosened from the underlying structures.

Treatment. So far as cure is concerned treatment is not satisfactory. Arsenic has a beneficial effect, but does not cure. Inert powders form the best dressing for the lesions. Lanolin aids in relieving the stiffness of the hands from palmar thickening.

Prognosis. The disease continues through life but tends to become milder with advancing age.

EPITHELIOMA.

Synonym: Skin Cancer.

Definition. Epithelioma is a malignant disease of the skin of slower growth and more superficial than carcinoma.

Varieties. There are three clinical varieties of epithelioma, the superficial, the deep and the papillomatous.

Fig. 42.—Epithelioma Developing from a Cicatrix.

Superficial epithelioma is usually flat or discoid in contour. It is situated as a rule upon the upper two-thirds of the face and appears as one or more firm, smooth, reddish, waxy, tubercles or elevations. The lesions tend to flatten in the centre, producing a rounded, rolled edge, like a disc of parchment or a bone button set in the skin. Sooner or later the surface of the growth becomes slightly scaly, the scales being lightly adherent and when removed cause punctate hemorrhage. Eventually crusts form in the centre of the growth, the result of drying of thin, viscid secretion. Ulceration ensues, spreads peripherally and follows a leisurely course, sometimes remaining practically stationary for years, eventually taking on more or less rapidly a malignant phase.

When fully developed the appearance of the ulcer is characteristic. It is irregular in outline, edges raised, waxy and semi-translucent, the floor is uneven, covered with a thin, viscid secretion and bleeds easily.

This type of epithelioma is also known as rodent ulcer.

The ulceration at times is so superficial as to resemble squamous eczema, and in this condition it is usually the result of degeneration of old seborrhoeic patches, and is seen chiefly upon the faces of old people, especially those of a blond or rufous complexion. A number of such patches may be present, coexisting with *keratosis senilis* of the hands and are virtually degenerative processes rather than truly malignant.

In superficial epithelioma the pain is slight, the general health unimpaired and the neighboring lymphatic glands not enlarged.

The disease may continue for years without causing serious trouble, unless it passes into the next variety, the deep or nodular epithelioma.

The Deep or Nodular Epithelioma. This form succeeds the superficial type, or begins as a tubercule or nodule in the skin or subcutaneous

Fig. 43.—Ulcerating Epithelioma (Dr. Ohmann-Dumesnil).

tissue. It is common on the mucous surfaces and is representative of malignant recurrence in scars. The nodules are round, firm, elastic, at first movable, later anchored to the structures below.

The lesion progressively enlarges, the skin covering it becomes purplish and finally breaking down and disclosing a deep excavation with everted edges and irregular floor which secretes an ichorous, ill-smelling fluid.

The ulceration spreads with varying rapidity, destroying the tissues as they are encountered.

The pain is often severe, sharp and lancinating in character.

The lymph glands become involved, metastases occur and the patient succumbs in from one to four years.

The Papillomatous Epithelioma. This may arise from one of the preceding, or occur primarily as a warty excrescence from the size of a pea to

that of a hazelnut. It is usually situated at or near a mucous surface, upon the extremities, or the genital organs. It is highly vascular, cauliflower-like, fissured, secretes an offensive fluid and bleeds easily; or the surface may be dry and horny.

The growth ultimately ulcerates and takes on the typical appearance of malignancy.

Etiology. The true cause of epithelioma is as yet to be ascertained. Heredity, long-continued circumscribed irritation, or traumatism, appear as predisposing factors in its production. The bacterial origin of

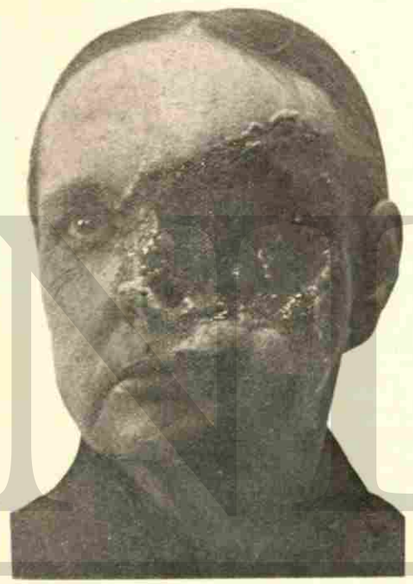

Fig. 44.—Epithelioma (Rodent Ulcer) (Ohmann-Dumesnil).

cancer, though repeatedly advanced, has never been fully substantiated. The inoculability of mouse-cancer, demonstrated by Jensen, Borrel and others, and the identity of this with malignant disease in man indicate an approaching solution of the problem of the pathogenesis of cancer.

It is a disease of middle and advanced life as a very general rule, though young adults are occasionally the subjects of epithelioma.

The most frequent seats of epithelioma are the face, forehead, lids (especially the lower), cheeks, nose and lips. Any part of the body may, however, be involved.

Pathology. In epithelioma there is an abnormal proliferation of the epithelia of the rete, or of the lining of the skin glands. The interpapil-

lary projections from the mucous layer extend downward into the corium and become surrounded by connective tissue, forming alveolar nests. The cells in places undergo cornification and form the so-called epithelial pearls. The epithelial growth is followed by certain inflammatory changes.

Diagnosis. Epithelioma is diagnosticated from ulcerative syphiloderm by the history of the latter, duration, concomitant symptoms of syphilis, undermined edge of ulcer, lack of induration, abundant yellowish or purulent discharge.

From lupus vulgaris by the occurrence of lupus in early life, its slow, painless course, soft base and edges of the ulcers, which are multiple and superficial.

From warts and warty growths the age of the patient and the duration and course of the disease will serve to clear the diagnosis. In the last named instance the diagnosis is scarcely essential as all warty growths, as well as papillomatous epitheliomata, should be removed.

Treatment. The internal treatment of epithelioma is valueless, despite the high regard of the laity for "blood purifiers."

The object of local treatment is complete removal of the growth. This may be accomplished by knife, chemical caustics and to some extent by the use of the X-rays. For small, superficial growths situated upon the face, especially in the neighborhood of the eye where scarring is to be minimized or avoided, radiotherapy is, perhaps, the preferable method of treatment. The face, except the affected part, is protected from the action of the rays by covering it with some material impermeable to them, such as lead foil, or the tube is enclosed in a shield. The exposures are made with a tube at a distance of from six inches to a foot and the séances are from five to ten minutes' duration daily. Treatment is discontinued when reaction manifests itself. The tube may be energized from a static machine or an induction coil and should be kept at a moderately low vacuum. The lesion as a rule disappears shortly after the subsidence of the reaction.

Growths of a similar character may also be removed with the dermal curette, followed by an application of acid nitrate of mercury bored in on a tooth-pick or a glass rod. Cocaine anæsthesia is sufficient to obtund sensation. Caustic potash may be used without the preliminary curettage. It liquefies the tissue with which it comes in contact and is highly destructive, but possesses the disadvantage of causing atrocious pain over which cocaine appears to exercise but little effect. Electrolysis is preferred by some and is effective in many instances. Its method of employment is similar to that used in the destruction of a nævus (q. v.).

Chemical cauterant pastes are valuable though their employment is attended with considerable pain. Bougard's paste has the following composition:

℞

Farinæ Tritici,	
Amyli,	āā ʒj
Acid. Arsenios.,	gr. viij.
Hydrarg. Sulphid. Rubri,	
Ammon. Chlorid.,	āā gr. xl.
Hydrarg. Biehlorid.	gr. iv.
Zinci Chlorid. Crystalliz.,	ʒj.
Aquæ Fervidæ,	ʒjss.

The first six substances should be rubbed up together in a mortar. The chloride of zinc is dissolved in water and slowly added with stirring.

The preparation is used as a paste spread on lint and applied to the diseased surface.

Marsden's paste is popular and very effective. It is prepared as follows:

℞

Acid Arsenios.,	ʒj.
Pulv. Acaciæ.	ʒij.
Cocain. Hydrochlorat.,	gr. xx.
M.	

This is made into a paste by adding a small quantity of water to the amount of the powder to be used and is spread upon a piece of lint and applied to the sore after it has been curetted. The paste is allowed to remain on for twenty-four hours and then removed. The eschar separates in a week or ten days and the healthy ulcer remaining, soon cicatrizes. The application of the paste is painful but the addition of cocaine very measurably controls it. There is reaction and swelling for several days after the use of the paste.

Marsden's paste has the advantage, by virtue of the arsenic contained, of possessing a selective effect upon low formed tissue, the normal skin being uninjured by its cauterant action, and for this reason the resultant cicatrix is smaller than the original growth and not unsightly.

Czerny recommends the following formula:

℞

Acid. Arsenios.,	gr. xv.
Alcohol.,	
Aquæ Destil.,	āā ʒijss.
Orthoform.,	gr. xx.

This is painted on daily until a slough forms, which is separated by suppuration. Orthoform while lessening the pain impairs the efficiency of the application.

Other cauterants are pyrogallol, lactic acid, sodium ethylate, resorcin, 'butter' of antimony.

The parenchymatous injection of alcohol and other substances into the growth has been recommended but cannot be endorsed.

Betton Massey, Granger and others have reported satisfactory results from mercuric cataphoresis in growths that have proven recalcitrant to other methods.

The excision of epithelioma with the knife concerns surgery.

Prognosis. The prognosis of epithelioma depends upon the variety and individual conduct of the case. In the superficial discoid variety the prognosis, after complete removal, is good. In the deep and papillomatous forms it is not so favorable.

EQUINIA.

Synonyms: Farcy; Glanders.

Definition. Equinia is a rare, specific, communicable disease, conveyed to man from horses and characterized by suppurating and ulcerating lesions of the mucous membrane of the air passages and of the skin, with grave, often fatal, constitutional disturbance.

Symptoms. Farcy begins with symptoms of a general infection; the point of inoculation becomes inflamed and a spreading, discharging ulcer forms, or large tumors (farcy "buds") or abscesses develop, which later ulcerate and become phagedenic. The lymphatic glands enlarge and suppurate.

Glanders affects chiefly the nasal mucosa. It becomes swollen, inflamed and secretes a bloody, purulent discharge. This is followed by ulceration and destruction of the osseous tissue. The entire extent of the air passages may be involved. Death commonly results.

There is a form of equinia called *chronic perforating farcy* which exists without acute manifestations of nasal discharge and gangrene but is accompanied by ulceration and runs a chronic course, proving fatal in about fifty per cent. of those attacked.

Etiology. The *bacillus mallei* is the specific cause of equinia.

Treatment. The treatment is that of a general infection. The lesions should be treated on general surgical principles.

ERYSIPELAS.

Definition. Erysipelas may be defined as an acute, specific inflammation of the skin and subcutaneous connective tissue, characterized by sharply defined redness, heat, swelling, pain and tenderness, with a tendency to diffuse spreading, accompanied by fever and constitutional disturbance.

Symptoms. The disease has an acute onset with malaise, rigor and moderate elevation of temperature.

The local lesion is a bright, shining red or dusky or even violaceous patch, sharply defined against the normal skin. It is somewhat raised,

firm, hard and tender to the touch. In the higher grades of inflammation there are vesicles, pustules or blebs and rarely abscesses with sloughing. There is burning, itching and pain complained of, with a feeling of stiffness and tension. The disease tends to spread peripherally, the older areas clearing up as new regions are invaded. The patches fade out and begin to desquamate in a few days to a week, but the disease, through repeated extensions, may be much prolonged (*erysipelas migrans vel ambulans*).

A mild, recurrent form of erysipelas is noted in which the eruption originates from a breach in the nasal mucosa and appears on the side of the nose and adjacent portions of the cheek. There is often considerable œdema and local disturbance but the constitutional symptoms are very mild or altogether lacking.

The face is the most frequent seat of erysipelas but the disease may occur in any region of the body, especially when following a wound or any breach in the integument.

Etiology. Erysipelas is due to infection from the *streptococcus erysipelatosus* of Fehleisen. The micro-organism may enter the body through any solution of continuity of the skin or mucous membrane.

Debility, poor nutrition, or any other circumstance that lowers the resistance are predisposing causes of erysipelas. The affection is contagious.

Diagnosis. The sudden onset, tense swelling, shining redness and sharp definition of the patches, their method of extension, and the pain, tenderness and constitutional disturbances accompanying the eruption, are usually sufficient evidence to establish a diagnosis of erysipelas.

Treatment. A mercurial purge should be given at the outset. Tincture of the chloride of iron may be administered in doses of from ten to twenty drops, every three hours; quinine, five grains, every three hours, is often effective. The bowels should be kept loose with saline cathartics.

Stimulants and concentrated nourishment are indicated.

Locally, ichthyol in solution, or ointment with lanolin twenty-five to fifty per cent. strength, is one of the most reliable remedies. Compresses soaked in hot saturated boric acid solution, solution of bichloride of mercury 1:5000, carbolic acid in solution in alcohol, or in an ointment, are all useful. Limited areas may be painted with tincture of iodine or their peripheries penciled with lunar caustic. In severe cases antistreptococcus serum may be given a trial. Unguentum Crédé rubbed into the margins of the patches will sometimes have a marked effect in abridging the course of the eruption.

As the disease is infectious, proper precautions should be taken in disinfection of the premises and articles exposed.

Prognosis. Recovery is the rule though fatal terminations are not uncommon in the severe grades of the disease, especially when occurring in feeble, old or debilitated individuals. Cerebral, pulmonary, and cardiac complications are to be feared.

ERYSIPELOID. (*Rosenbach.*)

This affection was first described by Rosenbach and has received his name.

It resembles the mild form of erysipelas without constitutional symptoms, and is caused by contact with decomposing animal matter. It is seen usually on the hands of butchers, cooks fishdealers and the like, and appears as a red or violaceous zone surrounding a point of infection. The patch spreads peripherally and tends to clear in the centre. It is slower in progress than erysipelas and is not followed by desquamation. Itching and burning are present.

The disease is due to infection with a micro-organism belonging to the *cladothrix* order and is acquired from handling putrid meat or fish.

Treatment. Antiseptic ointments of carbolic acid, ammoniate of mercury or of ichthyol, ten to fifteen per cent. are demanded for the relief of the infection.

ERYTHEMA.

Under the omnibus term erythema are included several groups of cutaneous affections which possess the common characteristic of circumscribed or diffuse redness and which are classified according as they arise from active or passive hyperæmia or congestion of the skin, or from inflammation with exudation. To the former, or hyperæmic, group, belong *erythema simplex* (with its causal appellations), *erythema intertrigo* and *erythema scarlatiniforme*; to the second, or exudative, *erythema nodosum* and *erythema multiforme*.

Erythema Hyperæmicum. Hyperæmic or congestive erythemata include the simple erythemata of local distribution due to external irritants, and those of more or less general distribution due to internal causes, such as intestinal toxæmia, systemic diseases, the administration of therapeutic sera and certain drugs.

Erythema simplex is produced by contact with external irritants of moderate severity and is characterized by congestive redness appearing in variously shaped and sized, diffuse or circumscribed patches with slight swelling and little or no elevation. Instead of being uniform the redness may be mottled or blotchy. It may be made to disappear on pressure.

Simple erythema may arise from a great variety of causes and the term is qualified by adjectives descriptive of the provocative agent. It may be produced by friction or pressure (*erythema traumaticum*), exposure to the sun's rays (*erythema solare*); to the intense heat (*erythema caloricum*) or cold (*erythema pernio, chilblain*); contact with poisonous plants or chemical irritants (*erythema venenatum*).

Erythema Intertrigo is a form of traumatic erythema and occurs where the skin surfaces are in close apposition, as the natal and eruro-scrotal

folds, axillary spaces and beneath pendulous breasts. The skin is reddened, dry, hot and painful, or the surface is covered with a macerated pellicle or is abraded, discharging a small quantity of mucoid fluid with an offensive odor.

Erythema intertrigo occurs in infants and young children and in fat people and is usually due to neglect of cleanliness, hot weather and active sweating.

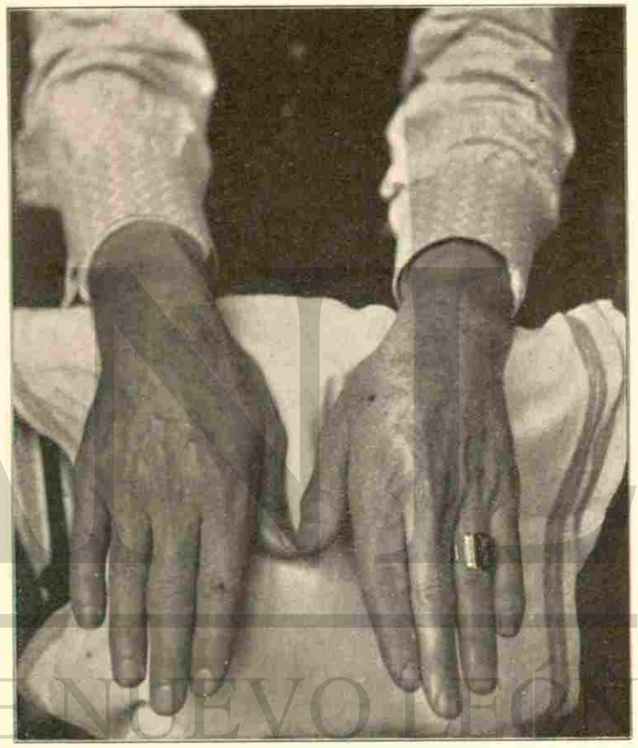

Fig. 45.—Erythema Papulatum (from exposure to cold).

The indications for treatment are to keep the skin surfaces separated and to use dessicating powders, such as talc, lycopodium, together with lotions of boric acid and calamine and lime water.

The condition may be the starting point of an eczema or a spreading dermatitis.

The treatment of simple local erythemata from external irritation consists in the removal of the cause. When the latter is of more than ordinary

intensity, as from heat, cold, traumatism, contact with chemical irritants, a dermatitis may be aroused which has been described under that title.

Erythema Scarlatiniforme. Scarlatiniform erythema is a type of simple erythema due to a generally acting cause. It appears abruptly as a red, punctiform rash closely resembling that of scarlet fever, but preserving no rule or regularity as to location of inception. The eruption may occur in patches leaving normal intervening areas of skin.

The eruption is accompanied by some malaise and slight febrile reaction, which is of a transient nature. As a rule desquamation follows which is usually of the furfuraceous type though the peeling may occur in large flakes. If the erythema is exceptionally severe, the hair and nails may be shed.

The affection lasts from a few days to a few weeks, depending upon the intensity and severity of the causal disturbance. Recurrences may take place and in the rare form of the disease, known as *erythema scarlatiniforme recidivans*, they are the rule.

Etiology. Erythema scarlatiniforme is due to the presence of a toxine which produces a mild inflammation of the skin. The cause of the toxæmia may be obscure or it may be due to gonorrhœa, rheumatism, typhoid fever, septicæmia, or result from the ingestion of certain drugs, such as copaiba, mercury, belladonna or quinine, or from the injection of one of the therapeutic sera, tuberculin or diphtheria antitoxin.

Diagnosis. The diagnosis is made chiefly from the symptom-complex. The eruption closely resembles scarlet fever, but is to be distinguished from it by the absence of serious constitutional symptoms, faucial engorgement and 'strawberry' tongue; from measles, by the absence of catarrhal symptoms, Koplik's spots, and continuous elevation of temperature; from rötheln, by the lack of enlargement of the glands of the neck and absence of epidemic occurrence.

Treatment. A saline purge should be given at the outset to remove any irritant from the alimentary canal.

Locally a lotion of calamine and lime water may be applied, or a soothing ointment, such as the following:

℞

Menthol.,	gr. v.
Alcohol.,	gtt. xx.
Hydrogen. Peroxid.,	ʒj.
Vaselin.,	ʒiij.
Lanolin. ad.,	ʒj.

M. Ft. Ung.

The application of this cooling salve will tend to relieve the congestion in the skin and lessen irritation.

ERYTHEMA NODOSUM.

Erythema Nodosum is classed with the exudations and is manifested by the appearance upon the extensor aspects of the legs and arms of oval or round nodules, at first firm and elastic, later softening and apparently undergoing suppuration, though the latter does not occur. In the early stages the skin over the nodules is a bright-red, but subsequently changes to a dusky-red, even a purplish hue. The lesions are sensitive to the touch and spontaneously painful.

The eruption occurs principally in young subjects, especially young women, and is accompanied by slight constitutional symptoms, fever and joint pains. The latter may be quite severe, simulating acute articular rheumatism.

The disease runs its course in from three to six weeks, the eruption appearing in successive crops. Subsequent attacks are not infrequent.

Spring and autumn seems to exert influence upon the occurrence of the disease.

Etiology. Erythema nodosum is due to toxæmia resulting from defective sanitation, infectious disease, malaria or rheumatism.

Diagnosis. The diagnosis is based upon the sensitive, oval swellings situated over superficial bones, their comparatively rapid evolution and color effects resembling in appearance those associated with a contusion. Syphilitic nodes are somewhat similar in appearance but are few in number and of much more gradual course.

Treatment. Internally iron is generally indicated, the tincture of the chloride being the most desirable preparation. When associated with rheumatism the remedies adapted to the relief of that affection, aspirin, salol, salicylate of soda, should be administered.

The limb should be elevated and kept at rest. Lead and opium wash is serviceable for the relief of pain. The lesions, despite the temptation, should never be incised as pus is never present and absorption invariably takes place.

ERYTHEMA MULTIFORME.

Erythema Multiforme is one of the exudative erythemata and as the name implies may assume many varieties of form. The varieties are not disease entities but refer to the stage at which the disease is encountered.

Erythema multiforme makes its appearance as erythematous spots or papules (*erythema papulosum*) or raised discs or tubercles (*erythema tuberculatum*) which vary in size from that of a lentil to a bean. The papule or tubercle tends to flatten in the centre and spread peripherally, producing ring-shaped lesions (*erythema annulare*), enclosing faintly pigmented areas. A new papule may develop in the centre of the ring and offer on oblique view a play of colors (*erythema iris*). Vesicles and bullæ may form in and about the lesions (*erythema vesiculosum vel bullosum*)

The color at first is a rosy red, changing to a livid or violaceous hue, finally to a yellowish stain, somewhat as in a bruise. The rings increase in size and encounter the periphery of other rings, so that the circular outline becomes lost and wavy lines made up of segments of circles are formed (*erythema gyratum, erythema marginatum*). The broken rings slowly fade out, leaving behind a certain amount of pigmentation.

The eruption is symmetrical and shows a predilection for the backs

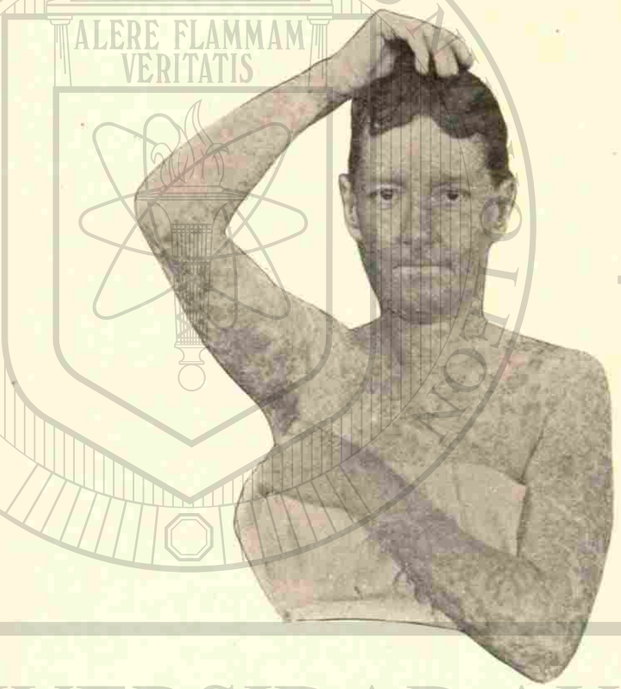

Fig. 40.—Annular Multiform Erythema (Dyer).

of the hands and fingers, insteps and knees. The forearm and legs are less frequently affected; the face and trunk rarely.

The occurrence of the eruption is generally marked by some constitutional disturbances, fever of a moderate degree, gastro-intestinal disorder and articular pains of a rheumatic character.

Erythema multiforme shows a preference for young adults, especially young women, and occurs chiefly in the spring and autumn.

The duration is from two to four weeks, though the occurrence of successive crops may greatly prolong it. It tends to recur at about the same time each year.

Etiology. The affection is of toxic origin, arising from numerous classes of intoxications. It is found associated with disorders of the gastro-intestinal tract, rheumatism and grave affections, such as pneumonia, cholera and typhoid fever. It may also follow the injection of therapeutic sera and the ingestion of certain drugs.

Diagnosis. The diagnosis is not difficult if the prominent features of the disease are kept in view, namely, multiformity of lesions, distribution, coloration, acute course, constitutional reaction, history of recurrences.

Treatment. There are no definite indications for internal treatment. Quinine is recommended and diuretics like acetate and citrate of potash, and the salicylates if rheumatism is present. Constipation should be relieved with a saline purge. Soothing lotions such as that of calamine and lime water, or saturated boric acid solutions, are appropriate for local use.

ERYTHEMA INDURATUM.

Definition. Erythema induratum (*erythème induré des scrofuleux*—Bazin) is an inflammatory affection characterized by indurated nodules or patches of a livid color occurring upon the lower portions of the arms and legs of scrofulous persons. The nodules are at first subcutaneous but later become ill-defined, adherent to the skin and several may coalesce to form more or less extensive indurations. The nodules or plaques are neither tender nor painful. They may terminate by being slowly absorbed, or undergo superficial ulceration.

The disease is seen principally among young working women who are over-worked, required to be constantly on their feet and whose circulation is poor. It occurs chiefly in winter and is afebrile. It runs an exceedingly chronic course and is peculiarly rebellious to treatment.

Diagnosis. The affection resembles erythema nodosum, but lacks constitutional symptoms, is painless, chronic, and at times undergoes ulceration.

Syphilitic gummata are more rapid in evolution, the ulceration is deeper and the gummata disappear under specific treatment.

Treatment. Reconstructives and alterative treatment is necessary. Elevation of the limb and rest in bed should be advised. Bandaging and the local use of antiseptics are recommended.

ERYTHRASMA.

Definition and Description. Erythrasma is the term applied to a parasitic disease of the skin in which the lesions appear as large or small, finely wrinkled, slightly scaly patches of a yellowish-red or brown color, and occur where skin surfaces are in close apposition, as in the axillary, inguinal and cruro-genital regions.

The affection progresses slowly and gives rise to no inflammatory symptoms. It is due to a vegetable parasite, the *microsporon minutissi-*

mum which is composed of long, interlacing, jointed mycelial threads and minute, clumped spores. The fungus is about one-third the size of the trichophyton.

Diagnosis. Chromophytosis occurs on the trunk and the discolored patches may be scraped off. Ringworm in situations affected by erythrasma is marginate, itching and inflamed; erythrasma presents none of these features.

Treatment. The treatment of erythrasma is identical with that of chromophytosis. The discolored patch is scrubbed with green soap and an ointment of ammoniate of mercury, four per cent., rubbed in, or a solution of hyposulphite of soda ℥j to ℥j is applied. This is usually sufficient to remove the patches.

The disease is slightly contagious and precautions must be taken against reinfection.

FIBROMA.

Synonyms: Multiple Fibroma; Molluscum Fibroma.

Definition and Description. Fibroma is a connective tissue growth presenting one or more sessile or pedunculated, firm or soft, rounded, painless tumors situated in the corium and subcutaneous connective tissue.

The tumors vary in size from a pea to a pear and larger. They may be single but are usually multiple and distributed generally over the surface of the body, with the exception of the palms and soles. The skin covering the tumors is entirely normal in appearance or altered in color. The excretory ducts of the sebaceous glands are enlarged and patulous.

Associated with the tumors are pigment stains and prominences of a violet hue scattered about the surface of the skin.

The tumors, especially those with elongated, attenuated pedicles, may ulcerate and slough off.

The growths show progressive increase in number and size and continue throughout life.

Pathology. In structure, when recent, the growths are composed of lax, gelatinous fibrous tissue with a few nerves and bloodvessels; with age of the neoplasm the fibrous tissue becomes denser and firmer. They spring from the corium and subcutaneous connective tissue.

Diagnosis. Fibroma is distinguished from lipoma, the latter being non-pedunculated, lobulated and soft. Many fibromata give the "hole in the middle" sensation to the feel. Sebaceous cysts are solid or fluctuant; neuromata are painful and firm.

Varieties of Fibroma. Certain special types of fibroma are described.

Fibroma pendulum or *diffuse fibroma* presents multiple, large tumors which are attached by a broad base and overhang each other in thick, loose folds. They are not uncommon among the insane and those of a low grade of mentality.

This affection is sometimes inappropriately classed with dermolysis which, as has been indicated, is an infirmity or anomaly rather than a disease.

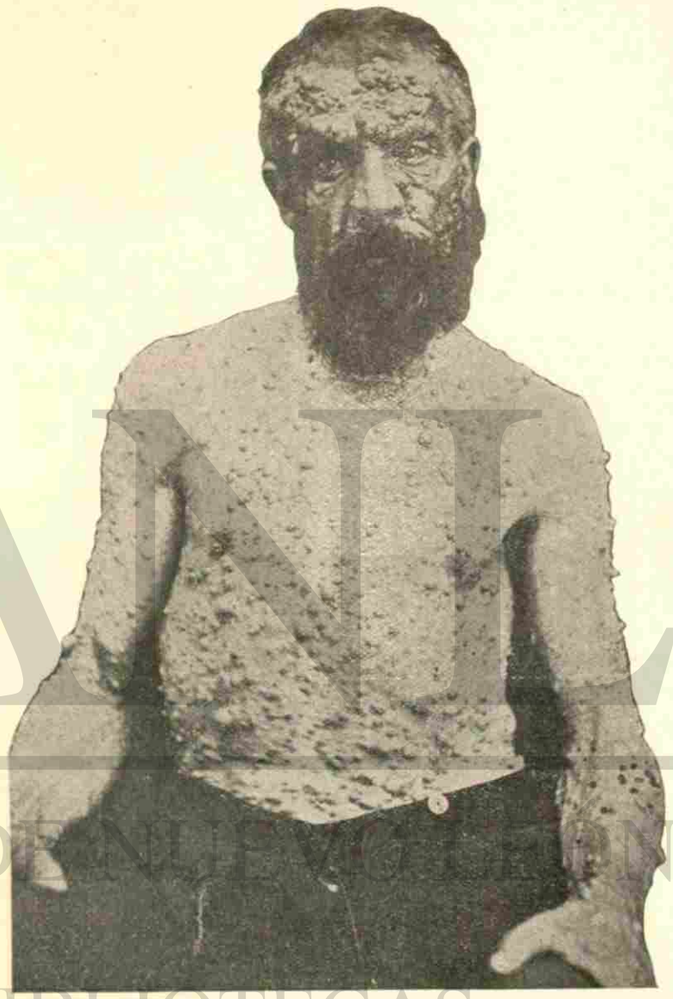

Fig. 47.—Fibroma (Ohmann-Dumesnil).

The Von Recklinghausen type of fibroma is distinguished by the occurrence of freckle-like, coffee-colored pigmentation on and between the nodular growths which latter are composed of fibrous and nerve tissue. The nerve trunks along which the nodules grow show thickening.

Neuro-fibroma is a variety of fibroma which occurs as hard, firm, painful tubercles or tumors of the size of a pin's head, a pea or much larger. They may be single or multiple and are usually subcutaneous, connected with the sheath of the nerve fibres but are sometimes seen in the skin and are movable with it. Several grouped tumors may unite and form a lobulated mass. The skin covering the growths is pale or reddened. Neuro-fibroma is congenital or appears in early life and grows slowly. The growths especially in their later development are very painful and sensitive from inclusion or stretching of nerve fibres. The tumors may undergo calcareous or fatty degeneration and the blood-vessels become enlarged. The growths are largely fibrous in structure but contain both medullated

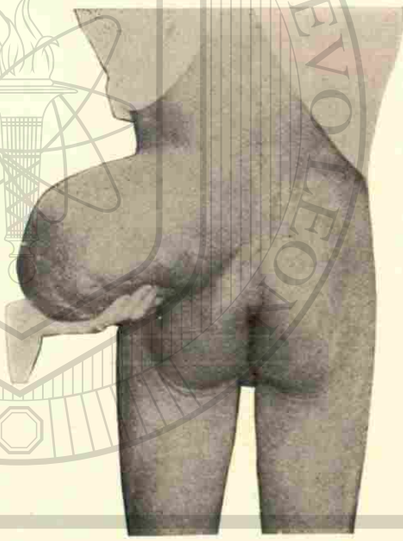

Fig. 48.—Fibrolipoma (W. P. Nicolson).

and non-medullated nerve elements. Neuro-fibroma is very rare and has been observed upon the face, buttocks, shoulders and thighs.

Etiology. The etiology of fibroma is obscure. Heredity is responsible in some instances and the subjects of the disease are not infrequently feeble-minded.

Treatment. Pedunculated growths may be removed with the knife, ligature or cautery. Hemorrhage during removal is apt to be free. For the smaller growths treatment is inadvisable. Neuro-fibroma has been cured by section of the afferent nerve.

FEIGNED ERUPTIONS.

Feigned or artificial eruptions are those lesions which are self-inflicted by hysterical women, malingerers and others for the purpose of deception.

They may be produced by a variety of agents, mechanical or chemical; of the latter cantharides and the corrosive acids are the most frequently employed. When thus occasioned the lesions usually belong to the erythematous, bullous or gangrenous type. They differ from the ordinary affections of the skin in their sharp definition and location upon regions of the body easily accessible to the hands. By these peculiar features they may usually be recognized and their origin detected.

Fig. 49.—Neurofibroma (Dr. F. B. Wynn).

FOLLICULITIS DECALVANS.

Definition and Description. Folliculitis decalvans is a chronic inflammation of the hair follicles occurring in patches and ending in cicatricial baldness. The disease resembles alopecia areata but differs from it in presenting atrophic changes in the skin, and in the presence of minute red papules or patches of erythema at the edge of the patches or around the individual hairs. Sometimes pustules are observed on the scalp or beard, grouped and transfixed by a hair which comes away with slight traction (*ulerythema sycosiforme*, of Unna).

Microscopically, folliculitis and perifolliculitis are found associated with the presence of pus micro-organisms.

The disease runs an extremely chronic course, lasting for years and terminating in irregular patchy baldness.

Treatment. Parasiticides followed by stimulating applications are indicated for the purpose of checking the spread of the disease and encouraging the growth of hair. Epilation of the hairs from the affected patch is recommended.

The disease is obstinate and the results of treatment unsatisfactory.

FRAMBŒSIA.

Synonyms: Yaws; Pian.

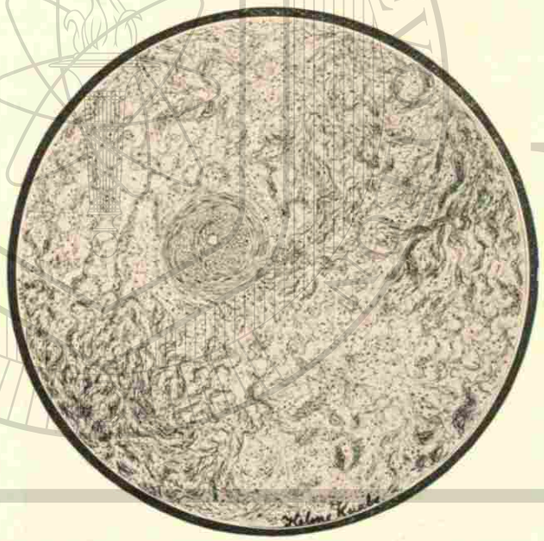

Fig. 50.—Section of Neurofibroma (Wynn).

Definition. Frambœsia (from the French, *framboise*, a raspberry), or yaws, is a tropical or semi-tropical disease characterized by papules, tubercles and tumors resembling currants and raspberries, accompanied by a greater or less constitutional disturbance.

Symptoms. The disease, after a period of incubation of several weeks, manifests itself as a papule situated upon the genital organs, groin, lip or breast. The papule suppurates and leaves a small, granulating ulcer which sooner or later heals with the production of a small scar. In about a month from the appearance of the original lesion, and shortly preceded by constitutional symptoms of varying severity, a papular rash appears somewhat resembling prickly heat. The papules increase in size, suppurate,

become covered with a crust which, when removed, reveals a small mass of granulations resembling a raspberry and discharging pus of a peculiar, musty odor. Itching is more or less severe. Several neighboring papules may coalesce forming a patch which suppurates, crusts, sometimes fissures and presents the same raspberry or pickled cauliflower aspect as the smaller lesions. The lesions flatten, change color and finally disappear, leaving spots which are dark-colored in the negro, light in white subjects.

The affection is limited to one region of the body or is generalized. It may be arrested at this point or pass into a third stage accompanied by subcutaneous nodules which ulcerate and spread. The disease may attack and produce destructive ulceration of the upper air passages, bones and muscles.

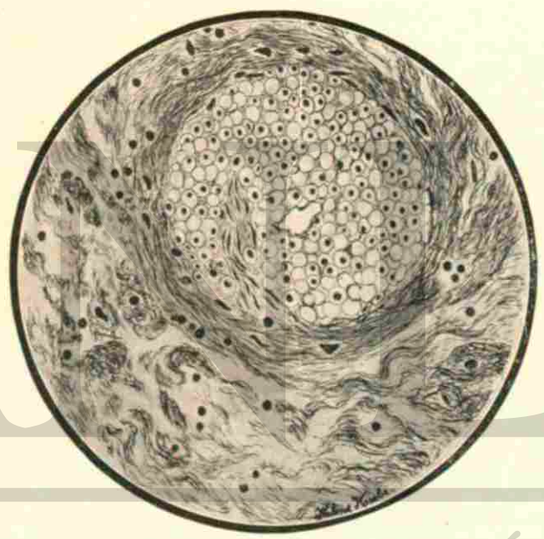

Fig. 51.—Section of Neurofibroma (Wynn).

Frambœsia runs its course in from two to four months and, if untreated, especially when occurring in debilitated and anæmic individuals, may last much longer.

It is rarely fatal. One attack confers immunity, as a rule.

Etiology. Frambœsia is limited to the tropics and affects chiefly young negroes. It is probably due to a specific micro-organism and is conveyed by inoculation.

The resemblance of yaws to syphilis is very great and it was for a long time regarded as being identical with it. The burden of the evidence is against this supposition, although Castellani has found spirochætæ in the ulcerative lesions.

Treatment. Curative means consist in improvement of hygiene, good food and tonics.

Locally, sulphur ointment and mild antiseptics are beneficial. The severer types of the disease are amenable to treatment with the iodides and mercury.

FURUNCULUS.

Synonyms: Furuncle; Boil.

Definition. Furunculus, or boil, is a deep-seated, acute, circumscribed inflammation of a sweat or sebaceous gland, or a hair follicle, which terminates in suppuration and the extrusion of a central plug of necrotic tissue.

Symptoms. A boil begins as a sensitive, painful, red papule, less often a small, lax pustule. In one or two days induration is felt; the lesion increases in size and projects above the surface as a rounded, conical or acuminate nodule of the size of a cherry, or larger. It is exceedingly tender and painful and the surrounding skin is hyperæmic, hard and swollen. The lesion at this stage may subside and undergo resolution, constituting what is known as a "blind" boil, but more frequently suppuration or "pointing" occurs. The skin covering the boil becomes tense and of a dusky-red, a central pustule appears or the epidermis is raised up in a flabby bulla. This soon ruptures, the disc of exfoliated skin separates raggedly and reveals a raw area with a mass of white, pulpy material occupying the centre, the *core*. Pus in varying amount escapes around the core, which in a few days is thrown off or can be removed and healing begins promptly. A smooth, depressed scar is left.

Constitutional symptoms are usually in evidence, consisting of slight fever with its concomitants.

Locally there is a feeling of heat and tension with pain and tenderness, which disappear with the separation of the core.

Boils are either single or multiple. New lesions spring up from direct infection of neighboring glands or follicles, or the infection is conveyed through the lymphatics.

When occurring in a series and extending over a considerable length of time, the condition is termed *furunculosis.*

The usual seats of boils are the face, neck, back, buttocks and thigh.

Etiology. Single boils may result from local irritation which affords an atrium for the entrance of micro-organisms. When multiple or recurrent there is generally some underlying constitutional cause such as lithæmia, tuberculosis, nephritis, diabetes or ana-mia.

Furuncles are prone to occur during convalescence from eruptive fevers, especially small-pox, and in infants suffering from gastro-intestinal diseases.

Boils are frequently associated with eczema and scabies and are common in early life and in those engaged in certain occupations, such as tar and paraffin workers.

Boils are due to specific micro-organisms entering the skin glands or hair follicles. The exciting cause is usually the *staphylococcus pyogenes aureus.* Poor health, uncleanliness, and the itching eruptions, favor the production of furuncles.

A variety of boil affecting the sweat glands is termed by Pollitzer *hydradenitis suppurativa destruens* and receives a brief description under that head.

Diagnosis. The appearance and course of a furuncle leave no doubt as to the diagnosis.

Pathology. The pathologic process is that of a dense infiltration around the infected gland. Thrombosis of the nutrient vessels produces the central necrosis.

Treatment. If discovered early an attempt may be made to abort the boil. Tincture of iodine, or a strong solution of silver nitrate, may be painted on, or carbolic acid, a few drops, injected with a hypodermic syringe into the centre of the lesion. Unna advises mercury-carbolic plaster-mull, and Heitzmann an ointment of salicylic acid, fifteen grains to the ounce. Other applications are spirit of camphor, saturated solution of boric acid applied with hot compresses; ichthyol in twenty-five per cent. ointment or in collodion.

If efforts at aborting the process fail, as they are more than apt to do, the lesion should be incised and the pus evacuated, and the subsequent treatment carried out on surgical principles. Thorough antiseptic cleanliness is required to prevent the occurrence of other boils. The region in the vicinity of the boils should be disinfected with alcohol or a solution of bichloride or of carbolic acid. The use of poultices is to be condemned, as warmth and moisture prepare the soil for the growth of micro-organisms. These objections are in a measure invalidated by the addition of an antiseptic, like carbolic or boric acid, in the preparation of the cataplasm.

Furunculosis requires constitutional treatment of the causative condition. Iron and quinine are serviceable, as is also arsenic in the form of Fowler's solution, five drops, three times a day. The mineral acids are useful. Calcium sulphide sometimes produces good effects and should be given in doses of one-fourth grain every two hours. Brewer's yeast has been recommended by Brocq and others, and is administered in tablespoonful doses three times a day. The dried preparation may be employed and is given dissolved in peppermint water. The bowels should be kept open and exercise in the fresh air advised.

