Handbook of Dermatology

Ohmann-Dumesnil.

A

HAND BOOK

OF

DERMATOLOGY.

FOR THE USE OF STUDENTS.

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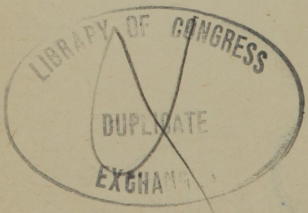

INSCRIBED

TO

MY PARENTS,

AS A TRIBUTE OF

ESTEEM AND AFFECTION.

THE AUTHOR.

PREFACE.

THIS small handbook was not written to fill a long-felt want, but rather as a guide to students in their reading. At the request of a number of the students of the St. Louis College of Physicians and Surgeons, who desired to possess a short résumé of forthcoming lectures, in order to better prepare themselves for an intelligent appreciation of the subjects spoken of, the author jotted down the few notes which follow. For this reason, none but general, broad principles have received any attention. Details have been avoided, and the limitations imposed by a handbook have precluded the possibility of dwelling upon pathological minutiæ or elaborate consideration of differential diagnosis. All discussion of moot points has been avoided, and only those points mentioned which are regarded in the light of established facts. The acute exanthemata and the syphilodermata have not been considered, as they do not strictly pertain to the field of dermatology.

If the perusal of these few notes will stimulate the student to continue further reading upon the subject and give rise to an interest in dermatology, the author will consider himself more than adequately rewarded for his pains.

In conclusion, it may not be amiss to acknowledge aid derived from the works of UNNA, NEUMANN, HYDE, BULKLEY, DUHRING, and others. Particular thanks are due to DR. F. L. JAMES for admirably executed drawings, and to DR. F. M. RUMBOLD for seeing the work successfully through the press.

O.-D.

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HANDBOOK OF DERMATOLOGY.

THE SKIN.

The skin, or common integument, is the covering which nature has provided as an envelope to the body. It is an organ which, whilst of considerable extent, is also, to a certain degree, complex in its structure. Intended primarily as a protection to the tissues underlying it, it serves also to perform a number of important functions. It has a soft, unctuous feel, rather smooth as a rule, certain localities, however, appearing uneven to the touch; it rolls more or less easily under the fingers and is quite elastic. It varies in thickness in different parts of the body, and also varies considerably in color in different individuals. The color may be a pale yellowish-pink, or it may have almost any one of a number of shades, varying from the one indicated to black. In the same individual, certain parts are found to be more deeply pigmented than the general surface, such as the nipple, the perineum, the scrotum, etc.

The thickness of the skin varies in different parts of the body as well as in different individuals. It is, in general, thicker in men than in women, and in adults than in children. It is thinnest on the eyelids and prepuce, and here it varies from 1 mm. (1-25 in.) to 3 mm. (3-25 in.) On the back, buttocks, palms of the hands and soles of the

feet it is thickest, and measures from 4.5 mm. (1-6 in.) to 7 mm. (1-4 in.) in thickness. This is merely an approximation as no two measurements are exactly alike, and different competent authorities differ in the results which they have found.

The appendages of the skin are those portions which, while strictly not essential to it, are still found in connection with it. These are the hair and the nails, whose functions are purely protective. Besides these, we find that the skin is provided with small organs which play no inconsiderable part in its anatomy and physiology, and they may be briefly summarized as the coil (sweat) glands, the sebaceous glands and the muscles, to which may be added the nerves, the arteries, the veins and the lymphatics.

Upon taking a careful view of the appearance presented by the skin, to the naked eye, it will be noticed that its surface is crossed by a large number of furrows, some of which are very fine and others equally coarse, and the coarser the furrows the

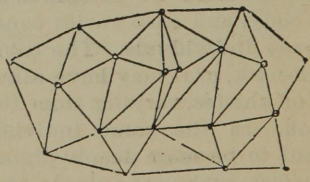

Fig. 1.—Diagram of Cutaneous Furrows.

deeper. It will also be found that the coarse furrows are more or less in parallel groups and situated at the flexures of joints, thus acting as compensating media, by furnishing the increased amount of integument required for the flexion and extension of the joint. The finer furrows are distributed over the

entire surface of the skin and form a network of triangles; and these, in turn, form a series of polygonal figures. Where these lines intersect, there will be found a small hole, the opening of a sweat gland, or of a sebaceous gland, or of a hair follicle with its hair protruding. Hairs cannot be found except at these intersections. There are comparatively very few intersections where this rule does not hold good. Where sebaceous glands and hair follicles are absent, as on the palms of the hands and soles of the feet, there is a tendency for the furrows to arrange themselves in concentric curved elevations, which are crossed and intersected by large furrows. The concentric elevations are well-marked and contain the openings of the ducts of sweat glands.

Lying directly underneath the skin, there is found the subcutaneous connective tissue and adipose tissue, which vary in quantity in different portions of the body, and serve to give the rounded appearance observed in the limbs and body.

The functions of the skin may be stated, in general terms, to be the regulation of the body temperature, the protection of the finer tissues and the excretion of certain waste products. To this may be added the elaboration of certain secretions necessary for its own better maintenance. Besides this, absorption and respiration are also exercised, to a certain degree.

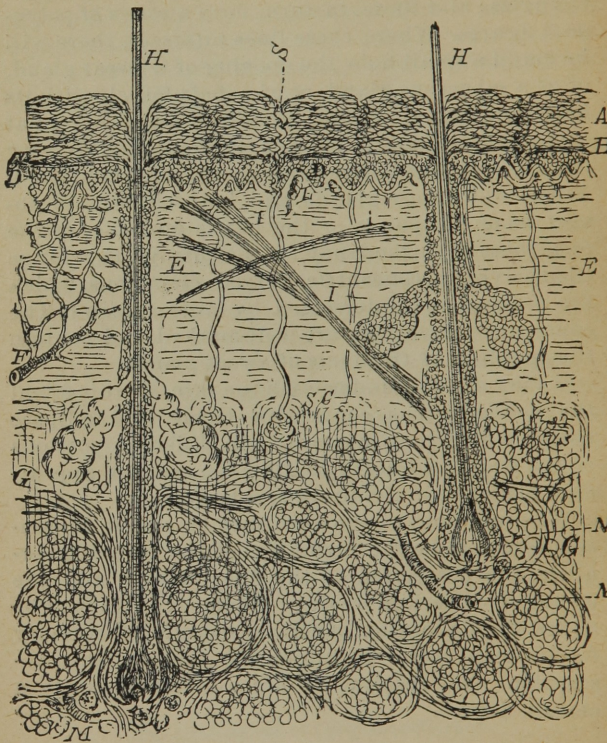

Fig. 2.—Diagrammatic Section of Human Skin.

A, Stratum corneum ; B, Stratum lucidum ; C, Stratum granulosum ; D, Stratum mucosum ; E, Corium ; F, Bloodvessels of corium ; G, Subcutaneous connective tissue ; H, Hair shaft ; I, Muscle ; L, Tactile corpuscle ; M, Subcutaneous bloodvessel ; N, Hair bulb ; S, Sweat pore ; S L, Glomerulus of coil gland. The sebaceous glands are seen attached to the hairs.

ANATOMY.

The skin is composed of two principal portions—the epidermis and corium; while, underlying it, is the subcutaneous connective tissue and fat.

The Epidermis may be divided into four layers, as follows: stratum corneum, stratum lucidum, stratum granulosum, and stratum mucosum.

THE STRATUM CORNEUM, or horny layer, is the outermost, composed of flat polygonal epithelial cells showing nuclei faintly, here and there. As we go deeper down, they appear less dry and show a certain relationship to the cells of the stratum mucosum. In the negro some pigment granules are irregularly scattered through this layer.

THE STRATUM LUCIDUM (Oehl's layer) lies immediately beneath the horny layer, and consists of two or three rows of transversely disposed epithelial cells which appear glistening. This layer is comparatively thin.

THE STRATUM GRANULOSUM, or granular layer, is also thin; being composed of one or two rows of granular bodies disposed in a horizontal manner. It is this layer which gives the color to the skin in white races.

THE STRATUM MUCOSUM, mucous layer, or rete Malpighii, is the deepest and most important layer of the epidermis. It rests upon the corium and is connected with it by a series of prolongations (papillæ). It is built up of polyhedral, nucleated epithelial cells, filled with granular contents and united to each other by delicate fibres. The nuclei of these "prickle" cells are large, and delicate filaments

radiate to the cell wall. Between these cells we have an intercellular substance known as the "cement substance." The lowest layer of cells differs from the rest of the rete in that it is composed of columnar cells with large nuclei. They contain the largest portion of the pigment, and this layer is so distinct that it might almost be classed as an independent one, or as a "pigment layer."

The Corium, derma, or cutis vera, is divided into two layers, the stratum papillare, and the stratum reticulare.

THE STRATUM PAPILLARE, or papillary layer, is the uppermost, resting directly beneath the mucous layer of the epidermis. It is composed of fine connective tissue, the bundles of fibres of which decussate and become felted, as it were. It appears in the form of numerous digital prolongations—the papillæ—which are more or less developed in different portions of the body. They are bulbous, conical or blunt at the apex. They are either vascular or nervous, according as they contain the terminal loop of a blood-vessel, or the termination of a non-medulated nerve-fibre.

THE STRATUM RETICULARE, or reticular layer, is composed of coarser connective tissue fibres, the papillary layer gradually merging into it. It, in turn, also merges into the subcutaneous connective tissue.

The Subcutaneous Connective Tissue serves the purpose of holding the fat, and supporting the vessels and nerves, also containing coil glands, hair follicles and Pacinian corpuscles. It is composed of loosely connected connective tissue bundles.

THE BLOODVESSELS of the skin are the arteries and veins, which take their origin from subcutane-

ous branches, and are subdivided in the corium. They are more abundant on the flexor aspects of the limbs than on the extensor. There are three horizontal networks of these bloodvessels: one in the subcutaneous connective tissue, one in the deeper portion of the corium, and one just beneath the papillary layer. These are connected with each other by vertical branches. Besides this, we have the arterioles connected with the coil glands, the sebaceous glands, and the hair follicles. The bloodvessels, in general, are accompanied by filaments of the vasomotor system.

THE LYMPHATIC VESSELS are relatively few, and are almost entirely limited to that portion of the skin beneath the epidermis. There are *lymph spaces*, however, separating the epithelial elements of the rete mucosum extending between the prickle cells and existing in the papillæ of the corium, about the different glands, hair-follicles, and nail-beds.

THE NERVES of the skin are two-fold in character, viz.: non-medullated and medullated. They are derived from horizontal twigs in the subcutaneous tissue and distributed to the corium.

THE NON-MEDULLATED fibres "penetrate to the epidermis between the epithelia in great abundance. * * * They either terminate between the prickle cells as ultimate bulbous terminations of finely beaded fibrillæ, or they penetrate the epithelia themselves in pairs."* We find similar filaments in the sheaths of hairs and ducts of the coil glands.

THE MEDULLATED NERVES consist of the papillary loops, Pacinian corpuscles and tactile corpuscles.

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* Hyde's Treatise.

THE PAPILLARY LOOPS pass into papillæ, the nerve forming one or more of these loops, and then returns to the subpapillary portion of the corium, or it turns back again to another papilla.

THE PACINIAN CORPUSCLE, or corpuscle of Vater, is a small ovoid body, 2.4 mm. long (1-25 in.) situated subcutaneously and occurring chiefly about the fingers, nipples, and penis. The nerve proper is found in the centre, as a club-shaped termination, sur-

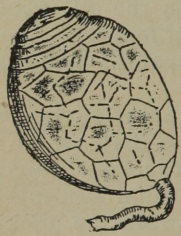

Fig. 3.—Pacinian Corpuscle, with its envelope.

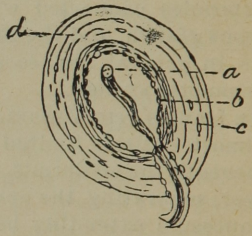

Fig. 4.—Section of Pacinian Corpuscle.

a, Terminal bulb of nerve ; b, Envelope about core ; c, Hyaline zone ; d, Lamellar envelope.

rounded by a protoplasmic core. This, in turn, is covered by a series of concentric nucleated, vascular capsules, which grow denser towards the periphery.

THE TACTILE CORPUSCLE (corpuscle of Meissner, or of Wagner) is also ovoid in form, composed of two or three capsules, and situated in the papillæ of the corium. The capsule is formed of closely packed connective tissue fibres, with small nuclei and within a medullated nerve-fibre deprived of its myeline sheath. The filament divides, and surrounds and penetrates the capsule. It is claimed that these corpuscles have efferent and afferent fibres.

THE PIGMENT exercises a varying degree of influence in giving the color to the skin. It exists nor-

mally only in the lowermost layer of cells of the mucous layer, some granules being irregularly scattered throughout the layer. It is not found, as a rule, in either the horny layer or in the corium. It is to the pigment that the color of the African race is chiefly due, it having no influence on the coloration of whites, unless it be under the influence of solar heat.

THE MUSCLES connected with the skin are striated and unstriated. The striated muscular fibres extend from the subcutaneous tissues into the corium and are found chiefly about the face and neck. The unstriated muscular fibres are found surrounding the nipple, in the orbicularis muscle, or in connection with glands. The *arrectores pilorum* are composed of fasciculi arising from the papillary layer of the corium and inserted into the outer layer of the hair follicle, the direction being oblique, and the fibres are so disposed as to include the sebaceous gland in the angle which is subtended.

THE SWEAT GLANDS, or, as they are now called, the "coil" glands, consist of a globular coil situated in the subcutaneous tissue and deeper portions of the corium. The coil is a convoluted tube terminating in a cul-de-sac. It is lined with columnar epithelial cells, nucleated, with granular contents. The excretory duct passes upward to the epidermis, always taking its course between papillæ, and pursues a straight or spiral direction. At the border of the epidermis, it loses its inner lining membrane as well as its investment of connective tissue, and becomes the *sweat pore.* This sweat pore is simply a channel, straight or spiral, connecting the duct of the coil gland with the surface of the stratum corneum. The coil

gland secretes fat and granules of pigment, whereas the sweat pore excretes the sweat. The coil glands are also said to be concerned in the formation of the subcutaneous fat-cushion and "columnæ adiposæ."

THE SEBACEOUS GLANDS are situated in the corium, and furnish a fatty secretion whose purpose is to lubricate the skin and hairs. The glands themselves are usually racemose, and are divisible into three varieties: 1° Those which open directly into a hair follicle; 2° Those opening upon the skin and associated with rudimentary hairs; 3° Those opening directly upon the surface, but not associated with hairs. The second are the most complex, the last the

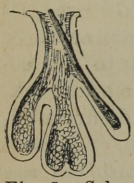

Fig. 5.—Sebaceous Gland of the Second Class.

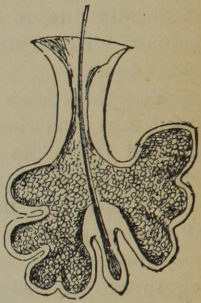

Fig. 6 — Sebaceous Gland of the Seeond Class.

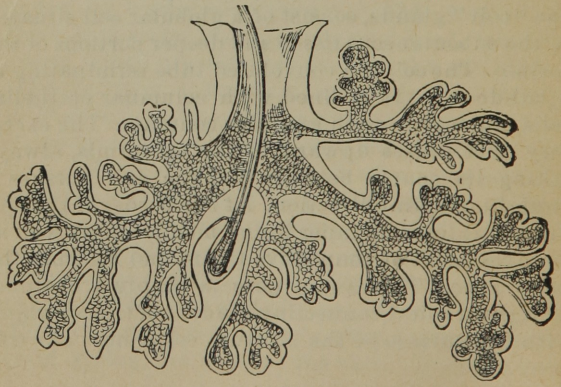

Fig. 7.—Sebaceous Gland of the Second Class.

most simple. The structure of a gland consists of a basement membrane upon which polygonal cells rest, there being one or more layers. Towards the centre we have a mass of epithelial débris, oil globules, etc. The layer of cells next to the basal membrane is composed of columnar cells. This gland, like the coil gland, is formed by a dipping-in of the epidermis in early fœtal life. As already mentioned, the sebaceous glands are inclosed by the arrectores pilorum muscles whose contractions aid in the expulsion of their contents; whereas, in the case of the coil glands, they impede this action.

HAIRS are fine, long, epithelial bodies, arising from depressions in the skin (hair-follicles). There are three kinds: 1° The short, fine hairs, or *lanugo*, covering the face, trunk and limbs; 2° The long, soft hairs, such as we find on the scalp; 3° The short, thick hairs, such as the eyelashes. In a fully developed hair we find it to consist of a point, a shaft, and a bulb embedded in a hair-follicle.

THE HAIR FOLLICLE is a depression in the corium whose axis is at an oblique angle relatively to the plane of the cutaneous surface. It is the peculiar distribution of the follicles that forms the whorls of hairs. Two-thirds of the embedded portion is situated in the connective tissue of the corium. A follicle consists of an external longitudinal fibrous layer, a middle transverse layer, and an internal homogeneous vitreous layer. At the base of the follicle there is a fibrous pedicle.

THE BULB, or root, is that portion of the hair which is embedded. It is bulb-shaped, extending below the follicle, and is implanted on a conical projection—the hair-papilla. The bulb embraces the papilla, and externally is composed of pigmented

cells forming the cortex. The cells become longer and more vertical higher up. Within the bulb we have the medulla, composed of non-pigmented horizontally broadened cells. The medulla rests upon the apex of the papilla, and forms a core to the bulb.

THE SHAFT extends from the surface of the skin to the distal extremity, which tapers to a point. It is straight, curled, or wavy, according to the amount of flattening which is present. The color of the hair depends upon the pigment cells and air in the shaft. The *cortical portion* is composed of flat, nucleated, fusiform epithelial cells, which are imbricated. It is upon this layer that the elasticity and extensibility of hair depends. The *medullary portion* consists of loose epidermal elements, pigment and fatty matters. There is coloring matter in this as well as in the cortex.

When a hair is about to be shed, it separates from the papilla, which is composed of fine connective tissue and contains bloodvessels and nervous filaments, and rises in the follicle until above the papillary apex. It is held by the prickle layer, and is then a "bed-hair." An epithelial bud springs below or into the corium on either side, forming a new hair. About the time the new hair is emerging, the old one is cast off.

NAILS are dense, horny, concavo-convex plates attached to the dorsum of the distal phalanges of the fingers and toes. There are four borders, the one at the distal point being free. The convex surface is exposed, the concave being implanted in the nail bed.

The posterior portion of the nail, hidden by a fold of skin, is composed of from three to six rows of papillæ. Immediately in front of this there is a len-

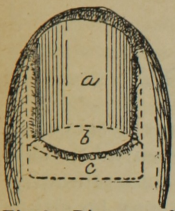

Fig. 8.—Diagram of Nail.

a, Nail bed; b, Lunula; b and c, Matrix. The nail fold is seen to cover the attached borders of the nail.

ticular portion—the *lunula*—composed of converging ridges which become smaller, these two portions constituting the *matrix*, the tissue from which the nail springs. Anterior to the lunula, up to the free border, is the nail-bed,

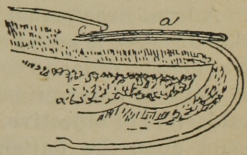

Fig. 9.

a, Nail; c, Nail fold.

which consists of higher ridges of papillæ of uniform height on which are situated prickle cells.

The nail consists of horny filaments passing from the matrix or floor of the nail-fold. The upper surface grows from the bottom of the nail-fold, and the under surface from the lunula. The *nail-fold* is that crescentic portion of integument which clasps the nail posteriorly and laterally. The *lunula* is the light colored space arising from the middle part of the nail-fold and extending some distance towards the distal portion of the nail. In other words, it is that portion of the matrix not concealed by the nail-fold. The light color which it presents is due to keratogenous cells. The white spots seen in nails are due to the presence of air.

SYMPTOMATOLOGY.

A brief description of the symptoms observed in skin diseases is here given, it being essential to master these in order to come to a proper understanding of clinical descriptions. Symptoms may be either subjective or objective. For the former we must depend upon the patient; and, on this account, the varying degrees of intensity are difficult to determine, much depending upon the physical build, mental peculiarities, and nervous organization of the subject.

The principal **Subjective Symptoms** are as follows:

1. Anæsthesia.
2. Hyperæsthesia.
3. Analgesia.
4. Burning.
5. Tingling.
6. Smarting.
7. Itching.
8. Formication.
9. Pain (neuralgic).

These hardly require any explanation, as they are terms in constant use and familiar to all.

The **Objective Symptoms** are those which present themselves to the observer, and which in dermatology are termed *lesions*. Of these we have two kinds—*primary* or elementary, and *secondary* or consecutive. They are as follows:

I. PRIMARY LESIONS.	II. SECONDARY LESIONS.
1. Maculæ; macules, spots.	1. Pigmentatio; stain.
2. Papulæ; papules.	2. Squamæ; scales.
3. Vesiculæ; vesicles.	3. Crustæ; crusts, scabs.
4. Bullæ; blebs, blisters.	4. Rhagades; fissures.
5. Pustulæ; pustules.	5. Excoriationes; excoriations.
6. Pomphi; wheals.	6. Ulcera; ulcers.
7. Turbecula; tubercles.	7. Cicatrices; scars.
8. Phymata; tumors.	

Primary Lesions.

A MACULE, or spot, is a flat, discolored portion of the skin which may be irregular in size and shape and which is not the result of a previous lesion, such as in chloasma.

A PAPULE is a solid, circumscribed elevation of the skin, varying in size from a pin-head to a split pea, conical or semi-globular in shape, whose color may be red, pale or dark, yellow or white, as in milium, acne, lichen ruber, etc.

A VESICLE is a conical or rounded, circumscribed elevation of the epidermis, containing a clear or opaque fluid, varying in size from a pin-point to a split pea, and conical, rounded, or umbilicated in form. It may be seen in herpes, zona, eczema, miliaria, variola, etc.