Prognosis. Single boils are readily amenable to treatment. Furunculosis is relieved when the underlying cause is discovered and removed, otherwise it may prove very refractory.

HERPES SIMPLEX.

Synonyms: Fever Blister; Cold Sore.

Definition. Herpes simplex is an acute, inflammatory affection accompanied by clusters of small vesicles, seated upon an inflammatory base and limited to certain regions of the body.

Varieties. Herpes simplex occurs in two clinical varieties, *herpes facialis* and *herpes progenitalis* (*preputialis*).

Herpes facialis (*herpes febrilis, herpes labialis*) is commonly seen upon the vermilion border of the lip or wings of the nose as two or more pin-head sized vesicles filled with a clear fluid. In twelve hours or less the vesicles coalesce to form a small bulla, the contents of which is milky. The bulla dessicates or ruptures and forms a yellow or brown crust which soon falls off, leaving the skin temporarily reddened. Itching and burning are present to a variable extent.

Herpes facialis is always acute and very prone to recur. It is a frequent accompaniment of acute diseases, as pneumonia, meningitis, coryza, various febrile affections, and occurs as a consequence of digestive disorders and menstruation. It is regarded as a mild tropho-neurosis.

Herpes progenitalis resembles the facial variety but is situated upon the sulcus and glans penis in men, the labia in women. There is rarely more than one group of vesicles. The lesions are the size of a pin-head with very delicate walls and spring from an erythematous base. They soon rupture and crust. The affection is more common among men with long foreskins than in the circumcised. Burning and itching may precede and accompany the eruption, and if the irritation be marked the inguinal glands become tumefied. The eruption runs its course in a week or ten days and shows a marked disposition to recur.

Herpes progenitalis often causes much alarm from its situation and fancied resemblance to a venereal ulcer. Its characteristic features admit of no doubt of the diagnosis, but it must be borne in mind that the ruptured lesion of genital herpes offers an avenue favorable to venereal infection.

Treatment. In herpes facialis before the vesicles rupture an effort to cut short the eruption may be made by painting the surface with collodion, or covering it with moist bicarbonate of soda, or by making frequent applications of spirit of camphor. Later, simple protective ointments, such as boric acid or the oxide of zinc, are to be used.

Herpes progenitalis is treated with strict cleanliness and the use of drying powders such as subnitrate of bismuth or boric acid. A solution of resorcin, ten grains to the ounce of alcohol, may be swabbed over the surface in the interval to prevent recurrence. Circumcision is frequently indicated.

HERPES ZOSTER.

Synonyms: Zona; Shingles (Italian, *cingula*, a girdle).

Definition. Herpes zoster is an acute, inflammatory disease of the skin manifested by the appearance of clusters of vesicles seated upon an erythematous base and arranged along the course of one or more adjacent cutaneous nerves.

Symptoms. Pain and hyperæsthesia commonly precede the attack and there may be slight fever. A patch of erythema then appears upon which papules form which rapidly become converted into vesicles, grouped, rather firm, pin-head to split pea sized, and containing clear fluid. They are disposed in clusters of from two or three to a dozen, and may remain discrete or coalesce, form bullæ, dry and crust.

The lesions occur along definite nerve tracts, the groups as a rule

Fig. 52.—Herpes Zoster (Ohmann-Dumesnil).

lying nearest the nerve centre being the best formed. One crop of vesicles follows another for a week or two, when the eruption disappears leaving a certain amount of pigmentation or scarring, dependent upon its severity. The affection is as a rule unilateral and may be situated upon any part of the body but is most common upon the thorax, abdomen and supra-orbital regions. It is rare on the arms and legs.

The hyperæsthesia preceding the eruption is sometimes extreme and neuralgic pain, especially in the aged, may persist for a long time after the subsidence of the eruption.

Unusual and severe complications are occasionally observed and con-

sist in keratitis with ulceration of the cornea, or iritis with the ophthalmic type of herpes zoster. In other localities ulceration and gangrene may occur.

One attack of herpes zoster is usually protective except in a class of affections termed *zosteroids* which stand mid-way between herpes zoster and herpes simplex and are generally recurrent and more or less limited to one nerve area.

Etiology. Herpes zoster is by some regarded as an acute, infectious disease. Exposure to cold; traumatism and certain drugs, as arsenic; malaria; tuberculosis; locomotor ataxia; meningitis; and in fact any disease or agent which is capable of producing a neuritis may be classed as a cause of herpes zoster.

Pathology. There is usually found associated with the eruption an interstitial neuritis of the posterior spinal ganglion or of the nerve proceeding from it. The neuritis may occur anywhere along the course of the nerve from its origin in the cord to its periphery. Hemorrhage, inflammation and degenerative changes have also been noted. The affection may be due to reflex disturbances arising from uterine and gastro-intestinal disorders; the lesions being produced by a process of degeneration of the epithelial cells. The cells lose their prickles, become vacuolated, compressed, swollen and degenerated. There is an exudation of leucocytes into the papillæ, which find their way into the epithelium through the degenerated epithelial cells (Malcolm Morris).

Diagnosis. The diagnosis of herpes zoster is not difficult. The prodromal pain and tenderness, the grouped vesicles, their peculiar distribution and unilateral arrangement render identification easy.

Treatment. The chief indication is the relief of pain, for which anodynes, such as phenacetine, antipyrine or even morphine may be required. Tonics, quinine, iron and strychnine are usually indicated. Phosphide of zinc in the form of a pill containing one-sixth of a grain, given three times a day, seems especially beneficial. Galvanism aids in securing sedation. Counter-irritation applied in the form of dry cups to the roots and trunk of the nerves concerned is often of signal service.

Locally, the vesicles should be protected to prevent infection. Dusting powders of zinc oxide and bismuth, with a small quantity of cocaine, orthoform or morphine are useful. The clusters may be painted over with ichthyol in collodion, 1 to 10, before rupture has occurred. Later the patches may be covered with zinc oxide ointment spread on strips of lint and secured in position with rubber adhesive plaster.

HYDRADENITIS SUPPURATIVA DESTRUENS.

Definition. Hydradenitis suppurativa destruens was described by S. Pollitzer under this title and has been briefly alluded to in connection with furuncle. It is an inflammation of the sweat glands and peri-glandular structure and is characterized by the appearance of deep-seated, painless, shotty nodules which soften, enlarge and approach the surface, then undergo suppuration in the form of central pustulation. Rupture takes place at one or more points and is accompanied by the discharge of a small quantity of pus and tissue debris. Healing of the lesion is followed by a somewhat persistent pigmentation or a small, pitted scar.

The nodules are seated upon the face, neck, trunk and extremities and upon the hairy regions of the body, axillary spaces, scrotum and labia.

The lesions are single or occur in groups, each lesion running its course in two or three weeks, to be followed by others, thus prolonging the affection for months or years.

Etiology. The etiology is obscure though it is probably due to a micro-organism. Hyperidrosis may have a causative influence, together with some irritant or toxic principle in the sweat. Most of the cases observed have been among young adults. The disease is not common.

Pathology. The process is an inflammation ending in suppuration and destruction of the sweat gland.

Diagnosis. The disease resembles acne and furuncle but it never begins in a sebaceous gland and does not show comedones. It is smaller than a boil, less painful and more persistent and does not present a definite core.

Treatment. Attention to the general health, incision of the nodules and antiseptic management constitute the indications for treatment.

Prognosis. Recovery eventually takes place with more or less scarring.

HYDROA VACCINIFORME.

Definition. Hydroa vacciniforme is a rare disease of the skin occurring during the summer months upon the exposed parts of the body and generally seen in young boys. It has been described by Jonathan Hutchinson under the name of *hydroa æstivale*, and by Unna as *hydroa puerorum*.

Symptoms. The disease begins as single or grouped spots of erythema from which spring large vesicles or bullæ containing a clear fluid which soon becomes opalescent. The bullæ sink in the centre, dry and form a crust which falls off and leaves a pit-like scar. The bullæ and scars resemble those of vaccination.

The eruption occurs chiefly upon the legs of young boys beginning with the first summer of life and continuing to appear each successive summer up to the age of puberty when the tendency to the eruption declines. Fresh outcroppings of lesions follow each other at close intervals, in this manner prolonging the eruptive act. The eruption has occasionally been observed in winter.

The subjective symptoms consist in slight burning and itching, or they may be absent altogether.

Treatment. Protection from the sun of the favored localities and the

use of simple, antiseptic and protective applications constitute the proper treatment. The bullæ should be punctured and the crusts removed before making the applications.

HYDROCYSTOMA.

Definition and Description. Hydrocystoma is the term applied to a disease of the sweat glands manifested in pin-head sized, whitish or bluish-white, permanent vesicles resembling boiled sago grains and occurring upon the face. The lesions are non-inflammatory, give rise to no subjective symptoms and are commonly seen upon the faces of middle-aged people, especially women, and those who are engaged in such occupations as cooks, laundresses and the like, where their duties require manual labor in hot rooms. The seats of predilection for the eruption are the upper parts of the face, about the orbits, nose, cheeks, lips and chin. The lesions are tense, glistening vesicles showing little tendency to rupture. The contents resembles normal sweat. The fluid is slightly acid and contains a granular material. The lesion is a genuine cyst and not a mere mechanical dilatation of the coil duct.

Hydrocystoma is distinguished from sudamina, eczema and dysidrosis by the absence of subjective symptoms, permanency of the vesicles and their characteristic location.

Treatment. The minute cysts may be ruptured and an adhesive inflammation induced by swabbing out the cavity with pure carbolic acid, or destruction may be accomplished with the electric needle.

HYPERÆSTHESIA CUTIS.

Hyperæsthesia is a functional disturbance characterized by local or general increase in the sensibility of the skin. It is associated with functional and organic nervous diseases, hysteria, neurasthenia, tetanus, locomotor ataxia and is more or less common during states of hyperpyrexia. The pain is aroused by external stimuli and may be mild or severe, burning, pricking or electric in character. At times the sensitiveness is so great that currents of air passing over the body may elicit acute pain. It is temporary as a rule, though it may be more or less constant.

Treatment. The treatment is that of the underlying cause.

HYPERIDROSIS.

Synonym: Excessive Sweating.

Definition. Hyperidrosis is a functional disturbance of the sweat glands accompanied by an excessive secretion of sweat.

Varieties. Hyperidrosis may be circumscribed or general. When generalized, it is physiological, accompanying physical exercise, or is symptomatic of hysteria, tuberculosis, morphine addiction, debility and other general disorders. It may be unilateral. When circumscribed, it occurs

chiefly in the palms, soles and in regions where skin contact is close and warm, as the axillæ and genitals. It has been observed to occur along the area of distribution of a nerve.

Symptoms. When occurring upon the palms the hands are moist and clammy, the skin pink and sodden and beads of sweat cluster upon the palps of the fingers. The secretion at times is so great as to drip from the hands, though the amount of excess secretion is subject to considerable variation and may be comparatively slight. In the plantar type the skin of the soles becomes thinned, pink and macerated and pain is complained of on walking or prolonged standing. Fissuring between the toes is common and may give much discomfort. To hyperidrosis of the soles, bromidrosis is often superadded.

Hyperidrosis is usually chronic and subject to exacerbations.

Etiology. The affection is probably due to defective innervation. It is sometimes congenital and may be hereditary. The circumscribed forms are due to disturbance of the vaso-motor system.

Treatment. In the generalized form, when pathological, tonics are required to improve the general health and increase the nerve tone. Belladonna is sometimes useful and atropine may be given hypodermically in doses of one one-hundredth of a grain, to be increased to one-eightieth (Morris). Quinine and the mineral acids are serviceable. Crocker recommends sulphur two drams three times daily.

Locally, in the circumscribed forms, belladonna ointment, dusting powders of boric acid, salicylic acid and starch are beneficial. The application of hot water on a sponge pressed to the part will check axillary and genital sweating for several hours.

Hebra advises for *hyperidrosis palmæ et plantæ* the application of diachylon ointment on strips of lint. This is to be used continuously for eight days changing the dressings twice daily. He avers that the affection rarely fails to yield to this plan. An alcoholic solution of formalin, from one to twenty per cent., painted over the palms and soles twice daily is exceedingly beneficial. Cracks in the skin should be covered with zinc oxide ointment before making the application to avoid smarting. This remedy may be applied to the axillæ also.

Neebe's plan of immersing the palms or soles in chemically pure hydrochloric acid for ten minutes daily is sometimes effective. The patient's face should be protected from the fumes of the acid by holding a wet towel to the nose and mouth.

A five per cent. solution of permanganate of potash appears at times to have some influence upon checking the sweat secretion.

Galvanism and faradism are both serviceable and cases of inveterate hyperidrosis have been alleged to have been cured under the use of the X-rays. The last named method should be reserved as a *dernier resort* and then employed only in selected regions.

Prognosis. The disorder is prone to prove rebellious to treatment, palliation being usually the most that can be accomplished.

HYPERTRICHOSIS.

Synonyms: Hirsuties; Superfluous Hair; Hypertrichiasis.

Definition. Hypertrichosis is an excessive growth of hair. It may appear as an over-growth upon normally hairy regions or occur upon non-hairy parts of the body or upon the face of women. It may be excessive over the general surface of the body or limited to particular regions. In women, an abnormal growth may manifest itself upon the extremities and genital organs, when in the latter instance instead of assuming the fan-shape common in women it ascends as a band to the umbilicus. It may also appear about the nipples, the sternum, chin, lips and cheeks. When

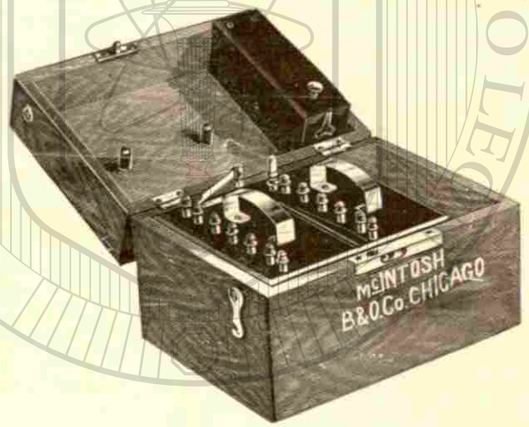

Fig. 53.—Galvanic Battery.

the growth is universal and attains unusual length, as in the case of the Mexican woman, Julia Pastrana, and the hairy family of Mandalay, it constitutes one of the stigmata of degeneracy. It is also observed among the insane of both sexes and in women suffering from major hysteria and is coterminous with these affections. Many more or less normal women at or after the menopause display a tendency to the development of superfluous hairs upon the chin as do younger women who suffer from ovarian or uterine disease. It may, however, appear without apparent cause, especially in brunette women.

Excessive growth of hair in unusual situations is occasionally observed as a familial trait.

Over stimulation, long-continued, local irritation may determine an excessive growth of hair.

The essential cause of hypertrichosis is not at all clear. It is probably an evidence of a neuropathic tendency and is not uncommonly associated with disturbances in the sexual zone.

Treatment. General hypertrichosis is not amenable to treatment. When circumscribed, electrolysis offers the only reliable means of relief. This method is applicable only to a limited number of cases and should be restricted to those patients in whom the hairs are coarse, pigmented and not too numerous. It is not advisable under other circumstances. The object of this form of treatment is the destruction of the hair papilla and is carried out as follows: the patient is placed in a semi-recumbent position and the field of operation disinfected with alcohol or a solution of biehloride. Four to ten (even more) cells of a galvanic battery are thrown into the circuit and a fine steel needle, secured in a suitable holder and connected with the negative pole of the battery, is carefully inserted along the shaft of the hair and cautiously pushed in until resistance is encountered. The patient is then instructed to place the palm of the hand against a wet sponge attached to the positive pole of the battery. The hair is then grasped with a pair of epilating forceps and held lightly. Bubbles of gas begin to be evolved at the point of the needle and in a few seconds the hair is loosened

Fig. 54.—Needle Holder.

and can be removed with gentle traction. The patient then removes her hand, breaking the current. The pain of the operation is trifling. A small wheal forms at the seat of the puncture after the removal of the hair. If a milliampèremeter is used, from one-fourth to one milliampère is sufficient. With practice, the operator becomes expert at finding the bottom of the hair follicle and the angle of insertion of the hair. Caution should be taken against removing hairs situated too close together as vesiculation and crusting may cause scars. With reasonable skill and not too strong a current the risk of scarring is slight. About thirty to forty hairs may be removed at one sitting of an hour's duration. The operation must be repeated as often as recurrences take place. The treatment is exceedingly tedious and much time and patience are demanded to secure anything like a satisfactory result.

The X-rays are worthy of a trial in such cases as are not appropriate to electrolysis, that is, those in which there is an abundant growth of down interspersed with coarse, pigmented hairs. The method will undoubtedly cause the hairs to fall, but unless there be an actual destruction of the hair papillæ, or at least of its hair producing function, the growth will return and perhaps more vigorously than before. To produce this effect is a

matter for individual judgment and temerity. Unless the operator be well versed in radiotherapy it is scarcely advisable that he attempt to remove hairs by this method, lest in straining at a gnat he swallow a camel.

When other methods fail, palliation may be achieved by epilation, shaving or the use of a depilatory. Boetger's paste, which is made by passing sulphuretted hydrogen gas through quick lime forming the sulphhydrate of calcium, is a useful depilatory and does not seem to injure the skin. There seems but little justification for the notion that epilation or the use of depilatories stimulate the growth of hair.

ICHTHYOSIS.

Synonyms: Xerodermia, Fishskin Disease.

Definition. Ichthyosis is an hereditary or congenital, cutaneous anomaly; characterized by dryness, roughness and scaliness of the skin with a tendency to papillary outgrowth. It is essentially chronic, developes in the first year of life and is aggravated by cold weather.

Varieties. There are three forms of ichthyosis described.

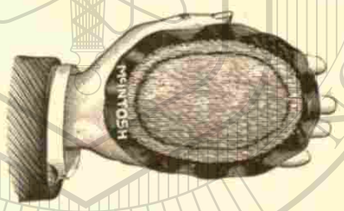

Fig. 55.—Sponge Electrode.

Xerosis, or xerodermia, is the variety most frequently seen and consists of a moderate dryness and scaliness of the skin, accompanied by a furfuraceous desquamation. This condition is more marked in the winter and tends to disappear in summer and is most conspicuous upon the extensor aspects of the extremities. The sweat secretion is much diminished in amount and about the hair follicles, especially over the knee and elbow joints, there is a heaping up of horny material yielding a granular feel, *keratosis pilaris*.

Ichthyosis Simplex. This variety is more marked and severe than the foregoing and exhibits scaliness over the entire body, except the flexures of the joints. The scales are ordinarily thin but may be thicker and vary in color from white to green or very dark (ichthyosis nigricans). The palms and soles show some thickening and deepening of the natural lines. The scales are attached by their centers with loose edges or by one edge, the other being free. In severe forms, the skin of the extremities divides into reticulated plates resembling the skin of a fish or the carapace of a turtle. The sweat and sebaceous secretion are deficient and subcutaneous

fat is diminished in amount. Papillary hyperplasias may appear about the knee and elbow joints. The appendages of the skin are involved, the hair being dry and lustreless, the nails brittle.

The disease being non-inflammatory, the subjective symptoms are inconspicuous. There is a variable amount of itching, and owing to the weakened resistance offered by the horny layer the subject of ichthyosis is sensitive to cold, the skin cracks readily and he is especially vulnerable to dermatitis and eczema.

Ichthyosis Hystrix is a curious affection characterized by circumscribed papillary hypertrophy with horny summits which eventuate in prominent, verrucous masses bearing some resemblance to the shell of a mollusc or the outer bark of an oak tree. The patches at times present spiny projections like the quills of a porcupine. The patches are widespread over the surface of the body, but as a rule are linear in arrangement, unilateral and affect the arm, neck, axilla or umbilicus. The distribution sometimes corresponds to that of the cutaneous nerves, longitudinal on the limbs and transverse on the trunk, but Unna explains this distribution on the assumption that the patches of eruption favor in situation the embryonal lines of fissure. The affection is also called *nævus unius lateris* and *papilloma lineare*.

Fig. 56.—Epilating Set.

The course of ichthyosis in its several varieties is essentially chronic. It begins in infancy, tends to become stationary about middle life, and then continues throughout the life time of the individual. It does not affect the general health.

Ichthyosis is an hereditary affection, the transmission frequently falling upon one sex in the family; beyond this factor the etiology is not known. In rare instances the disease is acquired.

A congenital analogue of ichthyosis is described which affects the fetus, and in its gravest form causes death within the uterus or shortly after birth. The condition is called harlequin fetus or *hyperkeratosis congenita*. The skin is tense, dry and separated into polygonal plates by deep

fissures. Owing to the tenseness and inelasticity of the skin, the mouth and eyes cannot be closed. In the milder form the skin has a glazed, varnished appearance as though too tight for the tissue beneath, and in feel resembles the case of a sausage.

Pathology. The pathologic process consists in an increased formation of epithelial cells in the horny and mucous layers. The cells are abnormally adherent, increasing tension and producing separation into scales and plates. The papillary layer of the corium is frequently involved, its vessels being dilated and the papillæ hypertrophied. Stenosis of the ducts of the sebaceous and sweat glands is present and the fat of the skin is quantitatively diminished.

Diagnosis. The diagnosis of ichthyosis is readily established by the dry, harsh condition of the skin, the presence of scaliness or of polygonal plates, and the absence of all signs of inflammation.

Treatment. Thyroid extract has occasionally proven beneficial, and alteratives like cod liver oil, may bring about some amelioration of the condition. Pilocarpin, the use of which is suggested by its diaphoretic effect, can have but a temporary influence and is not devoid of risk.

Fig. 57.—Epilating Forceps.

Locally, unctuous applications are indicated to relieve the scaliness and increase the pliancy of the skin. Bockhart claims to have cured a case of ichthyosis by the long-continued use of sulphur ointment.

Baths followed by inunctions with lanolin, vaselin or glycerine and rose water will serve to render the skin less harsh and scaly.

When the disease is more marked than in the simple form the scales may be removed with vigorous frictioning with green soap, followed by a bland ointment. This plan should be pursued with persistence.

The patches of ichthyosis hystrix may be removed with strong salicylic acid applications, curetting or electrolysis.

IMPETIGO CONTAGIOSA.

Under the term impetigo contagiosa which was bestowed by Tilbury Fox are included several clinical types that present certain individual features but are too closely united etiologically and therapeutically to warrant separate description. The differences chiefly concern the morphology and location of the lesions and the precise variety of the pus germ provocative of the disease.

Definition. Impetigo contagiosa is an acute, inflammatory, contagious

affection of the skin characterized by the formation of superficial, flattened, discrete, vesico-pustules which dry and form thin, yellowish or brownish, loosely attached crusts.

The disease is common especially among the children of the poor, but being contagious it respects neither age nor social position. It is one of the

Fig. 58.—Ichthyosis (Ohmann-Dumesnil).

perils of the barber's shop on account of its ready transmission through the medium of razor and shaving brush.

The favored seats of the eruption are the face, especially the region of the mouth and nose, the back and front of the neck and the fingers.

Symptoms. Impetigo contagiosa appears as an erythematous spot which becomes vesicular and rapidly pustular. The lesion, small at first, enlarges peripherally until it attains the size of a dime or larger, and if

two or more lesions are contiguous they coalesce. There is a slight inflammatory areola. The lesions flatten, tend to become depressed in the centre and soon dry into honey-yellow crusts which are thin, curled up and so slightly adherent as to present the appearance of having been stuck on the skin. When neglected, from admixture with dirt, the crusts become brown, even black, and thick.

When the crusts are removed, the skin beneath is merely reddened or moist and sometimes covered with a honey-like material. The neighboring lymph glands are enlarged and occasionally suppurate.

The eruption varies much in extent, consisting of a few discrete lesions or a large portion of the face may be crusted over.

Fig. 59.—Nævus Unius Lateris.

The subjective symptoms are slight. There is a variable amount of itching and some tenderness.

Aberrant Types of Impetigo Contagiosa. Aberrant types of impetigo are described which probably owe their differences to the nature of the provocative micro-organism. In some of these anomalous forms the lesions, to the number of thirty or forty, appear scattered over the surface of the body at wide intervals. They show no preference for the fingers and face but occur principally upon the extremities. The lesions undergo the same changes as those of the typical form, or instead of being flattened and centrally depressed, they are plump or flaccid, sometimes as large as a walnut, of a pemphigoid character and exhibit very little tendency to suppuration. This variety is called *impetigo contagiosa bullosa* and is

doubtless mistaken at times for, or miscalled, *pemphigus contagiosus.* It usually occurs in infants and is sometimes fatal..

The impetiginous eruption may assume an annular form, drying in the centre and extending in a serpiginous manner by the periphery and closely resembling ringworm (*impetigo circinata*).

Fig. 60.—Ichthyosis Nigricans (Ohmann-Dumesnil).

In the variety known as *impetigo simplex*, and described by Duhring, Bockhart and others, the lesions are small, primarily pustular, rounded or hemispherical, thick-walled and show no tendency to umbilication or coalesence. They appear to be but slightly contagious and are frequently productive of folliculitis and boils.

Etiology. Impetigo contagiosa is contagious and both auto- and hetero-inoculable. It is due to one or more of the pyogenic micro-organisms, most commonly the *staphylococcus pyogenes aureus.* The *streptococcus* is also held to be the exciting cause.

Impetigo contagiosa is seen principally among children and ill-nourished, strumous infants, but adults are by no means exempt. In men the disease is usually acquired from unclean shaving.

Pathology. The lesions of impetigo are superficially situated and the amount of exudation is disproportionate to the degree of inflammation.

Diagnosis. Impetigo contagiosa is to be distinguished from eczema, ecthyma, varicella and pemphigus, to all of which it bears a fleeting resemblance. The salient features of impetigo contagiosa are the superficial character of the lesions, their peculiar situation, comparatively brief course, inoculability, slight development of inflammatory base, thin, wafer-like crusts, absence of marked constitutional symptoms and the ease with which cure can be effected.

Fig. 61 a.—Impetigo Contagiosa (Unna).

Treatment. The disease responds very readily to treatment. After the crusts have been removed an ointment of ammoniate of mercury, ten to thirty grains to the ounce of cold cream, well rubbed into the lesions will effect a prompt cure. A solution of bichloride of mercury, 1 to 1000, will accomplish the same result.

In the bullous form in infants accompanied by considerable denudation, the treatment is that of a simple burn. Bearing in mind the contagious character of the affection, prophylactic measures should be taken against its spread.

Prognosis. Impetigo contagiosa in the great majority of cases tends to spontaneous cure in from ten to thirty days.

IMPETIGO HERPETIFORMIS.

Definition and Description. Impetigo herpetiformis is an exceedingly rare disease described by Kaposi and scarcely observed outside of Vienna. It begins as a few isolated groups of pustules whose contents changes from opaque to greenish. The lesions make their appearance first in the groin, about the umbilicus, breast or axillary space and after a few days dry into brownish crusts. New lesions appear around the original groups and, drying, add to the already existing crust. In this manner wide surfaces may be covered with crusts, the skin beneath being red, sometimes moist but never ulcerating. The mucous membranes may be the seat of a similar eruption.

Fig. 61 b.—Impetigo Contagiosa.
Figs. 60 and 61 represent brother and sister (Unna).

Constitutional symptoms are present and consist in more or less continuous fever of a septic character, which is augmented by the appearance of fresh pustules.

The disease runs its course in a few weeks or months and is almost invariably fatal, death ensuing from marasmus or exhaustion.

Impetigo herpetiformis appears in the great majority of reported cases to be limited to pregnant women.

Treatment is unavailing. Supportive measures, baths and protective applications are the principal therapeutic indications.

KELOID.

Synonym: Alibert's Keloid.

Definition. Keloid is a firm, elastic, connective tissue growth of the corium, resembling a scar.

Description. The surface of the growth is white or whitish-pink, darker in the negro. It is situated in the skin and is traversed by dilated blood vessels, or projects above it and tends to assume a rounded form with irregular, lateral projections which bear a fancied resemblance to a crab's claw.

The growth originates from a scar but may occasionally appear spontaneously. The lesion is usually single but may be multiple, especially when following scars resulting from small-pox. The growth is not coterminous with the scar but extends beyond it.

The growth occurs on the sternum in fifty per cent. of the cases though

Fig. 62.—Impetigo Contagiosa.

it may be seen in any region of the body and is especially common on the face and neck of negroes from razor cuts, or on the lobe of the ear as a result of boring for ear rings.

Keloid is usually painless but is occasionally sensitive and may be the seat of burning and itching. It is rare before puberty. The growth develops in a few weeks and remains stationary or continues to grow until it may attain great dimensions. In young subjects it sometimes undergoes spontaneous involution.

Etiology. The immediate cause of keloid is unknown. It is much more common in negroes than in white people and in the great majority of cases originates from a scar.

Diagnosis. Keloid is distinguished from hypertrophied scar by its tendency to spread beyond the limits of the causative cicatrix, and the peculiar claw-like arrangement of its lateral processes.

Treatment. Removal of the growth is sure to be followed by recurrence. Pressure with an elastic band, deep scarification, excision, among

the mechanical measures, have at times yielded good results. Electrolysis, using the negative pole with four or five milliampères of current, may, when several times repeated, succeed in removing small growths.

Mercurial ointment continuously applied with a view to promoting absorption may be given a trial.

The injection of a twenty per cent. solution of creosote in olive oil, or of thiosinamin, ten to twenty drops of a ten per cent. alcoholic solution, or in solution in glycerine and water equal parts, are also recommended.

As a rule the growths successfully resist all efforts at permanent re-

Fig. 63.—Impetigo Contagiosa (Unna).

moval. Several cases of disappearance of the keloidal tumors have been reported with the use of the x-rays.

KERATOSIS FOLLICULARIS.

Synonyms: Ichthyosis Sebacea Cornea; Psorospermosis; Darier's Disease.

Definition and Description. Keratosis follicularis is a rare, chronic disease of the skin presenting as a primary lesion, pin-head to pea-sized papules projecting above the skin, capped with small, yellowish, gray or brownish, hard, dry, adherent crusts which, when detached, show upon the under surface horny plugs or projections which fit into the pilo-sebaceous openings; the edges of the latter being everted and firmer than normal. The crust, armed with the projecting point, has been compared in appear-

ance to a carpet tack. The crust, easily removed by squeezing between the fingers, is rapidly reformed.

The lesions are at first discrete but as the disease progresses become confluent and certain portions of the body, as the face, scalp, sternal and lumbar regions become covered with a continuous crusted sheet. The anterior aspects of the extremities are frequently involved and the palms and soles show fine dots like pin pricks. On opposing skin surfaces, such as the intergluteal region, by confluence and compression of the lesions, vegetating papillomatous masses are formed which frequently present a

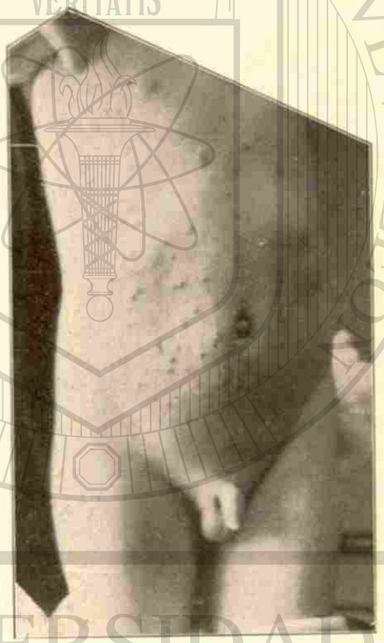

Fig. 64.—Impetigo Simplex (Bockhart). (Unna).

central pit and discharge a foul, puriform material. On the back and face, when unoccupied by the eruption, large comedones with redness and oiliness of the skin are observed.

Keratosis follicularis runs a slow, progressive course and does not materially compromise the general health. It is exceedingly rare and seems to show a preference for men rather than women.

Etiology. Darier believed the disease to be due to protozoa bodies called psorosperms, but this view has been abandoned as these coccidia-like bodies are now known to be transformed cells. The exact cause of the disease is unascertained.

Pathology. The disease is a keratosis of the epithelial layers of the sebaceous gland ducts and hair follicles. The changes occur chiefly in the epidermis, the corium being but little altered.

Fig. 65.—Keloid.

Diagnosis. In established cases the diagnosis is based upon the presence of horny plugs and the papillomatous masses in the groin and between the nates.

Treatment. Treatment does not yield satisfactory results. Vigorous friction with green soap, followed by salicylic acid powder has been recommended.

Schwimmer advises destruction of the lesions with the thermo-cautery.

Grindon believes that residence in a cold climate favorably affects the disease.

Zinc chloride solutions may be used on the horny, confluent masses.

KERATOSIS NIGRICANS.

Synonym: Acanthosis Nigricans.

Definition and Description. This is a very rare disease, only about thirty cases having been reported. The lesions consist of patches of pigment, yellowish, brown or nearly black, appearing more or less abruptly upon the face, neck, axillæ, groins, abdomen, thighs and genital organs or upper extremities, including the back of the hands. The buccal mucosa and tongue may also be affected. The implicated skin is thickened, its lines deepened and in some parts is covered with fine, papillary, wart-like, proliferating outgrowths, being especially marked in the axillary, umbilical and inguinal regions. Most of the cases reported have been associated with cancer of the internal organs.

Diagnosis. Keratosis nigricans is diagnosticated by papillomatosis on opposing skin surfaces, and keratosis with diffuse and discrete warts.

Treatment. In the absence of specific indications treatment is without effect.

KERATOSIS PILARIS.

Synonyms: Lichen Pilaris, Pityriasis Pilaris.

Definition and Description. Keratosis pilaris is a chronic, hypertrophic affection characterized by pin-head sized, rounded or conical, epidermal accumulations about a hair follicle. The usual seat of the disease is the extensor surface of the extremities.

The lesions consist of pin-head sized, closely aggregated, dirty-white, horny papules or elevations occupying the site of the hair follicle. These papules may be picked off with the finger nail, producing a minute, punctate hemorrhage. The hair pierces the papule or lies twisted beneath the horny sheath, or is broken off and shows as a central black point. The skin is harsh and rasp-like to the feel. There are no subjective symptoms. The disease is chronic and is worse in winter.

Keratosis pilaris is a common affection, occurs after puberty and chiefly among those who are not cleanly in their habits. There is, however, a disposition to the affection in certain individuals, and in such instances it is not due to neglect of bathing.

There is an affection closely resembling keratosis pilaris but which

exhibits spiny, epidermal pegs, easily removable, projecting from minute red papules which develop acutely in patches. This has received the name of *lichen spinulosus.*

Diagnosis. Keratosis pilaris is easily identified. Cutis anserina ("goose skin") is temporary; the miliary papular syphilide is reddish, grouped, solid, more or less generalized and coexists with other signs of syphilis. The papule of lichen scrofulosorum is larger and occurs on the abdomen.

Treatment. The affection is readily cured. Scrubbing with green soap and water is usually sufficient, with persistence, to effect a cure. A mild salicylic ointment or a lotion of salicylic acid, borax and glycerine will also serve the same purpose. Surface friction, with cold baths and massage, are commended.

LENTIGO.

Synonyms: Freckles; Ephelis.

Definition and Description. Lentigo is a small, circumscribed patch of pigment occurring chiefly upon the exposed parts of the body. The patches appear as pin-head to pea-sized, round or irregular, yellowish, light or dark, deposits of pigment usually situated upon the face, especially the cheeks, and the back of the hands. They make their appearance first in early childhood, are particularly common among blond and red-haired people and are more conspicuous in summer. They may disappear when the age of maturity is reached or continue through life, especially in red-haired individuals.

Freckles may be sparse or very numerous, covering the entire face and be more or less abundantly distributed over the general surface, including the extremities and genital organs. Mulattoes are frequently densely freckled, the pigment being very dark and persistent.

Etiology. Lentigo is probably due to changes effected in the skin by the chemical rays of the sun light, but as this does not explain their appearance upon the covered parts of the body it is likely that there are other causes as yet unknown.

Freckles, pathologically, consist in a localized increase of the normal pigment in the rete mucosum.

Diagnosis. Lentiginous pigmentation is symptomatic in xeroderma pigmentosum and senile atrophy of the skin, and may be the forerunner of pigmentary moles. Ordinarily freckles present no difficulty in diagnosis.

Treatment. Freckles are easily removed with discutients but are prone to recur. Lemon juice, a solution of bichloride of mercury, ten grains to the ounce of alcohol, resorcin, two drams to the ounce of alcohol, are all competent to remove the blemish. Acetic acid and sulphur made into a

paste, pure carbolic acid, saturated solution of salicylic acid in alcohol, are also recommended.

Bulkley advises the following:

℞

Hydrarg. Bichlorid.,	gr. v.
Acid. Acetic. Dil.,	℥ij.
Boracis,	gr. xl.
Aquæ Rosæ,	℥iv.

M. Sig. Apply night and morning, at first lightly, later vigorously.

Small freckles may be removed by electrolysis. A current of one or two milliamperes is used and the needle connected with the negative pole is introduced parallel with the skin and immediately beneath the pigmented area.

The following ointment is suggested by Hardaway:

℞

Hydrarg. Ammoniat.,	
Bismuth. Subnit.,	āā ℥j.
Ung. Aquæ Rosæ ad,	℥j.

M. Ft. Ung. Sig. Apply locally.

LEPRA.

Synonyms: Leprosy; Elephantiasis Græcorum.

Definition. Leprosy is an endemic, chronic, infectious disease caused by a specific micro-organism, the *bacillus lepræ*, showing a predilection for the cutaneous and nervous systems and inducing morbid alterations in accordance with the structures concerned and, as a rule, terminating fatally.

Geographical Distribution. Leprosy is widely distributed, though in all likelihood less so in modern times than anciently. It is prevalent in different parts of Asia, Africa, Japan, Oceanica, and to some extent in South America and the West Indies, and exhibits isolated colonies in Norway, along the Baltic littoral, and in North America.

Etiology. Lepra is due to the *bacillus lepræ*, the invasion of which is favored by climate, defective hygiene, unwholesome food and the concomitants of filth. The bacillus lepræ may be isolated from the leprous lesions and resembles very closely the tubercle bacillus, but with differences sufficiently marked to establish its identity.

The mode of transmission of leprosy is still *sub-judice*. It is by some observers regarded as contagious through inoculation with pus or inhalation of the lepra bacilli; by others as hereditary. Inoculation experiments have not been convincing.

Period of Incubation. The period of incubation of leprosy has not been determined. It varies within wide limits and has been placed at from three to thirty years.

Prodromal Symptoms. There are certain prodromal symptoms marking the period of invasion and preceding the eruption by several weeks or as much as a year. The prodromata may be severe, mild or entirely lacking. When typical they consist of malaise, chilliness, fever of an intermittent or remittent type with sweating, weakness and prostration, deep-seated pains and nervous disturbances.

Varieties. Three clinical forms of leprosy are described, the *tubercular*, the *anæsthetic* and the *mixed*, the last named being a blending of the two preceding. These types do not represent entities but conspicuous clinical variations.

Tubercular Leprosy. Accompanied by more or less febrile movement, erythematous patches from the size of a pea to several inches in diameter appear symmetrically upon the face, extremities, less frequently the trunk. The patches are at first red, raised, slightly hyperæsthetic, later they become darker in color and less sensitive. The crop of patches disappears and is followed by others which in turn fade or remain as pigmented macules presenting a certain amount of thickening. Nodules or raised, infiltrated masses then begin to form from the areas of pigmented, thickened skin or independently of them. The nodules or tubercules are from the size of a pea to that of a hen's egg. They may be grouped, discrete or coalescent. The skin covering them is coarse and oily, pink in color, turning darker with the age of the lesion. When the nodules occur on the face the natural lines are deepened, the skin is puffed, glistening, furrowed and corrugated, giving a leonine expression to the countenance (*leontiasis*). The eyebrows become thinned and fall out, the nose broadens, the ears, particularly the lobes, are thickened and nodular. Blebs and macules are interspersed among the tubercles and infiltrated areas. The hair of the scalp is usually spared. The nodules after a time become yellowish or dark brown in color and ultimately undergo absorption or ulcerate and become transformed into indurated, keloidal masses. The ulceration which is most frequent about the fingers and toes is superficial or deep, involving the tissues to the bone. It may heal under treatment or pass into a condition of phagedena. The mucous membrane of the mouth, throat and nose is frequently implicated; the eye is involved in lepromatous infiltration and may be completely disorganized.

Constitutional symptoms are irregular fever, disordered digestion, cough and general flagging of the forces.

The duration of life in the tubercular form of leprosy is four to twelve years, the subjects dying from tuberculosis, exhaustion, renal or intestinal complications.

Anæsthetic Leprosy. In this form of leprosy the nervous system bears the heaviest strain. Prodromal symptoms are variable and consist in malaise, a sense of chilliness, hyperæsthesia of the skin, lancinating pain along the course of the nerves, especially the ulnar and peroneal, itching, numbness, localized loss of sensation of pain or touch, one or both. Associated with pain, bullæ develop upon the fingers, the skin becoming shining and glossy. Within a year, pale, yellow macules appear on the back, shoulders, thighs and abdomen. They are few in the beginning, gradually becoming more numerous; they spread peripherally and tend to whiten and

Fig. 66.—Lepra (Ohmann-Dumesnil).

atrophy in the centre, producing a lesion somewhat resembling leucoderma. Anæsthesia is present in the atrophic spots and along the course of the affected nerves. Bullæ are common and may become the seat of deep and destructive ulcers. The affected nerves, particularly the ulnar nerve at the elbow joint, are thickened and corded.

Paralysis often occurs and is followed by muscular atrophy, the muscles of the thenar and hypothenar groups and the interossei being those most often affected. The last two joints of the fingers are flexed, the first straight, the nails like talons giving rise to the claw-hand, or *main-en-griffe*. Ulceration may also occur with loss of members. The bones of the fingers undergo necrosis or absorption, the nail being often spared. This condition is known as *lepra mutilans*. The mucous membranes of the nose and

throat are affected with loss of sensibility. The eyes may be involved, phlyctenules and keratitis with opacity being present. The nails and hair show atrophic changes. Sexual appetence is diminished from testicular atrophy.

The duration of life is usually ten to fifteen years, death occurring as a direct result of the disease from marasmus, long-continued ulceration and gangrene.

Mixed Leprosy. This variety presents a commingling of the symptoms characteristic of both the tubercular and the anæsthetic types.