A BLEBS is an irregularly dome-shaped or flattened elevation of the epidermis, varying in size from a split pea to a goose-egg and containing clear or opaque fluid, as in pemphigus and burns.

A PUSTULE is a circumscribed, flattened, conical, or umbilicated elevation of the epidermis, which varies in size from a pin-point to a silver half-dime, and which contains pus, as in acne, sycosis, eczema, etc.

A WHEAL is an irregularly-shaped, more or less solid elevation of the skin, of an evanescent character, as in urticaria.

A TUBERCLE consists of a circumscribed, solid elevation of the skin, reddish or whitish in color, irregular in shape and varying in size from a split pea to a cherry, as in lepra.

A TUMOR is a soft or firm prominence, of irregular shape, and varying in size, such as in fibroma, sarcoma, steatoma, etc.

Secondary Lesions.

A STAIN is similar to a macule in its characteristics, but differs from it in its origin, being the result or remains of a previous lesion or due to the presence of some foreign substance in the skin, as the pigmentation following ulcers, tattooing, etc.

A SCALE is a large or small, thick or thin, dry, laminated mass of epidermis which has separated from the underlying tissues, and which may vary in size and form, as in psoriasis, pityriasis rubra, etc.

A CRUST is a collection of the dried products of a disease, which varies greatly in size, shape and color, as in eczema, favus, etc.

A FISSURE is a linear solution of continuity, having its seat in the epidermis or down through the corium, as in eczema.

An EXCORIATION is a loss of tissue, confined to the upper layers of the skin, and varies in shape, size and depth, as in pediculosis and scabies.

An ULCER is an excavation of the cutaneous tissue, the result of disease, and varying in extent, besides being irregular in shape.

A SCAR is a connective tissue new formation occupying the place of normal tissue which has been destroyed.

These constitute the elementary lesions of skin diseases.

ETIOLOGY.

In the consideration of the etiology of skin diseases, in general, we are led to a review of the general etiology of disease. For the purpose of convenience, however, the causes of skin disease may be divided into external and internal. Thus we may have as external causes solar heat and light, temperature changes and general telluric and atmospheric agents. The seasons exert a marked influence, and we may include under this head temperature, humidity, soil, water, etc. Among direct external causes are such as are frictional, traumatic, toxic and parasitic. Under these may be included the micro-organisms.

Those causes of a general nature which exert an influence on the skin either in causing the appearance or prolonging the stay of diseases may be denominated systemic poisons, such as syphilis, etc., heredity, age, disordered functions, disease of the various viscera and diseases or lesions of the nervous system. The so-called "diathesis"—the herpetic, the rheumic, the gouty, etc.—have also been invoked by some as causes of certain classes of dermatoses. Besides what has been enumerated, there are causes unknown up to the present, they having successfully eluded the most searching clinical investigation and analysis.

DIAGNOSIS.

If there be any department in medicine in which nearly everything depends upon the accuracy of diagnosis, it is dermatology. It is essential to be exact, observing, critical and to possess a peculiar adaptability for the discrimination of color, form and size. Care and patience are also important requisites. The past history of the patient should be obtained, all previous diseases noted and an inquiry made into his habits. The history of the present attack should also be carefully noted before an objective examination is made.

To examine a patient properly, one of the prerequisites is good light. Good diffused sunlight is the only one that can be relied upon, as many artificial lights absorb all the yellow color. In the next place, the temperature of the room should be comfortable in order to avoid the circulatory changes due to too great heat or cold.

Not only the portion implicated should be examined, but the entire body as well, as such a procedure not only aids greatly in forming a correct diagnosis, but often furnishes information not to be obtained in any other manner.

The diagnosis of a patient should never be accepted, and by refusing to consider this, and by making a thorough and careful examination the pernicious habit of jumping at conclusions, very often false, is avoided.

Finally, we have a great aid to diagnosis in the microscope. This means is particularly valuable in parasitic diseases and those due to micro-organisms.

PROGNOSIS.

There is perhaps nothing more important to the patient than the prognosis of his affection, as this involves the question of a cure, or the reverse. It also includes consequent deformity, and it is this latter question which is of importance to the physician, as he is enabled to protect himself from the accusation of maltreatment.

Skin diseases are acute or chronic, amenable to treatment or very rebellious, with all the intermediate degrees of stubbornness to therapeutic measures. Some are destructive in their effects and some are essentially incurable. Again, there are affections which, while curable under some circumstances, are not so under others, simply from the fact that they are dependent upon some general condition which cannot be relieved. It is on account of this that the examiner cannot be too careful in his inquiries into the general state of the patient.

As a rule, diseases in infants and children have a tendency to be acute, and readily yield to proper treatment. In the old the tendency is to chronicity and consequent rebelliousness to therapeutic measures. Tissues are more easily destroyed in the old, and proportionately regenerated in the young. The old are more prone to the influence of malignant processes. The skin is less active, is weaker and more or less atrophied in the aged, all of these factors influencing the prognosis to be made in a given case.

CLASSIFICATION.

The arrangement here presented is essentially that of the American Dermatological Association. Like all others, it contains defects, but it will be found to be simple and quite convenient, which are qualities to recommend it.

Class I.—Disorders of Secretion and Excretion.

A. *Sebaceous Glands.*
- Seborrhœa.
- Asteatosis Cutis.
- Comedo.
- Milium.
- Sebaceous Cyst.

B. *Sweat Glands.*
- Hyperidrosis.
- Anidrosis.
- Bromidrosis.
- Chromidrosis.
- Sudamina.

Class II.—Hyperæmias.

A. *Erythematous.*
- Erythema Simplex.
- Erythema Intertrigo.

Class III.—Inflammations.

A. *Erythematous.*
- Erythema Multiforme.
- Erythema Nodosum.
- Urticaria.

B. *Erythematous, Vesicular, Pustular, Papular, Squamous.*
- Eczema.

C. *Vesicular.*
- Herpes.
- Herpes Zoster.
- Herpes Iris.
- Miliaria.

D. *Bullous.*
- Pemphigus.

E. *Papular.*
- Lichen Ruber.
- Prurigo.
- Lichen Scrofulosus.

(Class III—Continued.)

F. *Pustular.*
Acne.
Acne Rosacea.
Sycosis.
Impetigo.
Impetigo Contagiosa.
Ecthyma.

G. *Squamous.*
Psoriasis.
Pityriasis Rubra.

H. *Phlegmonous.*
Furuncle.
Anthrax.

I. *Erythematous, Vesicular, Bullous, etc.*
Dermatitis.

Class IV.—Hæmorrhages.

A. *Corium, etc.*
Purpura.

Class V.—Hypertrophies.

A. *Pigment.*
Lentigo.
Chloasma.
Nævus Pigmentosus.

B. *Epidermis, Papillæ.*
Callositas.
Clavus.
Cornu Cutaneum.
Verruca.
Ichthyosis.
Keratosis Pilaris.

C. *Corium.*
Scleroderma.
Morphœa.
Sclerema Neonatorum.
Elephantiasis.
Dermatolysis.

D. *Hair.*
Hypertrophy of the hair.

E. *Nail.*
Hypertrophy of the nail.

Class VI.—Atrophies.

A. *Pigment.*
Albinism.
Vitiligo.
Canities.

B. *Corium.*
Atrophia Cutis.
Atrophia Senilis.
Striæ et Maculæ Atrophicæ.

C. *Hair.*
Alopecia.
Alopecia Arcata.
Atrophy of the hair.

D. *Nail.*
Atrophy of the nail.

Class VII.—New Growths.

A. *Connective Tissue.*
Keloid.
Molluscum Fibrosum.
Xanthoma.

B. *Cellular.*
Rhinoscleroma.
Molluscum Epitheliale.
Lupus Erythematosus.
Lupus Vulgaris.
Scrofuloderma.
Lepra.
Syphiloderma.
Carcinoma.
Sarcoma.

C. *Bloodvessels.*
Nævus Vasculosus.
Telangiectasis.

D. *Lymphatics.*
Lymphangioma.

E. *Nerves.*
Neuroma.

F. *Muscles.*
Myoma.

Class VIII.—Neuroses.

A. *Hyperæsthesia.*
Hyperæsthesia.
Dermatalgia.
Pruritus.

B. *Anæsthesia.*
Anæsthesia.

Class IX.—Parasites.

A. *Vegetable.*
Tinea Favosa.
Tinea Tricophytina.
a. Tinea Corporis.
b. Tinea Capitis.
c. Tinea Barbæ.
Tinea Versicolor.

B. *Animal.*
Scabies.
Pediculosis.
a. Pediculosis Corporis.
b. Pediculosis Capitis.
c. Pediculosis Pubis.

The above does not contain a complete list of the diseases of the skin, nor is it more than a general guide.

CLASS I.—DISORDERS OF SECRETION AND EXCRETION.

The diseases which are comprised in the above class, while purely functional in character, are of importance on account of their frequency and character. They embrace the disorders of secretion and excretion of the sebaceous and sweat glands. They are not inflammatory in nature; and those pathological processes, found accompanying these disorders which are not concerned in the purely functional disturbances of the glands, are accidental and not necessary accompaniments of the diseases.

SEBORRHŒA.

Syn.— Seborrhagia, Fluxus Sebaceus, Dandruff, Acne Sebacea, Stearrhœa, Ichthyosis Sebacea.

This disease is characterized by hypersecretion, and may exist upon any portion of the body, except the palms and soles. It is found most frequently upon the scalp ("dandruff"). It also occurs quite often upon the face and trunk.

Two principal varieties are recognized—seborrhœa sicca, and oleosa.

Seborrhœa sicca is most frequent upon the scalp, although occurring in other localities. It presents the appearance of thin or thick crusts, composed of yellowish or greyish, sometimes dirty-looking scales, which separate quite easily and have an unctuous feel. The surface involved varies considerably in extent. The skin beneath these accumulations of sebum has a pale appearance, unless scratching or

some irritating measure has caused a reddish appearance. Itching is a symptom which is a constant accompaniment of this form of the disease.

Seborrhœa oleosa is the wet or oily form. It is seen most often during hot weather, and generally on the face about the alæ of the nose. It presents a shiny, glistening appearance, the liquid sebaceous matter conveying the impression that oil has been poured upon the skin. A strong unpleasant odor accompanies the secretion, this being most marked about the umbilicus, genitalia and perineum.

Seborrhœa may be either local or universal. As a rule, it is the former. In congenital, universal seborrhœa, the integument is stretched, the eyes and the lips are fixed ; and the fingers, toes, and auricles are undeveloped.

Seborrhœa occurs at or after puberty; also in conjunction with or after severe fevers, systemic disorders, etc. While the disease is often dependent upon internal causes, cases are met with in which no known cause can be fixed upon.

The differential diagnosis is comparatively easy, as the only disorders with which it might be possibly confounded, are eczema, psoriasis, ringworm, and erythematous lupus.

The treatment of seborrhœa should be both constitutional and local, in the majority of cases. Good food, good air, good water, and, where debility or anæmia exists, cod-oil combined with ferruginous tonics and the hypophosphites. If the cause can be found, direct the treatment to that. A remedy of value, at times, is the sulphide of calcium (gr. 1-10 to 1-5 four times daily). Exercise should also be enjoined.

Local treatment is very important and, frequently, all that is necessary. The accumulated sebum

should first be removed by soaking in oil and thoroughly rubbing in—

℞ Sapo. Viridis ..... ℥viii.
Alcoholis. ..... ℥iv.
Solve et Filtra.

Take a half ounce of this mixture with water and shampoo the part well. Then dry the parts and apply some stimulating preparation, if there be not too much irritation following the wash. For stimulation, lotions may be employed such as contain carbolic acid, cantharides, tincture of capsicum, bichloride of mercury, etc. Ointments are preferable, the following acting nicely:

℞ Sulphuris precip. ..... ℥ss—℥ij.
Zinci oxidi ..... ℥ss.
Ung. Aquæ Rosæ ..... ℥i.
M.

The ammoniated mercury, red oxide of mercury, oleate of mercury, beta napthol, etc., may also be used with benefit.

The prognosis of this affection is rather uncertain. The disease is essentially a chronic one, and much depends upon the general state of the patient. When occurring upon the scalp it may produce falling of the hair, unless treated energetically. It is more amenable to treatment upon non-hairy portions of the body. When universal, it is generally fatal.

ASTEATOSIS CUTIS.

In this there is a diminished or arrested secretion of sebum, generally local. The skin is dry, harsh and fissures easily at the flexures. It is found in all the atrophies of the skin, and accompanies some affections (ichthyosis, lichen ruber, psoriasis). Local influences produce it, such as exposure to alkalies, alcohol, etc. There is no difficulty in recognizing this

condition. The only method of treatment is to supply the deficiency by applying some bland fats or oils.

COMEDO.

Syn.—Acne Punctata, Black-heads.

This disease, often found in connection with acne, presents the appearance of small black points, more or less marked, either on a level with the skin or as the central black dot of a slight, whitish elevation. The parts most frequently attacked are the face, neck and back. There are no subjective symptoms connected with comedo.

It is a functional disease of the sebaceous glands in which, through some cause, the innervation is below par. An inspissation of sebum takes place in the gland itself and that portion in the duct contracts and hardens. Foreign material accumulates in the mouth of the duct and colors it black. Sometimes the black dots occur in pairs, both ducts communicating with one cavity—*double comedo.*

The causes of comedo are various. Constipation, dyspepsia, gastric catarrh, etc.; hepatic troubles, chlorosis, anæmia may cause it. Some occupations, such as coal mining, working in tar, etc., also produce it.

There is no difficulty in making a diagnosis.

Treatment should be directed to the general condition, in the first place. As constipation is the most frequent complication, it may be well to give an occasional dose of calomel, and the following acid aperient mixture:

R Magnesiæ sulphatis ..... ℥ iss.
Ferri sulphatis ..... gr. xvi.
Acidi sulphurici dil. ..... ℥ ij.
Aquæ ..... ℥ viij.
M. Sig. Tablespoonful in water before breakfast.

Locally, stimulants are indicated. Force out the contents of each comedo with an extractor every day,

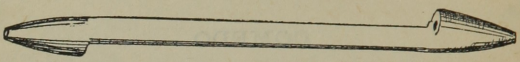

Fig. 10.—Author's Comedo Extractor.

then apply hot water (110° F.) followed by the following ointment:

℞ Sulphuris loti ..... ℥ss—℥i.
Hydrargyri oleatis, (5 per cent) ..... ℥ss.
Ung. Aquæ Rosæ ..... ℥i.
M. Sig. Apply at night.

When the comedones are small and in large numbers, the following is a good application:

℞ Acidi acetici dil ..... ℥i.
Glycerini puriss ..... ℥ii.
Kaolini ..... ℥iij.
M. Sig. Apply at night.

It is not necessary to mention here the stimulating ointments which may be used with benefit. Sapo viridis, followed by a bland ointment, may be employed.

Comedo is essentially chronic in its nature, but tends to heal spontaneously, generally disappearing at about the twenty-sixth year or a little later.

MILIUM.

Syn.—Grutum, Acne Albida, Strophulus Albidus, Pearly Tubercles.

Milium is a common affection of the sebaceous glands, appearing as roundish, millet-seed sized, white papules, occurring for the most part about the eyelids and malar eminences. The milia are generally opaque and are not accompanied by any subjective symptoms.

The lesion is essentially a retention cyst, the sebaceous contents of the gland forming a hard

round mass, the duct closing and the epidermis becoming very thin. The contents, at times, although rarely, undergo calcareous degeneration and form *dermatolithes* (cutaneous calculi).

Milium is entirely local in character, easily recognized and very amenable to treatment. The cyst is emptied and its lining membrane destroyed. To accomplish this, the papule is cut open with a milium

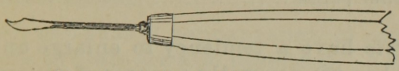

Fig. 11.—Author's Milium Needle.

needle and the cyst wall scraped with a small, sharp spoon or with the convex edge of the needle. Instead of this scraping, some irritating fluid, such as tincture of iodine, nitrate of silver, caustic potassa, carbolic acid, may be introduced. Finally we have the electrolytic method, which is rapid and effective.

Any of the above measures, properly carried out, will cause the permanent disappearance of milia.

SEBACEOUS CYST.

Syn.—Atheroma, Wen, Steatoma, Sebaceous Tumor, Follicular Tumor.

The lesions in this trouble vary in size from a split-pea to a small egg, being rounded, hemispherical, or semi-globular. The skin covering this cyst is either normal or thinned and shining. The scalp, face, nucha, back and genitalia are most frequently affected. The duct of the sebaceous gland may still persist. When occurring upon the scalp the cyst is not covered by hair.

Generally there is but one cyst and it occurs in preference in old persons; adults being also subject

to it. It is benign, unless ulceration, which may assume a malignant character, sets in.

The treatment is purely surgical, electrolysis having also been successfully employed. Care must be taken to destroy the sac. In small sebaceous cysts the following, applied twice daily, sometimes causes their disappearance:

R Ammonii sulphichthyolat .... ℥iss.
Lanolini puriss..... ℥i.
M.

The cysts have a tendency to enlarge unless removed. They are generally a source of annoyance to patients, on account of their location.

HYPERIDROSIS.

Syn.—Ephidrosis, Sudatoria, Idrosis.

As its name implies, this disease is a functional disorder of the sweat glands, characterized by excessive sweating, either local or general, and depends upon some disturbance of the vaso-motor system of nerves. It is a common affection and, in summer or in exposure to other sources of heat, it is merely an intensification of a normal function.

It may be transitory or permanent; or symptomatic of fever or some other systemic disturbance.

The form we are to consider more particularly is the local, permanent hyperidrosis. The parts most liable to be the subject of this disturbance are the pudenda, perineum, soles of the feet; the scalp and the palms of the hands being also frequently implicated. The skin assumes a pinkish hue, and appears sodden, the horny layer peeling off easily through maceration. Pressure upon the parts produces pain, in marked cases.

General treatment, consisting of tonics of various kinds, combined with hygienic measures, is indicated. Locally, in mild cases, frequent washings, followed by astringent lotions or powders, are sufficient. As astringents may be used catechu, tannin, alum, zinc sulphate, etc. For instance:

R Acidi tannici..... ℥ss.
Tinct. catechu..... ℥i.
Alcoholis..... ℥vij.
M. Use as a lotion.

Weak solutions of permanganate of potassium, or of chloral hydrate are also beneficial. After using a lotion, a dusting powder should be freely applied. This may consist of talc, French chalk, magnesia, oxide of zinc, or bismuth subnitrate. By adding salicylic acid, a scruple to the ounce, the good effects will be enhanced.

The form of hyperidrosis for which relief is most often sought is that affecting the feet. It is perhaps also the most difficult to relieve. If any of the methods given above fail to produce the required effect there are means still left, some one of which will prove successful.

Thus, the daily application of a two per cent. salicylated mutton suet; painting the affected parts once every four or six weeks with a five per cent solution of chromic acid; applying subnitrate of bismuth liberally twice a day, without any further washing than that before beginning the treatment; bathing the feet in tar-water and then applying a solution of persulphate of iron morning and evening. The emplastrum diachyli renewed every second or third day will give good results in many cases; a belladonna or salicylic acid plaster will act in the same manner. Carb acid lotions, beta naphthol

in alcohol, boric acid in saturated solution, and corrosive sublimate solutions of varying strength are external applications employed in this affection.

Hebra's method, which is the best, perhaps, is as follows: The feet are washed, and dried with a dusting powder. Then the soles and toes are covered snugly with pieces of cloth upon which has been spread, to the thickness of a knife-blade, the following ointment:

R Olei olivarum opt ..... ℥xv.
Lithargyri ..... ℥iij ℥vi.
Aquæ, q. s.
Coque et fiat unguentum secundum artem.
Sig. Hebra's diachylon ointment.

This application is to be made twice in twenty-four hours, the feet not being washed, but simply wiped dry with a cloth and dusting powder applied. In ten to fifteen days dusting powders only are used. If a relapse occurs the same course of treatment is repeated.

The prognosis of hyperidrosis, especially of the local form, should be guarded. In old cases affecting the feet, the disease is very obstinate.

ANIDROSIS.

Syn.—Hypohidrosis.

This disorder is characterized by a diminished amount, or total absence, of the sweat secretion. It is generally symptomatic and an accompaniment of some other trouble. When it exists independently the skin is dry, harsh, parchment-like, with a tendency to the formation of scales. In this form it depends upon a deficiency in the development, number, or function of the sweat glands. Anidrosis exists in chronic skin diseases such as ichthyosis, psoriasis, lepra, etc., and in certain of the neuroses, also in

diabetes insipidus and mellitus. The treatment, in the variety which is not symptomatic, is tonics, hot or steam baths followed by massage of the skin. In general, there is very little to be done.

BROMIDROSIS.

Syn.—Stinking Sweat, Osmidrosis.

In this disorder the condition is a qualitative disturbance of the sweat function. It is characterized by a heavy, penetrating, offensive odor, and may be either local or general, most frequently the former. It is seen more particularly in those whose complexion is dark, and in negroes. The greater the amount of perspiration the more intense the odor. While symptomatic of some diseases, it is, as a rule, idiopathic and local. The portions most often implicated are the axillæ, the genitalia, the perineum and the feet. The last especially emanate a most foul odor. Males are more often affected than females. It may appear at puberty or later in life.

The diagnosis is easily made. The disease may be temporarily due to filth and negligence, but it occurs in those who are unexceptionally clean, and Mr. Thin claims that it is caused by the bacterium fœtidum.

The treatment is the same as that for hyperidrosis with the exception of previously washing the parts in some disinfectant. For this may be employed solutions of permanganate of potassium, corrosive sublimate, chloride or sulphate of zinc, all possessing the advantage of being odorless. Solutions of chloral hydrate are also said to act well.

In obstinate cases much patience is required in

order to obtain relief and energetic measures, in the form of strong antiseptics, may be necessary.

CHROMIDROSIS.

Syn.—Colored Sweat.

Colored sweat is rarely observed. It may be yellow, red, brown, black, green or blue (cyanidrosis). It may be generalized or localized. The majority of cases depend upon malingering in the subject. The genuine cases occur in women who are hysterical, anæmic, or who have menstrual disorders. Red sweat is due to the bacillus prodigiosum, most probably. The treatment should be general and, where micro-organisms are found, locally antiseptic.

HÆMATIDROSIS, or bloody sweat; URIDROSIS, or urinous sweat; and PHOSPHORIDROSIS, or phosphorescent sweat, are more in the nature of curiosities and will receive no consideration here.

SUDAMINA.

Syn.—Miliaria Crystallina.

This affection is a functional disorder of the sweat glands manifesting itself as closely grouped vesicles having a whitish or pearl-colored appearance and of the size of a millet-seed. They may become confluent. The back, chest, abdomen, extremities and limbs may be attacked, the face being exempt. The contents become absorbed in a few days and a mild desquamation follows. Successive crops may appear for weeks. There are no inflammatory symptoms or subjective sensations observed.

It occurs in the old and young, but more especially in those of weakened constitution. Sudamina de-

pends upon an unusual activity in the secretion of sweat, which becomes so great that it cannot reach the surface rapidly enough, and getting between the layers of epidermis raises it up in the form of vesicles.

The diagnosis is easily made and treatment *nil*. The vesicles should not be opened, and all precautions taken to prevent excessive perspiration.

CLASS II.—HYPERÆMIAS.

In this class of diseases we have the presence of an excess of blood in the vessels. There are two principal varieties of hyperæmia of the skin—active and passive. In the former there is increased redness, heightened temperature, due to an increased arterial flow; in the latter, a bluish color and lowered or normal temperature due to a retarded flow of blood. The condition may be idiopathic or symptomatic.

ERYTHEMA SIMPLEX.

In this condition we have a heightened color of the skin involving more or less surface and disappearing under pressure. There is also an increase in temperature. The causes, in general, are heat, cold, injuries, or mechanical, poisonous or chemical agents, which are irritating. General disease or visceral complications produce symptomatic erythema. The idiopathic variety is divided into three principal classes, depending upon the cause—caloric, traumatic and chemical.

Erythema caloricum is quite a common form, due to the action of heat or cold. Sometimes, the process is continued until inflammation arises.

Erythema traumaticum is also common. It is due to pressure or rubbing such as is produced by bandages, trusses, garters, suspenders, etc. The friction of clothing or resting a part heavily against some solid body also produces it.

Erythema veneratum is caused by a large number of mineral and vegetable substances. Acids,

alkalies, the anilines, mustard, arnica, turpentine, sulphur, mercurial preparations, etc., produce it, many being employed with that object in view.

The symptomatic hyperæmias depend upon some internal cause, and are the result of derangements produced by diseases or drugs. When this form of hyperæmia occurs in nail-sized patches of a rosy color it is known as *roseola.*

The only treatment is to remove the cause. If marked local irritation is present some bland dusting powder or soothing ointment should be applied.

ERYTHEMA INTERTRIGO.

Syn.—Chafe.

This disorder is simply a hyperæmia in which we find the skin hot, red, more or less excoriated, and the upper layers of the epidermis macerated. It occurs where the folds of the skin are largest or where the skin is subjected to a great deal of friction, the neck, the internatal cleft, the perineum, the submammary fold, the axillæ, the abdominal folds, the scroto-crural fold, etc., being the portions most frequently affected. The subjective symptoms consist of heat accompanied by more or less pain. When the disease is severe, a viscid, mucoid secretion is poured out. If this be permitted to go on, a dermatitis or eczema quickly supervenes.

This disease is much more common in Summer than in Winter, being observed principally in infants and fleshy adults. Among the exciting causes are excessive or irritating underclothing, want of cleanliness, acrid secretions or foul deposits, and the friction of opposing surfaces of the skin.

The diagnosis is easily made, except in aggravated cases, when it should be guarded, as the

space of a day may show the trouble to be eczema or dermatitis.

The treatment of erythema intertrigo is simple, but depends upon being faithfully carried out for its efficiency. In mild cases a simple dusting powder should be liberally applied, such as:

℞ Pulv. Zinci oxid,
Pulv. Cretæ prep., āā..... ℥i.
Talci Venet.
Natri Bicarbonat. āā..... ℥ij.
M. Ft. Pulvis.

This should be applied two or three times daily after washing the parts in cool water.

Where we have a raw, excoriated condition, accompanied by a thick, glutinous discharge, there should be a thorough cleansing followed by an astringent or slightly stimulating lotion, such as lotio nigra (diluted). Then apply over this a soft cloth on which has been spread a soothing ointment of which the following is an example:

℞ Zinci Oxidi..... ℥ss.
Pulv. Camphoræ..... ℈j.
Ung. Aquæ rosæ..... ℥j.
M.

An ointment of this description soothes and acts also as a protective dressing.

Erythema intertrigo is easily amenable to proper treatment, but prophylactic measures must be observed, as it is prone to relapses.

CLASS III.—INFLAMMATIONS.

The inflammatory diseases of the skin form by far the largest as well as the most important class. The diseases are, apparently, of the most diverse character, both in appearance and in subjective manifestations. While this may be true, they still are properly classified under one head; for, in a pathological view, they are all involved in the same general process—inflammation. The degree of the process differs in different diseases, from an involvement of the superficial layers only of the skin, to those in which not only the entire skin, but the subcutaneous tissues are also implicated. Some of the diseases are acute and of short duration, healing spontaneously; others, and these constitute the majority, soon become chronic and are not easily amenable to treatment. Again, some are benign in their course, occasioning little or no trouble, whereas others are a source of constant pain. The objective symptoms vary greatly in the different diseases, almost all the lesions being represented. The causes which lead to these inflammatory affections are most diverse in nature, not only for the different diseases, but even in different examples of the same one.

ERYTHEMA MULTIFORME.

This is a polymorphous erythema in which papules, tubercles or vesicles may appear. It is generally of a severe type, malaise and fever accompanying it, the hands, forearms, backs of the feet and thighs, being most often affected. Other portions of

the integument are also occasionally the seat of the trouble. It assumes the form of an annular lesion, sometimes. Relapses are frequent, the duration of the process lasting several weeks. General treatment, such as is indicated by the symptoms, is necessary. Locally, astringent lotions and protective powders.

Erythema papulatum, *e. tuberosum*, *e. marginatum*, *e. vesiculosum*, and *e. iris* are varieties of the above.

ERYTHEMA NODOSUM.

Syn.—Dermatitis Contusiformis.

This affection appears at first as erythematous patches on the lower limbs, most often over the tibiæ, and soon assuming a node-like aspect. Burning and pain upon pressure are the principal subjective sensations, rheumatoid pains being also felt. In a short time, the reddish color changes to yellowish, greenish, etc. Successive crops may appear, each one lasting a week or ten days. It may be mistaken for a bruise, or for syphilitic nodes, when occurring over the tibiæ. Astringent and cooling lotions are all that is necessary.

URTICARIA.

Syn.—Nettle Rash, Hives, Cnidosis, Febris Urticata.

This disease is one of frequent occurrence. It is characterized by a sudden eruption of wheals of various sizes and varying in number, which are either paler than the normal skin, or reddish. After a variable length of time these lesions disappear as suddenly as they came. Burning or pricking and itching accompany the eruption and scratching

is apt to cause it to extend. In the acute form, attacks occur only when produced by some exciting cause and they are evanescent. When chronic, urticaria recurs again and again and the wheals have a tendency to persist.

There are several varieties which are rather infrequent. *Urticaria pigmentesa* is followed by persistent pigmentation. In *urticaria papulosa* we have the formation of papules. When the wheals assume an enormous size we have *urticaria tuberosa* or *giant urticaria.*

The diagnosis is comparatively easy. Where wheals exist, which are the the result of insect bites, the central hæmorrhagic point will reveal the cause.

The causes of urticaria are external and internal. The former are those agents which act as direct irritants to the skin. The latter are such as act from within. Among internal causes are febrile disturbances; certain articles of food, such as shellfish, mussels, oysters, cheese, strawberries, etc.; certain drugs such as balsam copaiba, oil of turpentine, etc., and moral causes, such as fright, anger, grief. Disturbances of the genito-urinary, respiratory, or digestive apparatus may also act as causes.

This disease is probably a reflex vaso-motor disturbance, resulting in a sudden, circumscribed exudation, which is reabsorbed; or, the result of an irritation of the peripheral nerves.

The treatment of acute urticaria is expectant. Sometimes, an emetic will cut short an attack, and to prevent a recurrence a saline laxative should be administered. The internal exciting cause should always receive attention. Atropine in one-sixtieth grain doses will be found beneficial in aborting

attacks. This can be given twice daily and its effects should be closely watched. Hydrobromate of quinia in three-grain doses twice daily, and salicylic acid, not to exceed seventy-five grains in a day, are also given with success.

For local use, to allay the itching and irritation, cold water, hot water, vinegar, whisky, dilute or pure alcohol, solution of carbolic or of salicylic acid, solution of chloral, or ointments containing sedatives may be used. Peppermint water, cherry laurel water or a mixture containing chloral hydrate and morphine act well. In fact, any application containing a sedative will be beneficial.

ECZEMA.

Syn.—Salt Rheum, Moist Tetter, Scall, Milk Crust.

This multiform skin disease is the most frequently met with, constituting about one-third of all cases applying for treatment. The great number of varieties which have been made by different writers has only served to confuse the subject which, at best, is a difficult one in the consideration of the principles involved. We have here to deal with an inflammation, and, as in other portions of the body, we have all the classical symptoms of that process present. In addition, multiform lesions appear and a subjective symptom, which is in the highest degree distressing—itching.

Clinically, there are several types of eczema, each one, however, having variations. This must not be forgotten, as these types are but different stages of the disease.

There are six general symptoms observed in eczema which it is well to remember: 1° Itching,

tingling, or burning pains; 2° Redness; 3° Erythema, papules, vesicles, pustules, or exudation; 4° Crusting and scaling; 5° Infiltration, thickening; 6° Fissures.

Eczema erythematosum is a form of the disease in which the skin is red, hot, and exhibits some swelling. A moderate amount of itching is also present. This form may continue until it becomes chronic or it may lapse into some other type. It occurs in middle life and old age, is symmetrical, and most often involves the face. It may involve a large or small extent of surface. Sometimes small papules are observed in connection with it.

Eczema papulosum is characterized by a papular eruption with, occasionally, a few vesicles. It may exist alone or combined with the former type. The papules have a dark red color, and frequently a little crust of blood crowns the apex.

Eczema vesiculosum is generally acute and a typical case is rarely seen. When seen the vesicles have broken down and the surface presented is moist and thickened patches show themselves.

Eczema pustulosum should present marked pustules; but, as a rule, they soon break down, leading to the formation of crusts of a yellowish color. While the itching, as in the vesicular type, is not marked, it is frequently intensely painful.

Eczema rubrum, or eczema madidans, presents a red and angry appearance, exudation being quite abundant. It is caused by a loss of epidermis, following an acute or chronic process. The exudation generally forms crusts at different points.

Eczema squamosum is characterized by a constant shedding of rather thin scales, from an erythematous surface. Itching is marked in this form.

Eczema fissum is generally a result of the preceding, the fissures occurring about the flexures of joints penetrating to and deep into the rete Malpighii. These fissures are exceedingly painful, especially when irritants find their way into them.

Eczema sclerosum is observed chiefly about the palms and soles and finger tips, in which a degree of thickening of the skin takes place.

Eczema intertrigo and *eczema verrucosum* relate to forms of the disease, the names readily suggesting the appearance.

The stages of eczema may be divided into acute, subacute and chronic.

Acute Eczema may or may not have prodromata. The skin becomes red, hot and œdematous, the degree of this latter varying with the amount of subcutaneous tissue in the part attacked. In a very short time, papules, or vesicles may appear or the epidermis may become denuded. In some cases it remains erythematous. In this form of eczema it is frequently difficult to distinguish it from intertrigo or from dermatitis. Protection will frequently bring about a return to the normal.

Subacute Eczema, while not presenting the intense inflammatory symptoms observed in the foregoing, is attended by moderate pain, itching and thickening of the skin. In addition, more or less exudation, with the formation of crusts, occurs.

Chronic Eczema is marked by a tendency to recur and to persist. Itching is generally intense, although absent in some varieties. Crusts and scales are present and exacerbations of an acute character occasionally take place. Fissures show themselves and, at times, the skin merely appears tense, red and shining.

Eczema is found at all ages and in both sexes. It is not contagious nor inherited, although a condition predisposing to its development seems to be transmitted from one generation to another. Two classes of causes are recognized in this disease: local or external, and general or internal. Any agency which will irritate the skin, whether it be frictional, traumatic, chemical, or toxic, may call eczema into being.

The constitutional causes are such as produce defective assimilation or debility and have been classified broadly as the gouty, the strumous, and the neurotic conditions. The first, including the "rheumic" of some authors, is perhaps the most common of the internal causes and by directing attention to this a marked effect is soon observed. Among causes not mentioned by authors is the influence of certain micro-organisms which primarily produce an irritation causing a subsequent eczema in those predisposed to it. Air and water are also active agents in the production of this disease as well as in its continuance.

A consideration of the forms of eczema, attacking the different organs of the body, is perhaps the best and simplest modé of dealing with this complicated subject. Only such general notions in regard to treatment can be given as will serve for general guides. It is only in works especially devoted to the consideration of this disease that details can be given. They should be carefully studied, as eczema is the "keystone of dermatology" and a thorough knowledge of its symptoms and treatment ensures an equal acquaintance with the other diseases incident to the integument.

Eczema of the face and scalp.—In infants and children it is the pustular form which is most often encountered in these localities; in adults, the erythematous and squamous, the papular being seen in both.

In eczema of the *eyelids* we have the thickened edges, red and exuding a viscid material which glues the lashes together. It is often necessary to employ constitutional measures in addition to the local application of soothing ointments.

Eczema of the *lips* may exist alone, affecting the skin or involving the vermillion border, or the commissures. It is generally rebellious to treatment, involvement of the upper lip depending upon nasal discharges. In adults, the lips sometimes fissure and become dry. In the latter cases, gastric derangements are generally the cause and should receive attention.

Eczema of the *ears* is frequent in children, and involves the entire auricle, or external auditory canal. The ears become thickened, swollen and painful, and, later on, moist, crusty and itchy. Behind the ear, the most frequent site in adults, it persists and causes fissures to appear.

Eczema of the *scalp* assumes three principal forms: the pustular, moist exuding, and dry scaly. In infants and children it is the first which is most often seen. The pustules soon burst and crusts are formed which mat the hair, and underneath a moist, reddened, irritable surface exists. In infants it frequently assumes the form of a yellowish crust, covering the vertex and of considerable thickness, popularly known as "milk crust." It sometimes passes on to the moist exuding, which is the form

seen in adults, although not so frequently in the latter as the dry scaly. The itching is marked in all three varieties, and in the two former some pain is also present.

Eczema of the *face* is pustular in children and erythematous or papular in adults. In the former crusts soon form, generally about the cheeks, invading the ears, and in the latter the forehead, nose, eyelids, and cheeks are also involved.

Eczema of the Hands and Arms.—Eczema of the *hands* is generally chronic. Sometimes it is acute and then it presents itself most frequently upon the dorsum and extends to the fingers. In the subacute or chronic state it is somewhat different in appearance from the condition presented in the acute form which is erythematous and papular, as a rule. In the chronic state we have a dry, hard, thickened skin, found most frequently upon the palms, having a tendency to scale and very liable to fissure at the natural folds. Owing to the exposure of these parts to external irritative influences the condition is very rebellious to treatment. Eczema of the *arms* exhibits about the same characteristics as upon the integument in general. At the bend of the elbow, however, it frequently becomes squamous and fissures are very apt to occur.

Eczema of the Feet and Legs.—In these localities the tendency of the disease is to become chronic in a very short time. Eczema of the *feet* in its general characteristics is similar to that of the hands. Sometimes the eruption is vesicular about the toes. In eczema of the *legs* we have a condition generally assuming the form of eczema rubrum. Occasionally it is dry, shiny, and here the itching is always more

or less intense. The disadvantageous conditions of circulation tend to render the affection stubborn in this locality and to lead to the formation of ulcers. A papular form is not infrequent on these extremities.

Eczema of the Anus and Genital Regions.—In these places we have a localization of eczema which is, in the highest degree, distressing. There may be but a very slight eruption, or a raw exuding surface, accompanied by marked thickening of the skin, may manifest itself.

Eczema of the Trunk.—The trunk is sometimes invaded in its entirety, the form being erythematous or papular, sometimes squamous to a certain degree. The opposing surfaces of trunk and *mamma* in the female are affected by a moist, raw form, and the *nipple* by a thickened fissured variety. At the *umbilicus* we have an exuding form, and in the *axillæ* a similar condition.

Universal Eczema.—This condition is one which generally shows a repressed condition of the whole system. It is very distressing and rebellious to treatment. It begins as an erythematous eczema, but has tendencies to assume a more or less squamous form in those localities which are prone to assume a scaly process. It is seen in those who are adults or past that period of life. In this form the itching is marked.

Infantile Eczema.—Nearly all cases of eczema occurring in children under five years of age, are classified under this general head. In these the disease assumes an acute form, exudation and pustulation not being uncommon. Crusts and excoriations are generally present and the itching is intense.

The Diagnosis of the various forms of eczema is, at times, a very difficult matter. Eczema of the face resembles erythema, acne rosacea, and erysipelas; in the beard it is similar to sycosis or tinea barbæ; upon the lips it simulates mucous patches, or herpes labialis. The pustular form occurring on the scalp might be mistaken for pediculosis, the pustular syphilide, or favus, and the scaly form looks like seborrhœa, pityriasis, psoriasis, tinea tonsurans, and favus of long standing. On the dorsum of the hands it is sometimes similar to scabies, dysidrosis, lichen planus, or papular erythema; and on the palms (or soles) to psoriasis, or the squamous syphilide. On the legs, the ulcers resemble those due to varicose veins, or to syphilis. About the anus and genitals it might be confounded with tinea cruris, or pediculosis pubis, scabies or syphilides. The eczematous lesions of the trunk are sometimes of a form suggesting psoriasis, tinea, herpes zoster, syphilis, or pityriasis rubra. When about the breast, it might be taken for scabies, epithelioma, or "Paget's disease." In the axillæ it frequently resembles tinea of that region.

The treatment of this disease is perhaps no less difficult or important than the diagnosis. And it is not only the treatment, but the management as well, that is productive of a good result. The diet and hygienic conditions of the patient should be carefully looked after and, in a great measure, adapted to the general diseased condition. In all cases, it should be especially adapted to the individual, as each one is a law unto himself. Arsenic will not cure the disease. Generally, attention to the bowels and stomach, alkalies, bitter tonics and nutritives that are easily assimilated, are of benefit. While

fats are often of benefit, starches and sugars should be avoided, as well as alcoholics. Overfeeding should also be restrained and, in some cases, "dieting" will be found of marked benefit.

Local treatment, while extremely various, so far as a choice of remedies is concerned, is based on general principles applicable to all diseases. In irritated, acute conditions, soothing applications are indicated; whereas, in chronic conditions, stimulating remedies should be used, or even irritants, if necessary. It should never be forgotten that air and water have a deleterious effect upon eczema. The latter is of benefit only when modified by some addition, and is of most use in the form of the continuous bath.

In the treatment of eczema of the face and scalp, soothing and astringent measures should be employed. Crusts should be removed by poultices or oils, and tannin ointment applied or one containing oxide of zinc and camphor. Where the process is pustular, remove the crusts with oil and apply campho-phenique (pure) twice daily. Diachylon ointment to the face is very good, as also to the affected surface, after shaving the beard. Tar ointment occasionally acts well.

In eczema of the hands and arms, apply cooling lotions and ointments, when the process is acute. In subacute cases, tar ointment, or one containing creasote, acts well. In chronic forms, sapo viridis, followed by diachylon ointment. In eczema of the palms (and soles), touching the surface to hot water (110° F.) and subsequently wrapping in diachylon ointment, is one of the best methods. Avoid all contact with water; and, if absolutely necessary to wash, put borax or bicarbonate of soda in the water.

A stimulating mercurial application is also indicated, at times.

Eczema of the legs is treated very much by means of the rubber bandage (Martin's) during the day, the surface being covered with a soothing ointment at night. The bandage must always be washed before being reapplied, and care taken that it does not produce additional irritation. In chronic cases, stimulating applications should be made, such as:

R Picis liquidæ ..... ℥ij.
Potassæ causticæ ..... ℥j.
Aquæ ..... ℥v.
M.

This is diluted according to indications, and followed by some soothing application. Eczema of the feet should also be stimulated by tar ointment, followed by some soothing application. For the soles, the same treatment as for the palms.

Eczema of the anus and genitals is dependent upon its success, in a great measure, upon internal and dietary management. Locally, a tar and zinc ointment is valuable, applying it after soaking the parts in hot water. Soothing powders are also good. The compound tincture of green soap, as follows, is a good stimulant:

R Olei cadini,
Saponis viridis,
Spts. vini rectificat. āā ..... ℥j.
M. filtra et adde:
Spts. lavendulæ ..... ℥ij.
M.

Of course, this should be followed by a soothing application. The condition of the bowels and kidneys should receive particular attention, and the presence of hæmorrhoids, and fistulæ, and fissures, etc., should be determined and relieved.

In eczema of the trunk, the treatment differs but little from that of other forms. In universal eczema, we have a condition to deal with which is serious, and requires tonics. Baths are serviceable here. Still the trouble is very rebellious, and frequently all the measures that can be devised do but little to ameliorate the condition.

In infantile eczema, soothing applications are generally required, and the abstention from too much washing. Calomel is frequently necessary to evacuate the bowels, and is one of the best remedies for this purpose. Crusts should be removed, and a zinc or subnitrate of bismuth ointment applied to the local trouble. A little tannin added is sometimes of benefit. Often, when the trouble is about the body or extremities, the liberal use of a dusting powder containing some camphor is of value. The one great point to observe in connection with this form is to avoid overstimulation.