Diagnosis. When the disease is well developed the diagnosis is easy. The development of patches of anæsthesia on the skin of a person residing or having resided in a country where the disease is prevalent, should arouse a suspicion of leprosy. Tuberculosis, syphilis, ainhum and various skin diseases, as erythema, psoriasis, parasitic affections, vitiligo, keloid, scleroderma, may be temporarily mistaken for leprosy, but the benign course of the skin affections and the characteristic features of the diathetic disorders are sufficient evidences of non-identity with leprosy.

The advanced stage of leprosy resembles syringo-myelia.

The discovery of the bacillus lepræ in the fluid from the bullæ and in the tissue from the lepromata puts the diagnosis beyond doubt.

Pathology. The presence of lepra bacilli leads to the deposit of granulation tissue chiefly in the skin and peripheral nerves, accompanied by a low form of inflammation. The process is of slow course and evolution.

Treatment. Tonics and supportive treatment with attention to the symptom-details are productive of good.

For specific treatment, chaulmoogra oil has been used for a long time. The dose is five minims, to be increased until the limit of tolerance is reached.

Gynocardic acid, derived from chaulmoogra oil, may be given in doses of from one-half to forty-five grains daily.

Hoang-nan, or its derivative, strychnine, has been recommended.

Gurjun oil is highly considered by some and is to be given in the form of an emulsion in doses of half an ounce daily. Both chaulmoogra and gurjun oil may be used locally.

Resorcin, ichthyol and chrysarobin have been employed as local applications.

Crocker secured favorable influence with the hypodermic injection of sozoidolate of mercury, one-fourth grain twice to three times a week.

Carrasquilla's serum, while exerting a beneficial influence in a few cases, is disappointing and the injections are not free from risk.

Ulcers are treated on surgical principles and with as much success as ulcers from other causes.

In deference to the contagious theory of leprosy, segregation is advisable.

LEUCODERMA.

Synonyms: Vitiligo; Piebald Skin.

Definition and Description. Leucoderma is a localized loss of pigment in the skin and is manifested by variously sized and shaped, milk-white patches surrounded by a zone of hyperpigmentation.

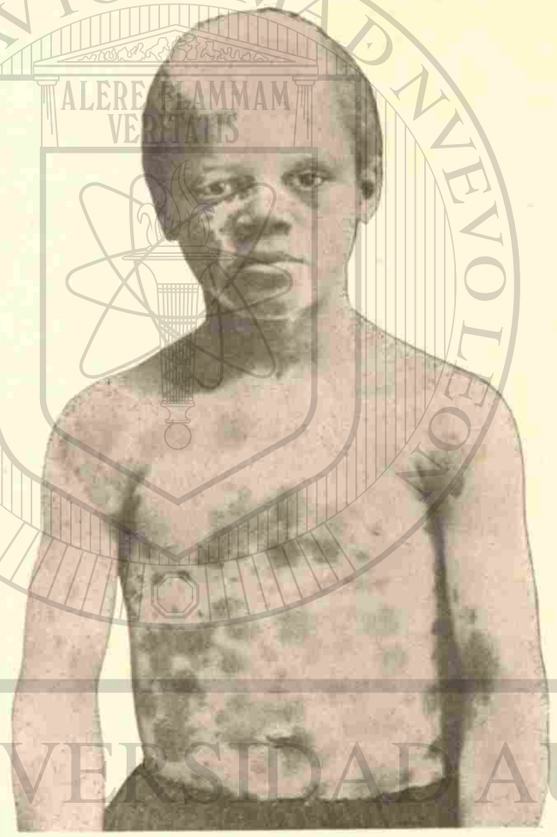

Fig. 67.—Leucoderma in Negro (Dr. Ohmann-Dumesnil).

The patches develop between the ages of ten and thirty and are situated chiefly upon the face, genitals and hands. They may be single or multiple. In the latter case there is a tendency to symmetrical distribution. The skin involved is of a fish-belly white, the surrounding integument deeply pigmented, shading off into the normal color. The blanched area is otherwise normal or the seat of a slight anæsthesia or itching.

Leucoderma is more frequent among the dark than the white races. The so-called piebald negro is an instance of excessive and spectacular development of leucoderma.

The affection is slow and progressive and tends to spread by conjunction of neighboring patches or by isolated appearances. Occasionally the whole surface of the skin is more or less involved in the process of depigmentation. As a rule, the patches after a time cease to appear, or to spread, and remain stationary, persisting throughout life. Rarely the pigment is spontaneously restored. The hairs in the affected skin usually, but not always, lose their pigment and become blanched.

Leucoderma is more conspicuous in summer than in winter, owing to the accentuation of the pigmented border from tanning, the white area remaining unchanged. In blonds the loss of pigment is scarcely noticeable during the winter.

Etiology. Leucoderma is regarded as a tropho-neurosis. Mental emotion, depression, the extremes of heat and cold, appear to have an influence as exciting causes.

Diagnosis. Leucoderma is to be distinguished from chloasma by the absence in that affection of pigment loss; from morphœa by the bacon-rind texture of the affected patches in the latter disease.

The peculiar milk-white patch, surrounded by a heavily pigmented zone, is so characteristic as to render mistakes in the diagnosis of leucoderma highly improbable.

Treatment. The white patches may be rendered less noticeable by removal of the circumjacent pigment with discutients, such as were described under lentigo and chloasma. Pure carbolic acid is as serviceable for this purpose as any of this numerous class. The white areas may be stained temporarily to approach the normal color of the skin by applications of walnut juice, permanganate of potash or tincture of iodine.

Efforts to induce the deposit of pigment by electric stimulation or irritant applications are usually futile.

Tattooing, if the patches are small and conspicuous, presents possibilities for disguising the blemish.

Prognosis. So far as restoration of the lost pigment is concerned, the outlook is highly unfavorable. Occasionally the pigment spontaneously reappears.

LEUCOPATHIA UNGUIUM.

Synonym: Leuconychia.

Definition and Description. Leucopathia unguium is the term applied to the white spots seen in the nail shaft of young people. They are caused by the entrance of air between the lamellæ, and are formed at the matrix and carried forward by the growth of the nail. Exceptionally the whole nail is involved.

The condition indicates a slight trophic disturbance or is due to mechanical injury from cutting or forcing back of the nail fold at the lunula. Toe-nails are not affected.

Treatment. A discontinuance of the cutting or rough handling of the nail fold will probably prevent the appearance of the blemishes.

LEUCOPLAKIA.

Definition and Description. Leucoplakia is an affection of the mucous membrane of the mouth, tongue, vulva and occasionally of the glans penis. Its usual situation is the dorsum of the tongue and inside of the cheeks.

Fig. 68.—Leuconychia (Dr. P. G. Unna).

It consists of irregular, slightly elevated, hard, glistening, white patches. On the tongue they resemble bits of white celluloid let into the tissues. The affection may be limited or of considerable extent; the patches are single or multiple. It is of slow progress, undergoing change very gradually. The surface may become roughened, ulcerated and the lesions have been known to become epitheliomatous.

Subjective symptoms are absent or consist of a sensitiveness to hot and cold substances when taken into the mouth.

Etiology. The cause of leucoplakia is not known. It may result from syphilis, psoriasis or other cutaneous disease attended by increased cornification; excessive smoking; strong alcoholic drinks; acid and highly seasoned food, nervous and gastro-intestinal disorders.

Diagnosis. Leucoplakia may be confused with a mucous patch but the latter lacks the epithelial hardening and the dirty-white pellicle covering it is readily removed.

Treatment. The solid stick of nitrate of silver may be bored into the patches, or a twenty per cent. solution of chromic acid, or the acid nitrate of mercury, may be applied at frequent intervals. Unna advises exfoliating the patch with repeated applications of resorcin paste. The smaller patches may be excised. Antisyphilitic remedies appear to have no effect.

LICHEN PLANUS.

Synonym: Lichen ruber planus.

Definition. Lichen planus is a pruritic, inflammatory affection presenting small, flat, smooth, shining, polygonal papules of a dark-red, yellowish or livid lilac color.

Symptoms. The affection is of slow development and is seen chiefly upon the anterior aspect of the forearms, wrists, inner surface of the knees, back of the neck, less often upon the trunk. The lesions are discrete, occurring in groups or disposed somewhat symmetrically in bands. The papules are of the size of a pin-head or larger, polygonal, the angles being determined by the skin lines, closely aggregated in groups, usually flat and frequently centrally pitted or depressed. The color of the papules, when the skin is stretched, is shining or burnished; later the lesion is capped with a small scale and the color becomes duller, red or brownish. Occasionally the lesions are arranged in rings or strung out in a line resembling a necklace, some of the lesions being nodular or keloidal (*lichen ruber moniliformis*). Sometimes they are vesicular or bullous. The skin of the palms and soles is often the seat of considerable thickening (*tylosis*). With long duration of the disease especially upon the lower extremities, coalescence of the papules occurs and produces heavily pigmented sheets of dense infiltration with a horny, verrucous surface and bordered with fresh, discrete lesions.

Subjective symptoms vary in intensity. As a rule the itching is severe and at times so great as to destroy sleep and impair the general health.

Etiology. Lichen planus is a dermo-neurosis and chiefly affects neuropathic individuals.

Pathology. The horny layer is thickened, the rete cells enlarged and lengthened. Localized cell accumulations separated by a fine, fibrous network are found in the corium, just beneath the epidermis. The papillary vessels are enlarged and tortuous.

Diagnosis. The flat, discrete, angular papules situated upon the front of the wrists and about the knees, of a vivid or lilac color, are so characteristic of lichen planus as to negative confusion in diagnosis.

Treatment. Attention to the general health and regulation of diet and hygiene are demanded. Tonics and alteratives are required as a rule.

In chronic cases arsenic is the chief reliance and must be pushed to the limit of tolerance. Bichloride of mercury, one-twelfth to one-twentieth of a grain, three times daily, is frequently of great service.

Alkaline and vapor baths are useful for the relief of itching. Alkaline diuretics and saline aperients are beneficial.

Locally the appropriate treatment is somewhat similar to that of psoriasis, but the applications are less stimulating. Leistikow recommends the following:

℞

Hydarg. Bichlor.,	gr. 1-x.
Acid. Carbolic.,	gr. xx.
Ung. Zinci Benz.,	℥iij.

M. Ft. Ung.

Or:

℞

Acid. Carbolic.,	gtt. xx.
Hydrarg. Bichlorid.,	gr. j-v.
Creosot.	min. ij.
Collodii,	℥j.

M. Sig.

Paint on twice a day.

Tarry applications are serviceable, as are also salicylic acid and resorcin pastes for the thickened patches.

Prognosis. The disease, as a general rule, is obstinate and prolonged, but with persistence may be cured.

LICHEN RUBER.

Synonym: Lichen ruber acuminatus.

Definition. Lichen ruber is a rare and serious disease of the skin, characterized by pin-head or split-pea sized, reddish, acuminate papules, with horny centres which tend to become generalized or even universal.

Symptoms. The lesions appear upon the trunk, extremities or genital organs as millet-seed or larger papules which are firm, discrete, bright or dark red, with a waxy, vesicular look on oblique view. The papules are covered with an adherent, white scale. They increase in number rapidly with constant evolution of new papules but without increase in dimension of the individual lesions. Close aggregation produces patches or sheets of dull-red thickened skin, covered with thin, grayish or white scales. In severe cases the entire surface may become involved. The skin becomes pachydermatous, inflexible, deep fissures form about the flexures of the joints or the face, the eyelids are everted, the palms and soles leathery and thickened.

the hair thinned and the nails brittle and distorted. Itching is more or less marked. The patient finally succumbs to malnutrition or intercurrent disease.

Etiology. The cause of lichen ruber is unknown. The disease is rare and has been observed in both sexes between the ages of ten and forty.

Pathology. The pathologic process consists in hypertrophy of the cells of the horny layer with imperfect keratinization. The rete is also hypertrophied and its vascularity increased. The cutaneous muscles are enlarged.

Diagnosis. Lichen ruber is distinguished from eczema, psoriasis, pityriasis rubra pilaris and lichen planus by its firm, acuminate papules capped by horny scales, its preference for the extensor surfaces, more extensive implication of the skin and grave constitutional accompaniments.

Treatment. Tonics, alteratives, such as arsenic, pushed to the physiological limit, and abundant nutrition are indicated in the constitutional treatment.

Local treatment consists of mildly stimulating antipruritic ointments; massage; oily inunctions; alkaline, starch and bran baths.

LICHEN SCROFULOSORUM.

Definition. Lichen scrofulosorum is a chronic disease of the skin characterized by miliary, red, yellowish or livid papules, grouped or arranged in circles and occurring chiefly in scrofulous subjects, especially children. It is classed among the tuberculides.

Symptoms. The lesions are seen principally upon the lateral aspects of the trunk and back of the neck, rarely upon the extremities, and consist of small, slightly conical, red papules arranged in groups or circles. With age the papules become capped with scales and the color fades to a light fawn, and on disappearing leaves yellowish spots. The groups may cover large areas and lend a "goose-skin" appearance to the surface. The affection runs a slow course with intermittent augmentation of fresh papules. Other evidences of scrofula are usually present and the disease is not infrequently associated with acne. Subjective symptoms are absent.

Etiology. Childhood and the strumous diathesis are the predisposing factors.

Diagnosis. The diagnosis is established by the characteristic, indolent, red papules arranged in circles or groups on the trunk of scrofulous children.

Treatment. Cod liver oil internally and externally always cures the eruption. Externally owing to its disagreeable features, cod liver oil may be replaced by a weak oil of cade or thymol ointment, which proves equally as effective.

LUPUS ERYTHEMATOSUS.

Definition. Lupus erythematosus is a cutaneous cell infiltration producing circumscribed, variously shaped and sized, red, irregularly scaly,

slightly elevated patches which spread peripherally and show a tendency to central atrophic scarring.

Varieties. Four varieties of lupus erythematosus are recognized clinically (Crocker). They are the *circumscribed* or *discoid*; the *disseminated;* the *telangiectasic;* and the *nodular*.

The *circumscribed* or *discoid* variety affects chiefly the head, face, nose, ears, fingers and toes. In the "flush zone" of the face red spots first appear which spread slowly and tend to assume the form of a butterfly or a bat with outstretched wings, the nose representing the body, and the adjoining surface of the cheeks, the wings. The patches are bordered with a tracery of

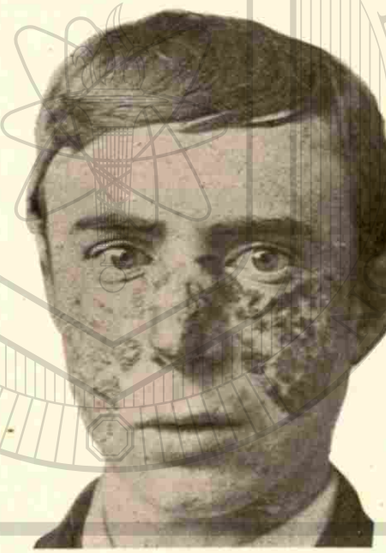

Fig. 69.—Lupus Erythematosus (Ohmann-Dumesnil).

dilated capillaries and are raised at the edges, yellowish or reddish, irregularly covered with adherent, greasy scales and studded with comedones. They spread by the borders and leave smooth, soft, white, cicatricial areas. If the scalp be involved atrophic baldness follows and the scales removed show on their under surface tags which enter follicular openings. Recurrences may take place in the scars. Ulceration is rare. On the fingers and toes the disease occurs upon both the dorsal and the plantar surfaces and may simulate chilblains (*lupus pernio*).

The *disseminated* form is less common. Its patches are more numerous and of the erythematous rather than the seborrhœic type. The patches begin on the face and spread from thence to the body; new patches arise, so that often large surfaces are involved. Acute exacerbations are frequent

and attended with constitutional symptoms which may be of a grave or even fatal character. The lesions are frequently crusted and eczematoid in appearance but the removal of the crusts will reveal paturlous follicular openings in the skin beneath, which is one of the hallmarks of the disease.

Vascular or *telangiectasic* variety. This form manifests itself upon one or both cheeks in persistent, non-desquamating, red or yellowish, circumscribed patches, with marked dilation of the capillaries and thickening. It is of very slow growth and is sometimes found associated with lupus erythematosus elsewhere.

The *nodular* type is very rare and presents scattered, round or oval, brownish-red, raised nodules upon the face and forehead, varying in size from a pinhead to a bean. When closely assembled, they coalesce and form small, erythematous patches with a raised edge and show central atrophic changes.

Lupus erythematosus affects, but not exclusively, the portions of the body where the sebaceous glands are most abundant. It may also occur upon the mucous membranes. It is not common. Its course is leisurely and intermittent, lasting from ten to twenty years.

Etiology. The disease is twice as frequent in women as in men. It is more frequently observed in cold countries and seldom begins before adult age, between twenty-five and forty-five. Seborrhœic individuals and those with a tubercular family history are predisposed. It may originate from erysipelas, scarlet fever, or from some external agent, such as heat or cold, which produces a superficial dermatitis. The etiological relation of lupus erythematosus to tuberculosis is a matter of dispute. It is maintained by some writers that the disease is due to the toxins of the tubercle bacillus.

Pathology. There is an inflammation of the skin with small, round cell infiltration which undergoes fatty degeneration and produces tissue atrophy. The sebaceous glands are first hypertrophied, finally atrophy and disappear.

Tubercle bacilli have not been found in the tissues.

Diagnosis. Lupus erythematosus is to be distinguished from lupus vulgaris which developes in childhood, shows deep-seated, discrete papules or nodules, with ulceration and destruction of tissue; from rosacea which displays ill-defined patches with pustules, papules and telangiectases, with hypertrophy of the tissue rather than atrophy. Circinate syphilides may resemble lupus erythematosus but are more rapid in evolution and show a firmer infiltration which does not pale on pressure.

Treatment. Internally arsenic, iodide of starch, iodide of potassium, and phosphorus are all relied upon by some authors. Quinine in doses of five to eight grains three times a day is recommended. Salicin and ichthyol have been given with benefit. Disturbances in the general health require correction.

Locally, mild applications are indicated in the hyperæmic stage. The lotio alba (*vide Acne*), liquor carbonis detergens, and liquor plumbi subacetatis are serviceable in this condition. Tincture of green soap is effective in clearing the surface of comedones and scales. More stimulating applications are reserved for the later stages and are such as the following: Resorcin, ten per cent. in collodion; salicylic acid, six per cent. in collodion; ten per cent. ointment of pyrogallic acid; creosote in oil or ointment.

Scarification followed by iodoform rubbed in, or strong salicylic acid paste, is sometimes successful. The galvano-cautery with the subsequent use of pure ichthyol will often yield good results.

The Finsen light and X-rays have been reported as of great use in lupus erythematosus but are not as effective as in lupus vulgaris. The high frequency current is warmly advocated by some observers.

Prognosis. The prognosis of lupus erythematosus is uncertain. Many cases yield to treatment but the characteristic of the disease is extreme obstinacy. Spontaneous recovery with ineradicable scarring may take place. Many patients succumb to tuberculosis, and it is essentially a grave disease, especially in the disseminated form.

Lupus scars may be the starting point of malignant growth.

LUPUS VULGARIS.

Definition. Lupus vulgaris is a chronic neoplastic affection of the skin due to the presence of the tubercle bacillus and characterized by one or more reddish brown tubercles or infiltrated patches which end in ulceration, with scarring or absorption.

Symptoms. The common seat of lupus vulgaris is the face, especially the nose and cheek. The disease begins in childhood as a dark-red or brown, deep-seated macule, papule or tubercle of a softer texture than the normal skin. New bordering lesions develop by means of which aggregated tubercles or infiltrated plaques are formed which, in the former case, after attaining the size of a pea, or larger, remain stationary. The lesion after a time breaks down and ulcerates, forming a shallow, soft-bordered, reddish-brown ulcer which is more or less crusted over and which heals with a varying amount of scarring. The individual lesions are smooth, semi-transparent papules or tubercles composed of soft tissue like apple butter.

The patches of lupus often display the different stages of the disease, brownish-red papule or tubercle, shallow ulcer, cicatrization and new lesions surrounding it.

The patches may be single or multiple, are irregular in outline and distinctly raised above the surface.

Coalescence of adjacent disease areas or new developments in the clear interspaces produce lesions of considerable extent. They spread by a gyrate, raised, apple-butter-colored border, show central depression, atrophy and scarring (*lupus serpiginosus*); or the patches may become inflamed, œdematous and on subsiding leave hypertrophic cicatrices (*lupus hypertrophicus, lupus sclerosus*); or, again, the ulcerated foci may become the seat of unevenly crusted, warty outgrowths (*lupus verrucosus, lupus papillomatosus*).

When the nose and adjoining surfaces are attacked ulceration and absorption produce cicatricial contraction with narrowing of the nostrils and beak-like deformity. The ears are also much diminished in bulk. The mucous membranes of the nose and conjunctiva are involved, less frequently the vagina and rectum.

On mucous surfaces the tubercles give place to fungating, papillary growths which tend to form patches. The lymph glands are not as a rule affected, and constitutional symptoms are generally lacking. Erysipelas occasionally attacks the lupous patches and may prove curative. Epithelioma not infrequently developes upon a scar of inveterate lupus and is apt under these conditions to run a rapidly malignant course.

Fig. 70.—Lupus Vulgaris (Unna).

Etiology. Lupus vulgaris begins in childhood and is more common in the female sex. It is due to the invasion of the skin by the tubercle bacillus, the strumous diathesis favoring its occurrence. It is not nearly so common in the United States as in Europe, and is rare in the South.

Pathology. Lupus vulgaris is a neoplasm of the granuloma type and consists of a small-cell infiltration which begins in the deep part of the corium and from thence gradually invades all the remaining skin structures (Crocker). Tubercle bacilli are found in the lesions.

Diagnosis. From gummatous or tertiary serpiginous syphilide, lupus vulgaris is diagnosticated by its slow growth and course, apple-butter-like tubercles, and its inception in childhood: from lupus erythematosus by the

absence in that affection of tubercles and ulceration; and from epithelioma by its occurrence in young subjects, the character of the ulceration, its history and course.

Treatment. Attention to the general health, hygiene, exercise and nutritious food are the general indications for treatment. Tonics, cod liver oil and syrups of the iodide of iron are beneficial.

Externally, the object of treatment is extirpation of the disease by some means, surgical or chemical. The surface may be thoroughly curetted and then a ten to twenty-five per cent. ointment of pyrogallol applied. This causes very free suppuration and may remove the lupous tissue. Scarification with a spud, the use of the Paquelin cautery under cocaine anæsthesia or preliminary obtunding of sensation with pure carbolic acid, are serviceable procedures.

Excision of the skin followed by grafts to the raw surface, carbolic acid introduced into the skin by punctures with a steel needle, are among the plans of treatment occasionally giving good results.

Chemical caustics, such as lunar caustic bored into the tubercles, or pastes of arsenious acid, resorcin, salicylic acid or chloride of zinc, may be of service.

White recommends the application of bichloride solution, one grain to the ounce.

Unna paints the surface with carbolic acid for several days, then introduces the points of little sticks soaked in the following solution:

℞

Hydrarg. Bichlorid.,	gr. xv.
Acid. Salicyl.,	ʒiiss.
Ether. Sulphuric.,	ʒvj.
Ol. Olivarum ad,	ʒij.

M.

The ends of the sticks are then cut off and left in the tubercles. The surface is covered with mercury-carbolic plaster-muslin for two days. The plaster and points are then removed and the openings filled with the following powder:

℞

Hydrarg. Bichlorid.,	gr. jss.
Magnes. Carbonat.,	ʒiiss.
Acid. Salicyl.,	ʒj.-gr. xv.
Cocain. Hydrochlorat.,	gr. viiss.

M.

The tubercle or patch is then covered again with the plaster muslin for two days and thereafter with pyrogallol ointment.

Antitubercle serum, except for demonstrating by local reaction the nature of the disease, has proven of uncertain value.

The treatment of lupus vulgaris has been considerably simplified by the work of the late Nils Finsen, of Copenhagen, in phototherapy. This method seems to find its special field of usefulness in lupus and the results of treatment though tardy show a larger percentage of cure than by other methods now in vogue. The X-rays are also very efficacious and perhaps more prompt in their effects than the light treatment but the permanency of the cure by this agency is still *sub judice*.

Prognosis. The prognosis of lupus vulgaris is uncertain. Recurrences after any form of treatment are frequent. General tuberculosis is rarely a sequel. The scars of lupus are often extensive, disfiguring and quite ineradicable.

LYMPHANGIOMA CIRCUMSCRIPTUM.

Definition. Lymphangioma circumscriptum is a rare disease consisting of closely aggregated, dilated or neoplastic lymph vessels resembling vesicles.

Symptoms. The lesions resemble frog spawn and occur in patches of one-half to three-quarters of an inch in diameter, or larger. Scattered lesions hover about the patch.

The affection is usually limited in its appearance to one region of the body, the common positions being the neck, shoulders or sides of the trunk. The mucous membranes may also be affected.

The lesions are deep-seated, pin-head to hemp-seed sized, thick-walled vesicles, pale or pink in color and when punctured emit a clear and colorless or pinkish fluid.

The newer lesions show in their substance vascular tufts or lines, the older are covered with thickened, opaque skin and are warty-looking.

The disease is slow and chronic in its course, beginning in childhood and progressing with age. It gives rise to no subjective symptoms.

The essential pathologic lesion is a dilatation and overgrowth of the lymph vessels.

Treatment. Caustics and electrolysis are the means recommended for removal of the lesions. They are, however, very prone to recur.

LYMPHANGIOMA TUBEROSUM MULTIPLEX (*Kaposi*).

Synonym: Benign cystic epithelioma.

Description. The lesions of this affection consist of small, pearly, closely-set, smooth, brownish or red, elevated tubercles of the size of a pea or smaller. They are firm and elastic and present a tracery of dilated vessels upon their summits.

The disease begins in childhood or early youth upon the neck or trunk

and gradually multiplies in the number and size of the lesions, showing no tendency to involution or ulceration. Milia are found scattered about among the lesions.

The disease is characterized by the formation of small cysts containing colloid material and is regarded as epitheliomatous in nature and is described by some authors under the title of benign cystic epithelioma. It is extremely rare.

Treatment. The lesions should be removed with the curette, followed by thorough cauterization with acid nitrate of mercury.

MILIARIA.

Synonyms: Prickly Heat; Lichen Tropicus.

Definition. Miliaria is an acute, inflammatory affection presenting

Fig. 71.—Lymphangioma Circumscriptum (Unna).

crowded, pin-head sized, bright-red papules and vesicles, accompanied by intense burning and itching, and occurring during hot weather.

Symptoms. The eruption appears suddenly during hot, sultry weather, upon the covered parts of the body, the arms, neck, back, chest and abdomen, and consists of closely aggregated, small, red, acuminate papules and papulo-vesicles with an occasional pustule. The lesions, though thickly set, especially about the lower portion of the abdomen and flexures of the joints, remain discrete and show no disposition to coalescence or to exudation. Excoriations and blood-crusts testify to the severity of the itching.

Etiology and Pathology. Miliaria is an inflammation in and around

the sweat glands and is observed chiefly among babies, fat individuals who perspire freely, alcoholics and neurotics, and indicates improper clothing or a lowered tone. One attack predisposes to another.

Diagnosis. Miliaria resembles papular eczema but its sudden occurrence, course and duration serve to identify it.

Treatment. Alkaline diuretics are recommended, and in adults the bowels should be kept open with saline laxatives. The clothing should be light and well ventilated and chilling of the surface guarded against by wearing thin, woolen undergarments. Alcohol is interdicted and moderation in eating enjoined.

Alkaline and bran baths followed by dusting-powders of talc, lycopodium, starch or oxide of zinc, are very serviceable. Calamine and zinc oxide lotion is cooling and grateful to the patient. A weak solution of liquor carbonis detergens is beneficial for the relief of itching. Carbolic acid, one dram to one ounce of glycerine, and eight ounces of rose water, is also of value in relieving the burning and itching accompanying the eruption.

A non-inflammatory form of miliaria is called *sudamina*, or *miliaria crystallina*, and consists of an obstruction to the sweat glands which prevents the escape of the secretion. The fluid forces up the horny layer into minute, closely crowded, discrete vesicles with a clear contents. The lesions disappear in a few days by absorption, leaving a slight scaliness. This eruption occurs upon the front of the trunk and may appear suddenly as a concomitant of fever.

The lesions give rise to no symptoms and require no treatment.

Strofulus, the "red gum" of infants, is a sweat rash caused by too heavy clothing and appears upon the side of the infant which presses against the mother in nursing.

Substitution of lighter apparel for the cumbersome wrappings in which inexperienced mothers so often envelope their babies will be followed by a prompt disappearance of the rash.

MILIUM.

Synonyms: Grutum; Acne Albida.

Definition and Description. Milium (*milium*, a millet seed) is a small, pearly-white, round or oval, sebaceous tumor situated just beneath the epidermis. The lesions are seen chiefly about the orbit and malar prominence, penis, scrotum and labia minora, especially in blonds. The tumors are from the size of a pin-head to a squirrel-shot or larger, rounded, whitish, superficially situated and slightly elevated above the surface. They frequently begin in early childhood, progress slowly and after a certain length of time tend to remain stationary. In favored localities they may attain the size of a pea and appear as firm, white, movable masses just beneath the skin.

These bodies when situated about the lids are termed *chalazion*.

Occasionally they undergo calcareous degeneration and constitute the so-called cutaneous calculi. Milium frequently coexists with acne and may follow pemphigus, erysipelas or occur upon the scars left by former destructive disease.

Milium gives rise to no subjective symptoms.

The tumor is situated in the sebaceous gland, the secretion from which, from closure of its excretory duct, fails to gain an exit and remains as a hardened mass just beneath the epidermis.

Treatment. The epidermis should be incised and the seed-like mass

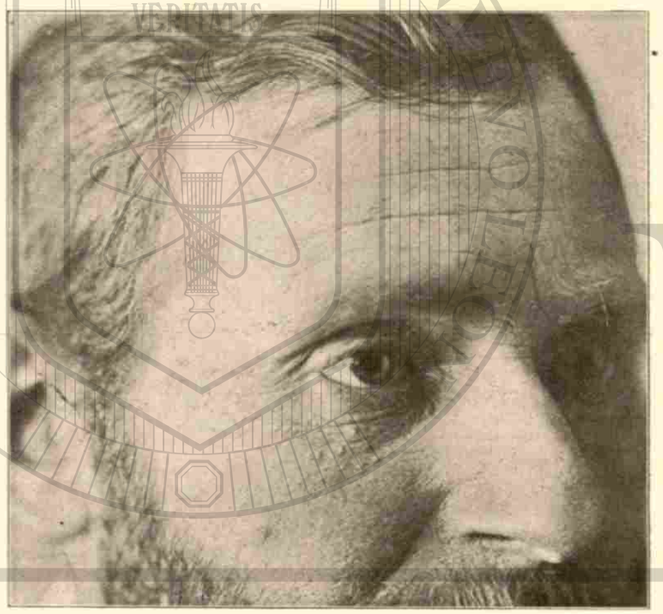

Fig. 72.—Milium (Ohmann-Dumesnil).

turned out. A special instrument, the milium needle, has been devised for this purpose. After dislodging the mass, the cavity may be touched with carbolic acid.

Hardaway advises electrolysis. When the milia are very small and numerous, they may be got rid of by exfoliating the skin with a fifty per cent. resorcin paste or a strong salicylic acid solution in collodion.

MOLLUSCUM CONTAGIOSUM.

Definition and Description. Molluscum contagiosum is a contagious disease of the skin presenting one or several, rounded, discrete, white or

pinkish tumors, which are pin-head to pea-sized, waxy and show a central depression or opening from which a tough, cheesy material may be pressed out. They occur principally on the faces of children; the genital organs, breast and scalp are less frequently the seat of mollusca. A favorite position is about the lips.

The lesions grow slowly up to a certain size when they remain stationary or become inflamed, break down and finally heal with little or no scarring. When the affection occurs in adults there is usually a history of exposure to the disease in a child.

Etiology. Childhood and poor hygiene are the predisposing causes. It

Fig. 73.—Molluscum Contagiosum (Unna).

is not infrequent in orphan asylums and institutions of a similar character. Molluscum is undoubtedly mildly contagious though efforts at direct inoculation have usually failed.

Diagnosis. The small, flattened, white, waxy tumor with a central depression often exposing the end of its cheesy contents and situated about the face, especially the lips, is quite characteristic of molluscum contagiosum.

Pathology. Molluscum is a hyperplasia of the rete. The so-called molluscum corpuscles, large, rounded or ovoid, fatty-looking, sometimes

encapsulated bodies, are epithelial degenerations in which the cells of the rete have been metamorphosed into keratin.

Treatment. The best method is removal of the lesions with the curette. The cavity should be touched with tincture of iodine or carbolic acid to prevent recurrence. A small curette may be introduced into the central opening and the walls of the growth scraped away, thus preserving the external covering and minimizing the chance of scarring.

MORBILLI.

Synonym: Measles; Rubeola.

Definition. Measles is an acute, contagious and infectious disease characterized by a maculo-papular rash appearing on or before the fourth day upon certain portions of the body.

Symptoms. Measles begins with symptoms of coryza, mucous nasal discharge, lachrymation, photophobia, cough, frequently of a croupy character. The fauces are hyperæmic, the tongue dusky-red and coated, and there is more or less fever. The patient is dull, apathetic and drowsy. Upon the mucous membrane of the mouth there are often to be seen bluish-white spots with a reddened base, known as "Koplik's spots" which precede the general eruption.

After this prodromal stage, which lasts about four days, there appears an eruption on the face, forehead, neck, and behind the angle of the jaws and ears. The eruption consists of small, red macules or grouped, dusky papules surrounded by an erythematous area. The papules are firm but not shotty. The eruption spreads rapidly to the trunk and extremities. The lesions are frequently arranged in a curvilinear manner with interspaces of normal skin, this arrangement occurring chiefly on the front of the thorax. The eruption reaches its maximum on the second or third day and then begins to fade and is followed by a varying amount of branny desquamation. Yellowish-brown macules remain for some time after the rash has disappeared. The eruption varies much in intensity and may be copious or scanty or, in very severe cases, hemorrhagic.

Diagnosis. The slow onset, catarrhal symptoms and the occurrence of a rash about the fourth day are highly suggestive of measles. Koplik's spots, if seen, are distinctive.

Scarlatina, with which measles is most apt to be confused, is sudden in onset, the rash appearing in twenty-four hours, occurs on the trunk, spreads rapidly, is punctiform and the face is not specially involved. The "strawberry tongue" and early vomiting will assist in the differentiation.

The diagnosis of measles from rötheln is at times difficult though in the latter affection the onset is as a rule, abrupt, the eruption more scanty and of a paler hue, the constitutional symptoms less severe and the post-cervical and occipital glands are nearly always tumefied.

MORPHŒA.

Synonym: Addison's Keloid.

Definition and Description. Morphœa is an affection of the skin presenting round or oval, irregularly-shaped patches of infiltration occurring on a level with the skin or slightly depressed beneath it. The patches are white or pink, waxy and surrounded by a zone of lilac color in which are to be seen numerous venules. The patches are more or less circumscribed and often present a smooth, polished surface and when grasped between the fingers have the feel of leather or of bacon rind let into the skin.

Morphœa occurs chiefly in adults and is seen upon the lower extremities, trunk, mammary gland and less often upon the face. The patches are sometimes disposed along the line of distribution of cutaneous nerves. They are not usually symmetrical. Subjective symptoms of itching, tingling or numbness may or may not be noted. The lesion is of slow progress and after attaining a certain dimension tends to remain stationary for months or years, then undergoing spontaneous disappearance or atrophy with deformity. New patches may develop at any time.

The disease is rare and is seen principally in neurotic women. It is probably a tropho-neurosis and is closely allied to scleroderma, being regarded by some writers as a circumscribed form of that affection.

Diagnosis. Morphœa is distinguished from leucoderma by the lack of infiltration in the latter affection and the circumjacent heaping-up of pigment characteristic of leucoderma.

Keloid presents firm, elevated tumors with corded, crab-like lateral processes.

The white patches of leprosy are anæsthetic and there are associated symptoms of the disease.

Treatment. The treatment of morphœa is unsatisfactory. Internally, attention to the general health is required. Iron tonics, quinine and cod liver oil are usually indicated.

Locally galvanism, mercurial inunctions applied to the patches, friction and massage may prove beneficial. Some cases have been reported as cured by X-ray treatment.

MYCETOMA.

Synonyms: Podeleoma; Fungous Foot of India.

Definition and Description. Mycetoma is a slowly progressing disease characterized by local induration of some part of the foot, hand, scrotum or shoulder. The indurated area becomes studded with small abscesses which discharge pus and granular masses, black, like poppy seed or fish roe, or white and cheesy.

The progress of the disease is slow and after some years' duration the feet become greatly swollen, distorted and riddled with sinuses.

There are three varieties of mycetoma described, the *pale*, the *black*

and the *red*, the last named being very rare. These varieties are so called from the character of the granular material discharged from the sinuses, the pale color of one of the forms being alleged to be due to the presence of the *actinomyces*, the black to the mould fungus.

The disease is endemic in certain parts of India and is not unknown in this country. It rarely occurs before puberty, is more common in women than in men and in those who are in the habit of going bare-footed.

Treatment. Curetting and the application of caustics to the discharging sinuses are recommended. If this fails, amputation becomes necessary.

MYCOSIS FUNGOIDES.

Synonym: Granuloma Fungoides.

Definition. Mycosis fungoides is a chronic, progressive, generally fatal disease presenting a stage of erythema succeeded by a more or less diffuse infiltration with the formation of soft, red tumors which break down and ulcerate.

Symptoms. The disease begins with simple eczematous, urticarial or psoriasiform patches which are at first sharply defined, round or circinate and intensely pruriginous. The patches disappear and reappear in the same place or elsewhere. The erythematous patch is sometimes annular with a central macule like a bull's eye (Jackson).

The patches after a time tend to coalesce and become sharply outlined, raised, red, shining, infiltrated and papulated.

This is the second stage and may last for months or years before the advent of the third stage, which is characterized by the formation upon the patches or the sound skin of irregular, lobulated, oval or hemispherical, sharply defined tumors of a white, reddish or bluish color.

These tumors are firm, fleshy, sometimes pedunculated, or are soft, elastic and covered with tense, glazed skin. They are at first limited to the trunk, later they may appear in any region of the body, even upon the mucous membranes. The face when involved takes on a leproid appearance. The tumors disappear spontaneously and are followed by others; or they fungate, break down and ulcerate. When in this condition the tumors resemble the cut half of a tomato. Itching and pain disappear or are greatly relieved with the advent of the tumor stage.

The general health remains unaffected for a long time but finally yields to the disease and the patient dies of marasmus or intercurrent disease such as diarrhœa or pneumonia.

Etiology. The exact cause of mycosis fungoides is not known. It is regarded by some observers as an infectious disease. Most of the cases reported have been in men over forty years of age.

Pathology. The essential nature of the disease has not been ascertained. It is classed by some among the infective granulomata; others regard it as a form of sarcoma.

Diagnosis. The diagnosis of mycosis fungoides in the premycosic stage can scarcely be made with certainty. Eczema, erythema multiforme, psoriasis and ringworm have been confused with it in the early stages. There are no clear-cut distinctions but the persistency, sharp definition of the patches, their capricious appearing and disappearing, their general distribution, coupled with intense itching, when taken together, will arouse a suspicion of the disease.

In the tumor stage, mycosis fungoides may resemble tubercular leprosy but lacks the concomitant symptoms; and also multiple generalized sarcoma with the difference that sarcoma has no stage antecedent to the formation of the tumors.

Treatment. Köbner claims to have cured a case with hypodermic injections of arsenic. Bazin's patient recovered after an attack of erysipelas. Crocker recommends salicin in the premycosic stage.

There is no curative treatment.

Antipruritics are used in the early stages. Surgical intervention is not promising. The relief of itching and disappearance of the tumors have been recorded from the use of the X-rays.

Prognosis. The average duration of life is two to four years. Death, while sometimes delayed, is practically certain.

MYOMA.

Definition. Myoma is a rare, benign new growth composed of smooth muscle fibres and fibrous tissue.

Varieties. Two varieties are described, the *simple*, or *lioma*, and the *dartoic*.

In the simple variety the growths are single or multiple, varying in size from a pea to an orange, pink, red or normal in color and are painful. When multiple, they are grouped; when single, either sessile or pedunculated, they attain their greatest development.

The *dartoic* type is usually single and is situated on the scrotum, labia majora or about the nipple.

Myomata grow very slowly, requiring eight or ten years to attain the maximum size and tend to recur after removal. The affection is rare and is seen in individuals between the ages of twenty-five and sixty.

If a fibrous element predominates in the structure of the neoplasm it is termed a *fibro-myoma*, if notably vascular, *angio-myoma*, and if lymphatic, *lymph-angioma*.

Diagnosis. The diagnosis of myoma without the aid of the microscope is very difficult.

Treatment. Surgical removal is the only effective treatment.

NÆVUS PIGMENTOSUS.

Synonym: Mole.

Definition. Nævus pigmentosus or mole is a benign hyperpigmentation occurring as one or more macules or patches and usually accompanied with a hairy growth and some hypertrophy.

Varieties. Moles are usually rounded in outline and vary in color from a light brown to dark, even black. They may be flat and smooth, presenting only excess pigmentation resembling a freckle (*nævus spilus*); or showing an excess of pigment with rough, uneven, papillomatous surface (*nævus verrucosus*); or they may be soft, flabby and contain fat and connective tissue (*nævus lipomatodes*). Long, coarse, crisp or furry lanugo hairs frequently grow from the surface of a nævus (*nævus pilus*).

Description. Moles are most common upon the face, neck and back but may occur in any region of the body singly or in great numbers. They sometimes follow the course of a cutaneous nerve. This form is called

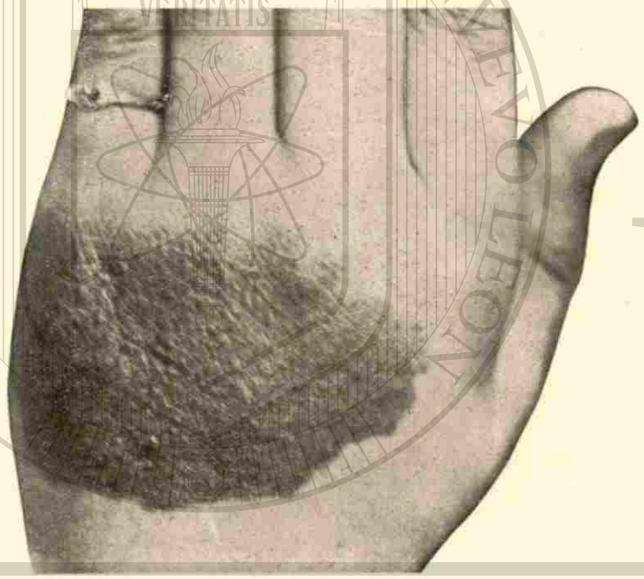

Fig. 74.—Nævus Pigmentosus.

nævus unius lateris and is regarded by some as a variety of *ichthyosis hystrix*.