SEBORRHŒIC ECZEMA is a variety whose place in nosology has not yet been definitely settled. It is characterized by fatty scales overlying a reddish base. The lesions are roundish or ovalish in shape, large or small, occurring for the most part on the scalp, trunk and limbs. There is pronounced itching present. It may be easily confounded with psoriasis. It is essentially an inflammation of the secretory cells of the coil glands, and affects parts subject to hyperidrosis. The treatment is simple. Removal of the scales with sapo viridis and the application of an ointment containing from one-half to one drachm each of zinc oxide and sulphur to the ounce of excipient will procure relief. Relapses are very prone to occur.

HERPES.

Syn.—Fever Blister.

Herpes is an inflammatory disease, in which we have the occurrence of small groups of vesicles, of about the size of a hemp-seed, and situated upon a slightly reddened base. The vesicles may occur almost anywhere, but seem to have a predilection for the face and genitalia. The subjective symptoms are slight and consist of a burning or tingling sensation. The trouble is self-limited, running its course in from seven to ten days, and leaves more or less pigmented macules. The two varieties commonly described are herpes facialis and herpes progenitalis.

Herpes facialis attacks generally the lips (*h. labialis*) near the vermillion border, the cheeks, the nose, the eyelids, the ears, etc. The vesicles frequently coalesce. In three to six days they dry up and form crusts which are adherent, but soon drop off spontaneously.

Herpes progenitalis is also frequently seen. It is most frequent on the prepuce (*h. preputialis*), and glans penis; it is also seen upon the vulva and labia minora. It first appears as an erythematous spot, discrete vesicles show themselves and, breaking down, give rise to excoriations, or small superficial ulcers which are followed by crusts and some desquamation. Relapses are frequent. This variety is important as it is apt to be confounded with venereal ulcers.

The causes of this disease are febrile disturbances and external irritants. Bazin and Hardy have claimed the existence of a herpetic diathesis. Gastric and intestinal disorders also act as a cause

The diagnosis is to be made from herpes zoster and eczema.

The treatment is entirely symptomatic. Locally, protection to the vesicles is necessary. This can be accomplished by means of absorbent cotton upon which a weak zinc oxide ointment, or unguentum aquæ rosæ has been spread. When crusts make their appearance let them fall off spontaneously.

In herpes progenitalis, if the vesicles have ruptured, some astringent wash or ointment should be employed. By using a solution of one in eight of nitrate of silver on the excoriations and following this up with an astringent ointment, a rapid recovery will follow. Saline laxatives are useful to prevent relapses.

HERPES IRIS.

Syn.—Hydroa, Herpes Circinatus.

This is comparatively rare. We have here small vesicles appearing in concentric circles, each one surrounded by an areola. The intervening integument assumes a bluish, reddish, yellowish, or violaceous tint. The diagnosis is generally easily made and the treatment is, in the main, that of herpes.

HERPES ZOSTER.

Syn.—Zona, Cingulum, Shingles, Zoster, Ignis Sacer.

Herpes zoster is acute in character and vesicular in form. It is preceded by malaise, fever, neuralgia, etc., which may last a few hours or days, or even weeks. The neuralgic pain is localized and marked. The eruption makes its appearance first as an erythema, soon followed by groups of papules which, in a short time, are changed into vesicles. The vesicles, which vary in size from a pin-head to a split-

pea, are distributed in groups of ten or more, closely aggregated and surrounded by a marked, red areola. Frequently they coalesce. Successive crops keep on appearing. The vesicles become opaque, the contents become purulent, and, in from nine to ten days crusts have formed which drop off, leaving the skin slightly pigmented. The distribution of the vesicles is a notable feature. They are always situated along the course of cutaneous nerves and this is the reason that the disease is so rarely bilateral. The nervous origin of this trouble is well established.

The disease is at its height during the first week. The vesicles have no tendency to rupture, but may be torn open. It is seen most often in winter. The causes are such as produce injury to nerve trunks or to the posterior spinal roots.

The diagnosis is, as a rule, not difficult. It might be confounded with herpes but its distribution and subjective symptoms serve to differentiate it.

The different varieties mentioned by some authors are merely named from the locality in which the lesions are found. The fact that the disease is generally unilateral, that it most often attacks the trunk, and that, when in the temporal and ocular regions, it may attack the cornea, should not be forgotton.

The treatment should be internal and external. For the former phosphide of zinc in doses of one-third of a grain four times daily is recommended. Arsenic is also useful in tonic doses given in the form of arsenious acid, Fowler's solution, or the bromide of arsenic. Morphine, bromide of potassium, and other sedatives are frequently necessary to relieve the intense neuralgic pains. Locally, protection of the lesions is indicated. Cotton, upon which

a soothing powder containing some anodyne has been spread, is probably the best. To soothe the local pains, galvanism may also be resorted to. The vesicles should never be opened and, if they accidentally burst, the ulcers should be treated antiseptically.

MILIARIA.

Syn.—Lichen Tropicus, Miliaria Alba, Miliaria Rubra, Prickly Heat.

This common affection occurs in two forms, the papular and the vesicular.

Miliaria papulosa is composed of an eruption of a very large number of minute, bright red papules, but a trifle elevated. The papules are crowded but never coalesce. The eruption appears rapidly and is preceded by excessive perspiration.

Miliaria vesiculosa is similar in distribution and appearance with the exception that the lesions are minute vesicles. At first transparent, they become whitish and opaque (*miliaria alba*). The skin has a red color due to the areola surrounding each vesicle. The vesicles soon dry up and are followed by a slight desquamation.

The portions most commonly attacked are the abdomen, the chest, the neck, and the arms, although any portion of the integument may be the seat of the disease. It is symmetrical in distribution. Burning, tingling and itching are the accompanying subjective symptoms.

The cause of miliaria is excessive heat, due to the atmospheric temperature, clothing, or both. Fleshy individuals, adults and children, are most subject to it. The affection is easily recognized, its sudden onset distinguishing it from eczema, and the subjective symptoms from sudamina.

The treatment is essentially refrigerant. Cool clothing, a cool room, plain food, acid drinks and saline aperients are beneficial. Absorbent dusting powders are indicated locally. Mild astringent lotions, such as very dilute sulphate of copper solution, act well. Alkaline baths are excellent, or the "dabbing" on of a borax solution. No fear need be entertained from retrocession.

Relapses are frequent and while not dangerous in our zone, miliaria may become transformed into a dermatitis or eczema on account of the scratching indulged in. For this reason it is well to watch it. It is essentially a disease of summer.

DYSYDROSIS is a vesicular disease of a peculiar character in which the vesicles coalesce and form bullæ in which the fluid is reabsorbed. Desquamation sets in and an excoriated surface is left. The affection is rare.

POMPHOLYX and CHEIRO-POMPHOLYX are similar affections which are rarely met with. They attack the hands and forearms most frequently.

PEMPHIGUS.

This is an uncommon disease which manifests itself by the appearance of bullæ of various sizes. It may be acute or chronic in character, two varieties being recognized: pemphigus vulgaris and pemphigus foliaceus.

Pemphigus vulgaris is found most frequently upon the limbs. The blebs are roundish or ovalish and vary in size from a split-pea to a goose-egg. They contain serum or pus and have a reddened base. They vary in number from one or two to several dozen and occupy three to six days to develop. Successive crops appear. Itching and burning are pres-

ent. In the acute form severe general symptoms frequently occur and death often terminates the case.

Pemphigus foliaceus is a rare and a grave form. The blebs are flabby and rupture easily. It is chronic and after the blebs rupture there are left flakes on an unhealthy, excoriated surface.

The serum in the blebs becomes puriform in a short time; sometimes the contents of the bulla are bloody. The reaction of the serum is neutral or weakly alkaline, becoming more markedly so as the lesions become older.

The treatment should be both internal and external. Any functional disorders which exist should be corrected. A good diet and hygienic condition should be insisted upon. Arsenic should also be exhibited in this disease as it acts almost as a specific. Locally, very simple measures are necessary. Open the blebs freely and allow the contents to escape. Dress the lesions with dilute lotio ingra, or with dilute liquor picis alkalinus. A dusting powder or some bland ointment may be used as a dressing. If a large amount of surface be involved starch or gelatin baths should be employed. The continuous bath is excellent in grave cases. In pemphigus foliaceus tonics are particularly indicated. In addition to this linseed oil, internally and externally, has given some of the best results.

Relapses are common in pemphigus, and its course and final result are very uncertain.

LICHEN RUBER.

This disease is very rare. It begins as small conical papules of waxy appearance, of brownish red color, symmetrical in distribution and having a ten-

dency to invade extensive surfaces. The face is generally affected. The papules flatten, acquire a central depression and desquamate slightly. The papules acquire a uniform size and never grow large. They fuse into patches which are rough and of an even brownish-red color. It is not known to attack mucous membranes. The nails and hair become affected. A diffuse, yellowish, brown stain, in large expanses, follows the patches. Itching, when present, is mild in the beginning. In the chronic stage it is moderate, but never severe. Emaciation generally accompanies this disease and, in long standing cases, death by exhaustion occurs.

Arsenic, internally, has been recommended but it does little good. Iron, strychnine and phosphorus with quinine gives better results. Hot alkaline baths, frictions with tincture of sapo viridis and oily inunctions are valuable local measures. Where there is much thickening and fissures, such as in the palms and soles, balsam Peru and diachylon ointment (℥j to ℥j) is the best application.

The disease is essentially chronic and difficultly amenable to treatment.

LICHEN PLANUS.

In this disease, which is regarded by some as a variety of lichen ruber, we have the formation of inflammatory spots and patches which remain localized. Flat, red papules form and these flatten into round, oval, angular, or polygonal outlines. Their surface is covered with a thick horny layer, silvery in appearance and having a central depression. The surface has a micaceous appearance, never waxy. The papules increase in size and may develop into patches. Each papule runs an independent course.

They are of a deep red color at first, and later on become violaceous or lilac. When chronic, dense, hard, uneven surfaces are seen especially about the knees and ankles. It is then of a dark or crimson-brown hue. It is symmetrical, beginning at the inner part of the forearms near the wrists, upon the abdomen, and inner part of the legs and thighs. It rarely occurs on the palms or soles. The nails and hair are unaffected. It may attack mucous membranes. It leaves a dull-red, rusty-brown, or crimson-brown stain in irregularly shaped patches. Itching is marked in the beginning; afterwards it may be mild or intense. There is no serious systemic reaction.

The treatment is similar to that of lichen ruber, which it greatly resembles in its tendency to chronicity.

PRURIGO.

Prurigo is very rare in this country, although common enough in Austria. It commences to make its appearance in early years and generally continues to remain through adult life. It consists of subepidermal papules which vary in size from a millet-seed to a split-pea. The lesions are discrete or situated close to each other, but never grouped. They appear as pale-red elevations covered, at times, with a scanty dry epithelium (not scales), and having a hard, shotty feel. The itching is intense, and as a result of the scratching, which is indulged in, the papules present torn tops, blood-crusts, and excoriations are present; and, eventually, thickening and hardening of the skin, and pigmentation.

The portions most often attacked are the extensor surfaces of the arms, legs, and the trunk. The palms and soles are never affected and the head but rarely.

The disease is exceedingly rebellious to treatment and all that can be done is to mitigate the symptoms. Tar and sulphur applications act best, aided by antipruritics. The tendency is for the process to remain chronic.

LICHEN SCROFULOSUS.

This affection of the skin is not of common occurrence. It consists of an eruption of flat, reddish or yellowish, grouped papules which are millet-seed sized. It occurs in scrofulous individuals chiefly on the trunk and about the openings of the hair follicles. Itching is present to some extent. Treatment by means of cod liver oil, internally and externally, is efficacious.

ACNE.

Syn.—Acne Vulgaris, Varus, Stone-pock, Whelk.

This is one of the most common skin diseases. It consists of an inflammatory condition of the sebaceous glands and manifests itself in the form of papules, pustules and tubercles distributed, for the most part, about the face, neck, back and shoulders. There are no subjective symptoms except slight pain upon pressure when the disease is in its acute form.

Acne papulosa is characterized by bright to dusky red papules varying in size from a pinhead to a split-pea. These papules undergo more or less resolution or may enlarge and become indurated. Or a minute quantity of pus may show itself at the apex.

Acne pustulosa, as its name indicates, is distinctly pustular. The papules, in some cases, rapidly change into pustules, which develop until their acme is reached. Their contents are then discharged, a small crust forms and heals spontaneously, new crops appearing.

Acne tuberculosa is characterized by a number of small or large, generally flattened, reddish tubercles which have a tendency to remain in *statu quo*, or to enlarge.

Acne artificialis is that form due to the influence of external irritants, such as tar.

Acne cachecticorum is found in those affected with some depressing disease. The lesions are indolent, papulo-pustular, more or less livid, and leave scars.

Acne atrophica is a form in which variola-like scars follow the lesions.

In acne, successive crops of lesions are continually making their appearance, and the tendency of the disease is to chronicity. The first appearance is generally at puberty, and it disappears spontaneously at the twenty-seventh year or somewhat later.

The causes of this disease are numerous. The most frequent are gastro-intestinal disturbances. Constipation is almost always an accompaniment and dyspepsia frequently so. Uterine disorders and genito-urinary disturbances also act as factors.

The diagnosis is not difficult. It must be distinguished from eczema, small-pox, and syphilis. The history and subjective symptoms are sufficient to establish the difference.

The treatment should be local and general. For the constipation which exists, particular attention must be paid to the diet. To cause the bowels to act more regularly, fluid extract of cascara sagrada, or the aperient mineral waters are useful. An occasional dose of calomel will be of benefit. Duhring's acid aperient mixture (p. 27) is productive of good results. Besides remedies for the regulation of the functions of the stomach and bowels sulphide of

calcium, in quarter grain doses, is to be given four times daily in the suppurative form of the disease. Arsenic is sometimes useful in the indurated forms, in doses of one or three drops of Fowler's solution in wine or iron, or in one drop doses, in water, of a one per cent. solution of bromide of arsenic, thrice daily, after meals. Ergot is said to be a valuable internal remedy in acne.

The local treatment should be either soothing or stimulating according to the indications presented. The latter is generally the plan that is to be adopted. The methods of stimulating are numerous. Sapo viridis, pure or diluted, may be applied. This is washed off, after a short time, and a bland ointment applied. Hot water cloths applied at night and followed in the morning by cold douches, and frictions are valuable. Sulphur is probably the best remedy. It may be applied in the form of ointments or lotions, varying in strength from twenty grains to two drachms to the ounce. The following lotion, recommended by Bulkley, is good:

℞ Sulphuris loti ..... ʒ j.
Ætheris ..... ʒ vj.
Alcoholis ..... ʒ iijss.
M.

Sulphuret of potassium may be used, also Vlemingkx's lotion. Ichthyol, which is very rich in sulphur, is also excellent, put up in ointment form in the strength of one-half to one and one-half drachms to the ounce. Sulphur and oleate of mercury in combination is also excellent.

In those cases in which pustulation begins at the apices of the papules, it is due to cocci from without, and may be prevented by opening the small pustules and applying a 1-1000 bichloride solution,

this to be repeated before each regular application, in order to prevent the local suppurative process.

In the indurated and tubercular forms of acne, free scarifications and warm cloths to induce hæmorrhage is a very good plan of reducing the hyperplasia. Local mercurials, in conjunction with this, act very well. Care, however, should be taken not to overstimulate the skin with these external applications, as more damage may result from this than benefit from the remedy.

While acne is difficultly amenable to treatment, proper management generally secures good results.

ACNE ROSACEA.

Syn.—Gutta Rosea.

This trouble is a rather common one, occurring in both sexes. It is usually confined to the nose and adjacent parts, such as the cheeks and central portion of the forehead, or it occasionally involves but a limited part and remains localized. There are no subjective symptoms. It is usually divided into three stages: the hyperæmic, the inflammatory and the hypertrophic.

In the first stage there is more or less diffuse redness of the part, the process being a passive hyperæmia somewhat inclined to stasis. When the nose is attacked, it looks shining and greasy from the seborrhœa which is present. This stage may be permanent or it may pass on to the second in which the redness is more marked, the capillaries are enlarged, and visible as small, bright red, delicate lines running over the surface. In addition, acne of a papular and pustular type is found. In the third stage, hypertrophy of the cutaneous tissues takes place, the vessels become greatly enlarged, the nose

becomes nodulated, of a violaceous tinge, pendulous and, sometimes, of enormous proportions (*rhinophyma*), the openings of the ducts of the sebaceous glands being patulous.

This disease is essentially chronic. In women it frequently does not go beyond the first stage, and not often beyond the second in any.

The causes are varied, such as uterine disorders, exposure to heat and cold, excesses in eating or drinking, the free use of alcoholics, and any of those conditions which produce acne.

The diagnosis is not difficult, as a rule, since it only needs to be differentiated from acne, syphilis, lupus vulgaris, or lupus erythematosus.

The treatment is, in the main, that of acne. Stimulants locally, and careful general medication. The withdrawal of alcohol and proper dietetic measures must be enforced. In the second stage, the distended bloodvessels should be destroyed by cutting them open; by electrolysis, which is the best method; by cutting across at short intervals; or by other measures, which may suggest themselves. Strong local stimulating measures are indicated. In the third stage nothing but surgical measures will prove of much avail.

SYCOSIS.

Syn.—Sycosis Non-parasitica, Mentagra, Acne Mentagra, Folliculitis Barbæ.

Sycosis is a chronic pustular disease limited to the hairy portions of the face and, on that account, found only in men. It begins as a small, red macule surrounding a hair. In a short time, it is transformed into a small pustule, non-elevated, through whose center a hair emerges. There is deep-seated

pain, burning and tingling. If permitted to continue, the skin becomes red, the pustules increase in number, the integument thickens and nodules form. The upper lip is a favorite site for sycosis; the beard is also frequently involved, while the eyelashes, eyebrows, pubes, and axillæ are only occasionally the seat of the disease.

While not contagious, sycosis is easily infectious. As the suppurative process is due, in a great measure, to bacilli and micrococci, auto-inoculation is a common occurrence, and hetero-inoculation is possible. Epidemics have occurred through the medium of barber shops.

The diagnosis is easy. Lupus, eczema, the pustular syphilide and tinea barbæ somewhat resemble sycosis but the character of the pustules, each one pierced by a hair, easily distinguishes it.

Pathologically, sycosis is a perifolliculitis, which may be deep or superficial, according as microorganisms have penetrated deeply or not into the hair follicle. The hairs can be easily extracted, and when this is done a small, white cylinder of epithelium is found adhering—the root-sheath.

The treatment should be local. There are very few cases in which general treatment is indicated and, in these, the condition requiring it has but little influence on the cutaneous trouble. One of the most important things to do is to epilate daily and shave. Then apply a germicide. For this purpose bichloride lotions in the strength of 1-500 or 1-1000, or campho-phenique pure, should be thoroughly applied. Not only this, but the pustules should be emptied. While the epilation and shaving is practiced once daily, the application of germicides should be made twice. In acute cases, this is

followed by the application of soothing ointments. In chronic cases, stimulating applications are indicated. The ammoniated mercury ointment ten grains to the ounce, oleate of mercury 5%, or some similar preparation, is useful. If small abscesses exist they should be opened. If tubercles are present, free scarification, or curetting, will prove of benefit.

In sycosis of the eyelashes, epilation followed by the application of yellow precipitate ointment, one to fifty, is followed by good results.

While sycosis is curable, it is chronic and rebellious to treatment and relapses are not rare.

DERMATITIS PAPILLARIS CAPILLITII is a rare trouble, in which pustules occur, forming scar-like plaques, the hairs being clustered in tufts, or absent. When present they atrophy, but remain firm in their follicles. Papillomatous vegetations covered with crusts sometimes form. This trouble occurs about the nucha, occiput and vertex.

IMPETIGO.

This rare affection generally occurs in children, who are poorly nourished. It is composed of pustules, which begin as such, and whose size varies from a split pea to the finger-nail. They are semi-globular in form, and markedly raised, have thick walls and an areola. They are yellowish or whitish, firm to the touch, and neither rupture nor coalesce. They may occur anywhere, but preferably on the face, hands and feet. They are generally few in number, probably a dozen in all. The disease is benign; there is no burning or itching. In a few weeks the lesions disappear. All that is necessary is to open the pustules and apply protective dressings.

IMPETIGO HERPETIFORMIS is a very rare disease, occurring in women, the termination being always fatal.

IMPETIGO CONTAGIOSA.

This disease is uncommon, occurring in infants and children, and consisting of small, discrete vesicles which become pustules in a day or two. These latter increase in size, assuming a round or ovalish form. There are but a few, as a rule, and these occur upon the face and hands. They have a tendency to coalesce. There is an areola surrounding each lesion. The pustules do not burst, but thin crusts form, which have the appearance of being "stuck on" the skin. The process occupies about eight to ten days. It is contagious and auto-inoculable. Patients recover spontaneously. Cleanliness and zinc oxide ointment, or the ammoniated mercury ointment, six to ten grains to the ounce, are all that is necessary.

ECTHYMA.

This is also a pustular disease in which there is the formation of a few flat pustules which are of the size of the finger nail. The distribution is discrete. Each one is surrounded by an areola, and is painful to the touch. A few days after their appearance there are formed dark crusts, not adherent, beneath which there is an excoriated, angry-looking base. The course is acute, lasting from five to ten days. There is heat, pain and some itching present. Children and adults are subject to it. The process is superficial and attacks those whose general health is bad, or the debilitated. The treatment consists in the administration of tonics and such remedies and means as will put the general condition in better

form. Locally, alkaline baths and cooling lotions during the first week of the process. Later on, the crusts should be removed and stimulating ointments employed as dressings for the excoriated surfaces. If these appear sluggish, they may be touched with the stick nitrate of silver. In a few weeks, the process will have terminated favorably.

PSORIASIS.

Syn.—Psora, Alphos, Lepra Alphos.

Psoriasis is observed quite often, coming next to eczema in point of frequency. It commences as a red macule which increases rapidly in size becoming covered with scales. These scales are superficial, rather thick, white, shining, resembling mother-of pearl. The patches which may vary from a silver dime to a large superficies are scattered. They are very slighly elevated and are accompanied by a sense of burning and by itching. When the scales are scratched or scraped off, a reddened base is revealed and, here and there, small points of oozing blood. The disease is at first rapid in its evolution; but in a very short time, it lapses into a state of chronicity. The extent of integument which is attacked varies from one or two small lesions up to an involvement of nearly the entire skin. The portions which are subject to this trouble are, in general, the extensor surfaces. The knees and elbows, the back, the chest, and the scalp most frequently exhibit it. It is not often seen on the face, nor on the palms or soles.

Psoriasis is very prone to relapses after a greater or less interval of time. It is not contagious.

Psoriasis punctata is that form wherein there are pin-head lesions present. In *psoriasis guttata* the

lesions are larger, and out of each one, there exudes a drop resembling mortar.

Psoriaris nummularis exhibits round, coin-like

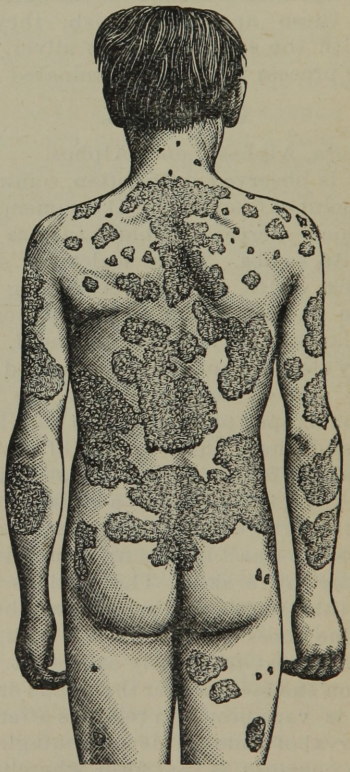

Fig. 12.—Psoriasis.

lesions, while *psoriasis circinata* shows patches in which the centre has cleared up to some extent.

When several of these latter coalesce and the portions overlapping disappear we have serpentine lines constituting *psoriasis gyrata.* When large areas are involved the name of *psoriasis diffusa* has been applied to the condition.

The causes of psoriasis are unknown. It generally occurs after puberty in persons enjoying good health, and consists of a hyperplasia of the elements of the mucous layer.

The diagnosis is apt to be difficult. It may be confounded with eczema, syphilis, seborrhœa, tinea corporis and lupus erythematosus.

The treatment of this trouble should be both general and local. If any abnormal general state be present, it should be corrected. Arsenic has been recommended as an adjuvant but it does not seem to exert much influence. If employed it should be used only in the chronic stage. Then it is to be continued a long time. It may be given in three or four drop doses of Fowler's Solution in wine of iron after each meal, or in the form of the Asiatic Pill made as follows:

℞ Acidi Arseniosi ..... gr. ij.
Piperis nigris ..... ℥ij.
Pulv. Glycerrhiz. rad ..... ℥ij.
M. ft. pil. No. 40. Sig.: One pill thrice daily after meals.

Iron and phosphorus have been recommended, as well as alkalies. Large doses of iodide of potassium unaccompanied by any external treatment have succeeded in causing the disease to disappear. About 250 to 300 grains are to be administered daily, commencing with a small dose and increasing.

Locally, if the condition be acute, alkaline lotions and bland ointments should be applied. If chronic and scaly, remove the scales by means of sapo viridis

and water. Then apply some tarry preparation such as may be used by combining pix liquida, or oil of cade in some extemporaneous preparation. Creasote ointment or sapo viridis alone are praised by some. Salicylic acid is a good agent in the strength of twenty to sixty grains to the ounce. Chrysarobin and pyrogallic acid, while good are irritating and stain the skin unless combined with other remedies. Wilkinson's ointment, as modified by Hebra is an excellent application. It is made as follows:

R Sulfuris loti,
Olei cadini, āā..... ℥iv.
Saponis viridis,
Adipis, āā ..... ℥j.
Cretæ preparatæ..... ℥iiss.
M.

The following combination is also useful:

R Chrysarobini,
Acidi Salicylici, āā..... gr. xv.
Ichthyol ..... ℥j.
Unguenti Aquæ Rosæ..... ℥j.
M.

A neat application is one made by dissolving thirty grains of salicylic acid in one ounce of traumaticine and painting on the lesions once a day. The cold pack will often relieve the patient of the eruption it and is very grateful to the affected skin.

While the eruption generally yields readily to treatment, relapses are very frequent and the disease may reappear at any time.

PITYRIASIS RUBRA.

This rare affection begins as red, scaly patches and, after a time, it involves large areas or even the whole integument. There is a free desquamation of thin, papery scales, as much as a gallon in a night. The color of the skin is red, but it is not thickened

itself. Fissures seldom occur. The nails may become affected. There is very little burning or itching, the trouble being generally chronic. It occurs in adults and while general remedies are indicated, arsenic does not afford those results which have been claimed for it. Externally bland oils should be applied.

PITYRIASIS MACULATA ET CIRCINATA consists of rosy patches, which are scaly. There is some itching. It lasts from one to three months. It is an uncommon disease.

DERMATITIS EXFOLIATIVA is rare. It is an erythematous or bullous inflammation, accompanied by marked general disturbance. Desquamation takes place and it is prone to relapses. It resembles pityriasis rubra very much.

FURUNCULUS.

Syn. Furuncle, Boil.

The furuncle is a lesion which shows itself at first as a reddish macule. It soon becomes tender to the touch. It assumes a conical form, the base being infiltrated; and, in a short time, a central suppurating point is observed. It takes a week or ten days to develop. It varies in size from a split pea to two or three inches in diameter. The color is a deep red, pain is present and "throbbing" marks the inception of suppuration. When the pus is evacuated a central mass of connective tissue, the "core," escapes. Any portion of the body may be attacked, but single boils or a number of them are most frequently observed about the face, ears, neck, back, axillæ, buttocks, perineum and legs.

The causes of furuncles are various, such as a general bad state of the system, inflammatory disorders,

etc. In some cases there seems to exist a predisposition to their formation (furunculosis).

The treatment, in general terms is to attend to the condition of the patient. If several boils are present, or have appeared in successive crops, sulphide of calcium (gr. $\frac{1}{4}$-$\frac{1}{8}$) every two hours, should be given. Locally, the lesions may be aborted by applying caustics to the forming core, or injecting carbolic acid in oil, or campho-phenique, into the boil. Otherwise, suppuration is to be encouraged by warm poultices and the boils cut open, their contents allowed to escape and antiseptic dressings applied.

Aleppo Bouton, *Delhi Boil*, *Biskra Bouton*, are phlegmonous processes, analogous to furuncle, endemic in Oriental countries.

ANTHRAX.

Syn. Carbunculus, Carbuncle.

Anthrax consists of a dense, infiltrated, red phlegmon, varying in size from a small hen's egg to an orange and involving the subcutaneous tissues. Its appearance is preceded by malaise and chill, and fever is a frequent accompaniment. The process is at times so grave as to result fatally. Suppuration takes place in a number of points which discharge by seperate apertures, so that the disease may be, in a way, considered a multiple boil. The parts most affected are the neck, the back and the outer aspects of the hips. The lesion is usually single. The termination of this disease is by sloughing, a number of small sloughs being thrown off or the entire mass coming whole.

The causes are similar to those producing furuncles, although it is contended by some to be due to the bacillus of anthrax.

The treatment demands general supporting measures and a very nutritious diet. Locally, various means have been resorted to. Crucial and circular incisions are adopted by some, whereas others do not seem to regard them favorably. Cold applications, warm fomentations, poultices, etc., are employed. The principal points to observe are: to keep the parts aseptic and to promote a rapid separation of the slough. When there is indication of this latter, the slough should be picked out and antiseptic dressings applied. The ulcer which results will terminate in a firm scar.

Carbuncle is a grave disorder which frequently ends in the death of the patient.

POISONED WOUNDS may be local or constitutional. They are due generally, to the bites of insects, snakes, scorpions, centipedes and spiders. The lesions are higly inflammatory and here camphophenique applied pure, is especially serviceable.

DISSECTION WOUNDS may be local or constitutional in character. The lesions may be acute or indolent. Lymphangitis follows the former and the latter develop into the *Verruca necrogenica* or *anatomical tubercle* which is very chronic in character, although not particularly inconvenient, there being no subjective symptoms.

PUSTULA MALIGNA, or *Malignant pustule*, the *charbon* of the French is due to inoculation from cattle suffering from murrain. It occurs most often about the hands and arms and induces severe constitutional symptoms which may become rapidly fatal.

EQUINIA, GLANDERS, or FARCY is also a malignant contagious disease derived from horses suffering

from it. Tubercular, vegetating or ulcerative lesions accompanied by grave general symptoms, are noted. Besides this, marked lymphangitis, hard nodules which break down and suppurate, and involvement of the mucous membranes are observed. This trouble is rare and general measures only are indicated.

DERMATITIS.

This is a general term employed to designate simple inflammation of the skin. We find the cardinal symptoms of inflammation present, pain, heat, redness, and swelling—and, in addition, itching and multiform eruptions. The intensity of the process varies in different cases. There are four principal classes: Dermatitis traumatica, d. venenata, d. calorica and d. medicamentosa.

Dermatitis Traumatica is due to external influences of a mechanical nature which occasion a loss of the epidermis, and of the corium, accompanied by inflammation. Pigmentation is apt to follow. The remedial measures are protective and antiphlogistic.

Dermatitis Venenata includes those inflammations of the skin due to contact with poisons, either vegetable or mineral. That due to rhus venenata, rhus toxicondendron, nettle, mezereon, arnica, or other plants of the same families is apt to become highly inflammatory, accompanied by marked œdema, pain, heat and itching. The dermatitis due to the rhus family is most often encountered, the effects of poison oak and poison ivy being well known. The eruption begins as an erythema, becomes vesicular and may continue in a pustular form or develop into blebs. The treatment is soothing. Alkalies externally (to neutralize the toxicodendric acid) followed by soothing ointments is the best. Solution of sulphate of

zinc is also beneficial. It is said that fluid extract of grindelia robusta, one drachm to four ounces of water, is very good.

In the case of poisoning due to aniline dyes in stockings and underwear, removal of the clothing together with soothing measures is sufficient.

Arnica, croton oil, mustard, mercurial ointment, acids, strong alkalies, cantharides, etc., all exert an influence in producing dermatitis. The treatment suggests itself.

Dermatitis Calorica is caused by both heat and cold resulting in burns and frost-bites (*pernio*). The lesions may be erythematous, vesicular, bullous, or gangrenous according to the severity of the process.

Dermatitis Gangrenosa may occur in small patches or in diffused areas. The causes of this form are obscure. It generally occurs in violaceous or purplish patches which afterwards ulcerate, a slough being thrown off. In Raynaud's disease (symmetrical gangrene) there is a symmetrical involvement of the extremities—generally in the feet. This form is uncommon.

Dermatitis Medicamentosa, due to the ingestion of various medicinal agents, is seen rather frequently, the most common are the pustular dermatoses due to the injection of bromine and iodine compounds. We have in this class all the lesions represented. Morphia will produce urticaria,or erythematous macules and nearly every drug has an influence of a similar character. By careful observation, the physician can trace the origin of these eruptions and a simple withdrawal of the exciting cause—the drug—will be followed by a spontaneous recovery.

DERMATITIS HEPETIFORMIS is a form of inflammation of the skin which is rare but occasionally seen. It is attended by multiform lesions, is accompanied by burning and itching and is sometimes grave in character and occasionally fatal. It is prone to relapses, Prodromata usher in its presence. It is more or less herpetic in its type. It may last for months or years and is, at present, the subject of much discussion. *Herpes gestationis* is now regarded as a form of this disease, as also the hydroa of some, herpes circinatus bullosus, etc. The treatment is to meet the general and local indications as they present themselves.

CLASS IV.—HÆMORRHAGES.

Cutaneous hæmorrhages occur either by extravasation or diapedesis. When the result of external injury they are idiopathic; or symptomatic as the expression of some internal disturbance. The appearances presented are known as petechiæ, vibices, ecchymoses and ecchymomata.

Petechiæ are roundish, ovalish or irregular in form, varying in size from a pin-point to the thumb-nail.

Vibices are long, narrow, streak-like and vary in length from a few lines to several inches.

Ecchymoses are large, irregular, non-elevated lesions.

Ecchymomata are extensive extravasations, deep-seated, flat or elevated, and various in size and shape.

PURPURA.

Syn.—Hæmorrhœa Petechialis.

There are three forms of this disease which are met with, differing from each other in appearance, etiology and in the general symptoms which accompany them. These forms are: purpura simplex, purpura rheumatica and purpura hæmorrhagica.

Purpura Simplex is rarely accompanied by any general disturbance. It shows itself as reddish, claret-colored, roundish or irregular hæmorrhagic spots appearing quite suddenly. The size of these lesions varies from a pin-point to a split-pea, and the spots generally occur upon the lower extremities, symmetrically; sometimes, larger areas are involved.

There are no subjective symptoms connected with the eruption. Occasionally, the patient suffers some malaise and loss of appetite previous to the appearance of the lesions.

This form is seen more often in the old. Its duration varies from fifteen days to several months, and crops may successively appear. The spots are distinguished from insect bites, which they resemble, by the presence in the latter of a central hæmorrhagic point, surrounded by congestion.

Purpura Rheumatica, or *peliosis rheumatica*, is a variety in which the prodromal symptoms are marked. The most prominent of these are the rheumatic pains about the joints. The arms, thighs and legs are generally the seat of the eruption, although the abdomen is frequently involved. The hæmorrhagic spots are reddish or purplish in color, the size varying from a split pea to the finger-nail. As it fades away, the eruption assumes various shades such as yellow and green. This variety may last for months, relapses taking place. It is sometimes difficult to make a diagnosis but close inspection will show its hæmorrhagic character.

Purpura Hœmorrhagica, or land scurvy, or *morbus maculosus Werlhoffii* is the most severe form of the disease, being ushered in by marked premonitory symptoms. The spots first appear upon the limbs, spreading rapidly to the trunk. All varieties of shapes are seen and in size they vary from the thumb-nail to the palm. Sometimes several patches coalesce. At times, more or less severe hæmorrhages occur from the mouth, nostrils, gums, bowels, bladder, etc. The severity of the attack may be such as to cause death in a short time, from exhaustion, or it may continue for months with relapses.

The blood is extravasated in the corium, subcutaneous tissues or about the glands and follicles. There is a gradual absorption which takes place after the blood has been thrown out. Pressure does not cause a disappearance or paling of the lesions.

The treatment adopted must be according to the requirements of the case. Internally, in the simple form, ergot, iron, quinine and the mineral acids are indicated. In the rheumatic, diet and hygiene, stimulants, malt liquors, etc. In the hæmorrhagic form, prompt action is necessary. Ergot, quinine, iron, the mineral acids, rest, and whatever is necessary as the symptoms arise. Externally, astringent lotions and ice are the applications which are most satisfactory.

CLASS V.—HYPERTROPHIES.

The hypertrophic affections of the skin are, as a rule, to be looked upon as deformities, as they have no tendency to become inflammatory. Any of the layers of the skin may participate in this process, singly or conjointly. The hair and nails may also become the seat of hypertrophic changes. There is generally an increase in the normal constituents of that portion of the skin which is affected by this process.

LENTIGO.

Syn.—Freckle.

Lentigo is a hypertrophy of the pigment which is characterized by a number of pin-head to finger-nail sized, brownish spots occurring for the most part upon the face and hands. The shade of color of the macules depends a great deal upon the complexion of the individual. In negroes they are black; in read-headed persons, in whom freckles are most common, they generally have a light brown or rusty appearance. The site in which they most frequently occur is on the bridge of the nose and below the eyes. Occasionally they are black even in the white race. They occasion no discomfort whatever except from a cosmetic point of view.

They consist of an increase in the deposit of pigment, which is intensified by direct solar rays. When they are made to disappear this exposure will occasion a return.

The treatment is such as will be indicated in the consideration of chloasma.

CHLOASMA.

Syn.—Melasma, Liver Mark, Mother's Mark.

This is somewhat similar to lentigo so far as the symptoms are concerned, with the exception that in chloasma larger areas are involved and they are less in number. It occurs most frequently on the face, chest, abdomen and hands. It may occur at any age after puberty, or even before. It is caused by direct solar heat ("tan"), sinapisms, scratching, and certain irritants applied to the skin, these constituting idiopathic forms. Among symptomatic forms are the pigmentation due to syphilis, Addison's disease, tuberculosis, cancer, lepra, scleroderma, and other diseases. The physiological and pathological changes which take place in the uterus play such an important part in the production of chloasma as to have given rise to the classification of a separate variety.

Chloasma Uterinum is that form due to uterine disorders. The face is principally affected. The abdomen and the breasts, around the nipples, are also the seat of this trouble. The latter is frequently seen in virgins. Chloasma uterinum may occur at any time from puberty to middle age, its most common cause being pregnancy. It depends also upon dysmenorrhœa, chlorosis, anæmia, hysteria, etc.

The treatment of chloasma demands internal treatment in its symptomatic form only, and it should be directed to the condition present. Locally, the best application is bichloride of mercury which may be given in varying degrees of strength. A lotion such as the following may be used:

R Hydrargyri bichloridi ..... gr iv.
Zinci sulphatis ..... ʒ ss.
Alcoholis ..... ʒ ij.
M. Sig. Apply morning and evening.

Other remedies may be employed such as sulphur, sapo viridis, ammoniated mercury, subnitrate of bismuth, acetic acid, etc., in various combinations. Veratria, ten to twenty grains to the ounce, has been recommended. A rapid method consists in applying continuously to the affected part, cloths saturated with a solution of corrosive sublimate of the strength of five grains to the ounce of alcohol or water. In a few hours, a blister forms, the roof of which is carefully cut out and a bland dusting powder, such as starch, is applied. The new epidermis is without pigment, but the effect is only transitory.

Chloasma is very obstinate to treatment and even when apparently cured, will return. This is more especially true of chloasma uterinum.

DISCOLORATION OF THE SKIN may be due to the deposit of various pigments. A bluish-gray or slate color, known as *argyria*, is produced by the internal administration of nitrate of silver. Vermillion ,indigo, India ink, gunpowder, etc., are employed for this purpose in *tattooing*. In the latter case, the marks may be removed, in some cases, by tattooing in papaine.

NÆVUS PIGMENTOSUS.

Syn.—Pigmentary Mole.

These growths are congenital, occurring either singly or in numbers. In form they are oval or circular, or irregular. They vary in size from a pinhead to large tumor-like masses. Sometimes the distribution is along the course of nerves. Several varieties have been named, such as *nœvus spilus* where the growth is smooth; *nœvus verrucosus* in which a warty, rough surface is present; *nœvus mullusciformis* or *lipomatodes* a combination of

fatty tumor and mole. All are pigmented and, in many (*nævus pilosus*) the growth is covered with hair. These moles grow in size for a time after the birth of the individual and then cease. They may occur singly or in numbers.

Treatment is surgical except in the case of small growths. Large ones are best excised. In smaller ones, electrolysis is most advantageous. In the latter case, it is not necessary to introduce the needle very deeply.

CALLOSITAS.

Syn.—Tylosis, Tyloma, Callus, Callosity.

This affection consists of indurated, circumscribed patches of thickened epidermis, varying in size, extent and thickness. The color varies from yellowish to yellowish-gray or yellowish-black and is dependent upon the admixture of foreign matters. When thin, callus is translucent; but opaque when thick. It is smooth and horny. The hands and feet are most often the seat of this trouble which is, for the most part, due to friction and pressure.

There are no subjective symptoms except, at times, when pain is experienced through too much thickening of the callus. Cracks and fissures sometimes appear and become a source of irritation. Another complication is the formation of abscess beneath a callus. When the pus is evacuated the entire mass is thrown off. Occasionally, when such an occurrence takes place at the end of the finger, the distal phalanx may be lost.

Callus is simply a heaping up and packing together of the horny cells of the epidermis. The condition is easily recognized and one for which treatment is not often demanded.

When it is desirable to remove this overgrowth, the exciting cause must be removed. Then, bathing in hot water, poultices, or applying pure rubber to the part will soften the mass. Sapo viridis or caustic potassa (1—2 %) are good keratolytic agents. Vinegar, acetic acid, and mercurial plaster are also good. Salicylic acid, one drachm to the ounce, is excellent. When the mass has been softened, scraping with a dull knife will hasten its removal. Callus, however, disappears spontaneously if the causes which produce it are removed.

CLAVUS.

Syn.—Corn.

This is an exceedingly common trouble which affects the feet. A corn is a circumscribed callosity, seated on the toe, having the form of an inverted cone whose apex presses upon the corium producing a sharp pain. The cause of this hypertrophy is friction caused by shoes which are too tight or too loosely fitting. The treatment is to remove pressure and friction, and to cause a disappearance of the callosity. At the site of the corn the mucous layer of the epidermis is generally absent. Cutting or paring and the measures recommended for callosity are applicable here. An efficient method is the application of the following, daily, for a week:

R Acid. salicylic.. ..... 3j
Ext Cannabis Indicæ ..... gr x
Collodion 3j
M.

At the end of that time soak the corn in warm water for some time and it will come off. If it has not entirely disappeared a second course of this treatment will produce the desired effect, providing that suitable shoes are worn.

MALUM PERFORANS PEDI or *perforating ulcer of the foot* first appears as a thickening of the epidermis on the dorsum. A sinus soon forms which penetrates as deep down as the bone. The nails become altered, hairs grow on the dorsum of the foot and more or less destruction of tissue takes place. It is generally the local manifestation of certain spinal and nerve lesions. The treatment is purely surgical, agents tending to strengthen the system at large being also administered.