Moles are congenital in origin or begin shortly after birth and grow slowly with the growth of the individual or remain stationary. The hair which springs from many moles is usually darker, crisper and coarser than elsewhere, but is sometimes thick and furry like that of an animal.

Nævi are permanent growths and never spontaneously disappear. They give trouble by causing disfigurement and are occasionally the seat of malignant degeneration, especially when subjected to irritation.

An hereditary tendency to the formation of moles is frequently exhibited, and beyond this, nothing is known of their etiology. Nerve disturbances are, with uncertainty, advanced as a cause.

Diagnosis. Moles differ from warts in being congenital, permanent and hairy. A freckle is not attended with hypertrophy or a growth of hair.

Treatment. A nævus may be excised with a knife or, if prominent, tied off with a ligature. Electrolysis is an excellent method of removal and if skillfully performed leaves but little scarring. The needle attached to the negative pole of a galvanic battery using four to five cells is passed under the mole in several directions so as to surround it. Multiple puncture

Fig. 75.—Nævus Pigmentosus with Furry Hair.

with the electric needle, using several in a bunch and introducing them at right angles to the surface, is also a good method but slower than the preceding.

The hairs should be removed before the mole is attacked.

Small moles may be successfully removed by sparking with a pointed vacuum electrode of a high frequency current, the electrode being held one-quarter of an inch from the target and sparked until the mole swells and becomes translucent. It will soon shrivel into a crust and fall off.

Glacial acetic acid, or a strong solution of chloride of zinc, may be employed to destroy a mole, but each has the disadvantage of causing larger scars than the electric method.

NÆVUS VASCULARIS.

Synonyms: Port Wine Stain; Birth Mark.

Definition. Nævus vascularis is a congenital condition characterized by an overgrowth of blood vessels in the skin.

Description and Varieties. Vascular nævus is first observed as a lesion resembling a flea bite, appearing shortly after birth, and is seen to be made up of a collection of dilated capillaries. The capillaries increase in number, radiate out from a common centre like a spider's web (*nævus araneus*) and form a patch of varying size and color, but which pales on pressure. This is the simple capillary nævus, port wine stain, or *nævus flammeus*. It is most common in infants and young children and may

Fig. 76.—Nævus Vascularis (Angioma Cavernosum).

disappear, leaving a delicate atrophic spot or it may increase in size and finally become stationary. The color is deepened on coughing, sneezing or exertion and tends to become purplish or cyanotic.

Telangiectasis is an acquired form of nævus vascularis. It appears as red streaks of arborescent lines on the faces of florid old people, or as small, bright-red, globular projections on the trunk, scrotum or labia of elderly individuals.

When large, the surface of vascular nævus is smooth and even, or rough and studded with small, erectile tumors or tubercles and occasionally pigmented moles.

With enlargement of the veins of the corium, large, red or purplish erectile, pulsating tumors with uneven lobulated surfaces are formed. They project markedly above the surface, enlarge and may at times attain great dimensions. This type of nævus is called *angioma cavernosum* and is seen chiefly upon the face, back, nates, pudenda and lower extremities and the mucous membrane of the lips and tongue.

Etiology. Nævus vascularis begins at birth, increases in size, remains stationary or disappears. It is more common in women than men. Unna believes vascular nævi to be due to intermittent pressure at certain points on the fetus during intrauterine life.

Pathology. The new growth is situated in the papillary and upper corial layers and consists in a proliferation and hypertrophy of the venous and arterial vessels, with a variable amount of connective growth in and around the adventitia.

Treatment. Small, "spider" nævi frequently disappear or may be induced to do so by the persistent use of contractile collodion. If this fail, electrolysis will usually prove effective. The needle is introduced into the central vessel, the correct insertion being signalized by the appearance of racing air bubbles in the lumen of the vessel. Telangiectases and small red projections may be removed in the same manner.

Port wine stains when large and ill-defined are more difficult to remove. Electropuncture with three or four needles introduced perpendicularly and at close intervals may be essayed. This plan may ultimately succeed but requires many repetitions of the operation.

Vaccine virus has been used on the nævus in order to substitute a scar for the blemish but is uncertain in action and not without risk of producing a more unsightly condition than that which it was designed to relieve.

Freshly prepared sodium ethylate may be applied to a small portion of the nævus at a sitting, allowing the resultant crust to fall off and repeating the manœuvre at intervals.

Fuming nitric acid, or acid nitrate of mercury, may be introduced by dipping a needle into the chemical and puncturing the growth, or punctures may be made with a fine red hot, platinum point attached to a galvanocautery.

The X-rays and Finsen light have their advocates who claim measurably good results from the use of these agencies.

The physician must be guided in the selection of appropriate treatment by the size of the growth and the size and character of the scar likely to be produced as a result of treatment.

The treatment of cavernous nævi falls within the province of the general surgeon.

ŒDEMA NEONATORUM.

Definition. Œdema neonatorum is a rare disease closely resembling another affection of the newly born, sclerema, and occurs in weak and ill-nourished infants.

Symptoms. Œdema neonatorum begins within a few days after birth and appears upon the back of the legs, spreading to other parts, or upon the face, back, genitals and hands. The skin is pallid or of a livid, mottled hue, cold, hard, and pits on firm pressure. The patient's condition is one of

great enfeeblement, the pulse weak and the temperature subnormal. In mild cases recovery may take place, but death from collapse, diarrhœa or pneumonia is the usual termination.

Etiology. The disease occurs in feeble infants who are premature or have been exposed to bad hygienic surroundings or to cold.

Diagnosis. Œdema neonatorum was long regarded as a form of sclerema neonatorum but is now considered a distinct affection. Œdema affects the dependent parts, is less generalized and the skin is not so hard, stiff and armor-like as in sclerema.

Treatment. The infant should be placed in an incubator or, lacking this, enveloped in cotton wool or kept in a continuous bath. The surface of the body should be gently rubbed with warm oil or camphorated alcohol. Food and stimulants, if the baby is unable to nurse, may be given by the stomach tube.

ONYCHAUSIS.

Synonyms: Hypertrophy of the Nail; Onychogryphosis.

Description. Onychausis may occur in any or all of the dimensions of the nail and is associated with changes in color, shape and consistence. If the tendency is to forward growth, the condition is known as *onychogryphosis*. The nail becomes twisted laterally, curved and thickened, and bears some resemblance to the claw of an animal. Lateral hypertrophy may cause the nail fold to overgrow the edge of the nail, producing inflammation and suppuration (*paronychia*).

This condition is usually limited to the great toe and is not always due to hypertrophy of the nail itself but may occur with a normal nail when the fold is fleshy and subject to pressure. The hypertrophied nail is rugous, dark-brown or blackish and lustrous, with horny *detritus* under the free border. The toe-nails are most frequently involved but the finger-nail may also be affected.

In long standing cases of fibroid phthisis, the finger nails may become heavy, markedly thickened, convex and recurved, coexisting with enlargement of the terminal phalanx.

Ill-fitting shoes and lack of proper care of the feet are cited among the causes of hypertrophy of the toe-nails.

Ringworm, eczema, psoriasis and other skin affections may cause disease of the matrix or horny layer with subsequent distortion and hypertrophy of the nails. At times no cause is discoverable.

Treatment. The affected nail may be excised, avulsed and the matrix thoroughly canterized. Liquor potassæ may be painted on daily and the softened surface scraped off until the nail has become thinned. Salicylic acid in alcohol may be used in the same manner. Shoemaker recommends the oleate of tin or copper. When the finger nails are concerned, rubber finger cots may be worn, and when several finger nails are involved it is advisable to employ contrasting methods of treatment.

Ingrowing nails should be treated by inserting a pledget of cotton between the edge of the nail and the fold, or by cutting a triangle from the middle of the free border of the nail. If the complaint prove rebellious the thickened tissue may be transfixed with a knife and removed, thus permitting the nail to project over the fold.

ONYCHIA. ONYCHITIS.

Description. Onychia is the term applied to acute inflammation of the nail bed and matrix. The affection is usually limited to one nail. The end of the finger or toe becomes inflamed, the nail is lifted from its bed, loosened, and suppuration occurs beneath it, the nail being finally shed, leaving a spongy, raw surface. Ulceration may occur along with suppuration and when this takes place in strumous children it is said to be due to direct infection with the tubercle bacillus (*onychia maligna*). The inflammation may extend to the last phalanx of the finger, producing a whitlow, or to the whole length of the finger involving the lymphatics.

There is a *dry* or *non-suppurating* form of onychia which is usually associated with syphilis in which the nail becomes thick, brittle, with raised, flaring, free border. Unless treated it finally separates and falls off.

The pain of onychia varies. It is not marked in the simple variety but may be very severe in onychia maligna.

Etiology. Onychia results from traumatism or local or general diseases such as tuberculosis and syphilis, eczema, psoriasis and parasitic affections.

Treatment. The treatment of onychia is that of the underlying cause. A resorcin paste, ten to twenty per cent., may be applied, or the nail may be painted with tincture of iodine, in the absence of any discoverable cause for the inflammation. Jackson advises liquor aluminis acetatis. In severe cases the part should be cocainized, the nail avulsed and the wound treated antiseptically.

PAGET'S DISEASE.

Synonyms: Dermatitis Papillaris Maligna.

Definition. Paget's disease is a malignant affection, usually of the nipple, beginning as an eczematoid dermatitis.

Symptoms. The disease begins as a red patch on or around one nipple of the female breast. The patch becomes infiltrated, the surface, raw, red, granular, and secretes a yellow, sticky fluid. The margins of the patch are sharply defined, somewhat elevated, and the area involved is distinctly indurated, like a coin felt through cloth.

Itching and burning are usually present in a marked degree.

After a length of time, varying from two to twenty years, the entire surface of the breast and axilla may become involved, the deeper lying tissues implicated, the nipple retracted and indurated and an appreciable tumor appears in the substance of the breast. The subsequent course of the disease is that of mammary carcinoma.

The disease is not confined to the nipple but has been observed upon the penis, scrotum, vulva, anus and abdominal wall. One breast is, as a rule, primarily affected, but subsequent development may involve both. The disease occurs principally in women between the ages of forty and sixty.

Etiology. Paget's disease has been ascribed to protozoa known as psorosperms but these bodies are now regarded as altered cells. The disease is considered by some to be an instance of cancer resulting from long continued circumscribed irritation; by others as cancer *ab initio*.

Pathology. Proliferation and thickening of the deeper layers of the epidermis and inflammatory infiltration of the corium are among the pathological findings. The later changes are those characteristic of carcinoma of the breast.

Diagnosis. Paget's disease closely resembles chronic eczema but may be distinguished from it by its sharp definition, raw, granular surface, long duration and intractable character.

Treatment. Radical measures, such as are recommended for epithelioma, should be adopted as soon as the diagnosis is made. When radical measures are refused an ointment of fuchsin, five grains to the ounce of cold cream, may produce palliation.

Prognosis. Early recognition and thorough removal render the prognosis not unfavorable. Later it is that of cancer in general.

PARAKERATOSIS VARIEGATA.

Synonym: Lichen Variegata.

Definition and Description. Parakeratosis variegata is a rare affection characterized by more or less generalized, round, oval, smooth, finely-scaling patches, interspersed with small papules capped with a scale. The patches are disposed in groups with healthy skin intervening, giving the skin a reticulated appearance. The patches are purplish or pale lilac in color but may be brownish or red and disappear on pressure. On removing the scales the skin has a bluish hue with a shining, waxy look.

The eruption is more common in men than in women, worse in winter and tends to fade in summer.

Subjective symptoms are absent.

The disease is slow and indolent in evolution and essentially chronic, lasting for months or years and is unaffected by treatment.

Diagnosis. Parakeratosis variegata is distinguished from psoriasis by the presence in the latter of papery scales, showing punctate hemorrhage on removal. It most resembles lichen planus, but differs from it in affecting the face, presenting a reticulated appearance, in the absence of itching and in its rebelliousness to treatment.

The *etiology* and *pathology* of the disease are obscure.

Treatment is ineffectual. Unna advises applications of pyrogallol, the toxic effects being guarded against by the internal administration of hydrochloric acid.

PARASITES OF THE SKIN.

The parasites that infest the skin are divided into two classes, *vegetable* and *animal*.

The effects produced depend upon the form, location and nature of the organism, and are for the most part processes of irritation and inflammation with the attendant changes.

Vegetable parasites belong to the class of fungi that show absence of chlorophyl. They produce the following affections, which have received separate descriptions: *tinea favosa* (*favus*) from the *achorion Schönleinii; tinea tonsurans* (ringworm) from the *trichophyton; tinea versicolor* (*chromophytosis*) from the *microsporon furfur; erythrasma* from the *microsporon minutissimum*.

Animal parasites are of two general types, those which affect the skin exclusively and live in the human integument, and those which gain their nourishment from the skin but do not reside in it.

To the first or true parasites belong the *acarus scabiei*, or *sarcoptes hominis* (itch mite); the *demodex folliculorum;* the *pulex penetrans* (chigoe, jigger, red bug); *filaria medinensis; leptus autumnalis* (harvest bug); *ixodes* (ticks); *cysticercus cellulosæ* (young of the tape worm).

To the second class or epizoa belong *pediculi* (lice, of the head, of the pubes, of the clothing); *pulex irritans* (flea); *cimex lenticularis* (bed bug); flies, mosquitoes, gnats and other dipterous insects.

PEDICULOSIS.

Synonyms: Phtheiriasis; Lousiness.

Varieties. There are three varieties of lice which affect the human body and are named, according to the region frequented, *pediculus capitis* (head louse), *pediculus corporis vel vestimentorum* (body or clothing louse), *pediculus pubis* (crab louse).

The condition produced by vermin is called *pediculosis*.

Pediculosis Capitis. The head louse is found most commonly in children, especially young, neglected girls. The parasites chiefly affect the occipital region and seek protection in the long hair of that locality. The lesions produced from the bite and presence of the insect are those occasioned by scratching, and consist of excoriations, pustules and crusted patches. The post-cervical glands are generally enlarged, especially in the presence of pustular lesions of the scalp.

In addition to the mature parasites, there are to be seen upon the scalp the nits, or ova, of the louse, small, oval, pearly bodies attached to the shaft of the hair.

The head louse is two millemeters broad with a triangular head, long body and short legs. The female is relatively more in evidence than the male, and is much larger. The vulval slit is upon the ventral surface, the penis of the male upon the dorsal, so that the attitude in copulation is the reverse of the ordinary. Hebra once witnessed the act under the microscope.

The lice hatch in six days and are capable of procreation in eighteen.

The color of the parasite varies somewhat with that of the host, the pediculus of the Caucasian being gray; that of the negro, black; of the Mongolian, yellowish-brown; and of the Esquimaux, white (Grindon).

Diagnosis. The presence of nits clinging to the hair is sufficient evidence of the existence of lice. The parasite may escape detection by hiding in the hair and cannot be discovered without considerable search.

Treatment. Equal parts of kerosene oil and olive oil thoroughly applied to the scalp and hair will kill lice and nits in one application. Cau-

Fig. 77.—Male Pediculus Capitis (Schamberg).

tion should be observed against approaching too near a flame when the hair is saturated with the oil. The nits may be removed by washing the scalp in dilute acetic acid or vinegar, or drawing the hair through a towel soaked in vinegar. This serves to dissolve the cement substance by means of which the nit is attached to the hair.

The fluid extract of larkspur (*delphinium staphisagria*) is effective and is more elegant than the kerosene oil.

Pediculosis Corporis vel Vestimentorum. Pediculosis corporis is a condition due to the presence of the body or clothes louse, the latter being the correct term as the parasite lives in the seams and folds of the clothing. It is the faithful companion of the unwashed in civil life and of soldiers in time of war, and is vulgarly termed "gray back." The ravages of the parasite are seen about the neck, shoulders, waist and hips, where the skin is in close contact with the clothing.

The bite and irritation of the parasite produce papules, punctate hemorrhagic lesions, and pustules, and scratching leaves characteristic parallel,

linear excoriations. In long standing cases the skin becomes deeply pigmented with here and there bluish-white spots. Adults are more frequently affected than children.

Diagnosis. The diagnosis of pediculosis vestimentorum is made by the characteristic location of the lesions, hemorrhagic specks and linear scratch-marks, and the discovery of the louse in the seams or lining of the clothing.

The body louse is three millimeters long and has longer legs than the head louse. It shows variations in color in harmony with that of its host.

Treatment. Treatment consists in cleanliness, with thorough baking or boiling of the clothing. The lesions require sedative applications.

Pediculosis Pubis. The crab louse is found upon the hairs of the genital organs, perineum, anus, chest and axilla. Exceptionally it may be found in the hair of the eyebrows, eyelashes, and extremities.

Fig. 78.—Female Pediculus Corporis (Schamberg).

This louse is smaller than the two foregoing and has anterior legs terminating in a straight claw intended for locomotion, while the posterior legs are provided with a crooked claw for clinging to the hair. The crab louse attaches itself to the base of the hair at its junction with the skin and may be seen as a dirty-white or grayish speck or flake. The nits adhere closely and their position on the shaft of the hair relative to its base furnishes some idea of its length of residence.

The pediculus pubis is conveyed usually through sexual intercourse or finds lodgment on the seat of privies and public water closets and attaches itself to the first comer.

It occasions an itching somewhat paroxysmal in character, and the lesions apparent are those caused by scratching.

A peculiar, steel-gray pigmented spot or spots the size of a finger nail are said to constitute the characteristic lesion of pediculosis pubis. These spots are called *maculæ ceruleæ* and may be produced by rubbing the

parasite against the skin. The color corresponds to that found in the thorax of the pediculus. The stains disappear soon after the removal of the parasite.

Diagnosis. The diagnosis of pediculosis pubis is readily made by the discovery of the mature parasite and the nits, the former being easily seen and makes no effort at concealment. Itching of the genital region should always be the occasion for a search for the parasite.

Treatment. The popular remedy is mercurial ointment, which is effective but dirty and disagreeable. Park, Davis & Co.'s germicidal soap contains 1:1000 green iodide of mercury and is agreeable and will promptly destroy the pediculi.

Tincture of *cocculus indicus* (fish berry), a solution of quinine, half an ounce to three ounces of alcohol, are also actively parasiticidal.

An ointment of beta-naphthol, ten per cent., or of ammoniate of mercury, five per cent., are recommended for the same purpose.

Fig. 79.—Pediculus Pubis (Schamberg).

A rapid method of killing the parasites consists in spraying the parts with ether, then removing the nits by drawing the hairs through a piece of gauze soaked in dilute acetic acid or household vinegar. It is not necessary for the hair to be cut off to facilitate treatment.

PELLAGRA.

Synonym: Lombardian Leprosy.

Definition. Pellagra is a disease endemic in certain parts of Italy and Spain and is supposed to be due to an excessive diet of spoiled or fermented corn.

Symptoms. Pellagra is characteristized by prodromal constitutional symptoms which are followed by an erythematous eruption on the exposed parts of the body, the back of the hands and feet, neck and face.

The erythema is at first red, tense, shining and accompanied by blebs and vesicles. In two or three weeks the surface becomes covered with broad, thick scales which on removal show the skin beneath to be thickened and of

a *cafe-au-lait* color. The lesions disappear during the winter and return with increased severity at the approach of hot weather. The erythema does not disappear on pressure, and after repeated recurrences, the thickened, pigmented skin becomes shining, atrophied, cracked, and its sensibility much diminished. The eruption spreads widely and may involve the entire surface of the body.

The patient becomes weak, emaciated, developes severe cerebral symptoms, falls into a typhoidal state and usually dies within five years from the onset of the disease. Mild cases may recover.

Pellagra is endemic among the poorer peasantry of Northern Italy and certain parts of Spain and France, and is an occasional exportation to this country. Women between the ages of thirty and fifty are more commonly affected than men. The disease is thought to be due to poverty, poor hygiene and the use of spoilt maize as a constant diet.

Diagnosis. Erythema of the exposed parts, with malaise, depression and debility occurring in a person from a pellagrous locality should arouse a suspicion of the nature of the disease.

Treatment. Improved hygiene, change of diet, and arsenic internally, are the recommendations for treatment.

PEMPHIGUS.

Definition. Pemphigus is an acute or chronic disease, characterized by the eruption of successive crops of bullæ, irregular in size and shape, arising from erythematous spots, or apparently normal skin.

Varieties. At one time pemphigus was the term applied to any bullous eruption, but at present two varieties only are described, *pemphigus vulgaris* and *pemphigus foliaceus*, which are probably distinct affections.

Pemphigus Vulgaris. Pemphigus vulgaris usually begins with some constitutional symptoms of a general nature. A crop of bullæ then appears, few in numbers, scattered over the body, especially the lower part of the face, trunk and limbs. The lesions vary in size from a small pea to two or more inches in diameter from coalescence. The bullæ spring from apparently sound skin but develop later a red areola. The contents of the lesions is at first clear, then becomes cloudy, rarely hemorrhagic. The bullæ dry up in a week or ten days, drop off and leave the skin somewhat pigmented in white people, and light in color in colored subjects. The eruption occurs in crops at intervals of a few weeks to a few months. The mucous membranes are not spared and cutaneous bullæ may be found associated with an affection of the eye called *essential shrinking* of the *conjunctiva* causing much deformity.

Recovery ensues in favorable cases in a few months; more severe cases are marked by an indefinite succession of eruptive outbreaks. In the malignant form of the disease ulceration attacks the base of the bullæ, grave con-

stitutional symptoms supervene, and death results from some intercurrent affection.

Among other pemphigus forms *pemphigus neonatorum*, a grave affection of the new born, is closely allied to *impetigo contagiosa bullosa* and is septic in origin and not properly classed with pemphigus.

Pemphigus contagiosus is most likely also a form of impetigo contagiosa.

Fig. 80.—Pemphigus Vulgaris (Ohmann-Dumesnil).

Acute pemphigus is probably a bullous erythema.

Pemphigus hystericus occurring in pubescent girls is apt to fall in the class of feigned eruptions.

Pemphigus vegetans is a term bestowed by Neumann upon a condition characterized by fungating, oozing granulations, occupying the seat of former bullæ. The fungating areas form patches, spread to affect the scalp, axillæ, elbows, hands and feet and vulva. The mucous membranes are involved. The affection is progressive and usually ends fatally. It is generally found among the subjects of syphilis.

Pemphigus Foliaceus. Pemphigus foliaceus is the rarer and graver form of the disease. The bullæ are flaccid, containing puriform fluid which changes position with the attitude of the patient. They soon rupture, leaving bare a raw moist surface, bathed in a foul-smelling sero-pus and surrounded by a ragged fringe of epithelium. New lesions develop upon the seat of former ones and the eruption spreads until the whole surface of the body, including the palms and soles, may be irregularly crusted, raw, red, and bathed in offensive secretion. The mucous membranes are also implicated.

The disease lasts for months or years and eventually ends fatally.

Etiology. The causes of pemphigus are obscure. Nervous disorders, nephritis, debility, pregnancy, septic conditions have been held as causes. Acute pemphigus has been observed among those who habitually handle meat. Children are more often affected than adults. The disease is rare, especially in the United States. It is not contagious.

Pathology. The essential lesion of pemphigus is caused by an outpouring of fluid which separates the layers of the skin. The bleb has the horny layer or the entire epidermis for its roof. Inflammatory evidences are present to a variable extent.

Diagnosis. Pemphigus is to be distinguished from *erythema bullosum, dermatitis herpetiformis, bullous syphilide*, and *impetigo contagiosa.*

In bullous erythema, the bullæ spring from an erythematous, often raised, base, and run a comparatively brief course.

In *dermatitis herpetiformis* the lesions are multiform and pruriginous; in *bullous syphilide* the bulla dries into a thick, greenish crust with an ulcerated surface beneath; in *impetigo contagiosa* characteristic lesions are seen on the hands and face, drying in papery crusts and usually furnishing a history of inoculation.

The chief points of diagnosis in pemphigus are tense bullæ springing from apparently normal skin, occurring successively and running a notably chronic course.

Pemphigus foliaceus in the early stages is recognized by flabby bullæ with contents shifting position somewhat like the bubble of a spirit level. Later the distinction between it and generalized *eczema rubrum, exfoliative dermatitis* or *pityriasis rubra* is very difficult.

Treatment. Attention should be given to the condition of the general health. Quinine, iron, cod liver oil are the chief reliances and must be given in considerable doses for a prolonged period. Crocker advises salicin, fifteen grains three times a day, to be increased.

Locally the bullæ should be opened and soothing, protective applications made. Dusting powders of bismuth, starch and oxide of zinc are

beneficial, as are also lotions of boric acid, calamine and lime water. The continuous bath has proven serviceable in pemphigus foliaceus.

Prognosis. The prognosis of pemphigus is in the main favorable. In mild cases recovery is probable but relapses are the rule. In the severer types the prognosis is grave; hopeless in pemphigus vegetans and pemphigus foliaceus.

PERFORATING ULCER OF THE FOOT.

Description. Perforating ulcer of the foot is an uncommon affection and usually attacks the metatarso-phalangeal joint of the great or little toe on its plantar aspect. One or both feet may be concerned. The lesion begins as a corn which undergoes ulceration, the ulcer extending slowly until the structures down to the bone are involved and a more or less painless sinus is formed. The ulcers may be single or multiple and are due to trophic degeneration of certain nerves occurring in the course of *syphilis, locomotor ataxia, leprosy* and *peripheral neuritis.*

The hand may also be affected.

Treatment. The treatment of perforating ulcer of the foot is based on general principles. Packing the sinus with salicylic acid paste is suggested by Treves. Stretching of the musculo-cutaneous, plantar or posterior tibial nerves has been followed by successful results, though the ulcers are apt to return. If more conservative measures fail, amputation must be performed.

PERLECHE.

Description. Perlèche (*pourlécher*, to lick the lips) is an affection of infants and young children occurring at the commissure of the lips as a whitish, macerated, wrinkled, loosely adherent pellicle which lends an appearance of fissuring to the angles of the mouth. The commissures may divide a patch of perlèche into two halves, like the leaves of a book. Varying grades of stomatitis are associated with the affection.

Subjective symptoms are slight but sufficient from a sense of stiffness to cause the child to lick its lips, hence the name. The affection is contagious and thought to be due to one of the pyogenic micro-organisms.

Perlèche resembles a mucous patch but is distinguished from it by the coexistence with the latter of corroborative evidences of syphilis. It is a rare disease, at least in this country.

Treatment. Cauterization with nitrate of silver is promptly curative. It tends to spontaneous recovery but there may be left a pearly, smooth surface lasting for some time after the disappearance of the disease.

PITYRIASIS ROSEA.

Synonyms: Pityriasis Maculata et Circinata.

Definition. Pityriasis rosea is an acute, mildly inflammatory affection characterized by rounded or oval, red macules which enlarge into scaly, dry,

circinate or oval patches with salmon-colored, wrinkled, parchment-like centres and rosy red borders.

Symptoms. The eruption, with or without mild prodromata, may appear rapidly or slowly upon the anterior aspect of the trunk in the form of small, pink papules surrounded by a halo of redness. These enlarge into macules and finally into patches which are variously sized and more or less round or oval in contour, and pale-pink or red in color, gradually becoming shining, yellow, wrinkled, like chamois leather in the centre, and rosy at the periphery. The patches are very sparsely covered with fine,

Fig. 81.—Pityriasis Rosea.

branny scales. They fade out slowly, beginning in the centre, and leave a faint ring to mark their former outlines. There is frequently to be observed a herald or primitive patch, fawn-colored or yellowish, which constitutes the point of origin of the eruption.

The regions affected by pityriasis rosea are the neck, front of the chest and front and sides of the abdomen; the face and extremities usually escape. The eruption runs its course in four to eight weeks though exceptionally it may be continued for several months.

The subjective symptoms are not marked.

Etiology. The cause of pityriasis rosea is not definitely known. It is regarded by some authors as parasitic in origin, being an aberrant type of diffused ringworm. No parasites have, however, been isolated.

The affection is more common in children and young adults than in older individuals.

Diagnosis. Pityriasis rosea must be distinguished from syphilis which it much resembles. The syphilide is less red in color, lacks the salmon or fawn-colored patches and there are usually concomitant evidences of syphilis at this stage in the form of enlarged glands, mucous patches and remains of a local sclerosis which will lead up to a correct diagnosis.

Ringworm is not so rapid in evolution as pityriasis rosea, is more inflammatory in character and the trichophyton fungus may be found in the scales.

Psoriasis presents characteristic scales which are thicker, larger and more adherent than those of pityriasis.

Patches of seborrhoeic eczema are found upon the scalp and other hairy regions of the body and present a more definitely raised border with moist and greasy scales.

Treatment. Pityriasis is inclined to run its own course regardless of treatment.

Internally, salicin in ten to fifteen grain doses may be given three times a day and locally ointments of boric acid or of precipitated sulphur. Laxatives and tonics are sometimes required. The tar vapor bath appears to have a beneficial effect upon the eruption.

PITYRIASIS RUBRA.

Synonym: Primary Exfoliative Dermatitis.

Definition. Pityriasis rubra is a rare, chronic or recurrent disease not dependent upon a preëxisting eruption. It involves the whole surface of the skin, which becomes a deep-red and is followed by profuse scaling and gradual shrinking. Death is the usual termination.

Symptoms. The disease begins as an erythematous patch which slowly enlarges; new patches form, unite and gradually cover the entire cutaneous surface. The skin is at first bright-red, becoming yellowish on pressure. Large, loosely adherent thin scales then form, are shed in great abundance and rapidly reform. The skin of the palms and soles is frequently cast off in large plaques. The skin gradually loses its pliancy, becomes slightly infiltrated, shrunken and fissured. The hair and nails may be involved and also the mucous membranes, which become dry and cracked. The inguinal glands become enlarged and prominent and there are crops of follicular abscesses, pustules and furuncles scattered about the surface. Itching is generally absent and the normal secretions of the skin are usually preserved. The patient complains of a sense of chilliness and sometimes of pain and burning in the skin. The disease continues for months or years, the patient occasionally recovering but as a rule becomes gradually enfeebled, bedridden and dies from marasmus or intercurrent disease.

Etiology. The etiology of pityriasis rubra is unknown. It occurs more frequently in men than women and has been observed in children. Crocker regards it as due to a toxin.

Pathology. The affection is, in the beginning, a superficial dermatitis but later shows a new formation of connective tissue with subsequent cicatrization, obliteration of the skin appendages, pigmentation, and elastic tissue hyperplasia.

Diagnosis. No other disease involves the entire surface as a uniformly dry or scaly redness (Jackson). It differs from psoriasis in being universal and not presenting papery scales. Eczema is itchy, infiltrated when chronic, rarely universal and has periods of exudation.

Treatment. Treatment exerts no especial influence upon the course of the disease. Attention to the general health, with tonics and nutritious food, are the indications. Pilocarpin has been recommended. Arsenic may be given in the later stages. Sherwell advises the internal and external use of linseed oil, internally in the form of flax seed. Starch and soda baths may serve to alleviate the distressing symptoms.

Prognosis. In the severe form of this disease cure is rarely observed.

PITYRIASIS RUBRA PILARIS.

Definition. Pityriasis rubra pilaris is a rare, chronic, desquamative disease affecting the skin wholly or in part and rarely causing impairment of the general health.

Symptoms. The disease presents three salient features, *prominence of the follicular openings; scaliness; redness and roughness* with *exaggeration* of the *normal folds.*

It begins with prodromata consisting of nervousness, malaise, and various hyperæsthesiæ, all being of short duration. The initial lesion is situated usually upon the hand or face and consists in one or more erythematous patches covered with scanty, furfuraceous scales. When fully developed the separate patches or the entire skin are covered with small, discrete or confluent, conical papules which are scaly and silver-gray or red in color. Many of the papules show a black point in the centre which represents the stub of a hair surrounded by a corneous or squamo-sebaceous cuff. The papules may be absent and in their place are small, dark comedo-like points lending a shaven-beard appearance to the affected part. By flattening out and coalescence the papules form erythematous, scaly patches. The skin is rough, harsh to the feel and owing to follicular prominences resembles that of a plucked fowl. On the face and scalp the conical elevations are absent and the surface of the skin is rough, reddened and scaly. The hair may or may not be affected; the nails usually show atrophic changes. The backs of the fingers are usually involved and show typically the conical elevations and broken ends of hairs. The eruption is usually symmetrical. Later in the development of the disease, the skin becomes somewhat thickened and infiltrated and exhibits checker-board squares marked off by the deepening of the furrows.

Pityriasis rubra pilaris is fully established in a few weeks, and continues for months or years, then disappears. Recurrences are almost invariable. As a rule the general health is undisturbed. Subjective symptoms with the exception of slight itching are absent.

Etiology. The cause of pityriasis rubra pilaris is unknown. It has been observed in both sexes and most of the cases reported have been in childhood or young adults.

Pathology. An excessive cornification of the hair follicle is the principal morbid change. The epidermis is thickened and shows inflammatory alterations.

Diagnosis. Pityriasis rubra pilaris differs from *lichen ruber*, which it much resembles, in its extensive, pliable, red sheets of eruption, smooth on the body and rough on the extremities, its light, red, silvery appearance, accumulated, soft, readily detachable scales and its follicular asperities which remain pale for some time after pressure.

Lichen ruber affects particularly the flexor surfaces, presents subjective symptoms and undermines the general health.

Ichthyosis usually spares the face, palms, soles and flexures of the joints, and the scales are more adherent.

Psoriasis seeks the elbows and knees, is not a follicular disease and presents larger scales which are not pierced by hairs.

Treatment. The treatment of pityriasis rubra pilaris is not satisfactory. Pyrogallol, salicylic acid, and the tar preparations may be used locally as stimulating ointments in the same manner as in the treatment of psoriasis.

Prognosis. The chances of ultimate recovery are poor. The disease may undergo retrogression but constantly recurs. No fatal case has been reported.

PLICA POLONICA.

Definition and Description. Plica polonica is the term applied to a peculiar matted, felted condition of the hair. It is observed chiefly among Poles and formerly received considerable attention at the hands of dermatologists on account of its undiscovered origin. It is now known to be due to matting and tangling of the hair as a result of harboring of pediculi, nits, eczematous oozing, pus and miscellaneous filth.

A rare form of plica, *plica neuropathica*, has been described. The felting occurs in limited areas on the scalp of cleanly persons and is regarded as a trophic disturbance affecting the cortical cells of the hair.

Treatment. The treatment of plica polonica consists in cutting the hair and disinfection of the scalp.

POROKERATOSIS (*Mibelli*).

Synonym: Hyperkeratosis Centrifuga (Respighi).

Definition and Description. Porokeratosis is a very rare cutaneous affection beginning as a papule and eventually becoming converted into variously sized and shaped lesions surrounded by a horny ridge. The affection has been noted on the hands and feet and mucous membranes of the mouth.

Porokeratosis begins as a warty papule which enlarges peripherally, flattens, is elevated or depressed and becomes surrounded by a horny, sinuous seam or ridge with a black, sunken line along its crest. The patch may be rounded or irregular and within the linearform seam the surface is smooth, atrophic or scaly and presents small, horny projections.

Diagnosis. The diagnosis rests upon the presence of the horny ridge with its broken black line surrounding the lesion, a picture that is seen in no other affection.

Etiology. Porokeratosis may begin at any age. It shows a preference for males and a tendency toward familial occurrence. It is regarded as a form of *linear papilloma.*

The affection is essentially chronic and tends to recur after removal.

Treatment. Electrolysis, curetting or the application of a destructive caustic are the remedies employed.

PRURIGO.

Definition. Prurigo is a rare, chronic, inflammatory disease of the skin, characterized by pale, pink, small, firm, discrete papules occurring on the extensor surfaces and accompanied by intense itching, glandular swelling, and infiltration of the skin.

Symptoms. Prurigo begins usually in infancy as an urticarial eruption on the extensor aspects of the limbs and gradually assumes the characteristic pin-head to pea-sized, firm, papular elevations, either normal in color or pinkish and intensely itchy. The lesions are numerous, closely aggregated and especially marked upon the extremities, buttocks, thorax and abdomen; the face, scalp, neck and flexures of the joints being usually spared. As a result of scratching and irritation the skin becomes rough, harsh, infiltrated, slightly scaly and pigmented. Excoriations, blood crusts, and secondary pustulations are commonly observed. The glands, especially those of the inguinal region, become indurated and enlarged.

The general health is impaired, the patient becoming anæmic and debilitated, chiefly through loss of sleep attendant upon the severity of the itching. The disease is usually worse in winter.

Etiology. Prurigo is most frequent in Europe and is rarely seen in this country. It occurs among ill-nourished, neglected children.

Diagnosis. Prurigo, at least in its severest manifestations, is a very rare disease in the United States. It is distinguished from *papular eczema* by its distribution, uniform type of eruption, history, course and rebelliousness to treatment; from *pruritus* by its course, history, regions affected, and the infiltration and pigmentation of the skin.

Treatment. Rest, forced feeding and reconstructive tonics are important considerations in the matter of general treatment. Tincture of cannabis indica is recommended for its sedative effect upon the skin.

Locally tarry preparations seem to do the most good.

Alkaline baths followed by inunctions with sulphur ointment; tincture of green soap applied with friction, washed off and a bland ointment rubbed in; five per cent. beta-naphthol ointment and an ointment containing thymol or menthol, are among the therapeutic suggestions likely to prove of benefit.

Prognosis. The disease is extremely rebellious and the prospect of ultimate cure, especially in the severer manifestations, unfavorable. It usually persists through life.

PRURITUS.

Definition. Pruritus is a functional neurosis of the skin whose sole manifestation consists in itching, without objective changes in the skin except such as are produced by scratching.

Varieties. Pruritus may be general or affect certain localities such as the anal region, scrotum, vulva or extremities. It is an accompaniment of senile degenerative changes in the skin (*pruritus senilis*) and is often observed among certain individuals at the beginning of cold weather (*pruritus hiemalis*, winter itch), in others at the first approach of hot weather (*pruritus aestivalis*). These seasonal types of pruritus may be generalized but as a rule are limited in extent, affecting chiefly the lower extremities.

A form of transient pruritus sometimes follows bathing (*bath pruritus*).

Symptoms. The itching in pruritus is variable in extent and intensity. It may be mild and fugitive, or persistent and intense. Paroxysmal attacks of itching accompanied by frenzied scratching are characteristic features of the severer grades of pruritus. Scratching and harsh rubbing frequently produce lesions in the form of excoriations, blood crusts and regional infiltration with loss of the normal color of the skin. The itching is usually worse at night and is aggravated by warmth and draughts of air.

Local forms of pruritus such as concern the anus, vulva, scrotum, palms or soles, produce changes in the skin and it becomes thickened, pigmented and exhibits eczematoid eruptions.

Etiology. Pruritus is a functional disturbance of the sensory nerves and may arise from a number of causes. Hepatic derangement, disorders of the nervous system, gout, rheumatism, lithæmia, alcoholism, albuminuria and diabetes are all contributing factors. It may also be the result of mimicry.

Pruritus vulvæ is frequently due to irritating discharges, menstrual and uterine disorders; anal pruritus, to seat worms, piles or fissures; scrotal or perineal to venous congestion and disease of the genito-urinary organs.

In some instances pruritus is hereditary. It is more common in men than in women, especially in middle-aged men.

Diagnosis. The essential feature of pruritus is itching without obvious lesion, and this fact should remove diagnostic difficulties. *Pediculosis* and *scabies* may be differentiated by the peculiar distribution of the eruptions and the discovery of the parasite. In the various forms of eczema some visible eruption is the occasion of the itching, not the result.

Treatment. Success in treatment of both general and local pruritus depends upon the recognition and removal of the cause. Regulation of diet, hygiene, bathing and exercise, discontinuance of tea, coffee and alcohol, the relief of constipation and of renal insufficiency are the prime features in the general therapy of pruritus. Complete change of scene and mode of living are often demanded.

For the direct relief of the itching may be given tincture of cannabis indica, ten drops, to be increased to twenty or thirty, three times a day, or tincture of gelsemium, ten drops every half hour until toxic symptoms are produced. Carbolic acid in pill form, containing one or two drops each; quinine, ten to fifteen grains, once daily; nitrate of pilocarpin, gr. 1-16 hypodermically; digitalis; ergot; ichthyol; antipyrine in five to ten grain doses; wine of antimony, five drops after meals; salicin and salicylate of soda in full doses; phosphate of soda; are among the drugs likely to prove beneficial.

A calomel purge, occasionally administered, does good.

Vapor baths, Turkish baths and baths containing bran, starch, bicarbonate of soda, or potassium sulphide, three ounces to twenty gallons of water, followed by the free use of dusting powder, are useful.

Carbolic acid is one of the most dependable local antipruritics. The following formula will be found serviceable:

℞

Acid. Carbolic.,	℥j.
Glycerin.,	℥j.
Aquæ ad,	℥viij.

M. Sig. For local use.

Alcoholic solutions of resorcin; solution of bichloride 1-3000; peroxide of hydrogen; equal parts of vinegar and water; dilute tar solutions, especially the liquor carbonis detergens; black wash; saturated solution of boric acid; calamine lotion; are among the applications employed for the relief of itching. Ichthyol 1-10, is often helpful.

Ointments of carbolic acid, menthol, thymol, and other refrigerants, or of cocaine are also beneficial.

For local pruritus Bronson's formula is very effective. It is the following:

℞

Acid. Carbolic.,	ʒj-ij.
Liquor. Potassæ,	ʒj.
Ol. Lini ad,	ʒj.

M. Sig. Shake before using.

This may be dabbed on the part after the surface has been dried. Its effect is not cauterant.

Pruritus of the vulva, scrotum, or anus may be temporarily relieved by very hot water applied to the part on compresses. This may be followed by painting the surface with ten per cent. ichthyol. Compound tincture of benzoin; nitrate of silver, fifteen grains to the ounce of sweet spirits of nitre; camphor-carbolic solutions; saturated solution of acid boric; guaiacol, ten grains to an ounce of powdered starch; subacetate of lead in milk; any or all of these are worthy of trial.

Not infrequently a focus of irritation may be discovered, which may be relieved by applications of menthol or cocaine or, if resistent, by touching it with the Paquelin cautery or fuming nitric acid.

Crocker calls attention to the favorable influence upon local pruritus of a mustard plaster to the spine.

The Turkish bath is sometimes comforting.

The length of the spine may be lightly gone over with the point of a cautery.

The static brush discharge, X-ray exposures, the application of the high frequency currents are sometimes promptly and markedly beneficial in local as well as in general pruritus.

Besides the other means mentioned salt rubs and mechanical stimulation are serviceable in pruritus senilis.

Prognosis. The prognosis of pruritus is uncertain. The disease is often very obstinate. The ultimate cure will depend upon the discovery of the provoking internal or local causative factor, and its removal. Palliation can always be secured by local treatment.

PSORIASIS.

Definition. Psoriasis is a chronic, dry, inflammatory disease presenting reddish, sharply-defined, slightly elevated patches covered with thick, imbricated, papery, white scales.

Symptoms. The eruption of psoriasis shows a marked preference for the extensor surfaces, especially the knees and elbows, and for the scalp, and begins as a minute, slightly elevated scaly papule (*psoriasis punctata*). The papule flattens, enlarges and becomes covered with a white, adherent scale, which if lifted off reveals a slightly pale, granular surface—the prickle layer—and this if removed causes points of bleeding to appear.

Patches form which enlarge to the size of coins (*psoriasis nummularis*) and are completely covered with scales, or the centre is clear and the border

alone shows the characteristic scale (*psoriasis annularis*). The edges of contiguous patches meeting, gyrate forms are produced (*psoriasis gyrata*),

Fig. 82.—Psoriasis (Ohmann-Dumesnil).

or the patches coalesce, are abundantly scaly and present plaques of more or less rounded outline and considerable dimensions (*psoriasis diffusa*).

Around the patches, small, stellate, characteristic lesions are found. The patches of psoriasis are usually symmetrically disposed. The scalp is generally involved and shows a dense, consistent scaliness, covering a dull red surface. The hair is not, as a rule, especially affected. The nails often show changes in appearance and are thickened, ridged and distorted.

The extent of the eruption varies. It may make its appearance and remain indefinitely upon the seats of predilection or it may spread widely

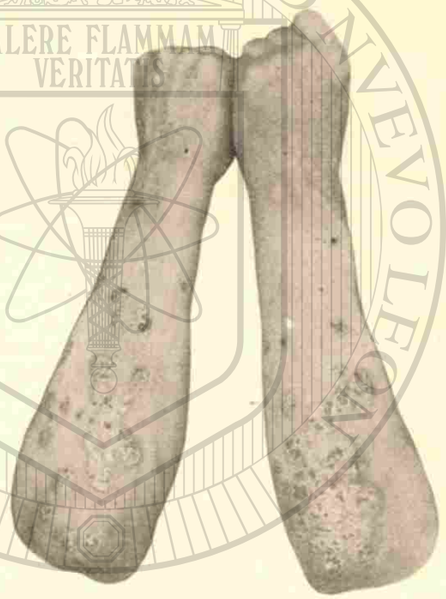

Fig. 83.—Psoriasis in Typical Situation.

and at times, though rarely, involve the entire cutaneous surface, merging into the condition of secondary exfoliative dermatitis.

Psoriasis is a dry eruption throughout and as a rule causes but trifling subjective symptoms.

Etiology. Psoriasis may occur at any age but is usually seen in children and young adults. Once established it tends to persist with recessions and aggressions throughout life. It is usually better in summer than in cold weather.

The essential cause of psoriasis is unknown. It is frequently hereditary through several generations. Its parasitic origin has never been demonstrated, although it has been advanced and seems to be gaining ground. The disease is often seen among stout, florid or rheumatic individuals. Unless very severe it has no special effect upon the general health and, on the

contrary, appears to occur by preference in those who are notably vigorous and robust.

Pathology. The changes begin in the prickle layer which shows evidence of inflammation and hyperplasia. Active proliferation of the cells of the prickle layer produces great increase in the horny layer, with incomplete cornification and the formation of large scales. There is also an increase in the lymph and blood vessels of the corium which is secondarily inflamed.

Diagnosis. Patches of eruption with sharply-defined borders, covered

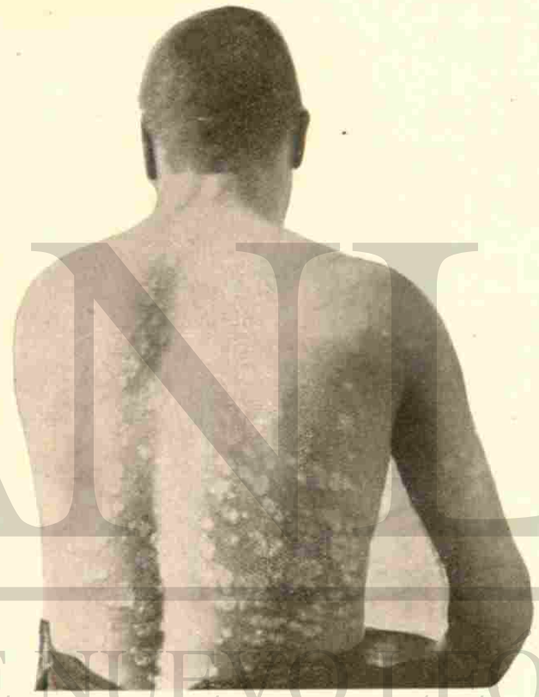

Fig. 84.—Psoriasis (Ohmann-Dumesnil).

with papery, white scales, punctate hemorrhage on removal of the scales, symmetrical distribution, dryness of the eruption, comparative freedom from itching or disturbance of the general health offer a combination so characteristic of psoriasis as to render its diagnosis easy.

It is most likely to be confused with *squamous eczema, seborrhœic eczema, lichen planus, papulo-squamous syphilide, lupus erythematosus.*

Eczema is prone to affect the flexures of the joints; its patches are markedly pruriginous, subject to exudation and are not well defined; the

scales are less abundant, less adherent, and do not reveal, on removal, punctate hemorrhage.

Seborrhœic eczema originates in the scalp, spreads downward to the face and ears, its scales are yellowish, greasy and non-adherent.

Lupus erythematosus affects the cheeks, presents less scaliness and shows plugs in the gland orifices and is followed by scarring.

Lichen planus somewhat resembles psoriasis in its papular stage, but the papules of the former are shining, angular, smooth, situated on a bluish-red ground upon the flexor surfaces of the wrists and upon the knees. Patches of lichen are formed by an aggregation of papules and not by an extension of individual lesions as in psoriasis.

Papulo-squamous syphilides are not symmetrical, the scales are not profuse, the base of the lesion is infiltrated. Careful search will usually reveal confirmatory evidence of syphilis.

Treatment. The treatment of psoriasis is constitutional and local. Constitutional treatment includes attention to diet, hygiene, proper clothing and climate. Of remedies for internal administration arsenic is the most relied upon, but must be reserved for the chronic states of the disease, those without active congestion. It is given in the form of Fowler's solution, beginning with three drops three times a day, to be increased to seven or ten drops and continued until mildly toxic symptoms appear. The Asiatic pill each containing one-twelfth of a grain of arsenious acid is a favorite with some clinicians. Kaposi advises giving one pill three times a day, to be increased to ten or twelve a day and continued until five or six hundred have been taken. Precautions against poisoning must be observed. Arsenic has no influence upon the prevention of recurrence.

Crocker recommends salicin in doses of fifteen grains a day, in acute and subacute stages.

Other remedies in use are thyroid gland extract; large doses of iodide of potash; hydrobromate of quinine; alkalies and diuretics.

Sea-bathing and sea-voyaging are often beneficial.

Local treatment. The scales should be removed by scrubbing with tincture of green soap and water, or a general bath of soap and water. Unless the disease is in an irritable and active state stimulating applications should follow the clearing of the surface of scales. One of the best is chrysarobin or chrysophanic acid. It is employed in the form of an ointment rubbed into the patches, or in solution in traumaticin, or collodion, may be painted on with a brush. Chrysarobin irritates the skin and stains the clothing and may produce a brisk conjunctivitis if it gains access to the eye. When used over extensive surfaces it is capable of producing toxic symptoms. For these reasons it must be used with caution and never about the face. The proportion of chrysarobin ranges from ten to sixty grains to the ounce, and even more. The chrysarobin on the market seems

much feebler in action than formerly and for that reason explicit recommendations as to dosage cannot be given.

The drug may be used in combination with others as in the following formula:

℞

Acid. Salicyl.,	ʒss-j.
Ol. Cadini,	ʒj-ij.
Saponis Viridis,	ʒij.
Chrysarobin.,	ʒij.
Ol. Lavandul.,	gtt. v.
Vaselin.,	ʒij.
Lanolin. ad,	ʒj.

M. Fnt. Ung.

Or

℞

Acid. Salicyl.,	gr. xx.
Alcohol.,	ʒiij.
Picis Liquid.,	ʒj.
Saponis Viridis,	ʒss.
Chrysarobin.,	ʒij.
Collodii,	ʒij.

M. Sig. Paint on twice a day.

The strength of the chrysarobin dispensed in the drug-stores varies greatly and care must be taken to secure a really effective preparation.

If these applications produce too much reaction, bland ointments such as oxide of zinc or boric acid should be substituted until the irritation has subsided.

Pyrogallol in ten per cent. ointment is similar in effect to chrysarobin, but though less irritating is toxic and must not be used over a wide area. Its toxic effect may be in a measure counteracted by the simultaneous internal administration of hydrochloric acid.

Ammoniate of mercury is very useful, especially in psoriasis of the face and scalp, and may be employed as an ointment, ten to twenty grains to an ounce of cold cream.

The various preparations of tar are exceedingly serviceable though they have the disadvantage of being dirty and of smelling disagreeably. Tar may be used pure (*pix liquida*) or as the oil of cade in ten to twenty per cent. strength in an ointment or in solution in alcohol or collodion to the same amount. A strong alcoholic solution of pix liquida brushed well into the patches is very useful.

Other remedies are sulphur, one to four drams to the ounce of cold

cream; thymol, fifteen to thirty grains to the ounce; oleum pini sylvestris, one dram to six drams of olive oil; salicylic acid, ten to twenty grains to the ounce of benzoinated lard.

The treatment by means of energetic frictioning with green soap, followed by bland, soothing applications such as the diachylon ointment, has been referred to in connection with the treatment of chronic eczema and often proves of great utility in removing obstinate patches of psoriasis.

Sulphur baths soften and remove the scales and often cause a temporary disappearance of the eruption.

Crindon recommends wearing a mackintosh next the skin to protect the clothing and hasten the removal of the scales.

The X-rays have been successfully tried in psoriasis but their use is not free from risk and the results are not more favorable than by other and safer methods.

Persistence is required in the treatment of psoriasis and every vestige of the disease must be removed before it is discontinued.

Prognosis. So far as life is concerned the prognosis of psoriasis is excellent, but the possibilities of ultimate cure and final disappearance are slight.

PURPURA.

Definition. Purpura is the term applied to non-traumatic hemorrhage into the skin. When the hemorrhage is punctate, the lesions are called *petechiæ;* when streaked, *vibices;* bruise-like and slightly elevated, *ecchymoses;* rounded or elevated in the form of a tumor, *hematoma.*

Hemorrhage may occur in any part of the skin. It takes place suddenly, does not disappear on pressure; the color at first is red, then runs through shades of blue, blackish, yellow, white and finally disappears. The color effect is due to the deposit and gradual absorption of the coloring matter (hematin) of the effused blood.

Varieties. Three varieties of purpura are somewhat arbitrarily separated and described, *purpura simplex, purpura hemorrhagica,* and *purpura rheumatica.*

The varieties are probably the same affection appearing in varying grades of severity, mild, severe and moderate.

Purpura Simplex. Purpura simplex is the commonest variety and shows itself as round or oval *petechiæ,* occurring suddenly in crops upon the flexor surfaces of the extremities of adults, the neck and upper part of the back in children. The lesions are small, more or less abundant, symmetrical, and of a red or purplish color. They run their course without constitutional disturbance in one or two weeks. At times the eruption is more or less generalized and may be prolonged by successive outcroppings of the lesions.

Subjective symptoms are generally absent but occasionally an urticarial element with itching (*purpura urticans*) is added.

Purpura simplex may exceptionally pass into the severer grade.

Purpura Hemorrhagica (land scurvy, *morbus maculosus Werlhoffii*). This variety is usually attended by general symptoms of headache, fever, prostration, sometimes convulsions. There are no prodromata. The lesions appear suddenly and are more of an ecchymotic than a petechial character. They are first observed upon the lower part of the trunk and spread by successive crops to the entire surface of the body. There may be free hemorrhage from the mucous membranes and blood may be poured out into the cavities of the body and into the substance of the viscera.

Death may occur from cerebral or meningeal hemorrhage, or uncontrollable bleeding at other points may exsanguinate the patient and cause death. The bleeding may, however, be moderate in extent, continue for

Fig. 85.—Purpura Rheumatica.

some weeks, gradually cease and the patient recover though subject to recurrences.

Purpura fulminans is the name given to a very rapid and fatal form of purpura hemorrhagica, accompanied by albuminuria, endo- and pericarditis, gangrene of the skin and terminating in death in a short time. It has been noted in several members of the same family and after scarlet fever.

Purpura Rheumatica (*peliosis rheumatica*) resembles purpura simplex with the addition of constitutional symptoms of a rheumatic character, malaise, rise of temperature, pain and sometimes swelling of the joints. The eruption is most abundant upon the limbs, especially about the ankle and knee-joints, and occurs in rounded or oval spots of a bluish or purplish color.

The constitutional symptoms usually disappear when the eruption is established.

It may continue for a few weeks or be prolonged by successive crops

and in a few cases pass into the hemorrhagic form. Valvular lesions may follow as in true rheumatism or septic conditions.

Etiology. Purpura may be produced by any cause which brings about a change in the blood or blood vessels permitting an effusion of blood into the tissues. These causes are chiefly toxic, such as gonorrhœa, rheumatism, malaria, and those in general which are concerned in the production of exudative erythema.

Purpura is regarded by some as due to a specific micro-organism, but this theory has not met with general acceptance.

Pathology. The hemorrhage takes place in the corium and subcutaneous tissue. The blood undergoes changes in color and is finally absorbed.

Diagnosis. The diagnosis of purpura is made by the distinctive features of purpura, sudden occurrence of an eruption of bright-red, slightly-elevated spots or patches, the color of which is unaffected by pressure.

Scurvy, which is due to lack of vegetable diet, is characterized by swelling of the gums, loosening of the teeth, brawny tumefaction of the limbs—peculiarities which serve to distinguish it from purpura.

Treatment. The treatment of purpura is that addressed to the causative factor. The salicylates and quinine are usually indicated. Iron and the mineral acids are of service. Adrenalin chloride together with other stypties such as gallic and tannic acid, are used in the hemorrhagic form.

The diet and hygiene of the patient should be carefully regulated.

Prognosis. The prognosis of simple purpura is favorable. Of the other varieties, the course of the disease is uncertain, as the severe form may result from the simpler and for this reason the prognosis should be guarded.

RHINOSCLEROMA.

Definition and Description. Rhinoscleroma is a very rare disease affecting the nose and nasal mucosa. It is characterized by the presence in the nose and contiguous parts of flat, slightly-raised, dense, hard, sharply-defined elastic plates, tubercles or tumors, painful on pressure and covered with normal colored or reddish-brown skin. The surface is sometimes fissured and discharges a viscid fluid. The growth somewhat resembles keloid. It is movable with the skin though not attached to it.

Symptoms. Rhinoscleroma begins in the septum nasi as a hard spot and is progressive, showing no tendency to absorption or ulceration. The nose undergoes marked deformity, broadening and the nostrils narrowing. The disease may affect the mouth and larynx, interfering with mastication, deglutition and respiration.

Etiology. The disease has been observed in Europe, Asia, and North America. It occurs at any age. A bacillus resembling Friedlander's pneumonia bacillus, short, thick, ovoid and encapsulated, has been held responsible for the disease.

Diagnosis. The diagnosis of rhinoscleroma is based upon the existence

of a growth of bony hardness in the nose and upper lip, showing no tendency to absorption or ulceration.

Treatment. Treatment has but little effect. The growths when excised promptly return. Pyrogallol, in ten per cent. ointment, has been recommended, also boring into the growth with zinc chloride.

Prognosis. The prognosis is unfavorable. Suffocation may result from laryngeal involvement.

ROSACEA.

Synonym: Acne Rosacea.

Definition. Rosacea is a chronic disease affecting the nose, cheeks and chin, and characterized by redness, dilatation of capillaries, and connective tissue hypertrophy. The nose is the part chiefly concerned and often is alone affected.

Varieties or Stages. Rosacea is a common affection and is observed in three stages, a *first stage* in which the skin of the middle zone of the face is congested diffusely or in patches, pink or purplish, varying much in degree. This may be temporary, following the imbibition of hot liquids, over-eating and the like, or it may be habitual. With repeated flushing the capillaries become more or less permanently dilated. They may be traced along the nose especially at its junction with the cheek and may be few and inconspicuous, or numerous, arborescent and prominent. More or less seborrhœa is present, giving the skin a greasy, shining appearance. The surface, though apparently hot, is cool, often damp and clammy to the touch.

The *second stage* occurs after permanent redness has been established. Papules and pustules, in greater or less number, stud the affected area and mark the obstruction of the sebaceous gland duct, with retention of its secretion and subsequent inflammation. Some cases present tubercles which are soft and lupoid in appearance, and occur upon the chin and about the corners of the mouth. When incised the tubercles do not collapse but discharge a small quantity of pus and some blood. Acne lesions and comedones are frequent but not necessary concomitants of rosacea.

It is rare that the disease proceeds beyond this stage but occasionally the chronic hyperæmia leads to connective tissue hypertrophy and constitutes a *third stage*. The change is observed chiefly in the nose, which becomes broader, enlarges and in severe cases becomes lobulated and pendulous (*rhinophyma, potato nose*). In this condition the nose is dusky-red or purplish and presents deep openings, the enormously dilated sebaceous gland orifices. These pits are sometimes the seat of inflammation and ulceration and the subsequent scarring increases the deformity.

The region principally concerned in rosacea is the middle third of the face and at times the whole face and scalp, especially when the latter is devoid of hair. The conjunctivæ become congested and a hypersecretion appears as a frothy accumulation at the angles of the lids.

Etiology. Rosacea is variously regarded as a vaso-motor neurosis, a trophoneurosis, and as a form of seborrhœic eczema. All but about five per cent. of cases develop upon a long-standing seborrhœa, which frequently has its origin in the scalp. The disease is an affection of adult life and is more common in women than men. Digestive disturbances, menstrual disorders, habitual indulgence in alcohol, excessive tea drinking, feeble circulation, exposure to extremes of temperature, the use of cosmetics containing irritating substances, tight-lacing, hypertrophic rhinitis, are among the causes enumerated of rosacea.

Pathology. Rosacea is a vaso-motor reflex neurosis and is followed

Fig. 86.—Rhinophyma (Ohmann-Dumesnil).

by an inflammation of the sebaceous glands and peri-glandular structure, with a dilatation of the vessels of the cutis.

Diagnosis. The diagnosis of rosacea is not difficult. It might be mistaken for erythematous lupus, but lacks the scaliness of lupus and is not raised nor does it, as a rule, show atrophic scarring. Tubercular syphilides tend to soften and ulcerate, show a preference for the forehead, and there is usually a previous history of syphilis. Acne vulgaris presents pustules with comedones. It is possible for acné and rosacea to coexist, but they are quite independent affections.

The faces of stout, elderly people frequently present telangiectases but they are not the result of disease nor are they marked in the rosacea zone.

Treatment. Removal of the source of irritation is one of the prime

considerations of internal treatment. Relief of the causative condition will materially assist in a cure of rosacea.

One of the most valuable remedies for internal administration is ichthyol, given in doses of from five to ten grains in a capsule on an empty stomach twice daily.

Other substances for internal use are tincture of nux vomica, extractum rumicis radicis, nitro-muriatic acid, salol and ergot.

The external treatment is practically that of acne vulgaris and seborrhœa. Sulphur is one of the most serviceable remedies. It may be used with ichthyol, as in the following formula:

℞

Zinc Oxid.,	
Sulphur. Præcip.,	āā ʒj.
Ichthyol.,	gtt. xx.
Ol. Terebinthin.,	gtt. v.
Pulv. Amyli,	ʒj.
Vaselin. ad,	ʒj.

M. Ft. Ung.

Lotio alba may be used as in acne. If the sulphur contained should prove too drying and cause irritation, bland ointments may be temporarily substituted for it.

Ichthyol is beneficial in solution, five to forty per cent.

In obstinate cases Vlemingkx's solution, diluted, will prove of benefit.

It is often advisable to alternate the use of the strong preparations with calamine-zinc oxide lotion, or a lotion of boric acid.

Peeling the face with twenty to fifty per cent. resorcin paste, followed by soothing applications, produces marked improvement.

The local application of adrenalin chloride, 1:1000, is worthy of trial.

The enlarged venules may be destroyed by multiple scarification with a fine-pointed scalpel or a flat needle, dividing the vessel obliquely.

Electrolysis has been successfully employed, using a very fine needle attached to the negative pole, and introducing it into the calibre of the vessel.

Excrescences should be pared off with a razor or knife and the lobulated masses of rhinophyma treated on surgical principles.

The high frequency current is of value and the X-rays are useful, but not so much so as in the treatment of acne.

Prognosis. Rosacea though an exceedingly stubborn disease is susceptible of great improvement, even actual cure, with persistent treatment.

RÖTHELN.

Synonyms: German Measles; Rubella; Roseola.

Definition. Rötheln is an acute, contagious disease resembling measles and scarlet fever. Its period of incubation is ten to fourteen days.

Symptoms. The eruption begins on the face and spreads to the body. It fades in two or three days and is sometimes followed by slight desquamation or transient pigmentation.

The eruption somewhat resembles measles but is light in color and does not show crescentic arrangement. It is not so intense nor diffused as scarlet fever.

The constitutional symptoms are very mild but present one diagnostic point of value, enlargement and tenderness of the post-cervical glands.

The diagnosis in the absence of epidemic is often difficult.

SARCOMA CUTIS.

Definition and Description. Sarcoma cutis is a malignant new growth characterized by variously sized and shaped, pigmented or non-pigmented tumors of connective tissue origin. The growths may originate from nævi, spring from the normal skin or occur secondarily from growths of a similar character situated elsewhere. In consistence sarcomata are firm, smooth, and elastic, the skin covering them being normal in color, bluish-red, violaceous or pigmented. They are at first movable, later become adherent and show a tendency to ulcerate. The neoplasm varies in size from that of a pea or a hazelnut to much larger dimensions. It is softer and more vascular than a carcinoma and bleeds readily. The lymph glands are not usually involved for the reason that metastasis takes place chiefly through the veins. Sarcoma often occurs in young people, multiplies with greater or less rapidity, involves the internal organs, and usually ends fatally in a few months or a few years. It may be taken as the type of malignant disease.

Varieties. There are three histological types of sarcoma, which display a varying degree of malignancy, the *round cell*, the *small cell*, and the *melano-sarcoma*. Two clinical varieties are described, the *pigmented* and the *non-pigmented*.

Melano-sarcoma, or pigment sarcoma, arises from a mole, wart or ulcer but may appear independently. At first it is single, small, oval or round, hard, and of a bluish-black color. It enlarges to the size of a hazlenut; new growths appear near by or at a distance. Some of the tumors disappear, while others ulcerate and secrete a black fluid or a little pus. Neighboring lesions unite to form large melanotic masses; finally, generalization occurs and the patient soon dies.

Melanotic whitlow is a rare form of sarcoma developing at the nail fold as a blue mark and later showing extreme malignancy.

Non-pigmented primary sarcoma is local or general. When local it usually developes from a nævus and upon the extremities. It reaches the size of an orange and is hard, wrinkled and tends to ulcerate. It is covered with normal or reddened skin and is apt to remain stationary for a long time before becoming generalized. When generalized it starts upon the hands and feet as a hard, tense, itching œdema; or reddish purple or

violaceous patches upon which small, enlarging nodules appear; or as an elevated livid patch. When established the extremities are swollen, dense, hard, the skin shining and of a bluish-red. The nodules are sessile or pedunculated. The disease then appears upon the trunk and after undergoing changes of absorption or ulceration, affects the mucous membranes and internal organs and causes death.

Idiopathic Multiple Pigmented Sarcoma (Kaposi). This type of sarcoma occurs in middle aged men as pea-sized, deep-seated, diffused lesions, livid on the hands, brownish-black on the feet. These members become œdematous, pruritic, hard and infiltrated. The trunk and face are gradually invaded, the latter becoming swollen, thickened, scaly and rough. The lesions are of the size of a cherry or larger, nodular, sessile or pedunculated, dark-blue or purple.

Fig. 87.—Sarcoma (Unna).

Some tend to flatten and form patches. Ulceration is rare. The lesions are tender and painful; they may undergo resolution with pigmented scarring.

The disease is of slow course, lasting for fifteen or twenty years, and terminates in recovery or more often in extension to important organs and death. The coloring matter of the tumors is not pigment but altered hematin from effused blood.

Angioma Serpiginosum. Angioma serpiginosum is an affection consisting of bright red, grouped, vascular points, occurring on the ear, breast or extremities and arranged in peripherally extending rings. It is regarded as a form of sarcoma.

Etiology. The etiology of sarcoma is obscure. It is prone to occur before the fifteenth and after the forty-fifth year of age.

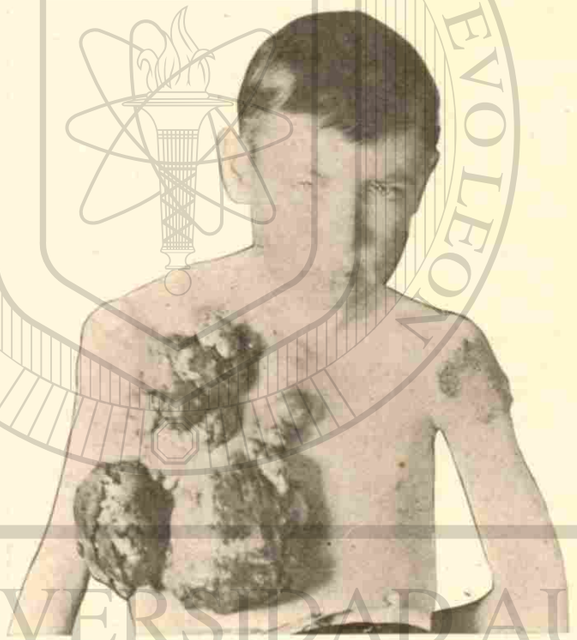

Fig. 88.—Ulcerating Sarcoma (Dr. W. P. Nicolson).

Diagnosis. A tumor which arises from previously healthy skin, or from a mole or wart, or at the seat of an injury, which is soft and reddish from its vascularity (a marked feature of sarcoma), or bluish from its pigment, and which after a period of slow growth rapidly projects above the surface and readily ulcerates and bleeds, is probably a sarcoma (Morris).

Treatment. Surgical removal of single, non-pigmented growths is sometimes successful. In other varieties operation seems to hasten dissemination. Arsenic in the form of Fowler's solution, diluted with two parts

of water, may be given hypodermically in doses of two to four, and later of six, minims once daily. The Asiatic pill may also be used.

Sarcoma has disappeared under the use of the X-rays but it is yet to be determined whether or not the results are lasting.

Injections of the toxins of the *bacillus prodigiosus* (Coley's fluid) are occasionally followed by a favorable result.

Prognosis. The prognosis of sarcoma is bad; that of the melanotic being worse than the non-pigmented which is of slower course.

SCABIES.

Synonym: The Itch.

Definition. Scabies is a contagious disease of the skin due to the *acarus scabiei*, or itch mite, and is accompanied by an eruption of characteristic distribution and intense itching.

Symptoms. The seats of predilection of the parasite are the fingers,

Fig. 89.—Scabies (Ohmann-Dumesnil).

wrist, genital organs in men, and nipple in women, axillæ and abdomen. Any part of the body, with the exception of the scalp and face, may occasionally be involved. The female *acarus* enters the skin and moves forward, depositing eggs and fæces, which, with the larvæ, constitute the dark points seen in the course of the tunnel or *cuniculus*. The *cuniculus* is visible as a slightly elevated, straight or sinuous, grayish or blackish streak from one-eighth to one-twelfth of an inch in length. The acarus may sometimes be found in the inner end of the cuniculus which is slightly reddened. It appears as a shining, white dot and may be lifted out on the point of a needle. The cuniculi are not numerous and are often concealed under a crust, or torn open by scratching.

The irritation produced by the passage through the skin of the acarus, or by its secretions, causes the developement of papules, pustules and vesicles with intense itching, and the consequent scratching leads to the production of crusts, excoriations and inflammation.

Furuncles, urticarial wheals, and ecthyma are among the incidents in

the course of the eruption of scabies. A true eczema may be aroused from irritation and the traumatism of scratching.

The itching of scabies is intense and is especially marked when the patient is in bed at night.

The favorite localities for the depredations of the itch parasite are the inner faces of the fingers, the wrist, the body and glans penis, the nipples and mammary areola in women. On the fingers, vesicles and pustules will be found mingling with secondary lesions occasioned by scratching and pus infection, and on the penis and nipples raised, red, crusted papules. In

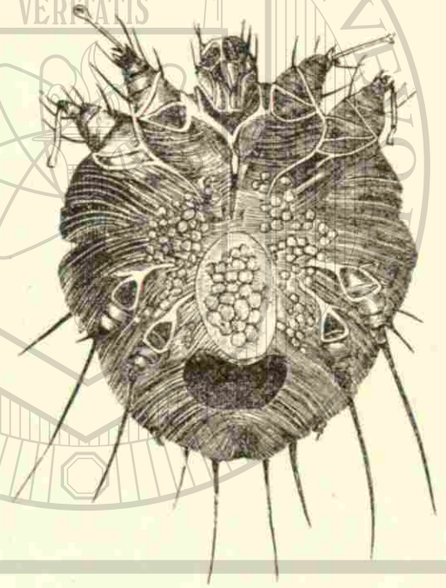

Fig. 90.—Acarus Scabici (female), as seen from ventral surface. A mature ovum within body x 300 (Eichhorst). (From Filatov-Earle.)

children, the ankles and spaces between the toes may be affected and the inflammatory reaction be very great.

Occasionally the hands are free from eruption and the lesions scarce elsewhere, but in such cases careful examination of the genital organs will frequently reveal the cuniculus of the acarus.

Etiology. Scabies is due to the *acarus scabiei* or *sarcoptes hominis* and the irritation resulting from its presence. It is contagious but requires prolonged contact for its transmission.

Pathology. The acarus is faintly visible to the naked eye. The female is one-sixteenth to one-eightieth of an inch long, and its width is two-thirds of its length. The male is smaller. The insect has eight legs, the anterior four having suckers attached, the posterior armed with flexible bristles. There are also bristles on the back. The female lives six to eight weeks and lays from fifty to eighty eggs, which are fructified and hatched and reach the surface to be impregnated by the male. The cuniculus is situated mid-way between the epidermis and the corium.

Diagnosis. Scabies is distinguished from pustular and vesicular eczema by the characteristic location of the lesions, the nocturnal character of the itching, and the recognition of the burrow with the itch mite in it. From pediculosis it is differentiated by the region affected and the multiformity of the lesions. A vesiculo-pustular eruption of the fingers, combined with papulo-pustules of the penis in men, and nipples in women, is almost invariably scabies.

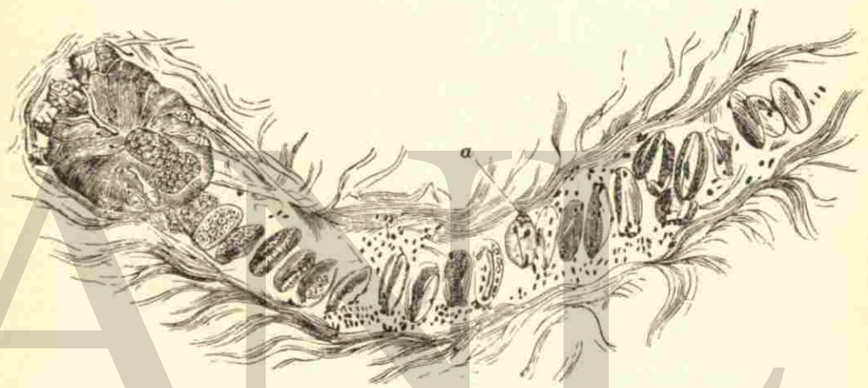

Fig. 91.—Cuniculus. A mature larva. The black points denote the feces of the parasite, visible at ventral end (Eichhorst). (From Filatov-Earle).

Treatment. The prime object of treatment is to kill the parasite without material injury to the skin. To this end the patient is directed to take a warm bath, using friction with a wash rag or bathing glove. The surface is then dried and the following ointment rubbed in:

℞

Sulphur.,	℥j.
Potassii Carbon.,	℥j.
Ung. Aq. Rosæ,	ad ℥j.

M. Fnt. Ung.

This is repeated for three nights successively. The underclothing and bed-linen of the patient are then changed and thoroughly boiled and disinfected. The outer garments are also disinfected or thoroughly ironed, especially about the seams of the trouser legs and pockets. This plan of treatment is nearly always promptly curative.

The irritation of the skin resulting from the strong sulphur application is readily subdued with an ointment of zinc oxide or boric acid.

In children with sensitive skin, balsam of Peru, styrax or beta-naphthol may be substituted for sulphur as in the following formula:

℞

Bals. Peruv.,	ʒss.
Storacis,	ʒiij.
Beta-Naphthol.,	gr. xx.
Vaselin.,	ʒiij.
Lanolin.,	ʒjss.

M et Ft. Ung.

Sherwell advises the use of dry sulphur rubbed over the body and spread between the bed clothes.

The domestic remedy of a decoction of poke berry is effective but too irritating. Kerosene oil thoroughly rubbed in will destroy the parasites but has obvious disadvantages.

Prognosis. Good. If untreated scabies is of indefinite duration but is readily cured.

SCARLATINA.

Synonym: Scarlet Fever.

Definition. Scarlet fever is an acute infectious disease, characterized by sudden onset, febrile movement, sore throat and an erythematous rash. Its period of incubation is two to six days.

Eruption. The eruption appears on the first or second day on the neck and upper part of the chest and spreads to the entire body. It is at first punctate, later becoming a diffused intense redness which disappears on pressure. It may remain punctate on the groin, axillary spaces and hard palate. The eruption comes out in crops, the older fading as the new appears. In severe cases the rash may be miliarial and, rarely, hemorrhagic. The eruption disappears and desquamation begins on the seventh to the twelfth day and continues from two weeks to a month. The desquamation varies in amount according to the severity of the rash and may be so slight as to be scarcely perceptible, or profuse and abundant resembling exfoliative dermatitis.

Diagnosis. Acute exfoliative dermatitis resembles scarlatina but is recurrent, does not affect the throat, and is usually attended by shedding of the skin of the palms and soles. Measles has a longer period of incubation than scarlet fever, and is marked by catarrhal symptoms, papulo-macular rash tending to assume a crescentic form on the thorax and abdomen, and presents the so-called Koplik's spots in the mouth. Scarlatiniform erythema is of milder course than scarlet fever, lacks throat symptoms, desquamates early, is prone to relapse and is not contagious. Drug rashes from the ingestion of quinine, belladonna, potassium iodide and other substances,

are transient and afebrile. In doubtful cases the diagnosis of scarlet fever must be constructed upon the presence of fever, "strawberry tongue," tumescence of the fauces, associated with a scarlet rash.

SCLEREMA NEONATORUM.

Definition and Description. Sclerema neonatorum is a disease of newborn infants either congenital or appearing shortly after birth, and characterized by tense, waxy induration of the skin. In well-marked cases the skin is hard, cold, stiff, livid or mottled and from its rigidity permits the infant to be lifted *en bloc*. The mouth cannot be opened on account of the stiffness of the skin, and for the same reason the infant is unable to nurse. The temperature is subnormal and the pulse and respiration weak and feeble. Death results as a rule in a short time, though in cases of limited extent the percentage of recoveries is not small.

Etiology. The etiology of sclerema neonatorum is indeterminate. It is supposed to be due to a coagulation or congelation of the dermal fat. It may follow diarrhœa, pneumonia, or may be the result of profound malnutrition.

Treatment. Supportive measures aimed at the elevation of the temperature and sustaining nutrition are appropriate. The infant should be enveloped in cotton batting or kept in an incubator. Friction with oil and the application of warmth may be beneficial in stimulating the circulation and diminishing the rigidity of the skin.

SCLERODERMA.

Definition. Scleroderma is an affection characterized by localized or diffused hardening and stiffness of the skin.

Varieties and Description. The disease is very uncommon in the diffused form and begins suddenly without ascertained cause, or may follow exposure to dampness and be ushered in with a chill or pains of a rheumatic character. Large areas may be suddenly involved or patches appear gradually, spreading slowly. The upper part of the body is usually first affected and the hardening is as a rule symmetrical.

There are two forms of scleroderma generally described, the *infiltrated* and the *atrophic*.

In the *infiltrated* variety the skin is hard in ill-defined patches. It has the consistency of bacon-rind, does not move over the subjacent structures nor pit on pressure, and cannot be pinched up between the fingers. When the hardness affects the skin of the face, or of a joint, the former is drawn, fixed, and corpse-like, the latter rigid and immobile.

The breathing is interfered with from the hide-bound condition of the skin of the thorax. The skin is whiter than normal and its natural lines are obliterated. The sclerodermatous areas are colder than the unaffected; the sweat and sebaceous secretions are lessened or suppressed.

Sensation is unaltered, as a rule, but there may be an increase or a diminution of pain and tactile sensibility. Itching is sometimes present.

Patches of erythema with scattered pigmentation and telangiectases are frequently noted and the borders of the patches may exhibit a lilac line. The mucous membranes of the mouth and vagina are sometimes implicated.

The *atrophic* form is preceded by a stage of œdema and infiltration. The skin becomes dry, hard, pigmented and parchment-like. When the disease is well-established the joints are held in a condition of anchylosis

Fig. 92.—Scleroderma with Trophic Ulcer.

and the subcutaneous tissues undergo atrophy and absorption and the limb, or limbs, affected become reduced to skin and bone. The face is drawn, mask-like and expressionless. The lips are drawn away from the teeth, the eyelids everted and the conjunctivæ inflamed. Trophic ulcers form which are often painful and difficult to heal. The hand, if involved, shows the condition known as *sclerodactylia*, the fingers being stiff and distorted.

In both varieties, the general health may remain unaffected for a long time.

Etiology. Both forms of scleroderma are seen chiefly in young and middle-aged women. It is probably due to a vaso-motor defect. The neurotic temperament, depressive influences, gout, rheumatism, malaria, are considered as predisposing factors to the disease. The thyroid gland and the pituitary body have been regarded as possible seats of causation.

Pathology. The pathological findings show a local obstruction to the blood supply by pressure from new tissue, or thickening of the vessel walls, narrowing its calibre.

Diagnosis. The hard, bacon-rind appearing, adherent skin with pigmentation and telangiectases, constitute a plain index of the identity of the disease.

Treatment. Tonics and alteratives may be given with benefit to the general health. Pilocarpin has been recommended to increase the sweat secretion. Thyroid gland extract has proven serviceable in some cases and the iodide of potash is worthy of a trial. Thiosinamin in doses of ten to twenty minims of a fifteen per cent. alcoholic solution, given by deep hypodermic injection, has been recommended.

The local treatment consists in massage and friction of the hardened patches, with oil and the application of mildly-stimulating ointments, such as one per cent. salicylic acid. If the sclerodermatous areas are sensitive an ointment of menthol or thymol may be used.

Electrolysis has been recommended for use in small, localized patches in the same manner as in the treatment of nævus. It may be followed by the application of mercurial plaster.

Prognosis. Recovery usually follows in the infiltrated variety though it may exist for years. In the atrophic form recovery may also take place with permanent deformity and crippling.

The general tendency is toward increasing disability, the formation of ulcers, and death.

SEBORRHŒA.

Under the titles of alopecia and eczema seborrhœicum have been described conditions with which seborrhœa might be included, but in deference to the fact that these conditions are too imperfectly understood to admit of dogmatic statements, seborrhœa is permitted to remain in its older and established sense.

Definition. Seborrhœa (*sebum*, suet, *rheo*, I flow) means an excessive secretion of the sebaceous glands.

Two varieties are described, *seborrhœa oleosa*, and *seborrhœa sicca*, or the oily and greasy, and the dry, forms.

Seborrhœa Oleosa. This variety is observed chiefly on the skin of the face, especially the forehead and nose, and may be limited to these localities. The skin is greasy, shining, unctuous to the touch, and on close inspection usually shows dilated sebaceous gland orifices and, not infrequently, particularly upon the nose, droplets of oil standing out from the patulous openings. The face has a dingy, unwashed appearance from the admixture of dust and dirt which readily clings to the oily surface. Formed and unformed comedones, together with acne lesions, are frequent concomitants of oily seborrhœa.

The condition generally begins on the scalp, the hair becoming lank, damp-looking and sometimes emitting a butyric acid odor. The affection proceeds downward, involving the face, sternal regions, back and genital region, and may occur, in fact, wherever the sebaceous glands are numerous.

The amount of seborrhœa varies; it may be slight in degree or very copious. This condition is termed by Unna *hyperidrosis oleosa*, for a part at least, of the secretion is from the coil glands.

Seborrhœa Sicca. This form of seborrhœa is more common than the foregoing and presents greasy scaliness of the skin of a varying degree and in the same regions affected by oily seborrhœa. The scales accumulate in grayish or yellowish masses and are situated upon a slightly hyperæmic base. The superposition of the yellowish scales upon the subjacent hyperæmic tissue gives a salmon tint to the affected skin.

Seborrhœa sicca of the scalp constitutes a form of dandruff (*pityriasis capitis*). The scales are moderate in quantity or very abundant, involving the entire scalp or certain portions, and may be arranged in a ring form. They are greasy and heavy, or thin, dry and papery, and, being easily detached, fall in a shower on the coat collar and shoulders. The two forms of seborrhœa are commonly combined on the scalp.

There is a variable amount of itching present. The hair loses its vitality, becomes dry and lustreless, and falls out. From the scalp the process spreads downward, and the eyebrows, beard, mustache, ears, and hairy sternal region may be involved and present greasy, yellowish scales (*seborrhœa corporis, eczema seborrhœicum*). In infants are found about the vertex, large, yellowish, scaly plates, which are not the remains of the *vernix caseosa* as they re-form when removed.