CORNU CUTANEUM.

Syn.—Cutaneous Horn.

This disease or rather deformity, while rare, is full of interest. The growth is solid, hard and dry and its surface appears rough or wrinkled. It is more or less elongated or roundish, or it may occur as a rough or irregular projection. The length of these horns varies from a few lines to several inches. The area of the base is always the largest of any cross section of the growth. Cutaneous horns may be single or multiple. The face, scalp, and penis are the favorite sites of its occurrence. They drop off spontaneously and when this occurs the base is the seat of epithelioma.

They grow slowly, occurring in middle life, and seem to originate from a wart.

The treatment is excision and thorough cauterization of the base. In some cases, occurring upon the penis, amputation is the only certain method of relief. Early removal of these growths should always be counseled.

VERRUCA.

Syn.—Wart.

This is a hypertrophy of the epidermis and papillæ. Warts may be hard or soft, pointed or flat, sessile or pedunculated, smooth or rugous, congenital or acquired, single or multiple. They vary in size from a pin-head to a bean. They are painless, as a rule, and occur upon the hands, feet, face, scalp, neck, and genitals. Other portions of the integument, such as that covering the legs and arms and that upon the trunk may also be the seat of these growths.

The following clinical forms are the ones most frequently observed:

Verruca acuminata, or *venereal warts*, are filiform, papilliform, or have a cockscomb appearance. They are of a rosy or bright red color and are found upon the genitalia and upon the skin. In the former locality they grow rapidly and exuberently; are moist and give forth a fetid and sickening odor. Upon the skin they do not grow so rapidly and are dry and odorless.

Verruca filiformis is the wart that is slender and threadlike. It is of the color of the normal skin and occurs chiefly about the eyelids.

Verruca glabra is the smooth and shining wart which is frequently seen in adults and those past middle life.

Verruca plana is the flat wart, frequently pigmented, seen in adults.

Verruca senilis, as its name indicates, is met with in the old. The face, trunk and extremities are its sites of predilection. It is often pigmented and

when irritated there is a tendency for epithelioma to form.

Verruca vulgaris is the most commonly seen. It is of the size of a split-pea, occurring chiefly upon the hands and genitalia. After a time the surface becomes rugous, and it frequently disappears spontaneously.

One of the causes of verruca is irritation, either mechanical or other. Friction, acrid discharges, etc., may cause these growths to appear. Dr. Fox

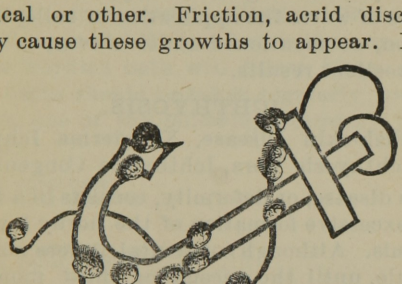

Fig. 13.—Warts on Tattooed Lines.
(*Jour. Cut. and Ven. Dis.*)

reports a case due to tattooing. Gonorrhœa and gleet cause their appearance about the genitalia. Recent investigations have shown that some are due to micro-organisms and that they are auto-inoculable and contagious.

The treatment is destruction of the growth. Although contended by some that, in the vulgar form, Fowler's solution, or carbonate of magnesia will cause them to disappear, these methods do not seem to be always attended with uniformly good

results. Still they are quite successful in some cases. The use of caustic alkalies or acids or excision is practiced by many, but electrolysis is as certain, less painful and unattended by any scars. About the genitals, excision followed by cauterization of the base, is one of the best methods. Keeping these growths dry and freely applying boric acid succeeds frequently in causing their disappearance. In some varieties of warts the application of salicylic acid in collodion, as mentioned under clavus, is attended with excellent results.

ICHTHYOSIS.

Syn.—Fish-skin Disease, Xeroderma Ichthyoides, Ichthyosis Vera, Ichthyosis Congenita.

This disease, or deformity, consists in a tendency to the excessive formation of the horny layer of the epidermis. Although congenital, it does not appear, as a rule, until the second or third month after birth. It becomes more marked then until puberty, when it reaches its highest state of development. Two varieties are recognized: ichthyosis simplex and ichthyosis hystrix.

Ichthyosis Simplex may be limited to certain localities or it may be universal. There is marked dryness of the skin; bright, thin, pearly scales sharply separated by the normal furrows exist, a slight desquamation being present.

Ichthyosis Hystrix is a more pronounced type of the disease. The scales are piled up so that they form spinous elevations which are firmly adherent to the skin underneath. The color here is a grey or greenish-black. This constitutes so-called "alligator skin."

Ichthyosis Sebacea is characterized by rather thick

scales to which there is added an admixture of sebum.

In general, the scales in this affection are adherent. The principal portions involved more severely are the knees and elbows and upper portion of the dorsum of the foot. The face is always exempt. The disease is hereditary and in Paraguay endemic among the males. The diagnosis is easily made.

Treatment is entirely palliative. Remove the scales with sapo viridis and hot baths; or, in mild cases, the Turkish bath will loosen them. Warm or vapor baths should be taken regularly; and after each bath, one of the following ointments may be rubbed in:

℞ Ung. aquæ rosæ
Lanolin (puriss) āā..... ℥iv
M.

℞ Adipis benzoat
Ung. aquæ rosæ āā..... ℥iv
M.

℞ Adipis benzoati..... ℥ij
Glycerinæ..... ℥i
Ung. petrolei..... ℥ij
M.

The disease is incurable. A few cases are reported as having recovered spontaneously.

XEROSIS

Syn.—Xeroderma.

This disease is similar to asteatosis and also to ichthyosis. It appears to hold a middle place between both. It is congenital. The epidermis is dry, rough and harsh, shedding furfuraceous scales. The extremities are the portions most frequently affected, especially upon their outer aspects. The

treatment to be pursued is the same as that in ichthyosis.

KERATOSIS PILARIS.

Syn.—Lichen Pilaris.

This affection is of comparatively frequent occurrence. It is characterized by a number of discrete conical elevations of the size of a pin-head, of a grey or whitish color, sometimes surrounded by an areola. Between these lesions the skin is dry and harsh. The feeling imparted to the hand, passed lightly over the eruption, is the same as that experienced from a nutmeg-grater. By scratching one of these elevations freedom is given to an imprisoned, curled hair, which then emerges.

The limbs are the localities most often invaded, especially on the extensor surfaces. It is only where lanugo hairs exist that we find it.

It is a chronic affection, attended with mild itching, in some cases. The causes are unknown, want of cleanliness playing but a secondary part. Adults are generally attacked and males most frequently. The lesions consist of an accumulation of horny cells about the openings of the hair-follicles. Sebum mixes with this and forms a hard mass which imprisons the hair.

There is very little difficulty in recognizing the trouble even when scratching has produced inflammatory symptoms.

The treatment is, in the main, that of ichthyosis. There seems to be a tendency to the ichthyotic process in individuals affected with keratosis pilaris, as shown by the general state of the skin.

SCLERODERMA.

Syn.—Sclerema, Scleriasis.

In this rare affection the skin is yellowish or waxy, pigmented, having a hard feel as if made of wood. It is indurated in plaques which are round or oval, varying in size from a small coin to the palm; or it may be ribbon-like in its distribution. There frequently exist ridges at the sides of the affected area. No subjective symptoms are present, except the hide-bound feeling. It is essentially chronic in its course, affecting the head, trunk or limbs. When the face is the seat of this disease, it has a fixed, wooden appearance.

The treatment consists of baths, massage and frictions. The galvanic currrent also tends to produce resolution. Mild salicylic acid ointments are of benefit.

The disease may disappear spontaneously leaving an atrophied condition of the affected portion, or it may recur.

MORPHŒA.

Syn.—Addison's Keloid.

Morphœa is of infrequent occurrence and is regarded by many as a stage of scleroderma. It consists of one or more discrete patches, bands or lines of a pale, whitish color, having a delicate lilac-colored areola. The patches bear a great resemblance to a piece of fat bacon let into the skin. The causes leading to this trouble are unknown. It is observed more frequently in women than in men. Atrophy takes place after the process has existed some time. All treatment which has been attempted has proven unsatisfactory. It sometimes disappears spontaneously.

SCLEREMA NEONATORUM.

This affection, although congenital, is not observed until a few days after birth. There is at first an œdema of the skin, which feels cooler. Later on, it has a dense, hard feel and is more or less shining. The color of the skin is yellowish, reddish or violaceous. The face has a peculiar expression due to the want of flexibility of the skin which latter also seriously interferes with suckling, the lips being hard and wooden. The disease involves the whole surface and, as a rule, the children affected by it die early. Some have been saved by the application of warmth, massage and stimulation, accompanied by oily inunctions.

ELEPHANTIASIS.

Syn.—Elephantiasis Arabum, Pachydermia, Bucnemia, Elephant Leg, Barbadoes Leg.

This disease occurs chiefly in the Tropics. It begins, at first, in an attack of erysipelas or dermatitis in which the lymphatics are more or less involved. When recovery has taken place it is found that the integument of the portion involved is slightly thickened. Successive attacks take place, the thickening growing more and more until the volume and density are such as may be seen in typical cases. It is then tense, glossy and œdematous. When the disease has existed some time the skin is rough, papillomatous, hanging in thick folds and more or less pigmented. Seborrhœa is present, the mouths of the sebaceous follicles are patulous and the whole presents a marked deformity.

The leg, arm, scrotum and penis, and the labia and clitoris are the portions generally affected. These parts attain enormous proportions and give

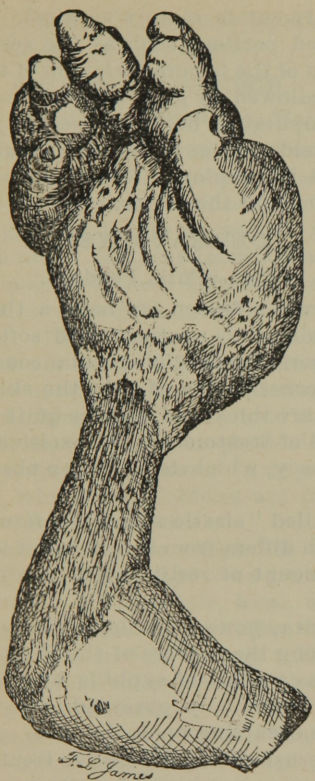

Fig. 14.—Elephantiasis.

rise to pain accompanied by a sense of weight. The cause is attributed by some to the *filaria sanguinis hominis*. The process consists in a hypertrophy of the deeper layers of the skin.

The treatment is mainly surgical. Excision of some affected portions such as the scrotum, labia, etc., ligation of the femoral artery or of the brachial, have been followed by good results. In some cases, however, amputation becomes necessary. Electrolysis has yielded some excellent results, but this means must be employed for years to obtain any marked change for the better.

DERMATOLYSIS.

Syn.—Cutis Pendula.

In this rare affection we have a thickening of the skin, which feels unctuous and soft, accompanied by a hypertrophy of the subcutaneous connective tissue. In consequence of this, the skin hangs in folds which are thick and may be quite large. The only method of treatment is the excision of some of the redundancy, which is not often observed about the trunk.

The so-called "elastic skin" is a form of dermatolysis which differs from it in the fact that there is a certain amount of resiliency remaining in the integument.

FRAMBŒSIA, *yaws*, or *polypapilloma tropica*, is endemic among the negroes of the West Indies. It it regarded as a phase of syphilis by some authors. The lesions commonly observed are tubercles of various sizes occurring upon the face. A discharge exudes and crusts form. Alterative treatment seems to have a more or less beneficial effect upon it.

DONDA NDUGU is an affection seen in Central and East Africa characterized by the appearance of white papules upon the lower extremities. A boggy swelling appears which sloughs beneath the healthy tissues.

PARANGI is a skin trouble having mixed features and which is found in Ceylon only.

HYPERTRICHOSIS.

Syn.—Polytrichia, Hirsuties, Hairiness.

Hypertrichosis is really not an increase in the number of hairs, but in their size and length. Hairs which are normally short and fine—the lanugo hairs —suddenly grow in length as well as in diameter. Hairs which are of ordinary length, also grow to be many feet long and their different forms produce examples of *homines pilosi*, bearded women, hairy children, etc. The chin, upper lip, sides of the face, and forehead are the principal visible seats of this trouble in women. When the affected portion is covered by clothing there is but little attention paid to it. There is, however, no particular region in which this deformity appears. Any portion of the integument, where hair follicles are present, may be the seat of hypertrichosis.

Hypertrichosis may be congenital or acquired. In the former it is more apt to be general. In the acquired form it is, as a rule, local, and appears after puberty. It is found more often in persons of a dark complexion and in women with masculine peculiarities, and in those who have passed the climacteric or who are sterile.

The causes are obscure. Stimulation or irritation of the skin, such as that caused by epispastics, may cause it. Spinal troubles and insanity also seem to exert an influence in its causation.

Two methods of treatment may be resorted to—the palliative, and the radical. Among the former is epilation, a method which causes the hair to become stronger and to increase in growth. Shaving

has the same effect. Depilatories are probably the best palliative measures. The following are among the best:

℞ Barii sulphid 3ij
Pulv. zinci oxidi
Pulv. tale venet āā 3iij
M.

℞ Sodii sulphid..... 3ij
Pulv. zinci oxidi,
Cretæ preparatæ āā..... 3iij
M.

Either one is made into a paste, with water, and applied for ten or fifteen minutes. As soon as the skin feels hot it is scraped off with a dull knife and a soothing ointment is applied. These preparations should be used with caution. Sulphide of arsenic, quicklime, and sulphide of calcium are also used as depilatories.

Ethylate of sodium freely applied is claimed to destroy the hair completely. It should be freely and thoroughly rubbed over the surface, followed by a dressing of cold cream. It must be done under the influence of chloroform. Thin scars are apt to follow its use.

For the radical cure, there are two principal methods. In the first the hair is extracted and the follicle destroyed by twirling in it a needle whose point has been dipped in fused caustic potassa or in chromic acid. The inflammation which it provokes subsides in a few days. The other method is by electrolysis, as introduced by Hardaway and popularized by him. A fine steel or irido-platinum needle, connected with the negative pole of a galvanic battery (a strength of about 3 milliampères being used), is carefully passed alongside of the hair into the follicle until the point reaches the

papilla. The positive electrode is then applied to some indifferent part of the body. In a short time a frothing takes place at the opening of the follicle. Slight traction is made upon the hair, with a pair of forceps, and, if it comes out easily, the operation is complete. The current is then interrupted and the needle withdrawn. In this manner a number of hairs are treated at one sitting. A small inflammatory areola appears at the opening of the follicle, but subsides in a few days. Scars may result if the walls of the follicle have been punctured.

In those cases due to nervous disturbance it is best to treat the cause first before any local measures are attempted. Many recover from the hirsuties by these means alone.

In all the radical measures which are attempted, there is always a return of a certain percentage of the hair on account of their incomplete destruction. The papilla must be destroyed to ensure a non-return of the hair.

ONYCHOGRYPHOSIS.

Syn.—Onychauxis.

The above is a generic term employed to designate hypertrophy of the nail. This process may be due to general or to local causes, and it may consist in an increase in length, in breadth, or in thickness. The nails of the hand and feet may be affected, either singly or in numbers. The nails themselves often become rugous or furrowed. The color may vary from a pale yellow to black or brown. The form is at times distorted, so much so that a nail may assume the shape of a ram's horn.

In *onyxis* or *onychia* there is more or less ulceration taking place at the nail fold, or beneath the

nail, which becomes dull in color, thickened, sometimes friable. This process is seen in some cases of syphilis.

Onychomycosis is a thickening of the nail due to the invasion of the parasite of ringworm or of favus. The nail assumes a dull color, is brittle and friable, and examination shows the infiltration of the growth.

Paronychia, better known as "ingrowing" nail, is characterized by an increase in size accompanied by a piercing of the tissues by the nail substance.

In nearly all of these troubles the treatment is surgical. In onychomycosis it is best to scrape the nail well and apply parasiticides. Where ulceration exists, caustics are of benefit. When a perverted growth persists it is best to destroy the nail. In order to accomplish this the matrix must be completely destroyed. That portion posterior to the lunula and that beneath it must be thoroughly cauterized, or the growth of the nail substance will continue. The thermo-cautery, or galvano-cautery are probably the best methods upon which to depend.

CLASS VI.—ATROPHIES.

In this class are included those processes which bring about a degeneration or a diminution of the component parts of the skin. They may be congenital or acquired, idiopathic or symptomatic. As a rule, they are benign, so far as any danger to life is concerned. Many are to be viewed simply in the light of deformities. Others are incidental to old age, and nearly all of them are of such a nature that little, if anything, can be done to remedy the condition.

ALBINISM.

Syn.—Congenital Achroma, Congenital Leucoderma, Congenital Leucopathia, Congenital Leucasmus.

This is a congenital deficiency of pigment which may be universal or partial. Those in whom there is a universal want of pigment are known as albinoes. They are observed but infrequently. In them the hair is white, the pupils red, and a general absence of normal pigment can be noticed. In the partial form we see a variety which is rather more frequent. It is best observed in negroes, in whom the want of color appears in marked contrast with the rest of the skin. Such as are affected in this manner are known as "piebald" negroes. There are no subjective symptoms connected with this deformity. It has a tendency to increase, sometimes. The deformity is hereditary in the partial form.

The condition depends upon a congenital deficiency of pigment, but the cause of this deficiency is unknown.

There is no treatment to improve the condition, which is permanent.

VITILIGO.

Syn.—Acquired Achroma, Acquired Leucoderma, Acquired Leucopathia, Acquired Leucasmus.

This disease is frequently met with, more particularly in negroes. It appears in the form of roundish or irregular white macules and, if the affected portion be hairy, the hairs are also white. The spots are milky-white and vary in size from a silver five cent piece to large areas. Vitiligo is an acquired achromia occurring in adults. The dorsum of the hand is generally first involved, although in some, it is never the seat of this affection. The areas are often symmetrically disposed or seem to be abruptly arrested at the median line.

A close examination of vitiligo will show that there exists an increased amount of pigment at the periphery of the lesion, suggesting that it is rather a displacememt than a deficiency of pigment.

There are no subjective symptoms in this trouble. The macules are more marked in Winter than in Summer. As to the causes very little is known. Some cases are, no doubt, traceable to a nervous origin.

The diagnosis is to be made from chloasma and tinea versicolor.

The treatment is, in general, unsatisfactory. The local measures to be attempted are entirely cosmetic. Occasionally, the application of some stimulant like acetum cantharidis will induce a partial return of pigment. The burning glass also acts in this manner. Ascending galvanic currents have a good effect in some cases. A dye made of a weak infusion

of walnut husks is an agent which conceals the deficiency in color.

The disease has a tendency to increase until the lapse of a certain length of time, when it remains stationary.

CANITIES.

Syn.—Poliosis, Trichonosis Cana, Trichonosis Discolor, Blanching of the Hair.

This disease, better known as grayness of the hair, may be congenital or acquired, and its appearance may be slow or sudden. As a rule, it is progressive, and permanent, constituting one of the physiological changes incident to old age. The portions first attacked are the temples and beard; then the vertex and finally the remainder of the pilous system. Alkalies and various chemical agents have a bleaching effect upon the hair. Sweating has the contrary.

Nervous disturbances, such as neuralgia, fear, grief, etc., produce canities, and cases are on record in which the hair turned white in a single night. In alopecia areata the first hairs which reappear are white and are then followed by others of a normal color.

The causes of canities are senile alterations, heredity, deficient nutrition and innervation of the hair follicle, functional and organic nervous affections, keeping the head covered, etc.

The white color is due to a failure of pigment, to the uneven surface of the hair shaft, or to air bubbles in the shaft. In *ringed hair*, we have alternate layers of pigment and the want of it producing the condition.

The treatment of canities is sometimes successful by means of hypodermic injections of muriate of

pilocarpin, gr. $\frac{1}{12}$, once or twice a week. The only other method is palliative, by the use of dyes, but this can hardly be recommended.

ATROPHIA CUTIS.

Syn.—Atrophy of the Skin, Atrophia Cutis Propria.

Atrophy of the skin may be partial or general, idiopathic or symptomatic. The skin becomes thin, shining and more or less translucent. There are no subjective symptoms. It may occur in exhaustive diseases; or following pressure, such as is caused by tumors, callosities, etc.; or it may be due to ulcerative processes; or to certain affections of the skin such as lupus, favus, etc.

SENILE ATROPHY.

This form of atrophy of the skin is generally universal, and depends upon the degenerative processes incident to old age. The skin becomes thin, of a brownish tint, with pigmentary deposits here and there. All the appendages of the skin participate in the changes. The secretions are diminished and wrinkles form, the elasticity and resiliency of the integument being markedly diminished. The corium is thinner, the papillæ are smaller, and the epidermis more or less dry and horny. The whole process is a retrograde metamorphosis. Various degenerative changes take place, such as the fatty, the colloid, the amyloid, the lardaceous, the waxy, and the vitreous.

Nothing can be done to retard this process which is slow and progressive.

Glossy Skin, as its name implies, is an atrophy of the skin in which the integument is thin, smooth, and very glossy and shining. It is generally found

upon the extremities and is due to organic nervous troubles.

STRIÆ ET MACULÆ ATROPHICÆ.

Syn.—Atrophic Lines and Spots.

The lesions, in this condition, consist of lines or spots which are smooth and glistening in appearance. The skin at their site is thin and apparently depressed, presenting very much the appearance of a scar. In color it may be whitish, pearly or bluish. The lines vary from one to three lines in width, and one-half to several inches in length. They are generally irregular or broken. The direction is more or less oblique and, when several exist, they are parallel. Atrophic spots are roundish or ovalish in shape, varying from a millet-seed to the thumb-nail in size. They present the same peculiarities as the lines and are isolated.