Etiology. Anæmia, debility, gastro-intestinal disorders and individual peculiarities of the skin are regarded as causal factors in the production of seborrhœa. Some authors hold the affection to be contagious and assert that it is due to a parasite. Brook, of Manchester, England, believes that there is an additional parasite responsible for seborrhœa with dermatitis and ring-formed lesions.

Diagnosis. Seborrhœa is distinguished from *eczema* by the presence in the latter of itching, exudation, more or less inflammatory redness and infiltration.

Psoriasis, especially of the scalp, shows thick, imbricated scales and crusts with the hair but little affected. *Lupus erythematosus* exhibits sharply-defined patches with adherent scales and atrophic scarring. *Ringworm* resembles seborrhœa corporis but is not so diffused, is more regularly circular and examination reveals the fungus in the scales. Ringworm of the scalp shows the characteristic stubby, broken hairs, and the trichophyton may be found in the hairs and scales. *Pityriasis rosea* is never crusted, occurs on the abdomen and extremities, shows salmon-colored, wrinkled centres to the patches, and is but little influenced by treatment.

Treatment. General treatment consists in the correction of defects in the general health, with regulation of diet and insistence upon the observance of the rules of hygiene, combined with appropriate exercise.

As the affection is usually located on the scalp, treatment should be directed especially to this region. The surface is freed from scales by shampooing with the tincture of green soap or with tar soap. Sulphur, in the form of an ointment, one dram of the precipitated to an ounce of cold cream, is thoroughly rubbed into the scalp and allowed to remain on over night; it may then be washed off in the morning to avoid the disfigurement of having the hair noticeably greasy during the day. This manœuvre should be repeated every night for a week or ten days, then pretermitted, then discontinued, to be resumed at intervals. This plan is usually sufficient to relieve the dandruff and arrest the disease. It is, however, prone to recur and requires a repetition of the treatment.

Ammoniate of mercury in cold cream or petrolatum may be used in the same manner:

℞

Hydrarg. Ammoniat.,	gr. xx.
Acid. Carbol.,	gt. v.
Ung. Aq. Rosæ,	ad ℥j.
M. ft. ung.	

Resorcin is highly regarded and may be used in the form of a lotion, such as the following, recommended by Crocker:

℞

Acid. Acetic.,	℥ss.
Resorcin.,	℥j.
Aq. Cologniensis,	℥iij.
Glycerin.,	℥j.
Aq. Rosæ,	ad ℥vij.

M. Sig. Apply to the scalp with pipette twice daily.

The following lotion is well recommended by Van Harlingen:

℞

Ol. Amygdal.,	℥j.
Acid. Carbolic.,	gtt. xx.
Ol. Limonis,	℥j.
Aq. Destil.,	℥iij.

M. Sig. Apply locally.

Or:

℞

Hydrarg. Bichlorid.,	gr. ij.
Resorcin.,	ʒj.
Chloral. Hydrat.,	gr. xx.
Alcohol.,	ʒj.
Aquæ Rosæ,	ad ʒiij.

M.

Seborrhœa of the body is best treated with ointments and pastes containing sulphur, resorcin or salicylic acid.

Mild sulphur ointments, or salicylic acid gr. xv. to olive oil ʒij, are serviceable for the seborrhœa of infants.

For seborrhœa of the face, ether with a few drops of olive oil to prevent excessive dryness is very useful.

Boric acid solution; three per cent. resorcin in alcohol; the lotio alba, or dry sulphur with starch and zinc oxide applied after rubbing a little white vaseline along the margin of the lids to prevent the powder from entering and irritating the eye, all yield good results.

Prognosis. Seborrhœa sicca is readily curable but tends to recur and on that account requires prolonged treatment.

Seborrhœa oleosa is very obstinate but sometimes disappears under treatment or from improved general health or change of climate.

STEATOMA.

Synonyms: Atheroma; Sebaceous Cyst.

Definition and Description. Steatoma is a rounded, firm, elastic tumor elevated above the skin and varying in size from a pin-head to a pear. These tumors occur wherever there are sebaceous glands, but are seen most frequently on the scalp, neck, face and back.

Steatoma may be single or multiple. The skin covering the tumors is normal in color or pale from pressure, occasionally reddened from inflammation.

The tumors are freely movable, elastic and sometimes fluctuating. With age, they become firmer and harder. They attain a definite size and then remain stationary, occasionally becoming inflamed and ulcerating.

Unless irritated, steatoma is painless. When situated on the neck, a small central opening is often observed; on the scalp, the surface of the growth is hairless and in this position is called a wen.

Etiology. Steatoma is due to retention of sebaceous matter. By some writers it is regarded as a new-growth allied to dermoid cyst.

Pathology. The contents of a steatoma consists of free fat, cholesterin, epidermal cells and sometimes miniature hairs. It varies in consistence with the character of its contents and may be firm and hard, semi-solid, doughy or fluid. Its contents is often of an intensely foul odor.

Diagnosis. Steatoma is distinguished from *lipoma* by the lack of mobility and lobulated character of the latter; and from *gumma* by the more or less rapid formation of gummatous tumors and their tendency to break down and form ulcers.

Treatment. Incision and enucleation of the entire cyst is the only effective treatment. Under cocaine anæsthesia a crucial incision is made over the growth and the tumor is dissected out and delivered without rupture of its capsule, if possible.

Recurrences are inevitable if a portion of the enveloping membrane is left.

SYCOSIS.

Definition. Sycosis is an inflammatory affection of the bearded face, caused by pyogenic micro-organisms.

Symptoms. The disease begins as a rule on the upper lip of young adult males and may be limited to that locality but usually spreads to the chin and neighboring hairy parts of the face.

The lesions consist of grouped, acne-like, papules or pustules, each pierced by a hair. The pustules are firm, larger than a pin-head and have rather thick walls. They rupture after a time and dry into thin crusts, entangling and matting the hairs. The hair itself is not usually affected but becomes somewhat loosened in the follicle as a result of suppuration, especially in the later stages of the disease when the whole length of the follicle is involved and it may be drawn out without much pain.

The lesions may be few and scattered, or numerous involving the entire bearded face. Small cutaneous abscesses, with enlargement of the glands about the angle of the jaw are not infrequently noted. Small areas of infiltration and thickening of the skin occasionally give rise to fungating lesions. Severe, inveterate and neglected cases may show considerable scarring, shallow and atrophic, or at best, a thinning of the beard.

When sycosis affects the upper lip alone it is usually due to infecting discharge from the nose, as a result of catarrh of the mucous membrane. It may be accompanied by inflammation and crusting; the *vibrissæ* become the subject of a suppurative folliculitis and the nasal mucosa is red and swollen.

Sycosis as a rule is limited to the hairy regions of the face but in exceptional instances it affects the eyebrows, axillary and pubic regions.

The disease is exceedingly chronic and, with periods of comparative quiescence, lasts indefinitely.

The subjective symptoms are more or less marked and consist in burning, itching and a feeling of tension.

Etiology. Sycosis is a contagious disease due to the invasion of the hair by pus micro-organisms. It may be conveyed in the barber's shop by

means of infected razors, towels or shaving brushes. Nasal catarrh, eczema, exposure to the weather or the application of an irritant may be enumerated among the causes which contribute to the occurrence of sycosis.

Pathology. Sycosis is a follicular and peri-follicular inflammation due to the white or yellow *staphylococcus*, or more rarely to a bacillus called by Tommosoli *bacillus sycosiferus fatidus*. The pus is auto- and hetero-inoculable. The sebaceous and, more rarely, the sweat glands are secondarily affected.

Diagnosis. The presence of firm pustules pierced by a hair, and occurring on the bearded face, is highly suggestive of sycosis. *Eczema* is not usually confined to the hairy regions, and is not so inflammatory as sycosis

Fig. 93.—Sycosis.

nor so chronic. *Ringworm* of the beard (*tinea barbæ*) begins as a scaly spot, which spreads peripherally does not show preference for the upper lip, early affects the hairs, presents tubercles, nodules or elevated lumpy masses in the skin which are studded with pustules. The hairs contain the ringworm fungus. *Syphilis* is rarely confined to the bearded face and its lesions are found simultaneously in other parts of the body. *Acne* affects the non-hairy parts of the face in preference and shows comedones and lesions independent of hairs. A vigorous beard is usually a corrective of acne.

Treatment. General treatment consists in the correction of errors of diet and hygiene and the elimination of any factor which tends to promote hyperæmia of the face. The condition of the digestive organs should receive careful attention. Internally calcium sulphide, one-tenth of a grain, may be given three times a day, or oftener. Calomel or grey powder in samll doses are sometimes beneficial. Cod liver oil, arsenic and iron may be required.

Locally the crusts must be removed and the hairs epilated. The epilation should be thorough. The beard must be shaved or cut close.

During active periods of the disease, Lassar's paste, zinc oxide ointment, boric acid ointment, diachylon ointment or black wash are serviceable and should be employed in the form of spread plasters applied at night and followed by a dusting powder during the day. Stearate or oxide of zinc will serve for the latter purpose.

Subacute stages require more stimulating applications, such as the ammoniate of mercury in ointment, one dram to the ounce; or sulphur, betanaphthol, salicylic acid, resorcin or ichthyol in ointment. The following will be found useful:

℞

Ung. Diachyli,	
Ung. Zinci Oxid.,	āā ℥ss.
Ung. Hydrarg. Ammoniat,	℥iij.
Bismuth. Subnitrat.,	℥jss.

M.

Lotions such as the lotio alba, or resorcin, bichloride of mercury, 1:1000, are also serviceable.

The chief ends of treatment are to keep the beard short; epilation of the hairs in the affected area; and the use of sedative, stimulating and antiseptic remedies according to the stage of the disease.

In very obstinate cases the green soap and diachylon treatment, such as was described in connection with the treatment of chronic eczema, may be essayed.

The X-rays have proven very useful in sycosis. Under their use epilation is rendered unnecessary, as the hair falls out and the pustules cease to form. When the hairs reappear and there is a renewed tendency to pustulation, the raying should be resumed.

Prognosis. Sycosis is an exceedingly obstinate affection and great perseverance is required to effect a cure.

SYPHILIS CUTANEA.

Synonyms: Syphiloderma, Lues Venerea, Dermatosyphilis, Syphilide.

Definition. Syphilis is a chronic, contagious, specific disease, acquired by inoculation or hereditarily, and showing in some part of its course a marked predilection for the skin, mucous membranes and nervous system.

The cutaneous manifestations, with which alone a work of this nature is concerned, present certain general characteristics as to distribution, color and configuration, course, duration and subjective symptoms.

Distribution. The syphilodermata are divided into the *early* and the *late*.

Those which appear early in the course of the disease are caused by localized hyperæmia and a variable amount of small-cell infiltration, and are more or less generalized and symmetrical. They show a preference for particular regions, such as the margin of the scalp at the hair line, the angles of the mouth, the folds between the nose and lip, the ano-genital region and the palms and soles. The lesions constituting the eruption vary greatly in number and extent, being abundant, or sparse and scattered, and at times even so slight as to escape attention.

The later lesions are not so generalized nor symmetrical and show a marked tendency to grouping.

Configuration and Color. The lesions of syphilis cutanea tend to assume a round or oval shape, especially the earlier manifestations. The later eruptions are circinate, segmental or serpiginous. In negroes an annular form is frequently seen about the nose and lips. The color of the syphilides varies considerably. The recent macular eruptions are rosy,

Fig. 94.—Cimicre of Lip (Ohmann-Dumesnil).

giving place to a dusky red, coppery, then brownish or yellowish. The papular and tubercular lesions are reddish-brown, coppery or raw-ham colored.

Polymorphism. The early or secondary eruptions frequently appear intermixed, macules, papules and pustules being visible at the same time. The more generalized the eruption, the greater the uniformity as a rule.

Course and Duration. The early eruptions of syphilis are rather rapid in evolution. The macular rash is established in a week or ten days and tends to remain apparent for ten days to three weeks, then fades out. The papular is somewhat more leisurely, remains visible for one or several months and undergoes involution, frequently leaving isolated lesions which linger indefinitely. Relapses are common. The later or tertiary lesions are more indolent and display a much greater tendency to become chronic.

Syphilis is a comparatively chronic disease and is influenced by circumstances connected with the general health and habits of the patient. Individual lesions show a tendency to metamorphosis into another type, thus continuing the affection into a state of inveteracy under varying forms.

Subjective Symptoms. Subjective symptoms are usually absent in the syphilides. In copious macular rashes itching is sometimes complained of,

and it may be present to a slight extent in the papular and pustular syphiloderms. Gummatous lesions and those situated upon the mucous membranes and muco-cutaneous surfaces are sometimes painful.

Peculiarities of the Syphilides.

1. The syphilides are sharply-defined, dense and uniform cellular infiltrations of the papillary body and corium and differ from one another only in size.

2. These cells are not fitted to undergo permanent organization into connective tissue but always undergo involution and disappear either by absorption or purulent degeneration.

3. The syphilitic infiltration of the skin always enlarges and disappears in the same direction, viz., centrifugally, hence the peripheral parts are relatively the most recent and exhibit all the characteristics of fresh infiltration. The oldest parts are in the centre and are the first to disappear (Kaposi).

4. In syphilitic efflorescences, the papule is the dominant lesion or prototype of syphilis cutanea. It may be large or small, dusky-red or coppery, sparse or abundant, and shows a tendency to break through the apical epidermal covering and leave a fringe around the base (the *collarette* of Biett or Rollet). It may be converted into a secondary form, an infiltrated patch or undergo superficial ulceration.

5. The scales are thin, grayish or dirty-white, usually scanty and are often found surrounding a lesion rather than covering it, as in the palmar and plantar syphilide. The crusts of cutaneous syphilis are thick, bulky, of a greenish or blackish color from admixture of pus, blood and dirt and are generally seen covering an area of superficial or deep ulceration.

6. The ulcers are superficial in the early lesions; in the late stages they are deeper, punched out, more or less painless, rounded, horse-shoe or bean-shaped.

7. Scars resulting from ulceration depend upon its extent and situation. Superficial scars following shallow ulceration, are smooth, pliant, sometimes pigmented and show follicular pitting; those from deeper ulcers take somewhat the form of the causative lesion through smaller, and are satiny, pliant and smooth. They may be the seat of keloidal growth, especially when situated about the joints.

Types of Syphilis Cutanea. The syphilides are arranged under the following forms: the *macular*, the *papular*, the *pustular*, the *bullous*, the *tubercular*, the *gummatous*.

The Macular Syphilide. The macular syphilide is erythematous in character and is also called syphilitic roseola. It developes seven to nine weeks after the initial lesion and may be slight and evanescent, merely a dusky mottling of the skin. When fully established and pronounced the eruption consists of pea- to dime-sized, rounded or oval, sometimes slightly elevated, discrete macules of a pink or dusky-red color.

The eruption tends to generalization but is most abundant on the sides and front of the abdomen and thorax, and the flexor surfaces of the extremities. The face, back and hands usually escape.

The extent and intensity of the eruption vary greatly, being influenced by the temperature, hot baths, clothing, alcoholic excesses or by the character of the patient's skin.

The color in the later stages of the eruption does not entirely disappear on pressure. The lesions become of a dull, coppery or yellowish hue

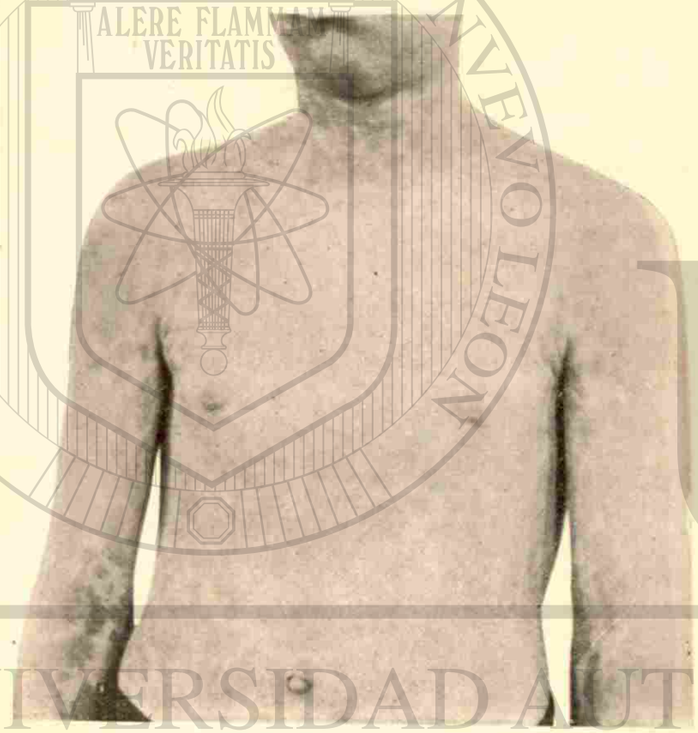

Fig. 95.—Macular Syphilide (Dyer).

and fade out in two weeks or a month, leaving faint dirty stains which persist much longer. Relapses or recurrences sometimes take place in the form of annular or segmental lesions.

Synchronous with the appearance of the macular rash the throat is tumefied, the tonsils often presenting points of shallow ulceration and there is general glandular enlargement.

Diagnosis. The macular syphilide most resembles *measles* but is distinguished from it by its comparatively afebrile course, is not epidemic,

lacks catarrhal symptoms, coryza and is not followed by desquamation. The absence of catarrhal symptoms and fever is sufficient to distinguish it from *scarlet fever* and *rötheln*. It is differentiated from *tinea versicolor* in that the latter is a scaly affection presenting chamois-skin patches, and is due to the *microsporon minutissimum*, which may be sought for in doubtful cases.

The coexistence of lesions in the mouth and the polyadenitis will aid materially in the establishment of a diagnosis of syphilis.

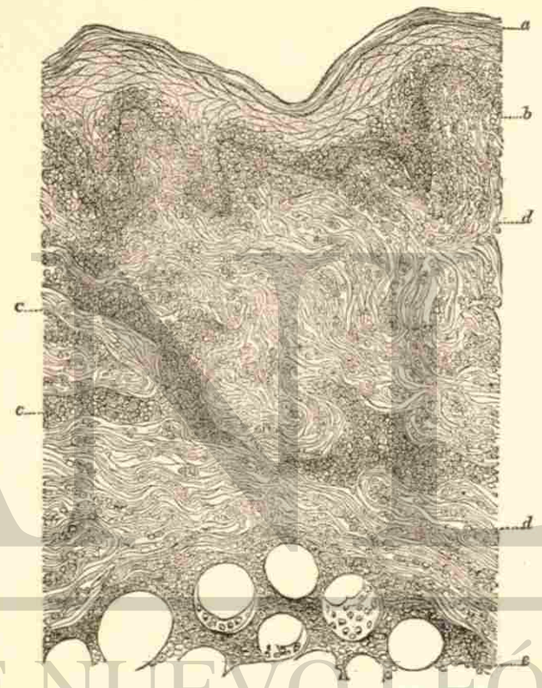

Fig. 96.—Syphilitic Papule from the Thigh (Schamberg). a, Epidermis; b, Rete malpighii; c, Cell infiltration in the corium and panniculus adiposus; d, New formation of connective tissue.

The Pigmentary Syphilide, or syphilitic leucoderma, is a variety of the macular form and is seen chiefly on the sides and back of the neck in brunette women, as a *café-au-lait* spot or spots alternating white and brown, closely assembled and lending to the skin a reticulated appearance. It is not secondary to preëxisting lesions but is an original pigmentation upon an apparently normal skin.

The Papular Syphilide. The papular syphilide occurs in two varieties with individual modifications, the *small* or *miliary*, and the *large* or *len-*

ticular. The *miliary* papular syphilide occurs in two forms, the small and the large. It succeeds the macular eruption or takes its place, occurring in the first six months of the disease.

The larger type of miliary papular syphilide presents millet seed or pin-head sized, firm, dense, rounded or acuminate papules. Sometimes if inflammation is marked the summit of the lesion becomes vesicular or suppuration occurs and a pustule is formed. The papule is smooth or capped, with a minute scale, or its base is surrounded by an inconspicuous scaliness.

The eruption is more or less abundant, grouped or disseminated, and is seen chiefly on the arms and face. The groups contain ten to thirty ele-

Fig. 97.—Annular Syphilide (Ohmann-Dumesnil).

ments and are often arranged in a circinate form or in arcs of circles. Small pustular lesions and larger papules are found associated with the eruption.

The color of the lesions is at first a rosy red which becomes brownish or violaceous. The papules are situated around a hair follicle. They flatten down and disappear leaving a pigmented pit.

This form of papular syphilide is not very common.

The small, miliary papular syphilide is rarer than the foregoing and consists of widely disseminated, grouped papules the size of a small pin's head, at first bright-red, becoming yellowish or fawn-colored. The papules sometimes show a horny centre. The groups are irregularly rounded or ring formed.

The eruption occurs during the first or second year of the disease.

The Lenticular Papular Syphilide. The lenticular papular syphilide may also occur under two forms, the small and the large.

The small type is one of the commonest of the manifestations of cutaneous syphilis and may be seen at any time within the first year; exceptionally in the form of a relapse during the second year. It occurs as firm, flattened, lentil to split-pea sized papules which spread peripherally and are capped with a small scale. The scale covering the papule becomes detached and there is a fringe of epidermis surrounding the base of the lesion. The scale is dirty white, thin, loose and, in its collar-like arrangement, highly characteristic. The papule is at first of a bright-red color but with age becomes brownish-red or yellowish, and on the lower extremities, darker, even livid.

The eruption is usually abundant and affects the flexor surfaces of the limbs, the trunk, face, mouth, nose and forehead where, at the border of the hair, it encircles the scalp like a diadem and constitutes the so-called *corona veneris*. On the scalp the papules are less numerous and tend to become pustular and crusted.

The eruption if untreated lasts for months and finally disappears leaving a bluish-gray, very persistent pigmentation. The papules sometimes flatten down and form discrete scaly patches.

There are no subjective symptoms except occasionally slight itching.

The large lenticular papular syphilide frequently follows the small type or occurs as a relapsing manifestation of syphilis. The lesions are rarely numerous, less inclined to form groups and are seen with especial frequency upon the forehead, about the mouth, on the nose, posterior aspect of the trunk, front of the limbs and in the genital and anal regions. On the trunk the long diameter of the papule is parallel with the ribs. The lesions are from one-eighth to three-fourths of an inch in diameter, raised above the surface, flattened and tend to form patches which are sparsely covered with adherent scales. The patches are infiltrated, bright-red in color becoming, with longer duration, a deep-red or raw-ham color.

The *Papulo-Squamous* or *Squamous Syphilide* is an alteration of the large papular or tubercular syphilide and is caused by a coalescence of the papules or flattening and extension of the individual lesion. It may be a late manifestation of syphilis. The surface of the patch is irregularly scaly, the scales being dry, grayish-white and rather firmly attached. The eruption, when occurring at an early period, is more or less generalized, later it usually represents a relapse and is limited in extent. It does not show preference for the knees and elbows, and in this respect falls short of a close resemblance to psoriasis.

A palmar and plantar syphilide forms from a papular eruption as a late and limited manifestation. It appears in variously sized, round patches with well-defined red margins. Several patches unite and form serpiginous or crescentic lesions which spread over the palm or sole. The border of

the patch is infiltrated, red, raised and scaly. A large, perfect circle may be formed, gyrate figures produced or the circle may be broken into unequal segments. Fissuring is apt to occur about the joints of the fingers. The eruption is usually limited to one palm or sole and in this respect differs from circumscribed eczema, and psoriasis, which are usually symmetrical, the latter, in addition, being rare in this locally.

The *moist* papule is formed from the papule by pressure where the skin surfaces are in close contact, as in the cruro-genital, inter-gluteal, axillary regions, and the angles of the mouth; and by heat and moisture, as upon the mucous membranes. The papule becomes flattened, its surface macerated and exuding a thin, mucoid, foul secretion. Patches may be built up by coalescence of lesions either on a level with the skin, forming a mucous patch, or above it in the form of rounded, pinkish, sodden elevations secreting a thin, grayish fluid. The latter appearance constitutes the *condyloma latum* and is highly contagious. Mucous patches in the mouth, tongue or vagina appear as opaline plaques, and resemble the eschar of nitrate of silver.

The *circinate* or *annular* syphilide is a modification of the papule and is formed by a central depression and flattening of the papule producing a complete or partial ring, with rounded, elevated borders. It is generally seen about the face, upon the forehead, nose, lips and neck and usually coexists with mucous patches, condylomata lata and seborrhœa. It is rather common in negroes.

Diagnosis of the Papular Syphilide. The miliary papular syphilide is diagnosticated from *papular eczema*, *lichen ruber*, and *lichen scrofulosorum* by its distribution, course, history, absence of subjective symptoms and by the concomitant evidences of syphilis.

The squamous or papulo-squamous syphilide is differentiated from *psoriasis*, which it sometimes resembles, by its preference for the flexor surfaces, the color of the patch, the scanty, loosely attached dirty-white scales which, on removal, do not cause any points of bleeding to appear; and by the uniform size of the patches. *Squamous eczema* of the palms and soles is generally symmetrical, its patches are itchy, infiltrated, lack definite outline and occur also upon the dorsal surface.

The Pustular Syphilide. The pustular syphilide may occur within the first year, or as a relapse at a later period. It is always found in debilitated, ill-nourished individuals and is due to superadded infection with pus micro-organisms.

The pustular syphilide may be an original efflorescence or follow upon the macular or papular types. It occurs in the form of *small* or *miliary*, and *large* or *lenticular pustular syphiloderms*.

The Miliary Pustular Syphilide. This form makes its appearance in the first six or eight months and consists of disseminated or grouped, more or less generalized, discrete, millet-seed to pea-sized, acuminate pustules

situated upon a papular base. The pustules usually involve the hair follicle and may be seen pierced by a hair (*acneform syphilide*).

The eruption, as a rule, is abundant especially upon the limbs where groups of twenty or more lesions may be formed and if closely aggregated, coalescence sometimes occurs. The pus dries and forms a small crust which falls off leaving a certain amount of pigmentation and minute pitting, neither of which is permanent.

Fresh crops of pustules appearing may continue the eruption, if unaffected by treatment, for months.

The Lenticular Pustular Syphilide. This variety may result from a softening of a papule, or is a papulo-pustular eruption from its inception. The lesions resemble the miliary but are larger, less apt to form groups, are more or less generalized and are usually situated upon a firm papular base of a dull-red color. A rise of temperature may attend the outbreak of the eruption. The larger lesions sometimes show a central depression or umbilication (*varioliform syphilide*). The contents of the pustules soon dries and forms a thick, greenish-yellow or black crust which when removed is often found to conceal an area of superficial ulceration. Transient pigmentation may follow healing of the lesions. Relapses may occur and are usually localized.

The form of the pustules may show difference both in the miliary and the lenticular eruptions. The pustule of the miliary variety instead of being acuminate may appear flattened, discrete and about as large as a pea. The pustule dries and forms a heavy, uneven crust. Several of the lesions may coalesce and form a crusted patch which covers shallow ulceration. This variety of syphilide is seen in the latter half of the first year and occurs upon the nose, about the mouth, scalp, thighs and genital organs and resembles impetigo (*impetiginous syphilide*).

This variety may also appear under the form of flat, dime-sized, widely-scattered pustules which rapidly dry and form crusts situated upon a coppery-red base which undergoes superficial erosion. These lesions are observed principally upon the trunk, back, shoulders and antero-exterior aspects of the legs and are fairly numerous. The crusts at times are thick, laminated, of a greenish or black color and partially cover an area of irregular ulceration which may be superficial or deep and secretes a thin, yellowish fluid. This lesion is termed the *ecthymaform syphilide* from its resemblance to that pyoderm. The peculiar, laminated, crusted condition is known as *rupia* and may also occur with the bullous syphilide and is usually a tertiary manifestation of the disease. When it occurs precociously it is apt to display a marked malignancy.

Diagnosis of the Pustular Syphilide. The pustular syphilide is generally recognized as an accompaniment of other manifestations of syphilis. The large, acuminate pustular syphilide may resemble *small-pox*, but is distinguished from it by its indolent, afebrile course and absence of shotty

papules, as well as the lack of a history of epidemic occurrence. *Acne* is a chronic affection occurring in youths and young adults and is limited to the face, back and shoulders and presents papules, pustules and comedones. These are features which distinguish it from the pustular syphilide. *Impetigo contagiosa* runs a definite course, presents thin, curled-up crusts having the appearance of being stuck on, and is seen chiefly upon the face and fingers.

The Bullous or Pemphigoid Syphilide. The bullous or pemphigoid syphilide is very rare in acquired syphilis, less so in the hereditary form. It is a late manifestation and appears as discrete, superficial, flattened, dis-

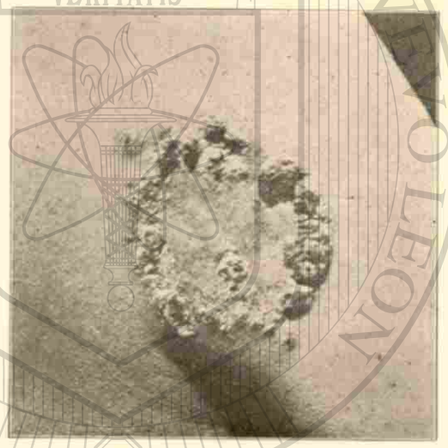

Fig. 98.—Pustulo-Crustaceous Syphilide (Ohmann-Dumesnil).

seminated bullæ, the contents of which is puriform and soon dries into thick, greenish-black, adherent crusts surrounded by a dark-red areola. The crust may be stratified and rupial, like that occurring with the large, flat, pustular syphilide. The crust covers a superficial erosion or deep ulcer, depending upon the general condition of the patient, the ulcers being deeper in debilitated subjects. It is a malignant type of syphilide and when healed will leave scarring and pigmentation in accordance with the character of the preceding ulceration.

Diagnosis. The diagnosis of the bullous syphilide is to be made from *ecthyma*. Ecthyma is much more acute and inflammatory, has shallower ulceration, its crusts rarely become rupial and it heals readily under non-specific treatment. *Pemphigus* is to be distinguished from the bullous syphilide by the cardinal features of the syphilide, history of infection, preference for the hands and feet, reddish-coppery areola around the blebs and permanent disappearance of the lesions under anti-syphilitic treatment.

The Tubercular Syphilide. The tubercular syphilide belongs to the later period of syphilis, is usually seen after the first year and may appear many years after the initial lesion. It is of limited extent and presents grouped nodules, rounded, firm, glistening, fleshy or slightly wrinkled and scaly. The color is at first pink then changes to a dull, coppery-red. The tubercles are deep-seated and from the size of a pea to that of a cherry and are often arranged in the form of circles complete or in segments which are formed by involution of centrally situated lesions. The groups are single or numerous, symmetrically disposed and are seen chiefly on the

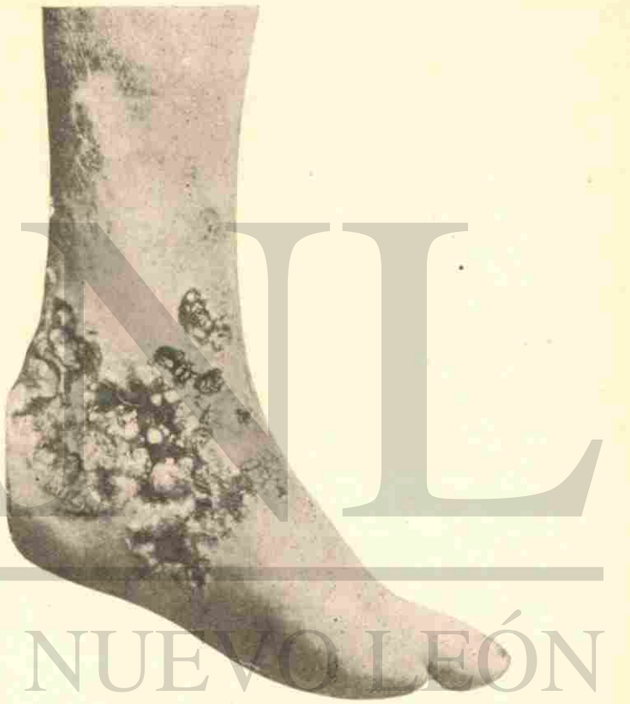

Fig. 99.—Tertiary Ulcerative Syphilide (Unna).

forehead, back, shoulders and about the joints. Tubercles and groups may coalesce and spreading peripherally form serpiginous areas of considerable extent (*serpiginous tubercular syphilide*).

The tubercular syphilide is slow in its course and if unmolested will remain for years. The lesions disappear by resolution and absorption with the deposition of pigment and cicatricial tissue (*resolutive type*) or by ulceration (*ulcerative type*).

The ulcers may concern one group when they are clean-cut with steep

edges and a yellowish, gummy, sloughing floor; or several neighboring ulcerative lesions may coalesce and form serpiginous, crescentic areas of ulceration which show, by their outline, their derivation from smaller ulcers. Large, spreading tracts of infiltration are sometimes seen with raised, crusted or scaly margins, more or less widely distributed, or involving in one continuous sheet considerable areas of skin surface.

The ulcers give rise to but slight subjective symptoms and heal with smooth, pigmented, depressed scars.

A *vegetating* or *papillomatous* form sometimes develops from the tubercular as well as from the large, papular syphilide and is observed principally upon the scalp, nose and about the mouth, especially in negroes. The growth projects sharply upward in warty clusters, closely assembled

Fig. 100.—Gummatous Ulceration of Nose and Lip (Unna).

and discharges an offensive, yellowish, purulent secretion from the spaces between the masses.

Diagnosis of the Tubercular Syphilide. The diagnosis must be made from lupus vulgaris, epithelioma, tubercular leprosy. *Leprosy* shows thickening in the course of certain nerves, especially the ulnar at the elbow joint, the nodules are slow in evolution, the skin shows areas of anæsthesia and brown-pigmented patches. *Epithelioma* is a disease of middle-aged and elderly people; it is usually single; when ulcerated has an uneven floor with waxy, hard border and is painful. *Lupus* is slow in growth, the tubercle is softer, contains material like apple-butter, the ulcers are soft, punched out, and the cicatrices are uneven and puckered.

The Gummatous Syphilide. The gummatous syphilide is a late manifestation and shows itself as one or more, flat, rounded, usually painless tumors varying in size from a pea to a marble and situated in the subcutaneous tissue. They are at first freely movable and can be readily rolled between the fingers. The skin covering them is normal in color or reddened. Later in their course fluctuation can be detected, the skin becomes

adherent, breaks down and deep ulcers are formed which are wider at the base and have coppery-red borders. Occasionally instead of a definite tumor an infiltrated patch is formed which disintegrates and is converted into an ulcer. The ulcer heals and leaves a depressed permanent scar. The gumma may disperse without breaking down, but if uninfluenced by treatment tends to ulceration.

Gummatous syphilides show a preference for the lower extremities. The gummatous masses in the skin are similar to those found in the viscera and elsewhere in the body.

Gummatous syphilides may be distinguished from fibroid or fatty tumors, sebaceous cysts and furuncles by their course, duration, character of the resultant ulcer and their reaction to treatment.

SYPHILIS HEREDITARIA CUTIS.

A distinction must be made between infantile syphilis, which may be acquired, and hereditary syphilis, which is congenital and not limited to infancy. The former exhibits only such departures from the adult type of the disease as are occasioned by the age of the patient and the lowered resistance of the tissues.

Hereditary syphilis usually manifests itself in the first month of existence in the form of coryza, the nasal secretion accompanying it being thick, tenacious and so obstructing the nostrils as to interfere with nursing as well as breathing. This condition is called "snuffles." Involvement of the larynx with erythema or mucous patches causes a peculiar, toneless cry or complete aphonia. The infant loses flesh, becomes emaciated, pallid, cachectic, peevish and fretful and takes on the "old man" appearance. The skin is sallow, dirty-white, or dull, reddish and furfuraceous. Mucous patches and condylomata make their appearance in their characteristic localities.

The eruptive lesions of hereditary syphilis belong, as a rule, to the *macular*, *papular* and *bullous* types.

The *macular* or *erythematous syphilide* occurs in the first or second month after birth in the form of round or oval, variously-sized, bright or dark-red or ham-colored patches which disappear on pressure when recent. The spots or patches tend to coalesce and cover considerable areas of skin surface, especially about the mouth, buttocks, genitals, palms and soles. The skin frequently has a glazed, shining appearance and is infiltrated, of a yellowish-coppery tint, and covered irregularly with thin scales. Itching is absent.

The *papular syphilide* occurs usually combined with the macular. The lesions are not abundant, usually discrete and but little elevated. In situations subjected to pressure, warmth and moisture, they are readily converted into mucous patches and *condylomata lata*.

The *bullous syphilide* is much more common than in adults and occurs shortly after birth. Its favorite location is about the hands and feet. The

blebs are generally small in size and appear in crops. The contents is puriform and dries into a crust, which covers a superficially ulcerating surface. The subjects of bullous syphilide rarely survive more than two or three weeks.

Pustular and vesicular syphilides are occasionally encountered in hereditary syphilis, the former being more common.

Late manifestations of hereditary syphilis take the form of tubercular or gummatous lesions, and resemble the late syphilodermata of the acquired form. They are seen usually in individuals between the ages of fourteen and twenty-four, affect the face chiefly and are often highly destructive. They are found associated with keratitis, scars at the angles of the mouth, Hutchinsonian teeth and other stigmata of degeneration.

Etiology of Syphilis. The great majority of the cases of syphilis are acquired during the act of sexual intercourse. In a smaller class the infection is received through mediate or immediate, extra-genital channels. The validity of the claim for the *spirochæta pallida* as the essential cause of syphilis has not as yet been established.

Treatment of Cutaneous Syphilis. The treatment of cutaneous syphilis is internal or specific, and local.

The internal, constitutional or specific treatment of syphilis should be inaugurated so soon as the diagnosis is established, and consists in the administration of mercury and the iodine salts, the former being customarily used in the earlier stages of the disease, the latter in the more remote or tertiary.

Mercury may be administered by the mouth, which is the usual method, in the form of the protoiodide, one-sixth to one-half a grain, three times a day, in pill form or compressed tablet: the biniodide, one-sixteenth of a grain; blue mass, two grains, or calomel, one grain to two grains.

Iron and other tonics are advantageously combined with the mercurial. The following formulas are recommended:

℞

Hydrarg. Protoiodid.,	gr. viij-x.
Ferri et Quinin. Citrat.,	℥jss.
Ext. Hyoscyami,	gr. vj.

M. Ft. Pil. No. xxx.
Sig. One three times a day.

Or:

℞

Hydrarg. Tannici,	gr. xv.-xxx.
Quinin. Sulph.,	℥j.
Ext. Hyoscyam.,	gr. vj.

M. Ft. Pil. No. xxx.
Sig. One three times a day.

The intramuscular method of administration is carried out by the injection, usually in the gluteal region or about the trochanter, of biehloride, one-twelfth to one-eighth of a grain, as in this formula:

℞

Hydrarg. Biehlorid.',	gr. xl.
Glycerin.,	℥j.
Aq. Destil.,	℥iij.

M. Dose twelve drops.

Or calomel one part, liquid vaseline twelve parts; or in the form of gray oil, which consists of mercury, twenty parts; liquid vaseline, forty parts; etherial tincture of benzoin, five parts may be used. The dose of the latter is one-half of a small (Pravaz) syringeful every ninth day.

The hypodermatic method is not popular in the United States. It is painful, and may cause abscesses. It is usually reserved for cases of malignant syphilis and threatened paralysis.

Mercury may be administered by the endermic or inunction method. The preparation usually employed is the unguentum hydrargyrum cinereum, or blue ointment. One ounce is divided into eight equal portions, and one portion is rubbed into the skin daily, a new surface being selected for each application, owing to the irritant effect of the mercury upon the skin.

The fumigation method is carried out by the volatilization of calomel. The patient is seated in a vapor bath cabinet, and the calomel, one dram, volatilized in a receptacle, placed over a gas burner or the flame of an alcohol lamp. Attendants should observe precautions against insalivation.

In using mercury the teeth should be put in good order, and the hygiene of the mouth insisted upon to minimize the risk of ptyalism.

Mercury may be given in connection with one of the salts of iodine, the iodide of potash being the one in most general use. This constitutes the so-called "mixed" treatment and is employed preferably in the middle and later periods of syphilis. The following is a representative formula:

℞

Hydrarg. Bichlorid.,	gr. j.
Potas. Iodid.,	℥ij-v.
Tinct. Nucis Vomicæ,	℥ij.
Glycerin.,	℥iij.
Aquæ Menthæ Pip.	ad ℥iij.

M. Sig. Teaspoonful in water after each meal.

This is especially serviceable in gumma and nerve syphilis when rapidity of action is desired.

The later manifestations of syphilis are treated with an absorbable form of iodine, usually the iodide of potash. The iodide of strontium,

sodium, and calcium are also given. The iodide is administered in the form of a saturated solution, beginning with ten drops, well diluted in water or milk, and increased according to the exigencies of the individual case and the object to be attained.

An agreeable mode of giving the iodide is by placing five drops of the saturated solution in a small tumbler, adding fifteen drops of essence of pepsin and two ounces of warm milk. Allow this to cool and take as a rennet custard. Sherry wine may be added with advantage to the taste.

Iron, cod liver oil, the malt preparations and other tonic and reconstructive remedies are frequently required as auxiliaries to the treatment of syphilis.

There is no fixed rule for the duration of treatment. Each case presents individual requirements. Crocker's plan is recommended, and is as follows: Mercury is given for six weeks, then small doses of iodide of potash for a week or ten days. This alternation is maintained for six months at the end of which time, if there are no symptoms, no treatment is given for a month. Mercury is then resumed for six weeks. This plan is carried out for the first year. The second year he gives a mild mercurial course for six weeks, and iodide of potash for two or three weeks. Treatment is then suspended, to be reinstated as symptoms show themselves.

Local Treatment. Local treatment of cutaneous syphilis is important, and hastens the disappearance of the lesions. In the earlier stages mercury may be used in the form of a two to five per cent. ointment of the ammoniate, or ten per cent. of the oleate, or mercurial ointment full strength or with equal parts of oxide of zinc ointment. These preparations may be rubbed into the lesions. For mucous patches cauterization with lunar caustic is most effective. Dry calomel constitutes the best application for *condylomata lata.*

The local treatment of late syphilis of the skin embraces the same remedies applicable to the earlier stages. Iodoform or aristol are serviceable as dusting powders for ulcerative lesions. The mercury-carbolic plaster-muslin is useful in infiltrated patches, as well as in ulcers. Stelwagon recommends the following application for tertiary syphilides:

℞

Hydrarg. Bichlorid.,	gr. iv-viij.
Acid. Carbolic.,	℥ss.
Glycerin.,	℥j.
Aquæ ad.,	℥iv.