There are two classes of these atrophies—idiopathic and symptomatic. In the former we find the thighs, pelvis, trochanters and buttocks the seat of the lines and spots. The chest, back, and other portions are sometimes affected. Syphilis and pneumonia cause the spots about the trunk. The symptomatic form is observed upon the thighs, abdomen and mammæ. It is due to an extreme distension of the cutaneous structures. It occurs in pregnant women, in those having large abdominal and other tumors, and in fat persons. The lines caused by pregnancy are known as the *lineæ albicantes*.

An atrophy of the mucous layer of the skin is present in these lesions, and the papillæ of the corium have disappeared. The connective tissue occurs in thin bundles, and the fat cells have disap-

peared. The stretching of the rhomboid meshes of the connective tissue is the cause of these changes.

There is no treatment for this condition, which is generally of little importance as it occasions no inconvenience and, besides, is not situated upon visible parts.

ALOPECIA.

Syn.—Calvities, Defluvium Capillorum, Baldness.

Baldness is a deficiency in the number of hairs; seen most often upon the scalp. Three principal varieties are recognized, viz.: congenital, senile and premature.

Congenital Alopecia is a rare condition, due to an arrest of development. It is temporary, the retarded growth appearing later on. It may be localized or general.

Senile Alopecia is symmetrical. It is seen at the vertex, the frontal region, or involving the entire calvarium. It is more commonly seen in men. When the case is one of long standing the skin is smooth, shining, and sometimes there is seborrhœa oleosa present. In those who are old, atrophy of the skin is present. It is generally the scalp only which is so affected, the axillæ, pubes, chest, beard, etc., not participating in the process.

Premature (or *presenile*) *Alopecia* occurs in the young and may be idiopathic or symptomatic. The idiopathic form is seen in men most often, and in those of sedentary habits. It is gradual in its development, symmetrical, invading the vertex and up the corners of the forehead. The hair is thin and not very long. It seems to be hereditary in some families. The symptomatic form of this variety of alopecia may be local or general and is due to local or gen-

eral causes. Seborrhœa sicca, psoriasis, the vegetable parasites, etc., are among the local causes, while typhoid fever, syphilis and leprosy are among the systemic disorders which cause alopecia. In this latter form all the hair may fall out.

The changes observed in senile and premature alopecia are due to the fact that the follicles are starved, the epidermis is thinner and the corium is contracted to a greater or less degree.

The treatment is stimulation. A good bristle brush should be used and, in addition, sapo viridis as a shampoo, followed by the application of a strong sulphur ointment, beta-naphthol ointment, bichloride of mercury lotion (five grains to eight ounces), hypodermic injections of muriate of pilocapine (gr. $\frac{1}{8}$) twice a week, or some other stimulating measure. In the symptomatic form, the disease causing the condition should receive attention, but the local treatment is not to be neglected.

There is but little hope of a return of the hair except in the symptomatic forms.

ALOPECIA AREATA.

Syn.—Area Celsi, Porrigo Decalvans, Alopecia Circumscripta, Tinea Decalvans.

This disease consists in the formation of one or more bald spots, on the head or in the beard, which vary in size from a small coin to the palm. Upon examining the patches they present a white, smooth appearance. Some lanugo hairs and a few broken-off ones are occasionally found in the patches, which are sharply defined, having, usually a roundish or ovalish contour. The favorite sites of the patches are the parietal portions, vertex and occiput. The

disease comes on suddenly, several patches following each other in close succession. There are no subjective symptoms.

The majority of cases are of neurotic origin. In some, however, it appears to be due to a micro-organism, and small epidemics, produced by contagion, occur. The cause of this latter form—microsporon Audouinii, of the British—has never been satisfactorily demonstrated.

The treatment depends upon the origin of the trouble. If nervous, general nerve tonics should be given, this not being required where the trouble depends upon micro-organisms. Locally, we have many remedies to choose from, the general plan being to produce strong stimulation. Thus, the patches may be blistered every ten or fifteen days, a soothing dressing being employed in the intervals. Tincture of sapo viridis, aqua ammonia, oleate of mercury (5—10%), corrosive sublimate, gr. iij—iv, to the ounce of alcohol, beta-naphthol, supplemented by frictions with a coarse towel, etc. Ointments containing cantharides, chrysarobin, pyrogallic acid, and similar stimulating agents are employed. Among lotions the following is a good one:

℞ Tinct. cantharidis,
Tinct. capsici, āā ..... ℥ss.
Olei ricini ..... ℥ij.
Aquæ coloniensis..... ℥i.
M.

A method which gives good results is galvanism. An ascending current, properly applied, is a very satisfactory method of treating this disease.

Alopecia areata is a self-limited disease. It is not very common, and is somewhat stubborn to treatment. In a length of time, varying from two months

to as many years, the hairs return. They may be white at first, but are soon replaced by a crop of the normal color.

ALOPECIA FURFURACEA.

Syn.—Pityriasis Capitis, Alopecia Pityrodes Capillitii.

This consists of a slow thinning of the hair beginning in early life and progressing steadily. The hairs are very thin, short and pointed. A constant furfuraceous desquamation is present, as also a moderate degree of seborrhœa. Itching is more or less marked. It is seen more often in men than in women. It may be inherited, and it has been suggested that it is contagious. The corium is thinned in this trouble. The treatment is stimulation together with such means as will relieve the seborrhœa.

ATROPHY OF THE HAIR.

Syn.—Atrophia Pilorum Propria.

In true atrophy of the hair, it is only this structure which is affected. It may be observed in all wasting diseases. It also occurs as a purely idiopathic form, affecting most often the hairs of the beard. It consists of a splitting up of the hair into longitudinal fibres, atrophy of the bulb being also present to a greater or less extent.

Trichorrexis Nodosa, or *Nodositas Crinium*, is characterized by the presence of small whitish nodes

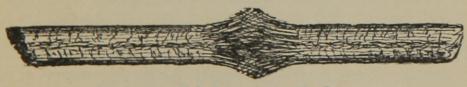

Fig. 15.—Trichorrexis Nodosa.

on the shaft of the hair, at irregular distances, and resembling very much the nits or ova of pediculi.

It is rare. It affects the beard and consists of a broom-like fissuring at the points where the nodes exist, appearing as if two brushes were stuck into each other. It is claimed to be of neurotic origin.

Piedra is also a nodose condition of the hair, in which dense, black, horny nodes, containing masses of spores, are found along the hair-shaft.

Fragilitas Crinium, or fragility of the hair, is a condition in which there exists an uneven formation of the hair-shaft, accompanied by great brittleness. In addition, the hairs split at the free extremity. It may affect a few hairs only, or numbers.

ATROPHY OF THE NAIL.

This may be congenital or acquired. In the former case it is due to an arrest of development. In the latter, general wasting diseases, heat, cold, chemicals, etc., act as causes. The nails become thin, narrow, friable, furrowed, grooved, eaten in, etc. The condition which is presented is so suggestive that there is no difficulty in recognizing the trouble. To treat the cause is, of course, necessary. Locally, the nail should be kept in some bland ointment and protected. This will accomplish about all that is possible to be done by topical measures.

CLASS VII.—NEW GROWTHS.

The class of new growths is an important one. As a rule, they are painless and of slow growth. This is particularly true of the connective tissue new growths. Those depending upon cellular deposit are more or less destructive, frequently malignant. The majority are not painful. Besides these, we have new growths made up of bloodvessels, of lymphatics, and of nerves. Many of these diseases are amenable to surgical interference, others run so rapid a course, or are of such a malignant character as to defy all operative interference. Another class resist all treatment and pursue a chronic course, lasting ofttimes as long as the individual himself.

KELOID.

Syn.—Kelis, Kelos.

Keloid is a connective tissue new growth which manifests itself in the form of an oblong plane, an elevated ridge, or a cylindrical mass, processes being given off at the periphery. The color is whitish or slightly reddened, it being somewhat lighter than the surrounding integument, in negroes. The surface is smooth and more or less shining. The portions usually affected are the trunk, that portion over the sternum, the back, the nucha, and the face. Itching is present in the majority of cases and the growths are sensitive on pressure. Pain is also present to a very marked degree, in some cases. The disease develops from a few nodules which coalesce. Generally, keloid is single, although it may be multiple.

The true cause of keloid is unknown. False keloid is observed after incisions, the application of leeches, vesicants, etc., and after having the ears pierced. The true, or "idiopathic" keloid appears without any assignable cause. It is seen most often in females and negroes and during adult life.

The structure of keloid is a "new formation of dermatic framework." In true keloid we find bundles of connective tissue fibres, parallel to each other and the papillæ of the cutis intact. In hypertrophic scar, no papillæ exist and the connective tissue, while abundant, is loose and irregularly distributed. In cicatricial, or false keloid, the bundles of connective tissue are present but the papillæ are absent.

The treatment of keloid is unsatisfactory, as the disease tends to return after excision or cauterization. Multiple puncture, scarifications, curetting, are all ineffectual. The growth generally lasts throughout the life of the individual. Spontaneous resorption is said to have occurred in a few isolated examples. It has been latterly claimed that electrolysis has a good effect, but it is as yet too early to base any positive statements upon the results obtained. When the pain is excessive, measures should be taken to relieve it. When the deformity is great, it is best to excise the mass in the hope that, if a return takes place, it may not be so large or disfiguring as the original mass.

FIBROMA.

Syn.—Molluscum Fibrosum, Molluscum Simplex, Molluscum Pendulum.

This connective tissue new growth is of rather infrequent occurrence. It appears as elevated, sessile, or pedunculated tumors, varying in size from

a pin-head to enormous masses. All sizes may be found in the same case. Generally, a number exist,

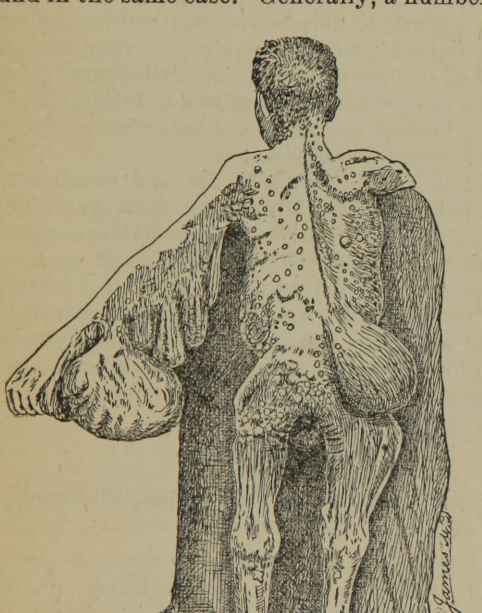

Fig. 16.—Molluscum Fibrosum.

although it is found singly. Fibroma appears soft and elastic to the feel—occasionally dense. The skin covering it is normal in color—sometimes reddish. In the large growths, it is thinner than normal.

Fibromata occur chiefly upon the trunk, the face, the ears, the genitalia, and the limbs.

The growth is very slow, but continuous. Its benign nature precludes subjective symptoms except when the large size produces irritation and pain. Fibroma can be readily recognized and differentiated from molluscum epitheliale, cysticircus cellulosæ, neuroma, or lymphangioma.

Fibroma begins in early life and continues to grow. It is seen most often in stunted individuals, and is said to be inherited. The growth is composed of a dense, white, fibrous mass, enclosed in a capsule, the center softening when the mass is large.

The treatment is surgical. The tumors should be removed when this is possible. In cases where they exist in hundreds this is scarcely possible, and only the largest should be excised. There is no tendency whatever to recur.

XANTHOMA.

Syn.—Xanthelasma, Vitiligoidea, Fibroma Lipomatodes.

This disease derives its name from its yellow color. It occurs in two forms—xanthoma planum and xanthoma tuberosum.

Xanthoma planum, or macular xanthoma, occurs in ovalish or crescentic macules, of a straw or sulphur yellow, varying in size from a pin's-head to the thumb-nail. The macules are velvety to the touch, and incline to be symmetrical. In appearance they resemble a piece of chamois skin which has been inserted into the integument until level with its surface. The macules may be discrete or become confluent. They occur most often upon the eyelids. Other portions of the integument and the mucous

membranes and internal organs may be affected. There are no subjective symptoms.

Xanthoma tuberosum consists of small masses, varying in size from a millet-seed to a cherry, and having a deep yellow color. They are softish, and occur about the trunk and joints. This form is not frequently seen.

When both varieties occur in the same individual, we have *xanthoma multiplex.*

The pathology of this affection is not yet definitely settled. It is, probably, a connective tissue new growth, with fatty degeneration. Cholesterin crystals are found in abundance. There is also a marked number of new cells.

The treatment is surgical. Removal of the affected portion is indicated, but only in those localities in which an operation will improve the appearance. Electrolysis has been employed, latterly, with good results notably in the plane variety, and promises to be the method of the future. It should always be tried. A one in ten solution of corrosive sublimate in xanthoma of the eyelids has been lauded lately.

MOLLUSCUM EPITHELIALE.

Syn.—Molluscum Contagiosum, Molluscum Sebaceum, Epithelioma Molluscum, Acne Varioliformis.

This affection is unusual, and consists of roundish elevations, wart-like in appearance, and having a waxy, whitish, or pinkish color. The papules are flattened, and show a greater or less depression in the center. A blackish point is occasionally observed in this central depression. The lesions vary in size from a pin-head to a split pea. They occur singly or in numbers. They are firm and easily movable. There are no subjective symptoms.

The face and genitalia are most often the seat of these growths. The limbs are also involved, at times. Children are most often the subjects of this disease. It is said that the cause is to be looked for in some local irritation, and there are those who contend that this affection is contagious. This latter point is still *sub judice.*

As to its pathology, we are reasonably certain that the process occurs in the sebaceous glands, and, when the contents of one of the papules is examined, it is found to abound in molluscous bodies. The theory is that the disease is primarily an affection of the rete mucosum, and the prickle cells are transformed into molluscous bodies.

Molluscum epitheliale is not difficult to recognize. It is to be differentiated from sebaceous cyst, molluscum fibrosum and verruca.

The treatment is entirely local. Small lesions may be treated by stimulating applications, such as those containing white precipitate, etc. Enucleation of the sac and its contents is the best method. Electrolysis is also excellent. A method sometimes practiced is to split open the lesion and introduce a small amount of some caustic.

The disease is easily amenable to proper surgical interference. If left alone, it tends to spontaneous recovery, after a variable length of time.

RHINOSLEROMA.

This rare disease is characterized by the presence of an irregular elevated patch, composed of tubercles, of the color of the skin or reddish-brown. The mass is well defined and occurs about the nose, its alæ and the upper lip. It is hard to the feel, although somewhat elastic. It is slow in progress, gradually

encroaching on the nasal mucous membrane and extending to the pharynx. It is seen in children and in adults. It consists of a cellular growth, and late observations tend to show that it is due to micro-organisms. The former treatment by cauterization, which acted but temporarily, has been in great part supplanted by injections of corrosive sublimate solutions, followed by apparent successes.

LUPUS ERYTHEMATOSUS.

Syn.—Lupus Erythematodes, Vespertilio, Bats-wing Disease, Seborrhœa Cogestiva, Lupus Superficialis, Lupus Sebaceus.

This cellular new growth is not frequently seen in this country. It begins as one or more reddish-brown patches, which increase in size indefinitely. As they approach each other they coalesce. At the margin grayish or yellowish scales show themselves. When the disease is developed, it presents itself as one or more sharply defined patches of various sizes, of a violaceous or reddish color, covered with adherent scales which may be scanty or appear like a mass of sebaceous matter. The follicles of the sebaceous glands are large and open. The patches are always dry. The localities usually affected are the cheeks and bridge of the nose. These coalesce and form a butterfly-like patch. The vermillion of the lips, the scalp, the ears, the back and the hands and feet may be involved. Some burning and itching are sometimes present. The disease is essentially chronic and very rebellious to treatment. Stimulating and caustic applications are the best, the curette and galvano-cautery rendering good service. Multiple scarifications also act favorably. Some cases recover spontaneously, but relapses are very apt to occur.

LUPUS VULGARIS.

Syn.—Noli me Tangere, Lupus Exedens, Lupus Vorax.

This affection, while common in Europe, is exceedingly rare in this country. It is extremely chronic, slow in its evolution and destructive in its process. It begins as softish nodules of the size of a millet-seed located in the corium and appearing to

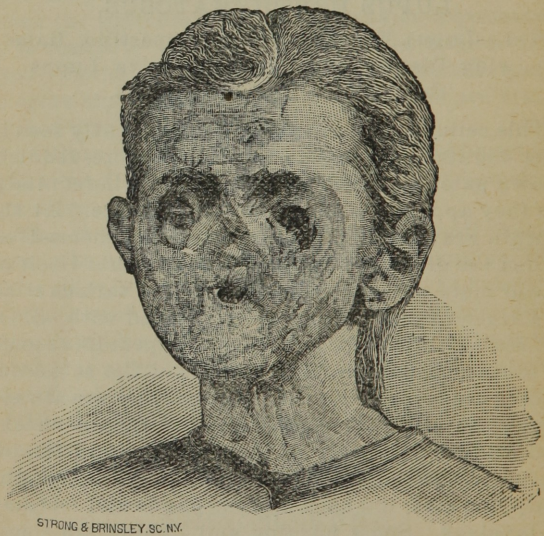

Fig. 17.—Cicatrices due to Lupus. (*Archives of Ophthalmology.*)

view as dark red macules upon the skin. Patches form in which papules or softish tubercles show themselves. These patches have well-defined more or less elevated edges. Involution may take place; but, as a rule, ulcers form which have a dirty floor,

an abundant secretion of pus and rather soft edges. This ulceration is destructive and may produce extensive ravages, cicatrization taking place as the process advances. The scars are rather thick, with centrifugal bands, giving a stellate appearance. Variations in the process are the appearance only of tubercles or papules (*lupus tuberculosus*); atrophy and desquamation following involution (*lupus exfoliativus*); ulceration (*lupus exedens*); a vegetating process (*lupus vegetans* or *hypertrophicus*); or the occurrence of horny or warty growths (*lupus verrucosus*).

The regions most frequently attacked are the face, especially about the nose and upper lip, the ears, the trunk, the genitalia, and the extremities. The mucous membranes also become the seat of the disease by extension of the process, and the larynx is also attacked. Pain, more or less marked, is an accompaniment.

In the earlier part of the process are found nest-like masses of large nucleated cells which disappear to give way to the general cell infiltration. Tubercle bacilli are also found, abundantly in recent active lesions, usually within the cells.

The diagnosis is to be made from epithelioma, syphilis, psoriasis, lupus erythematosus, and acne rosacea.

The treatment is a difficult matter. Internally, only such remedies should be administered as are demanded by the general condition of the patient. Locally, the most modern treatment is based upon the action of parasiticides. Good results are reported from the use of ointments or solutions of corrosive sublimate, one or two grains to the ounce, applied continuously to the patches, or the same

agent in tincture of benzoin freely painted on the patches is said to act well. Sulphurous acid, pyrogallol (10% ointment) and iodoform have been recommended. Multiple scarifications or curetting with a sharp spoon, followed by some of the above applications, is well spoken of by some. Cauterization with the Paquelin knife, galvano-cautery, or chemical caustics has its adherents. Electrolysis has also been advised. The remedies proposed and lauded for this disease are very numerous, and more or less efficient.

SCROFULODERMA.

The scrofulodermata are, as a rule, chronic, indolent, hyperæmic processes which induce changes in the skin and subcutaneous tissues. There is a tendency to break down and to the formation of ulcers. The contiguous ganglia become infiltrated, hard and are also inclined to undergo degenerative changes. The nodules which are formed rapidly break down and the resulting lesions have a purplish appearance, uneven floors, pale granulations and thin pus. The cicatrices are irregular, corded and disfiguring. The chief varieties of the scrofulodermata are the papular and the pustular (small and large). The treatment should be general, directed to the struma; and, locally, antiseptic and stimulating applications.

TUBERCULOSIS CUTIS.—Tuberculosis of the skin is exceedingly rare. It is characterized by indolent, roundish, ulcers of the skin having a slightly infiltrated base and pale floor. They generally occur at mucous outlets. Sometimes they are the effect of direct inoculation with tubercle bacilli. Good results have been reported from the external use of iodoform.

AINHUM is a disease of the little toe, found in negroes in Brazil and Africa. An indurated ring forms around the toe and keeps contracting until, in the course of years, spontaneous amputation occurs. The toe increases in size by development of fatty tissue.

PODELCOMA, *Madura Foot*, *Mycetoma* or *Fungous Foot*, attacks the feet, which then become œdematous, and are covered with vesicles, or tubercles over which are found small black granules. Sinuses form which penetrate to the bone and through which granular or cheesy masses discharge. It is supposed to be due to a mycelium—cheonyphe Carteri. This trouble is confined to India.

LEPRA.

Syn.—Elephantiasis Græcorum, Lepra Arabum, Leontiasis, Satyriasis, Leprosy.

This affection is one which is constitutional and rather infrequent in temperate zones, at the present time. It is slow and insidious in growth and rather progressive in character. Premonitory symptoms are observed in the majority of cases, these consisting of malaise, chills, fever, languor, loss of appetite, etc. Nearly every organ of the body may become affected. In general, three varieties of the disease are recognized, viz.: tubercular, macular and anæsthetic.

Lepra tuberculosa or tubercular leprosy, begins as macules which are of a reddish or brownish color, round, oval or irregular in outline and occurring chiefly about the face, trunk and extremities. There may be some scales, or the skin may appear shining. In a variable length of time tubercles arise. These consist of irregular nodules, softish to the feel and

rather firm, of a reddish, yellow or brown color. The face and hands are most frequently affected. The brows, nose, lips, chin and ears become thickened and nodulated, giving a peculiar leonine appearance to the features (*leontiasis*). The larynx

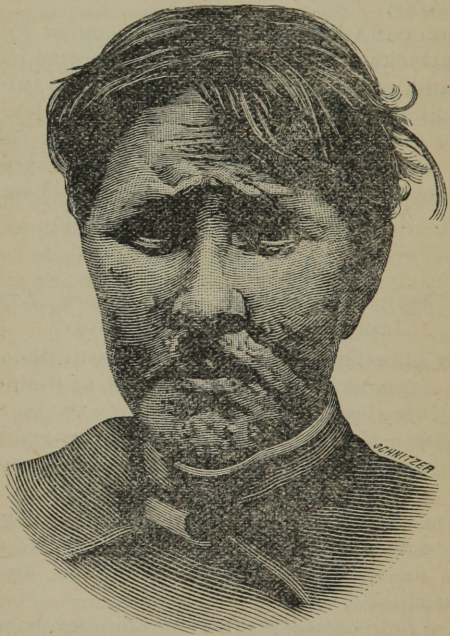

Fig. 18.—Lepra. (*N. Y. Medical Record.*)

and soft palate become involved. The tubercles may be reabsorbed, but they generally ulcerate and, towards the last, mutilation, chiefly of the extremities, is a result of this process (*lepra mutilans*). The course of the disease is extremely slow.