M. Sig. For local use.

Where the skin is not broken, a combination of carbolic acid ℥j, tincture of iodine ℥ij, bichloride of mercury gr. ij and water ℥ii will be found useful.

Rebellious local lesions are often advantageously treated with other applications of a non-specific nature, combined with the mercurial.

Treatment of Hereditary Syphilis. In the treatment of hereditary or infantile syphilis mercury is given as calomel, one-tenth to one-half grain, three times a day; or hydrargyrum cum creta, one-half to two grains, three times a day or a solution of bichloride of mercury, grains two-and-a half, to four ounces of water, one dram three times daily. Inunction is sometimes preferred, fifteen grains of mercurial ointment being rubbed in once daily, or a like quantity may be smeared upon a flannel binder and worn around the abdomen. Flannel pieces annointed with mercurial ointment may also be used in the form of a "chest protector," or as an in-sole. Late lesions require the use of iodide of potash, cod liver oil, syrup of iodide of iron or hydriodic acid.

Local treatment is similar to that appropriate to adults, but the preparations are weaker.

Prognosis. The prognosis of cutaneous lesions of acquired syphilis is good, most of them disappearing with more or less promptness under specific treatment. Relapses are not uncommon. Scarring follows the ulcerative syphilides.

Prognosis of hereditary syphilis is guarded. The younger the infant, the graver the prognosis.

TATTOO.

Definition and Description. Tattoo is a staining of the skin from being pricked with needles dipped in India ink, vermilion and other pigments, or by the introduction under the skin of charcoal or gunpowder. In the last named instance the grains of powder are usually blown into the skin as a result of the premature discharge of fireworks. The grains dissolve and stain the tissues.

Treatment. Electrolysis may be used to remove the stain, the negative needle being introduced under the skin and a current employed sufficient to cause vesication and crusting. Keyes' punch may be used for the same purpose, removing small bits of stained skin and tissue.

If the pigmented area (usually containing letters or emblems) is small, in the case of tattooage, it may be excised. Papoid has been suggested to digest out the stained tissue. It may be used in the following formula:

℞

Papoid.,	gr. ij.
Aq. Destil.,	℥j.
Glycerin.,	℥iij.
Acid. Hydrochloric.,	gtt. iij.

M. Needles dipped in this solution are thrust into the stained skin.

Another plan is painting the surface with nitrate of silver (lunar caustic) or chloride of zinc, repeating the application as often as the eschar falls off, until the layer containing the pigment is reached and removed. A strong solution of hydrogen peroxide may be used with doubtful advantage.

TINEA FAVOSA.

Synonym: Favus.

Definition. Favus is an obstinate, contagious disease affecting both the hairy and non-hairy regions of the skin, and caused by the presence

Fig. 101.—Tinea Favosa.

of the *achorion Schönleinii*. It is characterized by the formation of sulphur yellow, cup-like crusts (*scutula*) which, after long duration, produce atrophic baldness. The crusts vary in size from a pin-head to a pea or larger, are dry, friable and seen chiefly upon the scalp surrounding a hair.

Symptoms. Favus begins as a slightly scaly, erythematous spot, usually upon the scalp and is caused by the entrance of the achorion into the hair follicle. This is soon followed by exudation, which dries into a

disc, and is pierced by a hair. The disc enlarges peripherally, the border becomes elevated, the centre depressed and forms a cup or saucer-shaped mass characteristic of the favus crusts. The cups join by their edges and produce a honey-comb appearance, hence the name, *favus*, a honey-comb.

The cup or saucer-shaped crust is called the *scutulum* and is composed of dried secretion, pus and cell debris. The scutulum may be raised up and slipped along the hair. The skin beneath is found glistening, reddened, sometimes superficially suppurating and atrophied. After a time the honey-comb character of the scutula groups is lost, and an irregular mass of yellowish, thick, mortar-like crusts is found having a mousy odor or one resembling that of cat's urine or wet straw. If the crusts remain undisturbed for a long time the surface upon which they rest becomes sunken and atrophied and if upon the scalp, patchy baldness

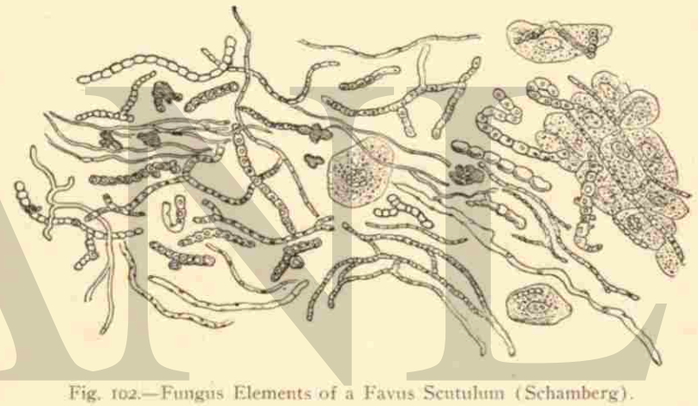

Fig. 102.—Fungus Elements of a Favus Scutulum (Schamberg).

results. The hairs themselves lose their polish, become brittle and inclined to fall out.

Favus usually affects the scalp and is rare upon the bearded face. The smooth regions of the general surface are much less frequently concerned. When situated in these localities the disease presents the same general features as are exhibited upon the scalp. The nails may be involved and, very rarely, the mucous membranes.

Favus is a slowly progressive and very persistent disease.

Etiology. Favus occurs chiefly in children, and when in adults rarely persists beyond the thirtieth year. It is a rare disease in this country and the cases seen are usually imported. It is due to the invasion of the skin by the achorion Schönleinii of which Unna has described nine different varieties.

It is held by some observers that the achorion responsible for favus of the general surface is a different parasite from that causing favus of the scalp.

The disease is contagious, and may be transmitted to man from cats, dogs and other animals.

Diagnosis. The sulphur yellow crust pierced by a hair and having a mousy odor, occurring with loss of hair, atrophic patches, with a history of similar cases in the family or emigration from a favous locality, are peculiarities of favus and occur in no other disease. The fungi of the achorion may be found by microscopic examination of the scutula and hairs.

Pathology. To discover the parasite the crust is broken up, moistened with liquor potassæ and examined with an objective magnifying about one hundred diameters. The threads (*mycelia*) and spores (*conidia*) of the fungus may be readily detected.

The mycelia are slender tubes, for the most part moniliform in arrangement though some are smooth-bordered and without septa. The conidia are round or irregular and nucleated. The fungus gains entrance into the hair follicle along the hair shaft and penetrates between its layers. Accumulation of fungi splits the hair and loosens it from its attachment so that it easily comes away. In favus of the general surface, the fungi are found between the epidermal layers, spreading out in all directions. In the nail the situation is similar to that in the hair shaft. In addition to mycelia and conidia the scutulum is composed of degenerated epithelial cells and sebaceous gland secretion. It is built up more rapidly at the sides than at the centre, producing the characteristic cup shape. Pressure of the crust upon the cells of the rete and the subjacent tissue, causes an atrophy with the production of smooth, bald scars.

Treatment. The crusts are removed and the hair epilated for some distance beyond the border of the patch. Carbolized glycerine is then applied to the whole scalp and washed off in the morning. Parasiticides are then used, such as one of the following: oleate of mercury, ten per cent.; ammoniate of mercury, five to ten per cent.; sulphur, resorcin or salicylic acid. Chrysarobin in alcohol, five per cent., may be cautiously applied. Formalin has been recommended but is painful.

The X-rays have been endorsed as curative and to produce an effect must be pushed to the point of causing the hair to fall.

Favus of the general surface is treated in the same manner as ringworm of the body, but the remedies employed are used in weaker proportion. The crusts must always be removed before the parasiticide is applied. Favus of the nail requires the use of antiparasitic remedies, such as the hyposulphite of soda, salicylic acid or a finger bath of bichloride of mercury, five grains to the ounce.

TINEA IMBRICATA.

Synonyms: Tokelau, Chinese or Burmese Ringworm.

Definition and Description. Tinea imbricata is a disease of tropical countries. It is contagious, due to a vegetable parasite and exhibits annular, crescentic, scaly lesions.

Tinea imbricata resembles ichthyosis, but the scales are arranged in concentric circles like a piece of stout cardboard cut on the surface in circles with feathered edges. The rings are about one-fourth inch apart.

Dr. Patrick Manson describes the disease as follows (T. McCall Anderson's *Diseases of the Skin*, p. 597): "After an incubation period of nine days the fungus has multiplied sufficiently to elevate the epidermis under which it is growing and form a brown mass between it and the corium. When this has attained a diameter of three-eighths inch, the epidermis in the centre gives way but, as it is still organically continuous with the sound skin at its margin, it is not completely shed but remains as a fringe around the central hole. By friction and other means, the free edge of the scale is from time to time removed and the brown central fungus and the tissues it is mixed with, now no longer protected by the closely adhering epidermis, are rubbed off as far as the attachment of the scale and the exposed corium appears pale. Just beyond this point the advancing fungus shows through the epidermis as a brown rim, perhaps very slightly elevated, about one-sixteenth inch in breadth. When the ring thus formed has attained a diameter of one-twelfth inch, a brown patch is seen to be forming at its centre. This in its turn also cracks the young epidermis over it and a second ring is formed inside the first which it follows in its extension. A third brown central patch is formed in the centre of the second circle and behaves in exactly the same manner, and so on with a fourth, fifth and never-ending series of concentric rings."

The affection is highly contagious. It may cover the entire surface of the body, advancing at the rate of one-fourth inch weekly. As a rule the hairy regions are not involved.

Tinea imbricata is limited to certain parts of Asia, the Pacific Islands and the Malay Archipelago. It is due to the tinea imbricata which differs from the tinea trichophytina in being more abundant in mycelium and showing smaller and less numerous spores.

The treatment is that of ringworm of the body.

TINEA TRICHOPHYTINA.

Synonyms: Trichophytosis, Ringworm.

Definition. Ringworm is a contagious affection of the skin due to the trichophyton fungus.

Varieties. There are three varieties of ringworm. 1. *Tinea Circinata*, or *Trichophytosis corporis*, Ringworm of the body. 2. *Tinea Tonsurans*, or *Trichophytosis Capitis*, Ringworm of the scalp. 3. *Tinea Sycosis*, *Trichophytosis Barbæ*, Ringworm of the beard.

1. *Tinea Circinata.* Ringworm of the body begins in one or more sharply defined, rounded or irregular, slightly scaly, hyperæmic spots or patches. The lesion spreads peripherally, tends to clear in the centre, is distinctly ring-form and slightly scaly. Minute papules and vesicles surround the lesion. The patches are coin-sized, the margins red and elevated, the centre paler and showing branny desquamation. Occasionally the ring-form is not manifest but a circular patch uniformly affected, is present. Two or more patches are usually seen and by joining edges may produce gyrate figures and cover extensive areas. The patches remain stationary or undergo involution and disappear. Itching is slight. The face, neck and hands are the usual seats of the eruption but it may be widely disseminated.

Tinea Cruris (eczema marginatum). The affection is here located on the opposing faces of the thighs, or about the genitals and anus. The patches show a raised red border, very sharply defined, and are crusted or scaly. The patch spreads backward from the cruro-scrotal or cruro-vulvai region, continuously or interruptedly, to the perineum, buttocks, and forward over the pubes. The axilla may be similarly affected. Itching is often marked and the lesions may be the seat of considerable inflammation, or the affection may be combined with eczema.

Tinea Trichophytina Unguium (Onychomycosis, Ringworm of the nail). The fungus of ringworm may invade the nail, one or more. The nail becomes thickened, lustreless, shows distorted growth and is soft and brittle. The fungi are found between the layers of the nail plate. Ringworm of the nail usually coexists with ringworm elsewhere.

Diagnosis. *Eczema* of the cruro-genital region is not so sharply defined in its patches as ringworm. The patch is not uniformly diseased, fades into the normal skin and is accompanied by more or less exudation. There are no fungi in the scales. *Pityriasis rosea* is never a crusted affection, the eruption is more disseminated, in separate rings, often shows a "herald patch", and tends to spontaneous cure. *Seborrhaic eczema* presents irregular patches on the hairy surfaces, the scales are yellowish and the skin is greasy and there are also no fungi. *Psoriasis* shows preference for knees, elbows and scalp. It is widely disseminated and displays large, thin, abundant, adherent, papery scales. The *annular syphilide* is more infiltrated and often exhibits a geometrically perfect circle.

2. *Tinea Tonsurans* (Trichophytosis Capitis, Ringworm of the Scalp). This variety of ringworm is limited to children under the age of puberty and begins upon the scalp as a vesicle or a small, rounded, scaly patch. The lesion spreads centrifugally and forms a coin-sized or larger, discrete, sharply defined, slate-colored or slightly reddened, scaly patch. The hair follicles are invaded and a considerable number of hairs on the patch fall off and reveal prominent follicular points; the hairs left are dry, brittle and breaking, show a brush-like stump. Small patches may coalesce and

produce greater ones so that a large portion of the scalp becomes covered. The border is then wavy and loses its circular outline. The patches may remain stationary, discrete and widely separated. The parietal region and the vertex are the seats of predilection, the neck, face and shoulders not uncommonly show small scaly patches. A variable degree of itching is present.

The disease is chronic, obstinate, and, if untreated, will continue until

Fig. 103.—Tinea Tonsurans (Ohmann-Dumesnil).

the patient has reached the age of puberty, when it spontaneously disappears.

It is due to the *microsporon Audouini*, the commonest variety of the ringworm fungus.

A variation from the ordinary type of ringworm of the scalp is occasionally observed in the form of a single, circular, scaly, red patch with small vesicles and papules around its border. The patch swells, becomes elevated above the *niveau*, soft, tender and boggy. The hair falls out and a sticky, puriform discharge comes from the follicles. The glands of the neck are swollen.

This condition is known as *kerion* and is apt to be followed by permanent loss of hair. It is due to the *megalosporon ectothrix*.

Other varieties are *disseminated* ringworm and *bald* ringworm. The former is characterized by a diffuse scaliness of the scalp. The hair appears to be unaffected but close examination will reveal the presence of the characteristic broken, brush-like stumps of hairs which indicate the nature of the disease. In the bald variety, the disease begins as in ordinary ringworm, the hair falls out in a circular patch, leaving the surface smooth and bare as in alopecia areata and covered with black dots, the extremities of hairs broken off at the level of the skin. The characteristic brush-like, broken hairs will be found around the margin of the patch and will lead to a recognition of ringworm.

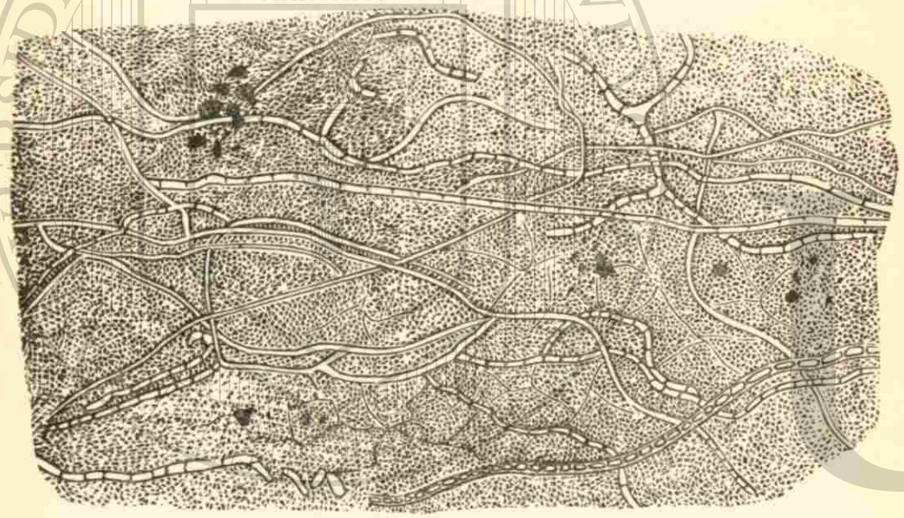

Fig. 104.—Trichophyton Tonsurans (Eichhorst). (Filatov-Earle).

Diagnosis. Tinea tonsurans is to be distinguished from alopecia areata, favus, eczema and folliculitis decalvans. The patches of *alopecia areata* occur suddenly, the surface is smooth, free from scales and normal in color. The affection is by no means limited to children. *Favus* is recognized by the sulphur-yellow, cup-shaped crust. It does not occur in distinct patches and atrophic changes in the skin beneath the crusts are common. *Scaly eczema* and *dry seborrhœa* closely resemble the disseminated type of ringworm of the scalp but are to be distinguished from it by the absence of broken hairs. *Folliculitis decalvans* is a comparatively rare affection and occurs in adults. The hairs are not broken and patches of permanent baldness result. In any instance, the discovery of the ringworm fungus upon microscopic examination of the hair and scales will clear up the diagnosis.

Tinea Barbæ (Trichophytosis Barbæ, Tinea Sycosis, Ringworm of the Beard, Barber's Itch). When the fungus of ringworm invades the hair of the beard, it manifests itself, as a rule, upon the chin, the upper lip usually escaping, in the form of one or more circular, scaly, slightly reddened patches surrounded by minute vesico-papules. The hairs become broken and partially shed. The patch broadens to reach the size of a silver dollar. When established, it may remain stationary without material change, spread to contiguous hairy surfaces or deepen into the severer grade. The last-named event marks the invasion of the hair follicles. Papules and pustules appear upon the lesion or lesions and upon the intervening skin. The patch becomes salient, nodular, dark-blue or lilac in color. The hairs are loosened and stand in little wells of pus. Dried exudation forms a crust which when removed reveals the skin beneath denuded and covered with a glairy, sticky secretion and the follicular openings gaping and inflamed. This constitutes a fancied resemblance to the cut half of a fresh fig and the term *tinea sycosis* is applied from the Greek *sukon*, a fig. A variable degree of itching and burning are present. The suppurative process may destroy the hair follicles and leave scarred surfaces upon which the hair no longer grows.

A *disseminated* form of ringworm of the beard is sometimes seen, exhibiting scattered groups of infected hairs. This represents an intermediate stage between the milder and more severe types of the disease.

Tinea barbæ is caused by the *trichophyton megalosporon ectothrix*.

Diagnosis. The diagnosis of ringworm of the beard must be made from *non-parasitic sycosis*. In this affection, the upper lip is first concerned, the lesions are symmetrical, the pustules are superficially situated and pierced by hairs and the nodular masses seen in ringworm as a rule are absent. *Eczema* of the beard is accompanied by serous oozing, the hairs are not broken or loosened and itching is more marked.

Etiology. Until recently it was believed that all forms of ringworm were due to the same fungus. At present three varieties of trichophyton are recognized, the *microsporon Audouini*, or small-spored trichophyton, which affects the scalp, principally in children; the *trichophyton megalosporon endothrix* and *ectothrix*, so called from the large-spored fungus occurring within the hair and without and around the hair. This variety is held responsible for ringworm of the body, beard and nails.

Ringworm is contagious and may be transmitted from one individual to another and from lower animals, cats, dogs, rats. It is probable that trichophyta exist in mouldy vegetable substances.

Children are alone affected with ringworm of the scalp, the affection in this instance being conveyed by direct contact or by means of brushes, hats and the like.

Ringworm of the beard is usually acquired through the medium of the barber's shop.

Pathology. In ringworm of the body the fungus is found chiefly in the horny layer, in the beard and scalp it is found in the scales, hairs and hair follicles, the spores being most numerous in the last named. The fungus is detected by moistening the scales or hairs with liquor potassæ and examining with a lens magnifying 3-400 diameters. It may also be stained according to the following method, suggested by Malcolm Morris: The hairs are washed in ether and then stained in a solution of gentian violet, five per cent. to seventy per cent. alcohol, for one hour. The specimen is then heated over the flame of a spirit lamp for five minutes. The mycelia will then be seen as long, slender, curved or straight, branched threads, the spores as small, round highly-refractive bodies.

Treatment. Tinea corporis is readily cured by removing the horny layer with iodine or some other blistering substance, or with antiparasities such as sulphur ointment, an ointment of ammoniate of mercury, five per cent., or a solution of bichloride of mercury, three to five grains to an ounce of water. Unna's chrysarobin ointment is very effective. It is composed

Fig. 105.—Epilating Forceps.

of chrysarobin, five parts, acid salicylic, two parts; ichthyol, five parts; simple ointment, one hundred parts. A mild ointment of ammoniate of mercury is preferable for children.

Ringworm of the genito-crural region is usually relieved by painting the surface with a five to ten per cent. solution of pyrogallol or salicylic acid, twenty grains to three ounces of alcohol. Sulphurous acid, oil of cade, bichloride of mercury gr. iij to water ℥j, and tincture of benzoin are among other useful remedies.

Tinea tonsurans is much more difficult to relieve. Epilation should be practiced not only upon the affected hairs but for a distance of a quarter to a half-inch around the patch. This should then be cleared of debris by washing with alcohol or ether and the parasiticide well rubbed in. In its early stages the disease may sometimes be aborted by painting the patch with tincture of iodine, bichloride solution, five to ten grains to the ounce, or salicylic acid, one dram to an ounce of olive oil. Failing in this, a large list of remedies is offered. Sulphur in the form of the officinal ointment may be rubbed into the patch once daily, discontinuing when too much irritation is aroused.

Mercury is serviceable in the form of an ointment of the ammoniate, ℥j ad ℥j; the oleate, gr. x-xx ad ℥j; citrine ointment, full strength, or with equal parts of oxide zinc ointment. Chrysarobin, gr. x-xx to cold cream ℥j, is one of the most effective remedies but must be used with caution. It

should be applied to limited areas and a bathing cap worn to protect the face and eyes from chance irritation. A fifteen per cent. ointment of beta-naphthol is useful, as is also carbolic acid in glycerine, 1:8.

For extensive cases Aldersmith recommends a combination of boric acid ℥iiss, ether ℥ij, alcohol Oss. This must not be used near a flame. Coster's paint is of value and is composed of tincture of iodine, ℥ij, oil of tar, ℥vj.

The following is given by Stelwagon for dispensary practice:

℞

Hydrarg. Oleat.,	℥j-ij.
Acid. Carbolic.,	℥j.
Adipis,	℥j.

M. Ft. Ung.

Crocker recommends the following plan: The patches and neighboring hairs are shaved off and the surface painted with salicylic acid, one part to collodion thirty parts. This is repeated until the disease is destroyed.

It is sometimes desirable to induce irritation in order to destroy the parasites. For that purpose Aldersmith recommends Ol. Tigkii, ℥j, Ung. Sulphuris, ℥j.

Kerion requires sedative and antiseptic applications to be followed by antiparasitics.

The entire scalp should be disinfected in any case with a weak solution of carbolic acid, bichloride of mercury, or a stronger one of boric acid. The head may be advantageously shampooed at frequent intervals with a medicated soap of resorcin, sulphur or hydronaphthol.

Precautions should always be observed against the spread of the disease.

The affection is very obstinate and the treatment must be persisted in with fidelity to insure success.

Ringworm of the beard, when the hair follicles are not involved, should be treated in the same manner as when the disease is located upon the general surface. When the follicles are attacked the hairs must be pulled out and shaving practiced at frequent intervals. The same remedies as are used in ringworm of the scalp are appropriate in tinea barbæ, but in stronger proportions. A lotion of bichloride, one per cent.; sodium hyposulphite solution ℥j ad ℥j; sulphur ointment; ammoniate of mercury ointment, five per cent; chrysarobin ℥j to cold cream ℥j; are among the most useful applications.

The X-rays have been successfully employed. Exposures are given until the hairs fall out and a mild dermatitis is produced.

Ringworm of the nails is treated by scraping the nails and painting with creosote, acetic acid or tincture of iodine. Bichloride, two per cent., may be employed in the form of a finger bath.

Harrison, of Bristol, England, advises a solution of liquor potassæ in

distilled water, of each half an ounce, with half a dram of iodide of potash, and a second solution containing bichloride six grains, alcohol and distilled water, each half an ounce. The nail is first scraped and solution No. 1, applied on lint and allowed to remain under rubber tissue for fifteen minutes; the solution No. 2 is then applied and kept in contact for twenty-four hours. The nail is then scraped and the solutions reapplied.

Prognosis. The prognosis of ringworm of the body is good; genito-crural ringworm is at times obstinate and liable to recurrence unless very thoroughly eradicated. Tinea tonsurans requires prolonged and persistent treatment.

Ringworm of the beard is often rebellious but ultimately yields to treatment.

TUBERCULOSIS CUTIS.

Tuberculosis cutis includes all cutaneous lesions occasioned by the tubercle bacillus. According to our present knowledge there are five varieties, *tuberculosis ulcerosa, tuberculosis disseminata, scrofuloderma, tuberculosis verrucosa, lupus vulgaris* (q. v.).

Tuberculosis Ulcerosa. This variety is very rare and is characterized by the appearance about the orifices of the body of miliary tubercles which undergo caseous degeneration, break down and ulcerate. The ulcers are painless, non-inflammatory, superficial, rounded or oval and thinly crusted. The crust on removal shows the floor of the ulcer to be uneven and covered with flabby, pale granulations. Coalescence of contiguous lesions may occur. The affection is sluggish in course and shows no tendency to spontaneous healing. The mucous membranes are frequently involved.

This form of tuberculosis cutis is always associated with tuberculosis of the lungs or some other of the internal organs, though not necessarily in an advanced stage, and is due to infection from discharges containing tubercle bacilli passing over the surface. The most frequent seats are the regions of the mouth, genital organs and anus. Miliary tubercles are also found in the mucosa.

Diagnosis. The diagnosis of tuberculosis ulcerosa is easy on account of the co-existence of constitutional tuberculosis.

Treatment. The treatment of the ulcers is that of tuberculosis in general, with the addition of mildly stimulating and cauterant local applications, such as a twenty per cent. solution of chromic acid; carbolic acid or silver nitrate.

Tuberculosis Disseminata. This term includes several forms of lesion known to be due to the tubercle bacillus, such as macules, papules, vesicles and pustules which form irregular, deep ulcers and are usually clearly connected with general tuberculosis and degenerated lymph nodes. Another form presents pale yellow, disseminated papules which undergo ulceration; and another variation occurs as erythematous spots which follow the eruptive fevers, especially measles; and are sometimes associated with dull-brown papules or patches, which disappear with or without scarring. All of these forms are rare, usually confined to children and are accompanied by tuberculosis elsewhere.

The diagnosis is established upon the concurrence of tuberculosis of the lungs or other organs and the isolation of the tubercle bacillus from the lesions.

The general treatment is that of constitutional tuberculosis, together with the local use of pyrogallol, mercurial applications, the curette and cautery.

Scrofuloderma. Scrofuloderma is the term applied to sluggish, ulcerative conditions of the skin induced by the presence of the tubercle bacillus and occurring in scrofulous subjects. The affection begins with a caseating

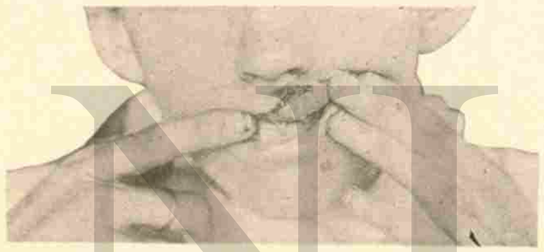

Fig. 106.—Tuberculosis Ulcerosa.

lymphatic gland, or a nodule situated in the subcutaneous tissue and independent of a gland (tuberculous gumma). The skin becomes thin, adherent, bluish and breaks down in places and from the openings a thin, sanious fluid mixed with cheesy particles escapes. The openings are divided by bridges of skin which finally break down and expose to view the tuberculous ulcer. It is irregular, undermined with overhanging livid edges and an uneven floor covered with pale, flabby granulations. A thin crust may form over the ulcer. It is almost painless and heals slowly, leaving puckered scars and small tags of skin, the remains of the ragged edges of the ulcer. Extensive ulceration sometimes occurs and may be very destructive, involving soft parts and bones.

The lymph glands of the neck are the favorite seats of scrofuloderma. The disease is chronic, indolent and painless. Beginning as a subcutaneous nodule it runs a similar course to that of the lesion springing from a broken-down gland.

A variation from the usual form occurs in the large and small flat pustular scrofuloderms. These lesions do not proceed from a gland or nodule but begin as a small papule which becomes pustular. In the large

flat type the pustule is surrounded by a livid areola and becomes thinly and slowly crusted.

The crust conceals a small ulcer of tuberculous appearance which heals slowly leaving a pitted, soft, superficial cicatrix. Several of these lesions may coalesce and show feeble efforts at cicatrization in the ulcerating patch,

Fig. 107.—Tuberculosis Cutis with Bone Involvement (Unna).

resembling in this feature lupus vulgaris but lacking its outlying nodules.

Considerable surfaces may be covered with indolent, painless ulceration. The pustules are of a yellowish or yellowish-brown color, and are seen principally upon the face and extremities.

The small, flat, pustular scrofuloderm described by Duhring begins as a small papulo-pustule which forms a central, hard and horny crust.

This after a time drops off and leaves a punched-out scar like that following small-pox. It is slow and chronic in course, new eruptions appearing from time to time as the older lesions heal. The lesions are seen about the face and extremities in strumous subjects. The affection is probably identical with *acne varioliformis*.

Etiology of Scrofulcderma. Childhood, defective diet and hygiene, the scrofulous habit, are predisposing factors. The tubercle bacillus is the exciting cause.

Treatment. Internally, cod liver oil, syrup of the iodide of iron, syrup of hydriodic acid and the hypophosphites are indicated for their alterative effect.

Locally stimulating applications and surgical measures are required. The X-rays have been successfully used in this condition and good results have been alleged from actinotherapy.

Tuberculosis Verrucosus Cutis (verruca necrogenica, post mortem tubercle). This affection is seen among physicians, dead-house men, meat-dealers and those who are the subjects of constitutional tuberculosis. The affection begins as a flat papule which becomes pustular, dries into a crust and is finally converted into an elevated, red, warty patch situated upon the fingers or hand. A small amount of pus is discharged from between the clusters of the verrucous mass. The growth, or growths, enlarge slowly and are persistent, lasting for years and usually terminating by undergoing involution.

Treatment. The warty growth may be destroyed with caustic potash, salicylic-collodion, or with the dermal curette as in the treatment of ordinary wart.

TYLOSIS.

Synonym. Keratosis palmaris et plantaris.

Definition and Description. Tylosis is a congenital or acquired thickening of the skin of the palms and soles.

The condition appears spontaneously and differs from callosity in being frequently congenital and hereditary. The thickening is symmetrical, the surface dry, smooth, glistening and yellowish or dull and worm-eaten. It may also occur in the form of irregular bosses or islands upon the points exposed to pressure. When situated upon the feet the horny plates may cause inconvenience in walking from tenderness. Tylosis affects the skin of the palms alone or of both palms and soles. The thickened areas may become detached and fall off, in which case they are always slowly replaced.

The cause of tylosis is not well known. The disease may arise from the long continued administration of arsenic, in which instance it begins as nodular masses which flatten down and form callous plaques. Hyperidrosis is also a cause and when due to this the thickening begins around the mouths of the sweat glands and the skin becomes sodden and softened

as well as thickened. Tylosis is closely allied to callosity, but is classed among the tropho-neuroses.

Treatment. The treatment is that of callosity and consists in exfoliating the horny plates by means of salicylic acid plaster or salicylic-collodion. The condition is very persistent and the results of treatment, unless much perseverance is employed, unsatisfactory.

UNCINARIASIS OF THE SKIN.

Synonyms: Ground Itch, Toe Itch, Dew Poison.

Definition and Description. Ground itch is a cutaneous eruption appearing upon the feet, between the toes, and occasionally upon the hands and other parts of the body as a result of irritation produced by the passage through the skin of the larvæ of the Uncinaria Americana.

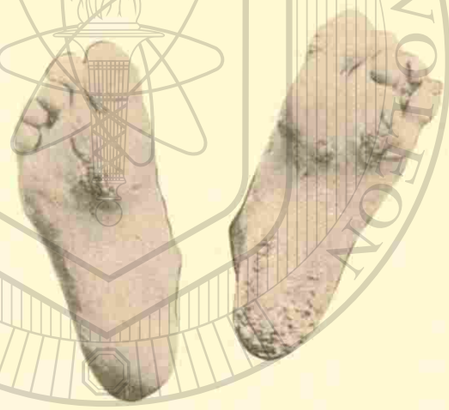

Fig. 108.—Tylosis Plantaris (Ohmann-Dumesnil).

The eruption begins as a macule or macules which soon become vesicular. The vesicles are ruptured by scratching, leaving a raw, oozing surface which, from infection with pyogenic bacteria, becomes purulent. The lesions are discrete or confluent and are accompanied by intense œdema of the subcutaneous tissues. The subjective symptoms consist in mild pain and for the first few days violent itching.

The duration of the eruption is variable; when discrete it usually heals in about ten days; when infection occurs the duration is from two to six or more weeks.

Geographical Distribution. Ground-itch is found wherever *uncinariasis* prevails. In North and South America and the West Indies it is usually due to the larvæ of the Uncinaria Americana; in Southern Europe, Northern Africa and Southern Asia (pana-ghao) it is due to the larvæ of the Ankylostoma Duodenale.

Etiology. The eruption is due to irritation produced by the larvæ of the hook-worm passing through the skin. These larvæ are developed from the eggs contained in the fæces of persons affected with uncinariasis. The fæces being deposited on the ground, are washed into the soil by rains, the eggs hatch out and the larvæ are brought in contact with the skin of those who are barefoot or who handle the infected soil. The larvæ vigorously attack the skin and work their way through the pores to the subcutaneous tissues. They are also capable of penetrating wet clothing when it is in close contact with the skin.

As the larvæ are killed by drying and freezing, infection can occur only during wet weather in spring and summer. They make their presence felt within three or four minutes after contact with the infected soil and can penetrate the skin within a very short time thereafter.

The disease may occur at any age and in either sex, but is most common in boys between the ages of three and fifteen. It is less common in

Fig. 109.—Uncinaria Americana Larva—three days old (greatly enlarged) (Smith).

girls and rare in adults, though cases are occasionally seen as late as sixty years of age. The disease is more common in white people than in negroes.

Mode of Infection. In the country where the houses are widely separated and shrubbery plentiful the fæces are deposited in situations not very remote from dwellings. In the spring and summer the rains wash the fæces into the soil and the eggs of the uncinaria find conditions favorable for hatching.

If a bare-footed person steps upon the soil containing the larvæ the mud is forced up between the toes to the dorsum of the foot and the larvæ are thus brought into direct contact with the skin where it is thin and easily penetrated. They at once become active and rapidly work their way into the subcutaneous tissue. The affection may also be acquired from the practice among farmers of wearing loose and worn out shoes allowing mud to find its way to the feet.

Symptoms. The eruption is usually confined to the space between the toes and upper surfaces of the feet. The eruption has no tendency to spread, but when infected with pus micro-organisms spreading may be caused by scratching.

When the itching first attracts the patient's attention the surface presents patches of erythema which may be small in dimension or cover a

considerable area, depending upon the number of larvæ which have penetrated the skin. If the larvæ are few in number the patches are sparse, but if the larvæ are very numerous the entire area is hyperæmic. The macules become slightly elevated and in twenty-four hours vesicles are formed. They may be discrete or confluent, depending upon the amount of infection. With the formation of vesicles, there is considerable swelling of the subcutaneous tissues, and intensified redness of the affected area. The swelling reaches its height about the fourth or fifth day and if the inflamed area is not disturbed by scratching the vesicles dry up and crusts are formed. If pus infection occurs the lesions may be weeks in healing.

The chief subjective symptom is itching which is manifested when the larvæ first penetrate the skin. It partially subsides in an hour or two but

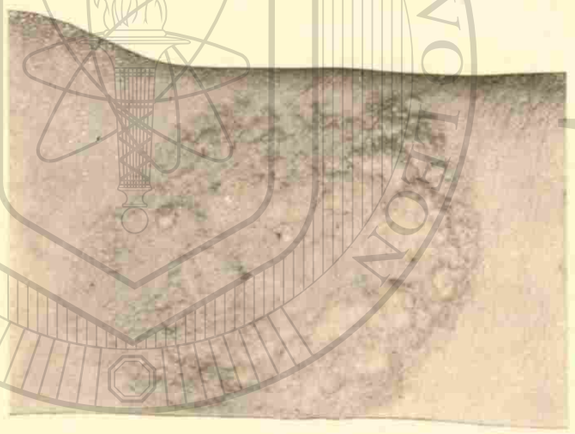

Fig. 110.—Uncinariasis Cutis (four days after infection) (C. A. Smith).

returns and is especially severe at night. It steadily increases with augmentation of the swelling and may be accompanied with some elevation of temperature. By the third day the swelling reaches its maximum and appears out of proportion to the extent of the eruption. After four or five days the swelling subsides and the itching diminishes. Despite the swelling, there is but little pain and tenderness.

Treatment. The eruption is rarely seen at its onset and the treatment should be directed principally to the prevention of infection, and when this has occurred to destroy such infection by the local use of germicides. If the eruption can be seen on the first day the application of turpentine, or a combination of camphor and carbolic acid, will effectually penetrate the skin and kill the larvæ. If the area infected can be protected from scratching, healing will occur spontaneously in from ten to twelve days.

URIDROSIS.

Synonym: Sudor Urinus.

Description. This term is applied to the condition characterized by the presence in the sweat of urea and other constituents in unusual quantities. The sweat normally contains a small quantity of urea but it may occasionally be present in renal insufficiency, after taking pilocarpin or in cholera, in sufficient quantities to give a urinous odor to the skin, and also to be deposited in a powder upon it. The treatment of uridrosis is based upon general principles.

URTICARIA.

Synonyms: Nettlerash, Hives.

Definition. Urticaria is an acute, inflammatory affection of the skin characterized by the sudden appearance of pinkish or whitish wheals of short duration and accompanied by stinging, itching and burning.

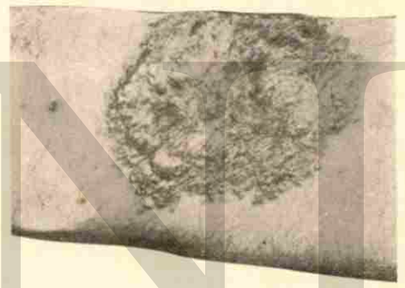

Fig. 111.—Uncinariasis Cutis (five days after infection) (Smith).

Symptoms. The affection begins with a sharp pricking, itching or tingling sensation in some part of the skin and is quickly followed by the appearance of a wheal, elevated, pinkish or white, like that resulting from an insect-bite, or contact with stinging nettle. The lesions come out in crops, unite to form plaques or sheets, raised, flattened, with rounded, pink border and white in the centre, or the lesion may be pink throughout. The wheal or plaque runs a brief course, lasting a few minutes or a few hours, and disappears without leaving a trace except scratch-marks inflicted in the efforts to relieve itching. The outbreak may be general or limited to one region. The mucous membranes, tongue, lips, and respiratory passages may be involved. There is often œdema of lax tissues, especially noticeable about the face and lids. Itching, burning and tingling are marked symptoms. Asthmatic symptoms may be present if the respiratory passages are concerned, or from a general toxæmia.

Urticaria is an acute affection lasting for a few hours to a few days but constant recurrences may continue it for weeks or months until it assumes a state of chronicity.

Variations occur in the usual appearance of an urticarial eruption. The exudation of serum may be sufficient to raise the epidermis in pemphigoid blebs (*urticaria bullosa*), or the bleb may be tinged with blood (*urticaria hemorrhagica*). Papular urticaria is a variety which occurs chiefly in neurotic children as small œdematous papules attended with great itching. The tops of the papules are torn off by scratching leaving a small hemorrhagic crust. The affection may suggest scabies as the itching reaches its maximum intensity at night when the clothing is removed, but it does not show the same areas of distribution as itch and close observation will discover the primary lesion to be a wheal. It is a rebellious complaint and may last for years. It is also known as *lichen urticans*.

Urticaria Tuberosa (giant urticaria, acute circumscribed or angioneurotic œdema, Quincke's disease). This form of urticaria is more common in adults, especially those who are stout, gouty, rheumatic or who indulge habitually in alcohol. The wheals are larger, reaching the size of a walnut or an egg. The face and extremities are the usual seats of the eruption. In the former locality the lip swells suddenly and becomes protuberant, hard and waxy, reddened or blanched, and remains in this condition for minutes or hours. The mucous membranes and the air passages may be affected and suffocative symptoms are sometimes produced. The swellings as a rule are ephemeral and their appearances and disappearances resemble the vulgar type of urticaria.

Dermographism (*urticaria factitia*) is a term applied to the peculiar reaction of the skin to irritants wherein the formation of wheal-like lesions follows the seat and course of the offending body. Letters and figures may be traced on the skin and will in a few moments appear in high relief and remain visible for a considerable length of time.

Urticaria perstans refers to the persistence of the individual lesions.

Urticaria maculosa refers to the condition in which the wheal remains pink throughout instead of showing a white, central portion before disappearing.

Etiology of Urticaria. The causes of urticaria are manifold. Idiosyncrasies are responsible for many cases. The majority arise from digestive disorders (*urticaria ab ingestis*). Shellfish, strawberries, pork, pickles, and a long list of other foods may produce irritation in a susceptible individual and provoke an attack of urticaria. Many drugs have the same effect, notably, the balsams, salicylates, opium and quinine. Uterine disorders, constipation, intestinal worms, rheumatism, alcoholic indulgence and nervous affections are contributing factors in the causation of urticaria, acute and chronic. External agents such as the dye-stuffs, irritant plants, bites of insects, contact with certain varieties of caterpillars, may also produce urticarial eruptions. This type of lesion is often associated with other eruptions as dermatitis herpetiformis and scabies.

Diagnosis. The diagnosis of urticaria is based upon the recognition

or clear history of an ephemeral lesion, the wheal. It is of more diagnostic importance to determine to what cause the wheals are due.

Pathology. The wheal is the result of vaso-motor disturbance which causes transient vascular spasm, with consequent dilatation of the vessels of the corium with the exudation of serum and some leucocytes. This exudation produces œdema with pressure upon the blood vessels, the compression being greater at the centre of the lesion causes this area to become blanched. The histological appearance is that of an inflammation.

Treatment. In acute cases an emetic or a brisk purge is indicated to remove the offending material in the stomach and intestines. Following this phosphate of soda, bicarbonate of soda, ichthyol in five drop doses, or five grains of phenacetine, or salol three times a day, are among the remedies likely to afford relief. In the more chronic cases diligent search should be made for the cause of the continuance of the eruption. The diet should be carefully arranged and the patient brought into as good a general condition as is practicable.

In the protracted cases the following remedies may be given: Antipyrine, bromide of potash, ichthyol, atropin, pilocarpin, quinine and arsenic.

Locally alkaline baths; rubbing with dry salt; lotions of carbolic acid; equal parts of vinegar and water; weak tar or bichloride solutions; calamine and zinc oxide lotion; dusting powders containing camphor; are serviceable for the relief of itching.

Prognosis. Acute cases usually recover in a few hours to a few days. Chronic urticaria is frequently rebellious to treatment and its cure will depend very largely upon the discovery and removal of the cause.

URTICARIA PIGMENTOSA.

Synonym: Xanthalasmodea.

Definition. Urticaria pigmentosa is an inflammatory affection of the skin characterized by disseminated, yellowish, symmetrical, wheal-like lesions, beginning in infancy and accompanied by more or less itching. The eruption may appear shortly after birth, or as late as the third year of life. It is most abundant about the neck and shoulders, where it originates, and spreads to the rest of the body affecting at times the mucous membranes as well as the skin. The lesions are pink or buff-colored, pea- to finger-nail-sized nodules or wheals surrounded by a pink zone. The skin covering them is granular or wrinkled. The lesions tend to remain stationary and ultimately undergo involution, leaving a greenish, yellowish or brownish stain. The eruption is apt to recur upon the seats of former eruption. Itching may be slight or very severe.

Urticaria pigmentosum is very rare and, according to some writers, belongs in the class of neoplasmata with urticaria superadded.

Diagnosis. Urticaria pigmentosum differs from *xanthoma* by its occurrence in infancy and in the relative instability of the lesions; from *urticaria*

in the persistence of individual lesions, yellow color, symmetrical distribution and lack of tenseness in the skin covering the lesions.

Pathology. The nodules are largely composed of Ehrlich's 'mast' cells with œdema and pigment deposit.

Treatment. Treatment is ineffectual. The remedies used in simple urticaria may be given a trial.

Prognosis. Urticaria pigmentosa almost invariably disappears between puberty and adolescence.

Fig. 112—Generalized Vaccinia (Unna).

VACCINATION ERUPTIONS.

Certain skin lesions follow vaccination at times and they are divided into those which originate at the site of inoculation and those due to the absorption of the vaccine virus. The following belong to the former class: *ulcer; dermatitis* which at times resembles erysipelas and is rarely petechial and gangrenous; *abscess; furunculosis; erysipelas; septic infection.*

The pus from the vaccine sore may be conveyed by auto-inoculation to other parts of the body and occasion an outbreak of *impetigo contagiosa.*

Both erysipelas and contagious impetigo may be invaccinated and appear three or four days after vaccination.

The point of inoculation may be the seat of an infective granuloma, the "raspberry excrescence", which begins a few days after vaccination, is persistent and prevents the conference of immunity.

Generalized eruptions may appear from the second to the tenth day, and later, and consist of *urticarial lesions,* a *dusky-brown morbilliform rash,* or an *erythema* beginning on or about the tenth day in large patches upon the arms and spreading to the body, accompanied by some febrile movement and lasting for a few hours, to disappear without leaving any trace. This is the *roseola vaccina* of Hebra.

Eruptions of a pustular, papular or vesicular character may also follow in the wake of vaccination; and occasionally *erythema multiforme, purpura,* and a *bullous, pemphigoid eruption* are encountered.

Generalized vaccinia is rare and probably the result of auto-inoculation.

As a rare sequel of vaccination may be mentioned *eczema, psoriasis, dermatitis herpetiformis, invaccinated syphilis, tuberculosis* or *leprosy.*

Diagnosis. As there is nothing distinctive about the post-vaccination dermatoses,, the diagnosis must be made on the history of recent vaccination.

Treatment. Treatment is based upon general principles and upon that of the special type of eruption present. Prevention consists in the employment of surgical cleanliness and glycerinated lymph.

VARICELLA.

Synonym: Chicken-Pox.

Definition and Description. Varicella is a contagious eruptive disease of a mild character and common in children. The period of incubation is about two weeks.

The eruption of varicella appears about the face, scalp, back and shoulders as a slightly-raised, red spot which rapidly becomes vesicular. The vesicles are long, plump and contain a clear fluid. They present somewhat the appearance of drops of water clinging to the skin. The lesions are easily broken, but if undisturbed tend to flatten in the centre and finally dry into a crust. The contents of the vesicle may become pustular, when it is liable to cause a superficial tissue necrosis and be followed by scarring.

The eruption comes out in crops, one drying as the other appears.

Diagnosis. From *variola,* varicella is diagnosticated by its lack of shotty papules, much less pustulation, and the constitutional symptoms are much milder. The *pustular syphilide* is slower in evolution and occurs in debilitated subjects along with other manifestations of syphilis.

VARIOLA.

Synonym: Small-Pox.

Definition and Description. Small-pox is an acute, contagious, eruptive disease with a period of incubation of about two weeks. The eruption usually appears upon the third day, sometimes as late as the fifth. There

is usually a precursory roseola before the appearance of the characteristic eruption. The latter manifests itself about the forehead, at the hair line, then on the wrists, finally spreading to other regions of the body. The lesions are shotty, deep-seated, red papules. In one or two days vesicles form at the summit of the papules, and in four or five days these become

Fig. 113.—Variola (Ohmann-Dumesnil).

pustular and are surrounded by an inflammatory areola. The pustules flatten in the centre—umbilicate. They are discrete or, in severe cases, confluent. On about the ninth day the pustules dry or rupture and form crusts which drop off, leaving pigmentation or a variable amount of pitting. Fever accompanies the invasion and stage of pustulation. The mucous membranes may participate in the distribution of the eruption.

Diagnosis. Mild small-pox may resemble *acne* but lacks comedones and

its course and history are quite distinct. *Pustular syphilis* is much more leisurely in course, usually afebrile, accompanies other manifestations of syphilis and the lesions are rarely umbilicated. *Varicella* lacks shotty papules, usually occurs in children and is a much milder affection.

VERRUCA.

Synonym: Wart.

Definition. Verruca is a small, papillary elevation, pin-head to bean-sized, due to epithelial and connective tissue overgrowth.

Varieties. Verruca vulgaris. This is the variety of wart commonly seen upon the back of the hands in children and young people. There may be one or many. The lesion is from the size of a pin-head to that of a pea, sessile, rounded, or flattened, hard, the surface granular, lobulated or smooth, of a normal color in the smaller lesions, yellowish or dark in the larger. Sometimes the wart is compressed and springs from within a ring of thickened epidermis.

Verruca Plana. This variety is seen on the face and forehead of young people. The lesions are usually numerous, small, flat and of a normal color.

Larger, flat, dark, slightly elevated warts occur on the face and hands of old people (*verruca senilis, keratosis senilis*) and may become the seat of malignant changes.

Verruca Filiformis. This form is a thread-like wart one-fourth to one-eighth inch in length and is seen about the lids, face and neck. They are frequently numerous in the last-named locality.

Verruca Digitata. This variety of wart occurs principally on the scalp and presents lesions with separate, branched, finger-like prolongations. They are flattened, soft and highly vascular.

Verruca Acuminata (venereal vegetation, pointed condyloma). This type of wart is found about the penis, labia, anus and scrotum of young adults. The growths when recent are pinkish or red, having a broad or narrow base and occur in clusters of papillary prolongations which are rounded or acuminate. The growths may be single or multiple. Owing to their position and being subjected to warmth, moisture and pressure, they soften and secrete an offensive fluid. They grow rapidly in one or two separate prolongations or in large clusters, vegetating and resembling a cock's comb, a raspberry or a cauliflower. After a time, on an exposed surface, as the bare glans penis, they become hard, dry and dense.

Etiology of Warts. The cause of verruca is not definitely known. It is believed that warts are contagious. The acuminate wart is due to gonorrhœal or other irritating discharge and is seen chiefly among those who give a history of venereal disease.

The common wart is an affection of childhood.

Pathology. The wart is composed of hypertrophied epidermal elements and papillæ. Unna distinguishes between common and acuminate warts in that the former is an infectious, acquired acanthoma on which hyperkera-

tosis immediately supervenes, while the latter is a pure acanthoma appearing isolated around mucous openings and on seborrhœic and moist areas of skin and tending to extend superficially. The digitate and filiform warts are included (Crocker).

Treatment. The treatment of warts consists in the removal of the growth by excision, electrolysis or caustics. The growth may be dissolved by boring into it with a tooth-pick dipped in fluid caustic potash. Excision under cocaine anæsthesia may be employed if the warts are large and numerous, or they may be scraped away with a sharp curette. Electrolysis is effective but slow. It is carried out in the same manner as described under nævus.

Digitate warts of the scalp and filiform warts of the face and neck should be removed with scissors and the base cauterized with the acid nitrate of mercury.

Flat, multiple warts of the forehead may be destroyed by painting with salicylic acid-collodion, or the following may be applied:

℞

Sulphur,	ʒv.
Glycerin.,	
Glacial Acetic Acid,	āā ʒiss.

Dilute acetic acid may be applied several times a day until the wart shrivels and drops off.

Acuminate warts must be kept clean and dry and powdered with calomel several times a day. Painting the lesions with liquor plumbi subacetatis; tincture of iron; chromic or glacial acetic acid, may cause them to disappear. If these fail, excision should be practiced.

Warts may also be removed by sparking with the high frequency electrode, but the method is quite painful and not superior to others mentioned.

Internal treatment is claimed to have an influence upon warts. Sulphate of magnesia may be given in dram doses three times a day for some weeks. Nitro-hydrochloric acid and *thuja occidentalis* have also been recommended.

Warts not infrequently suddenly and spontaneously disappear.

XANTHOMA.

Synonyms: Vitiligoidea, Xanthalasma.

Definition. Xanthoma is a connective tissue new-growth, presenting chamois skin or yellowish, variously sized and shaped, irregular, flat tubercles or patches.

Varieties. Xanthoma occurs in several varieties.

Xanthoma palpebrarum vel planum is the form most frequently encountered and occurs in buff-colored spots, or small, flat patches without

infiltration, situated about the inner canthus of the upper lid. The lesions are at first discrete and finally coalesce. Both lids may be involved ultimately, the upper and lower simultaneously, and are often encircled, as if a strip of chamois skin were let into the skin. The lesions are soft, the skin covering them of a normal pliancy and not scaly.

Xanthoma tuberosum occurs on the neck, trunk and extremities. The lesions are millet-seed to pea-sized or larger, nodular, soft, raised and

Fig. 114.—Xanthoma (Unna).

yellowish. They may attain the size of a hen's egg and when in this condition are usually tender and situated upon an inflamed base. Irregularly outlined patches may be formed out of small lesions uniting. They may be few and scattered or numerous.

Xanthoma multiplex combines both the flat and tuberose forms. It begins about the eyelids and extends to other regions, favoring extension to the lower extremities. The lesions are often arranged in a linear fashion.

They may also occur on the mucous membranes and in the internal organs, tendons, arteries and bile ducts. Jaundice exists in nearly all cases.

Xanthoma is of slow growth, tends to reach a certain dimension and then remains stationary.

Etiology. Xanthoma of the eyelids is seen chiefly in middle-aged women, especially those who are deeply pigmented about the lids. Jaundice accompanies the tuberose and multiple varieties and is associated with disorders of the liver.

Gout and migraine are sometimes found associated with xanthoma.

Diagnosis. The diagnosis of xanthoma is made by the presence of yellow patches set in the skin, so soft as not to be appreciable to the touch. The tuberose form exhibits yellow nodules imbedded in the skin. Xanthoma multiplex may be confused with *urticaria pigmentosum* but does not present wheals nor do the lesions itch.

The disease is rare.

Pathology. Xanthoma is a benign, connective tissue new-growth containing large multinuclear, epitheloid cells filled with fat drops. The xanthoma cells are developed from leucocytes and connective tissue corpuscles and are inflammatory in origin. Xanthoma palpebrarum is thought to be due to degeneration of muscle fibres, embryonically misplaced.

Treatment. Excision, electrolysis and destruction with the galvanocautery are the means offered for the removal of the growths. Trichloracetic acid may be applied with caution to the lesions. The X-rays have been suggested, and also the high frequency current.

XANTHOMA DIABETICORUM.

Definition and Description. Xanthoma diabeticorum is a cutaneous affection of rapid evolution and involution and associated with diabetes. The lesions are seen chiefly about the knees and elbows, the extensor surfaces of the extremities, the buttocks and genitals. They are papular, yellowish-white at the summit, like an acne pustule, and are surrounded by a red areola. The lesions are discrete and do not contain pus but are found, on section, to be solid. Itching is more or less marked. The lesions disappear in a few weeks but may be followed by fresh crops. The affection occurs in stout, young or middle-aged individuals and is always associated with diabetes.

Treatment. The treatment of xanthoma diabeticorum is that of the associated diabetes.

XERODERMA PIGMENTOSUM.

Synonym: Atrophoderma Pigmentosum, Kaposi's Disease.

Definition. Xeroderma is a congenital, fatal disease characterized by freckle-like pigmentation, telangiectases, irregular atrophy and malignant new-growths.

Symptoms. The affection begins in the first year of life, usually in

the summer, as an erythema resembling sunburn. This may be absent and the first stage represented by freckle-like pigmentations on the exposed parts of the body, face, feet and hands. After a time telangiectasic points and twigs, together with white, atrophic spots, make their appearance, scattered irregularly among the freckles. The white spots tend to coalesce and form patches, the skin becomes stretched, shining and slightly scaly. The pigmented lesions gradually become elevated and warty; angiomatous growths appear in the telangiectasic areas; the skin has a stretched, parchment appearance; the eyelids are drawn downward in ectropion; the con-

Fig. 115.—Xanthoma Diabeticorum (Unna).

junctiva and cornea are inflamed; there is intolerance of light; ulcers form on the affected surfaces.

The disease may remain more or less quiescent for some years when the pigmented and angiomatous areas undergo degeneration into epithelioma or sarcoma; the general health yields and the patient dies from marasmus or exhaustion.

Etiology. But little is known of the cause of xeroderma. It shows a tendency to occur in families, affecting either sex indifferently. It is more

Fig. 116.—Xeroderma Pigmentosum.

commonly seen in children than in adults. Some are inclined to attribute the disease to the effect of the chemical rays of sun light; others regard it as parasitic, but neither of these hypotheses has received support.

Diagnosis. In well-established cases the diagnosis is simple. There is no other affection which presents freckling, atrophic spots, telangiectases and neoplasmata.

The disease is rare.

Pathology. There is nothing distinctive in the pathologic findings in xeroderma. Changes characterizing the various lesions, pigment, atrophy, malignant degeneration and vascular alterations, are such as are found in these conditions separately. Kaposi maintains that the changes occur in

the papillary layer and epidermis and extend to the true skin. Crocker believes the disease to be a degeneration of the skin dependent upon a primary neurosis in which there is a congenital predisposition.

Treatment. Treatment is unavailing. Arsenic may be given in increasing doses for a long time. It is possible that radiotherapy offers a means of palliation.

Prognosis. The prognosis is unfavorable. The duration of life depends upon the early or late appearance of malignant changes and the extent of the ulceration.

SECTION III.

FORMULARY.

BATHS.

No. 1.

Sodium bicarbonate,	2 to 10 ounces.
Potassium carbonate,	2 to 6 ounces.
Borax,	3 ounces.

The above singly or combined may be used to an ordinary bath containing 20 to 30 gallons of water in hyperemic, pruriginous and erythematous affections.

No. 2.—*Emollient.*

Bran,	2 to 6 pounds.
Starch,	1 pound.
Gelatin,	1 to 3 pounds.
Marshmallow,	4 pounds.

These are in proportion to 30 gallons of water and are used in itching and scaling affections.

No. 3.—*Acid Bath.*

Nitric acid,	1 ounce.
Hydrochloric acid,	1 ounce.

For lichen and chronic pruritic eruptions.

No. 4.—*Sulphur Bath.*

Potassium sulphid.,	½ pound.
Water,	30 gallons.

For scabies, chronic eczema, pruritus.

No. 5.—*Compound Sulphur Bath.*

Precipitated sulphur,	2 ounces.
Sodium hyposulphit.,	1 ounce.
Acid sulphuric dilut.,	½ ounce.
Water,	1 pint.

Mix and add to 30 gallons of water.

LOTIONS.

No. 6.—*Zinc-Sulphur Lotion.*

℞

Zinc. sulphat.	
Potas. sulphid.,	āā gr. x to xx.
Aq. rosæ,	℥ij.
Sulphur. precip.,	℥j.

M. Sig. Shake and use locally for acne, rosacea, lupus erythematosus. This is the so-called lotio alba.

No. 7.—*Kummerfeld's Sulphur Lotion.*

℞

Spt. camphor.	
Spt. lavandul.,	āā ℥ss.
Aq. cologniensis,	℥j
Aq. destil.,	℥ij.

M. For acne vulgaris.

No. 8.—*Sulphur-Naphthol Lotion.*

℞

Spt. sapon. virid.,	℥vj.
Alcohol.,	℥iss.
Naphthol.,	gr. xv.
Bals. Peru.,	gtt. xxx.
Sulphur loti.	℥ijss.

M. Stimulating lotion for acne, seborrhœa and rosacea.

No. 9.—*Sulphur-Acetic Acid Lotion.*

Sulphur. sublimat.,	℥ijss.
Glycerin.,	℥vj.
Acid. acetic.,	gr. xlxv.

M. For multiple warts.

No. 10.—*Sulphur-Potassium Lotion.*

℞

Zinc. sulphat.,	
Potas. sulphid.,	āā gr. v. to xxx.
Aq. rosæ,	℥j.
Sulphur. lactis,	℥j.

M. For acne and seborrhœa.

No. 11.—*Sulphur-Camphor Lotion.*

℞

Sulphur. precip.,	℥ij to ℥iv.
Spt. Camphor.,	℥ij.
Liq. calcis,	℥iv.

M. Stimulating lotion for acne.

No. 12.—*Vlemingkx's Sulphur Lotion.*

Calcis vivæ,	℥ss.
Sulphur. sublimat.,	℥vj.
Aq. destil.,	℥vj.

Boil together with constant stirring down to four ounces, then filter, Dilute as required. For acne and scabies.

No. 13.—*Nascent Sulphur Lotion.*

Lotion No. 1.

℞

Sodii hyposulphit.,	℥iij.
Eau de cologne,	℥j.
Aq. destillat.,	ad ℥viij.

M.

No. 14.—*Lotion No. 2.*

℞

Acid tartaric,	℥iss.
Aq. destil.,	℥viij.

M. Apply Lotion No. 1, then follow with Lotion No. 2. (Crocker.)

For acne and oily seborrhœa of the face.

No. 15.—*Substitute for Tar.*

℞

Acid. salicyl.,	gr. x-xxx.
Ol. lavandul.,	℥ijss.
Ol. citronel.,	℥ss.
Ol. pini sylvestris,	℥ij.
Ol. ricini,	℥jss.

M. For eczema capitis.

No. 16.—*Oil of Cade Lotion.*

℞

Ol. cadini.	
Saponis virid.	
Alcohol.,	āā ℥ß.
Filtra et adde.	
Spt. lavandul.,	℥ij.

M. For chronic eczema.

No. 17.—*Pyrogallic-Collodion.*

℞

Acid. pyrogallic.,	gr. x.
Acid. salicyl.,	gr. x.
Ether.,	ʒj.
Ol. ricini,	gtt. v.
Collodii,	ad ʒj.

M. For psoriasis, chronic eczema.

No. 18.—*Resorcin Lotion.*

℞

Resorcin.,	gr. xl.
Glycerin.,	min. xv.
Alcohol.,	ʒj.
Aq.,	ad ℥ss.

M. For eczema of the hands, to be followed by a bland ointment.

No. 19.—*Bichloride Lotion.*

Hydrarg. bichlorid.,	gr. xx.
Saponis virid.,	ʒij.
Alcohol.,	℥ss.
Ol. lavandul.,	ʒj.

M. Apply night and morning for freckles, tinea versicolor and other pigmentations.

No. 20.—*Subacetate of Lead Lotion.*

℞

Plumbi subacetat.,	gr. xv.
Acid. hydrocyanic. dil.,	gtt. xx.
Alcohol.,	℥ss.
Aq.,	ad ℥vj.

M. Apply with sponge for removal of freckles.

No. 21.—*Carbolic Lotion.*

℞

Acid. carbolic.,	ʒss-j.
Glycerin.,	℥ss.
Alcohol.,	ʒij.
Aq.,	ad ℥viij.

M. For urticaria, pruritus, erythema.

No. 22.—*Thymol Lotion.*

℞

Thymol.,	gr. vijss.
Glycerin.,	ʒij.
Liquor. potassæ,	ʒj.
Aq.,	ad ℥viij.

M. For urticaria and itching eruptions.

No. 23.—*Calamine-Zinc Lotion.*

℞

Pulv. calamin. prep.,	ʒss-j.
Zinc. oxid.,	ʒj-ij.
Glycerin.,	ʒj-iij.
Aq. rosæ,	ad ℥iv.

M. Slightly astringent and sedative. For local inflammatory affections.

No. 24.—*Startin's Lotion.*

℞

Pulv. calamin.,	ʒj.
Cretæ prep.,	ʒj-ij.
Acid. hydrocyanic. dil.,	ʒss.
Aq. calcis,	ʒiij.
Aq. sambuci,	ad ℥viij.

M. For subacute inflammations.

No. 25.—*Borax Lotion.*

℞

Pulv. boracis,	ʒj.
Spt. camphor.,	ʒj-iij.
Glycerin.,	ʒj-iv.
Aq. aurantii flor.,	ad ℥iv.

M. For erythema, eczema and pruritus.

No. 26.—*Bismuth-Prussic Acid Emulsion.*

℞

Bismuth. subnitrat.,	ʒjss.
Acid. hydrocyanic. dil.,	ʒss-j.
Emuls. amygdal.,	℥iv.

M. Antipruritic for eczema with unbroken skin.

No. 27.—*Lotio Nigra* (Black Wash).

Calomel.,	ʒj.
Aq. calcis,	Oj.

M. For erythema, acute eczema, specific eruptions and ulcerations.

No. 28.—*Salicylic-Boric Acid Lotion.*

℞

Acid. salicyl.,	ʒjss.
Boracis,	ʒj.
Glycerin.,	ʒj.
Alcohol.,	ʒj.
Aq.,	ad ʒviij.

M. For general pruritus.

No. 29.—*Benzoic Acid Lotion.*

℞

Acid. benzoic.,	ʒij.
Glycerin.,	ʒj.
Aq.,	ad ʒiij.

M. For pruritus.

No. 30.—*Bismuth-Bichloride Lotion.*

℞

Bismuth. nitrat.,	gr. vijss.
Zinc. oxid.,	ʒss.
Glycerin.,	gtt. xv.
Hydrarg. biehlorid.,	gr. ¼.
Aq. rosæ,	ʒj.

M. For rosacea and hyperemic conditions.

No. 31.—*Compound Resorcin Lotion.*

℞

Resorcin.,	gr. xl.
Acid. boric.,	gr. xl.
Glycerin.,	ʒj.
Alcohol.,	ʒss.
Aq.,	ad ʒiv.

M. For impetigo contagiosa, ecthyma, pustular eczema.

No. 32.—*Oil of Birch Lotion.*

℞

Ol. rusci.	
Tinct. saponis virid.	
Glycerin.,	āā ʒj.
Ol. rosmarin,	ʒjss.
Alcohol.,	ad ʒviij.

M. Apply with brush in eczema, psoriasis and lichen planus.

No. 33.—*Carron Oil.*

℞

Aq. calcis.
Ol. olivar. vel ol. lini āā part. æqual.

M. For dermatitis, burns.

No. 34.—*Boric Acid Lotion.*

℞

Acid. boric.,	ʒij.
Glycerin.,	ʒj.
Tinct. lavandul. co.,	ʒiij.
Aq. destil.,	ad ʒiij.

M. For squamous eczema of the face.

No. 35.—*Salicylic-Resorcin Lotion.*

℞

Acid. salicyl.	
Resorcin.,	āā ʒss.
Glycerin.	
Alcohol.,	āā ʒss.
Aq. destil.,	ad ʒvj.

M. For eczema of the scalp, seborrhœic alopecia.

No. 36.—*Lotion for the Hair.*

℞

Liquor. potassæ,	ʒj.
Thymol.,	ʒj.
Glycerin.,	ʒss.
Elderflower water,	ʒviij.

M. Stimulant for the hair.

No. 37.—*Pyrogallic Lotion.*

℞

Acid. pyrogal.,	ʒj.
Spt. vini rectif.,	ʒij.
Aq. destil.,	ad ʒiv.

M. For sycosis, genito-crural ringworm.

No. 38.—*Compound Chalk Lotion.*

℞

Liquor calcis.	
Ol. sesami,	āā ʒiij.
Cretæ prep.,	
Zinc. oxid.,	āā ʒiv.
Acid. salicyl.,	ʒj.

M. Apply with brush in irritative conditions.

No. 39.—*Carbolic-Alcohol Lotion.*

Acid. carbolic.,	ʒj.
Glycerin.,	ʒjss.
Spt. vini rectif.,	ʒiv.
Aq.,	ad ʒviij.

M. For widely distributed eczema.

No. 40.—*Tannin Lotion.*

℞

Acid. tannic.,	gr. xl.
French vinegar,	ʒss.
Aq.,	ʒvijss.

M. Astringent for seborrhœa.

No. 41.—*Grindelia Lotion.*

℞

Fluidextract grindeliæ robustæ,	ʒj.
Aq.,	ʒiv.

M. For ivy poisoning, vesicular eczema.

OINTMENTS AND PASTES.

No. 42.—*Ointment of Resorcin and White Precipitate.*

℞

Resorcin.,	gr. xv.
Hydrarg. ammon.,	gr. xx.
Acid. carbol.,	gtt. x.
Ung. aq. rosæ,	ad ʒj.

M. Ft. Ung. For ringworm of the body, impetigo contagiosa and other pustular eruptions.

No. 43.—*Ointment of Trikresol and Salicylic Acid.*

℞

Trikresol.,	gr. xv.
Acid. salicylic.,	gr. xx.
Hydrarg. ammon.,	gr. xx.
Adipis,	ad ʒj.

M. Ft. Ung. For ringworm of the scalp, alopecia areata.

No. 44.—*Paste of Camphor and Zinc Oxid.*

Camphor.,	gr. xl.
Zinc. oxid.,	ʒss.
Glycerin.,	ʒij.
Cochinil.,	gr. ij.
Ol. ros.,	gt. iij.

M. Smear on a thin layer in eczema.

No. 45.—*Starch and Zinc Paste.*

℞

Pulv. amyli.	
Pulv. zinc. oxid.,	āā ʒij.
Petrolat.,	ʒss.

M. Ft. past. For eczema of the hands.

No. 46.—*Wilkinson's Sulphur Ointment.*

℞

Sulphur. sublimat.	
Ol. cadini,	āā ʒij.
Cretæ prep.,	ʒij.
Sapon. virid.	
Adipis,	āā ʒj.

M. Ft. ung. For scabies.

No. 47.—*Oil of Birch and Red Oxide Ointment.*

℞

Ol. rusci,	ʒss-j.
Hydrarg. oxid. rub.,	ʒj-iij.
Ung. aq. rosæ,	ad ʒj.

M. Ft. ung. For eczema and ringworm.

No. 48.—*Tar Paste.*

℞

Picis liquid.,	ʒss.
Pulv. amyli,	ʒj.
Pulv. zinc. oxid.,	ʒiv.
Glycerin.,	ʒij.
Ol. caryophyl.,	gt. iv.

M. For psoriasis, chronic thickened eczema.

No. 49.—*Lead Ointment.*

Emplast. diachyli.	
Vaselin.,	āā ʒj.

M. For subacute eczema.

No. 50.—*Hebra's Diachylon Ointment.*

℞

Ol. olivar, opt.,	ʒxv.
Plumbi oxid.,	ʒiij ʒiij.
Ol. lavandul.,	ʒij.

M. Add the oil to 2 pounds of water and heat with constant stirring; the litharge is then to be slowly sifted in while being stirred, fresh water being added as required. The ointment is to be stirred until cool and the lavender then added. Astringent and soothing ointment.

No. 51.—*Sulphur-Creosote Ointment.*

℞

Sulphur. precip.,	ʒj.
Creosot.,	gtt. xv.
Ol. olivar.,	ʒij.
Lanolin.,	ʒvj.

M. Ft. ung. For sycosis.

No. 52.—*Sulphur and Red Oxide Ointment.*

℞

Hydrarg. oxid. rub.,	gr. xv.
Sulph. sublimat.,	ʒiij.
Ol. bergamot.,	gtt. vj.
Adipis,	ʒj.

M. Ft. ung. For scabies.

No. 53.—*Zinc and Lead Oil.*

Oxide of zinc,	40 pints.
Chalk.	
Lead water.	
Linseed oil, of each,	20 pints.

M. For eczema of the hands.

No. 54.—*Glycerol of Lead Ointment.*

℞

Glycerol. plumbi subacetat.	
Ung. aq. rosæ, ..	āā ʒss.

M. Ft. Ung. For eczema of the nose.

No. 55.—*Mercury and Salicylic Ointment.*

℞

Acid. salicyl.,	gr. x.
Ung. hydrarg. oxid. rub.,	ʒj.
Ung. aq. rosæ,	ʒvj.

M. Ft. ung. For eczema of the lids.

No. 56.—*Jackson's Ointment.*

℞

Ceræ alb.,	ʒvijss.
Ol. petrolat.,	ʒijss.
Aq. rosæ,	ʒjss.
Sod. biborat.,	gr. xviij.
Sulphur.,	ʒiijss.

M. Ft. ung. For eczema seborrhœicum.

No. 57.—*Bassorin Paste.*

℞

Bassorin.,	48 parts.
Dextrin.,	25 parts.
Glycerin.,	10 parts.
Aq.,	ad 100 parts.

M. This forms the vehicle for many local remedies.

No. 58.—*Chrysarobin Ointment.*

℞

Chrysarobin.,	ʒss.
Acid. salicyl.,	gr. xv.
Acid. carbol.,	gr. xv.
Lanolin.,	ʒiij.
Vaselin.,	ad ʒj.

M. Ft. ung. For psoriasis.

No. 59.—*Menthol and Balsam Peru Ointment.*

℞

Menthol.,	ʒss.
Bals. peruv.,	ʒjss.
Zinc. oxid.,	ʒjss.
Adipis benzoinat.,	ad ʒij.

M. Ft. ung. For pruritus and itching following scabies.

No. 60.—*Bismuth "Cream."*

℞

Bismuth. oxid.	
Acid. oleic.,	āā ʒj.
Ceræ alb.,	ʒiij.
Vaselin.,	ʒix.

Mix first two and allow to stand for 24 hours; then add wax and vaselin. Mix in water bath and stir until cool. For acute eczema of children.

No. 61.—*Stimulating Ointment.*

℞

Ung. zinc. oxid.	
Ung. plumbi acetat.	
Ung. hydrarg.,	āā ʒij.

M. Stimulating ointment for eczema of the hands.

No. 62.—*Tar and Zinc Ointment.*

℞

Liquor. carbonis deterg.	
Zinc. oxid.,	āā ℥j.
Cerat.,	ad ℥j.

M. Ft. ung. For chronic infiltrated eczema.

No. 63.—*Sedative Ointment.*

℞

Zinc. carbonat.,	℥j.
Acid. Salicyl.,	gr. x.
Vaselin.,	℥j.
Cerat.,	ad ℥j.

M. Ft. ung. Soothing ointment in eczema.

No. 64.—*Cooling Ointment.*

℞

Magnes. carbonat.,	℥j.
Tinct. benzoin.,	gtt. xx.
Hydrogen. peroxid.,	℥j.
Vaselin,	℥iij.
Lanolin,	ad ℥j.

M. Ft. ung. For erythema, dermatitis, erythematous eczema.

No. 65.—*Red Iodide Ointment.*

℞

Hydrarg. iodid. rubri,	gr. v.
Adipis,	℥j.

M. Ft. ung. For acne indurata.

No. 66.—*Cade and Diachylon Ointment.*

℞

Ol. cadini,	℥ss.
Glycerin.,	℥j.
Ung. diachyli,	℥ijss.

M. Ft. ung. For eczema with thickening.

No. 67.—*Sulphur-Salicylic Ointment.*

℞

Acid. salicyl.,	gr. xxx.
Sulphur. loti,	℥ijss.
Lanolin.,	ad ℥j.

M. Ft. ung. Apply with friction for chromophytosis.

No. 68.—*Salicylic and Zinc Paste.*

℞

Acid. salicyl.,	gr. xxx.
Zinc. oxid.	
Amyli,	āā ℥ss.
Petrolat.,	℥j.

M. Ft. past. For impetigo contagiosa and other pyoderms.

No. 69.—*Iodine Ointment.*

℞

Iodi,	gr. xx.
Potas. iodid.,	gr. iv.
Aq. destil.,	min. vj.
Adipis,	ad ℥j.

M. Ft. ung. Stimulating application for chilblains.

No. 70.—*Resorcin Ointment.*

Resorcin.,	gr. xv.
Lanolin.	
Petrolat.,	āā ℥ss.

M. Ft. ung. For impetigo, ringworm.

No. 71.—*Bichloride and Resorcin Ointment.*

℞

Farinæ pisi.	
Glycerin.	
Aq. lauro-cerasi.	āā ℥ijss.
Hydrarg. bichlorid.,	gr. j.
Resorcin.,	gr. x.
Lanolin.,	℥j.

M. Ft. ung. For acne.

No. 72.—*Balsam Peru and Styrax Ointment.*

Styracis,	℥ij.
Bals. peruv.,	℥ss.
Ung. simplicis,	℥j.

M. Ft. ung. For scabies, especially in children.

No. 73—*Camphor-Chloral Ointment.*

℞

Camphor.	
Chloral hydrat.,	āā ℥j-℥ij.
Triturat.	
Et adde.	
Unguent. aq. rosæ,	℥j.

M. Antipruritic in local pruritus.

No. 74.—*Antipruritic Ointment.*

℞

Ung. picis liquid.,	ʒvj.
Ung. belladon.,	ʒiv.
Tinct. aconit.,	ʒj.
Zinc. oxid.,	ʒij.
Ung. aq. rosæ,	ʒvj.

M. Ft. ung.

Powerful antipruritic in local pruritus, especially of the genital organs.

No. 75.—*Compound Sulphur Ointment.*

℞

Ung. hydrarg. oxid. rub.,	ʒiij.
Ung. sulphuris,	ʒvj.
Ung. zinc oxid.,	ad ʒij.

M. Ft. ung. For ringworm of the scalp and beard.

No. 76.—*Kaposi's Ointment for Scabies.*

℞

Naphthol.,	ʒiv.
Cret. prep.,	ʒijss.
Saponis mollis,	ʒjss.
Adipis,	ʒiij.

M. Ft. ung. For scabies.

No. 77.—*Iodine Ointment.*

℞

Iodin.,	ʒj.
Goose grease,	ʒj.

M. For ringworm (Jackson).

POWDERS.

No. 78.

℞

Magnes. carbonat.,	ʒv.
Pulv. talc.,	ʒijss.
Acid. salicyl.,	gr. xij.
Bals. Peru.,	gr. x.

M. For erythema, hyperidrosis.

No. 79.—*Antipruritic Powder.*

℞

Bismuth. subnit.,	ʒj.
Acid. boric.,	ʒss.
Acid. carbolic.,	gr. x.
Pulv. amyli,	ʒiij.

No. 80.—*Stimulating and Antipruritic Powder.*

℞

Zinc. oxid.	
Bismuth. subnit.,	āā ʒij.
Pulv. camphor,	ʒss.

No. 81.—*Dusting Powder.*

℞

Pulv. calamin. prep.	
Pulv. oryzæ sativæ,	āā ʒj.

M. For erythematous and vesicular affections (Bulkley).

MISCELLANEOUS LOCAL APPLICATIONS.

No. 82.—*Camphor-Chloral.*

℞

Chloral. hydrat.	
Pulv. camphor,	āā ʒss.

M. Apply with camel's hair brush for pruritus.

No. 83.—*Depilatory.*

℞

Quicklime,	ʒss.
Yellow sulphide of mercury,	gr. xx.
Starch,	gr. clxxx.

M. Apply as paste.

No. 84.—*Epilating Sticks.*

℞

Ceræ flav.,	ʒiij.
Laccæ in tabulis,	ʒiv.
Picis burgundicæ,	ʒx.
Gummi damar.,	ʒjss.

M. Make into sticks ½ to 1 inch in diameter and 2 inches long. Warm and apply for extraction of hairs in ringworm and favus.

No. 85.—*Cosme's Paste.*

℞

Pulv. acid arsenios.,	gr. xx.
Pulv. hydrarg. sulphid. rub.,	ʒj.
Ung. aq. rosæ,	ʒi

M. Caustic in lupus, epithelioma.

No. 86.—*Canquoin's Paste.*

℞

Zinc. chlorid.	āā 3j.
Ammon. chlorid.,	3jss.
Pulv. amyli,	q. s.
Aq.,	

M. Deep caustic for epithelioma, lupus.

No. 87.—*Marsden's Paste.*

℞

Acid. arsenios.	āā 3j.
Pulv. acaciæ,	gr. xviij.
Cocain. hydrochlor.,	

M. Make paste with water and use as caustic in epithelioma.

No. 88.—*Sodium Ethylate Caustic.*

℞

Sodii ethylat.,	3ss.
Alcohol. absolut.,	3vj.

M. Superficial caustic for moles, warts and the like.

No. 89.—*Bichromate Solution.*

℞

Saturated watery solution of potassium bichromate,	3j.

For multiple warts.

No. 90.—*For Boil.*

℞

Tinct. arnicæ,	3j.
Acid. tannic.,	3ss.
Pulv. acaciæ,	3ss.

M. Paint on boil before rupture.

MIXTURES.

No. 91.—*Corrective Capsule.*

℞

Naphthalin.,	gr. j.
Ipecac.,	gr. ss.
Carbo. lig.,	gr. jss.
Calomel.	
Strychnin. sulph.	
Pilocarpin.,	āā gr. 1-100.

M. One tablet or capsule. For chronic eczema, lichen, psoriasis.

No. 92.—*Aperient and Antacid.*

℞

Sodii sulphat. granulat.,	3ij.
Sodii chlorid.,	3ijss.
Sod. bicarb.,	3vss.

M. One to two drams in half-glass of water. Keep tightly corked. For urticaria (Stelwagon).

No. 93.—*Alterative Mixture.*

℞

Liq. potas. arsenit.,	3ij.
Liq. potas.,	3vj.
Aq. menth. pip.,	3iij.

M. One dram in wine glass of water. For psoriasis.

No. 94.—*Salicylate Mixture.*

℞

Sodii salicylat.,	3iij.
Syr. limonis,	3j.
Aq. menth. pip.,	ad 3iij.

M. Teaspoonful three times a day. For general pruritis in rheumatic and gouty individuals.

No. 95.—*Startin's Mixture.*

℞

Magnes. sulphat.,	3j.
Ferri sulphat.,	3j.
Acid sulphuric dil.,	3ij.
Syr. prun. virgin.,	3j.
Aq.,	ad 3iv.

M. Sig. Teaspoonful through a tube, three times a day after meals. For erythematous eruptions, acute eczema.

No. 96.—*Rhubarb and Soda Mixture.*

℞

Sod. bicarb.,	3ss.
Pulv. rhei,	3j-ij.
Pulv. ipecac.,	gr. j-ij.
Tinct. nucis vomicæ,	3ij.
Spt. menth. pip.,	3ij.
Aq.,	q. s. ad 3iij.

M. Sig. Teaspoonful in water after meals. For eczema and cutaneous inflammations.

No. 97.—*Acetate of Potash and Nux Vomica Mixture.*

℞

Potas. acetat.,	℥ss-j.
Tinct. nuc. vom.,	♏ij.
Ext. rumicis radic.,	℥iv.

M. Teaspoonful largely diluted. For indurated acne, rosacea.

No. 98.—*Potash and Cinchona Mixture.*

℞

Potas. acetat.,	℥iv-℥jss.
Tinct. nuc. vom.,	♏ij.
Tinct. cinchon., comp.,	ad ℥iv.

M. Sig. One teaspoonful in water after meals. For erythema and acute eczema.

No. 99.—*Iron and Arsenic Mixture.*

℞

Ferri et ammon. acetat.,	℥j.
Liq. potas. arsenit.,	♏ss-j.
Liq. potas.,	♏j-ij.
Syr. zingib.,	♏j.
Vini ferri dulcis,	ad ♏iv.

M. Sig. One dram after meals. For squamous eczema in children.

No. 100.—*Mixture for Gouty Eczema.*

℞

Sod. sulphat.,	♏iij.
Potas. iodid.,	gr. x.
Vin antimonial.,	♏ss.
Sod. bicarb.,	♏ij.
Inf. cascaril.,	ad ♏vj.

M. Sig. One dram in water twice daily.

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No. 97.—*Acetate of Potash and Nux Vomica Mixture.*

℞

Potas. acetat.,	℥ss-j.
Tinct. nuc. vom.,	♏ij.
Ext. rumicis radic.,	℥iv.

M. Teaspoonful largely diluted. For indurated acne, rosacea.

No. 98.—*Potash and Cinchona Mixture.*

℞

Potas. acetat.,	℥iv-℥jss.
Tinct. nuc. vom.,	♏ij.
Tinct. cinchon., comp.,	ad ℥iv.

M. Sig. One teaspoonful in water after meals. For erythema and acute eczema.

No. 99.—*Iron and Arsenic Mixture.*

℞

Ferri et ammon. acetat.,	℥j.
Liq. potas. arsenit.,	♏ss-j.
Liq. potas.,	♏j-ij.
Syr. zingib.,	♏j.
Vini ferri dulcis,	ad ♏iv.

M. Sig. One dram after meals. For squamous eczema in children.

No. 100.—*Mixture for Gouty Eczema.*

℞

Sod. sulphat.,	♏iij.
Potas. iodid.,	gr. x.
Vin antimonial.,	♏ss.
Sod. bicarb.,	♏ij.
Inf. cascaril.,	ad ♏vj.

M. Sig. One dram in water twice daily.

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