Lepra maculosa, or macular leprosy, has the appearance of the tubercular at its inception. Sometimes, the macules are white, with enlarged capillaries at the border. At first, there is hyperæsthesia and, later on, anæsthesia of the affected portions. Occasionally, the macules bear a close resemblance to vitiligo.

Lepra anæsthetica, or anæsthetic leprosy, first manifests itself by the appearance of bullæ. Scars generally follow, and these are white and shining, somewhat resembling plates of mica. The affected areas are anæsthetic, other portions of the integument sharing in this want of sensibility. There is a symmetry in the distribution of the lesions. The nerves, which are subcutaneous, are felt to be indurated, and, like cords, fusiform nodes being found in some. The skin is dry and harsh, the muscles atrophy and the hair falls out. The extremities ulcerate and lepra mutilans generally supervenes.

Any two or all of the above varieties may be present in the same individual.

The causes of leprosy have never been definitely ascertained. It has no connection whatever with syphilis. As to its being contagious, there is also some doubt. Its infectious character has been definitely ascertained, experimental inoculations having produced the disease.

The process which takes place in leprosy is a small, round cell infiltration which depends for its origin upon the bacillus lepræ, whose principal habitat is along the walls of blood-vessels, it being also found in all the lesions.

It may occur at any age, children being the subject of the disease as well as adults and the old.

The treatment of leprosy is ineffectual unless it be in its earliest stages. Hygienic measures, baths plain or with sulphur, or iodine and the use of oil of cashew nut, Gurjun balsam and chaulmoogra oil constitute the principal therapeusis. Lately ichthyol, internally and externally, has been claimed to effect a cure in the earlier stages, but there is not enough evidence yet upon which to base a decision.

PELLAGRA, *Lombardian leprosy* or *mal rosso* is seen chiefly in Italy and consists of a chronic erythematous process invading those portions of the skin which are exposed. Desquamation takes place leaving a red, shining surface. Where there is no scaling the skin becomes thick, dry and yellowish or brown in color. General symptoms of marasmus are also present. The disease is found in the poor, and the treatment is one based upon general principles, being roborant and tonic.

CARCINOMA CUTIS.

Under the general term of carcinoma of the skin is included three principal varieties of malignant tumors, the epithelial, the fibrous, and the melanotic sarcomata. The skin may be primarily involved by the process or it may become affected after other organs or tissues have been attacked. In all the forms given above there is more or less of an epithelial involvement.

EPITHELIOMA.

Syn.—Epithelial Cancer, Cancroid.

This is by far the most common malignant neoplasm of the skin. Three varieties are described—the superficial, the deep and the papillary.

Superficial Epithelioma.—This form begins as small papules or flat infiltrations reddish, yellowish or grey in color. The growth has a tendency to arise in lesions of the skin, such as excoriations, fissures, etc., or it may take its origin from a wart,

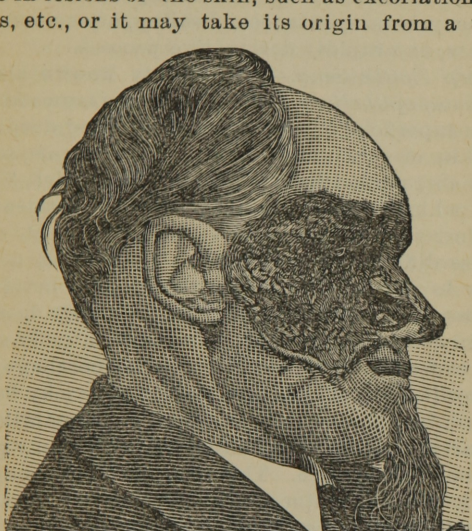

Fig. 19.—Rodent Ulcer. (*Cin. Lancet and Clinic.*)

mole, nævi or from the orifices of sebaceous glands. The shape is circular, oval, linear or irregular. It is only observed in those at or past middle life. There is a tendency to spread and the formation of an ulcer—*rodent ulcer*—which invades large areas,

having irregular, granulating floor, perpendicular infiltrated edges and secreting a viscid serum. The head and face are most frequently attacked by this variety. The course is slow or rapid ; the termination may be a spontaneous healing, after a number of years, or a rapidly destructive process.

Deep Epithelioma.—This variety known also as *tubercular epithelioma* originates in the same manner as the superficial or from nodules situated deeply in the skin or subcutaneously. A tumor forms, sometimes surrounded by "satellites," or a thick "button," which in the course of time degenerates into an ulcer such as has already been described. The process differs in this, however, that it has a tendency to extend down into the tissues involving muscles, fasciæ, bones, etc. It is eminently destructive in character and may, in a comparatively short time, cause death from exhaustion, hæmorrhage, etc.

Papillary Epithelioma.—This variety may be described, in a few words, as a malignant papilloma. A warty growth is first observed, which may grow to a considerable size. The surface is dry or secretes an offensive sanguineous fluid. Fissures form, degeneration occurs and ulcers arise such as those described above.

About three-fourths of all the cancers of the skin are observed upon the face and head. Any of the varieties first described may occur in this locality. The genitalia, back of the hand and foot, are also occasionally involved. Any portion of the integument may be the seat of this affection.

In *Paget's Disease of the Nipple* we have a form which is peculiar from the fact that at its inception it simulates eczema very closely. In a short time, however, its malignant character declares itself.

Epithelioma is to be distinguished from lupus vulgaris, syphilis and sarcoma.

The treatment is entirely local, no internal remedies being of any avail except in so far as general measures may be indicated by the state of the patient. Excision, scraping, or cauterization comprise the methods of treatment of epithelioma. Of the first two methods it is unnecessary to speak here, they being purely surgical. Among the caustics employed are Vienna paste, caustic potassa and chloride of zinc. Pyrogallol and concentrated lactic acid are said to destroy the cancerous tissue without attacking the normal structures. The former is used in the strength of ten per cent. and is painless. The latter is mixed with some inert powder so as to form a paste and is exquisitely painful. The method of applying these agents is spread upon cloths. Cosmes' Paste and Marsden's Paste are also employed. The thermo-cautery and galvano-cautery are excellent means when they can be employed. Whatever method is adopted should be thorough. It is absolutely necessary to remove the entire malignant mass, so as to obviate any possibility of a recurrence. When relief is sought the process has generally advanced so far that a return is almost always certain. In very few cases, in which a few nodules exist and are small and isolated, thorough removal ensures a "cure."

Lenticular Cancer, scirrhous, hard or fibrous cancer rarely occurs primarily in the skin. It is almost always secondary to some cancerous involvement of other parts. It occurs as small, firm nodules in the substance of the skin or in the subcutaneous connective tissue. The skin is generally reddened. They sometimes break down, forming ulcers and

subsequently cicatrices. Cancer *en cuirasse* is that form in which the integument of a large part or of all of the chest is infiltrated by the cancerous mass. Returns generally occur after extirpation.

TUBEROUS CARCINOMA occurs on the chest, hands, arms and face in the form of multiple nodules, which are rather large and have a tendency to break down and form deep ulcers.

MELANOTIC CARCINOMA, or *pigmented carcinoma*, is that form in which a marked deposit of pigment occurs. It generally takes its origin from pigmentary nævi or moles. It is very markedly malignant.

SARCOMA CUTIS.

Sarcoma of the skin is malignant to quite a marked degree. It shows itself as a primary or secondary growth, occurring as a single or as multiple tumors, varying in size, from a pea to a goose's egg. It may show itself upon any portion of the integument and may occur at almost any age. It has been seen at birth. At first the tumors are isolated, the intervening integument being apparently normal, later on, it becomes red, swollen and infiltrated. A peculiarity of sarcoma is that it does not ulcerate. The treatment is unsatisfactory and death is the inevitable result, in all cases. The diagnosis is determined definitely by microscopic examination.

MELANOTIC SARCOMA, or *melano-sarcoma* has the general features of sarcomata. It is pigmented, the color presented varying from a grey to black. It is extremely malignant in character and quick in its evolution. All treatment is unavailing and a rapid termination in death is to be expected.

MYCOSIS FUNGOIDES, or *granuloma fungoides*, is a neoplastic disease caused by streptococci or diplo-

cocci and characterized by button-like tumors occurring in various portions of the integument, notably the face. After a time, they become firm, sausage-shaped, lobulated, of a peculiar red color, producing a sort of leonine countenance. General symptoms set in and all the treatment consists in securing the comfort of the patients, who do not survive longer than two to four years, on an average.

NÆVUS VASCULOSUS.

Syn.—Nævus Sanguineous, Nævus Vascularis.

This affection is frequently seen and easily recognized. It is congenital, occurring either in the skin or subcutaneously, and the formation is composed of bloodvessels. Nævi of this kind are roundish or irregular in shape, vary in size and are bright red, violaceous, or bluish in color. The head and face are most frequently affected. Some grow, others become smaller; but the majority remain stationary. Nævus vasculosus is very vascular, easily compressible, the skin underlying it being normal. Generally, it is single, but it may be multiple. There are no subjective symptoms.

There are two divisions of nævus vasculosus—nævus tuberosus and nævus simplex.

Nœvus tuberosus, or *angioma cavernosum* is tumor-like, prominent and erectile. It is very vascular and, at times, pulsating.

Nœvus simplex, or *angioma simplex*, consists of non-elevated macule-like patches, which are more or less smooth. It is occasionally described as *nœvus flammeus* or "port wine mark."

Nœvus pigmentosus may be verrucous or pigmented, but these are accidental modifications.

The growth consists of dilated or hypertrophied blood-vessels and capillaries, the former predominat

ing in the cavernous and the latter in the simple variety. The arrangement of these vessels is quite complex.

The treatment of this deformity depends, in a great measure, upon the condition present, the parts implicated, and the means at command. The simplest method is compression. It is long and tedious and unsatisfactory. Vaccination has been tried. The ligature is good in small erectile nævi. When the lesion is small caustics may be used. Bichloride of mercury in collodion or traumaticin (gr. viii to ℥i), or tartar emetic in the same strength are good applications. Nitric acid, solution of carbolic acid (fifty per cent. and chromic acid of thirty per cent. strength have been employed successfully. Ethylate of sodium is efficient, but very painful.

The injection of a solution of the sesqui-chloride of iron is advocated, this coagulating the blood. In the smooth variety, linear scarifications, made close to each other and crossed, or punctate scarifications, dipping the needles in some caustic or coagulating fluid, have been successful. The actual-cautery, the thermo-cautery, and the galvano-cautery are still employed by some. The simplest method, however, easy of application and effective in its action, is electrolysis. The positive pole should be large, the needle being attached to the negative. The needle is plunged into the nævus and the circuit closed. If done carefully, there will be no slough formed. The needle should be introduced at points close to each other.

TELANGIECTASIS.

In this we have one or more small bright-red points or lines which may occur upon any portion of the integument. Telangiectases are acquired and

are composed of enlarged capillaries. They occur most frequently upon the face and hands. When occurring as lines they are generally seen upon the malar eminences, the nose, and about the alæ nasi, constituting the condition known as *rosacea*. Telangiectasis may occur at any age without any known cause. There are no subjective symptoms connected with it. It is easily recognized. The electrolytic needle is very efficient in causing a disappearance of this deformity.

ANGIOMA PIGMENTOSUM ET ATROPHICUM, *Xeroderma Pigmentosum*, or *Melanosis Lenticularis Progressiva* is a rare affection characterized at first by a hyperæmic condition and numerous split-pea sized telangiectases, together with disseminated, brownish macules. Among the complications attending it are ectropion, ulcerative keratitis, and more are less malignant neoplasms. It generally appears before the third year and may last twenty-five years.

LYMPHANGIOMA CUTIS.

Syn.—Lymphangioma Tuberosum Multiplex.

This exceedingly rare affection is characterized by transparent, numerous, discrete tubercles which elicit pain upon pressure, and sink below the level of the skin. The disease occurs about the trunk and extremities. The color is a dark red. It is of slow growth and benign. The tubercles, which are illy-defined, consist of a mass of enlarged lymphatic vessels and enlarged lymph spaces.

NEUROMA CUTIS.

This trouble is also exceedingly rare. It simulates fibroma, to a great extent, in appearance. Paroxys-

mal pains manifest themselves. The growths consist of connective tissue and non-medullated nerve fibres. Pressure produces intense pain.

MYOMA CUTIS.

Syn.—Dermatomyoma, Liomyoma Cutis.

This is a tumor of the skin composed of non-striated muscular fibres. Rose-colored macules and pea-sized firm tumors are found. No subjective symptoms are present. Another form is composed of single tumors which are sessile or pedunculated and attain the size of a hen's egg. They are painless and usually, vascular. The disease is rare and not malignant.

When there is a preponderance of connective tissue it constitutes a *fibro-myoma* and when blood-vessels are present to a large extent we have the *myoma telangiectodes.*

CLASS VIII.—NEUROSES.

These diseases are purely functional in character and are merely changes in the normal sensibility. The symptoms are purely subjective, no structural lesions of the skin being present. Secondary lesions due to scratching are found in some cases.

HYPERÆSTHESIA.

This is, in general, a symptomatic condition of the skin wherein its sensibility is exalted. It is dependent upon some functional nervous disease or upon some lesion of a nerve trunk. It may be either unilateral or symmetrical and involve small or large areas. Hysteria is a common cause. Its duration, severity, etc., depend upon the exciting cause.

DERMATALGIA.

Syn.—Neuralgia of the Skin, Rheumatism of the Skin.

This is also a purely functional affection idiopathic or symptomatic in character, the symptoms being subjective. It is characterized by intense pain, located in the skin, and which may be local or general. The pain is spontaneous and may be either constant or intermittent. The idiopathic form is rare. Rheumatism or gout is a very common cause of the symptomatic variety. The general treatment should be directed to the cause. Locally, the galvanic current, blisters, applications containing the tincture of aconite root, or of belladonna are beneficial; and, if the whole surface be involved, vapor baths. At times, very hot or very cold applications bring relief.

PRURITUS.

Syn.—Itching.

This functional affection is characterized by one symptom—itching—which may vary in intensity and character. It may be general or local. Among the varieties of the former we have *pruritus senilis*, incident to middle or old age; *pruritus hiemalis*, or *winter itch*, due to sudden falling of the temperature; and the itching depending upon gastro-intestinal and allied conditions. The local forms are *pruritus vulvæ*, *pruritus scroti*, *pruritus ani*, etc. All forms are at times attended by an intolerable itching and serve to make the subjects of this disorder thoroughly miserable.

Uterine disorders, organic disease of the uterus and ovaries, renal and hepatic diseases, genito-urinary diseases, and certain drugs are causes of this distressing affection.

It is easy to recognize the trouble if a careful examination be made to exclude parasites and other diseases attended by pruritus. The only objective lesions ever seen in this affection are the secondary ones caused by scratching—excoriations, torn follicles, blood-crusts, hyperæmia, thickened skin, etc.

The treatment of this trouble depends for its success in a great measure upon the degree of relief which is afforded to the condition producing it, the local measures which are adopted being merely palliative. Externally, water hot or cold, or alternately hot and cold aids occasionally. Alkaline baths, sulphur baths and vapor baths prove of service at times.

In the local forms of the disease lotions or ointments do some good. The best anti-pruritic is probably carbolic acid in the strength of a two to five

per cent. aqueous solution. Thymol, menthol and alcohol have proven useful. The essence of peppermint water gives good results occasionally, as also diluted nitric acid. Acetate of lead, morphine, chloral hydrate, camphor, sulphite of soda, dilute hydrocyanic acid, chloroform, dilute water of ammonia alone or in combination have all been lauded. Infusion of tobacco, decoctions of belladonna and aconite, diluted, are also said to possess efficacy. Tar combined with caustic potassa is frequently of benefit, as in the following (liquor picis alkalinus):

R Picis Liquidæ..... ℥ij.
Potassæ causticæ..... ℥i.
Aquæ destill. ad..... ℥v.
M. Sig.: To be used diluted.

It sometimes happens that ointments act better especially in localized forms of the disease. The majority of the remedies already mentioned may be combined in ointment form. Among the combinations which are effective are the following:

R Camphoræ,
Chloralis hydrat. āā..... ℥i.
Ung. Aquæ Rosæ..... ℥i.
M.

R Cocaini muriat..... ℈i.
Lanolini puriss..... ℥i.
M.

In pruritus vulvæ it is well to order vaginal injections together with the external applications. Hot water alone followed by a bland ointment will secure relief in some cases, as also in some of pruritus ani. Ointments are the best in this latter. If hæmorrhoids exist they should be looked after. Mercurial ointments occasionally afford relief.

As a rule, but temporary relief can be obtained from external applications and this is not constant.

The number of remedies which have been suggested for the relief of pruritus is legion showing how uncertain their action is.

ANÆSTHESIA.

In this we have diminished or lost sensibility. It may be local or general, diffused or circumscribed. It may exist alone or be accompanied by other disturbances of the cutaneous nerves. It may be either idiopathic or symptomatic, the former being very rare. The latter is due to causes either central or peripheral. Diseases of the nervous system, functional or organic are the most frequent.

Analgesia is due to the same causes, the symptom being a loss of sensibility to pain.

CLASS IX.—PARASITES.

This class of diseases is one of the most important from the fact that nearly all the affections included in it, are contagious. The lesions produced by the parasites are various in character and more or less intense in their effects upon the skin. Irritation accompanies all and itching is also a more or less prominent symptom. There are two classes of parasites, vegetable and animal. Among the former we have two groups, the epiphytic, or those limited in their action to the surface of the integument; and the hypophytic, or those which penetrate into follicles. The animal parasites, likewise, either roam upon the surface or burrow into the epidermis. Although purely local in character, the parasitic diseases of the skin sometimes produce such extensive local disturbances as to affect the general system. This, however, is evanescent in character giving way rapidly upon the removal of the cause of the local irritation. The principal vegetable parasites are the achorion Schönleinii, the trichophyton and the microsporon furfur; the principal animal parasites which infect the skin being the various pediculi and the sarcoptes scabiei.

FAVUS.

Syn.—Tinea Favosa, Honeycomb Ringworm, Porrigo Favosa, Crusted Ringworm.

Favus attacks both the hairy and non-hairy portions of the integument. It is found most often upon the scalp of children. In those portions devoid of hair it presents the apperance of sulphur-yellow or

dirty looking scutulæ or "cups" of a peculiar appearance. The "cups" are concavo-convex a half line or more above the general surface and more or less discretely distributed. The convexity of the "cup" is that portion where it is attached to the skin. When occurring in a hairy part such as the scalp the "cup" has the same general appearance except that one or more hairs pierce it in the centre. These crusts are very friable, break down easily and, when this has occurred, the affected portion is apparently covered by an irregular crust varying in size and extent. An odor resembling that of decayed straw or of a mouse's nest can be almost invariably detected. The hairs become affected, by the invasion of the parasite, losing their lustre, becoming friable and splitting longitudinally. The nails also become affected by contact and become opaque, yellowish, thickened and friable.

Fig. 20.—Favus Cup. (*Scutulum.*)

More or less itching is present and an amount of pain depending upon the intensity of the inflammation which is present. For, upon removing a "cup" it is found to rest upon a reddened inflamed base, and this is so severe at times as to lead to suppuration, the formation of abscesses and enlargement of neighboring lymphatic glands. When suppuration takes place on the scalp permanent alopecia is apt to result.

Children and especially those in poor circumstances are most liable to this trouble which is easily acquired from mice, cats and rabbits.

The parasite causing this disease is the Achorion Schönleinii which consists of a large proportion of mycelium and some spores (conidia). There is no doubt, however, that several varieties of this para-

Fig. 21.—Achorion Schœnleinii.

a, Spores; *b*, Empty mycelium, showing its membrane; *c*, Mycelia, containing spores (sporofores); *d*, Gonidia, disposed in chains; *e*, Mycelium, whose terminus is full of protoplasmic matter.

site exist, as shown by the clinical features. Some act superficially and others invade the follicles

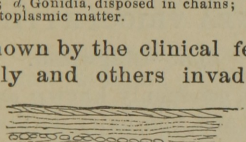

Fig. 22.—Intrafollicular portion of a hair, containing spores and mycelium of Achorion Schœnleinii.

showing that the parasite is epiphytic and hypophytic.

The diagnosis is comparatively easy, especially if microscopic examination be made. If lice or an eczematous process be present, the diagnosis may be observed but careful examination of a case will lead to the suspicion that favus is present.

The treatment consists in the application of parasiticides. In the superficial form of favus but little difficulty will be experienced, whereas that form which invades the hair follicles often proves troublesome. To accomplish a cure requires much care and attention and even then months may elapse before a patient can be safely discharged. As the details of treatment are very similar to those employed in ringworm the reader is referred to that subject.

Very old cases of favus may have produced such a drain upon the constitution of the patient as to necessitate a course of tonic treatment. In addition, it should never be forgotten that cleanliness is an essential to a successful issue, as well as the removal of the crusts by means of bland oils or poultices carefully applied.

TINEA TRICOPHYTINA.

Syn.—Ringworm.

This disease, commonly known as ringworm, attacks the hairy and non-hairy portions of the body. Three principle varieties are observed, viz: tinea corporis, tinea capitis and tinea barbæ.

TINEA CORPORIS, or *tinea circinata* (*herpes circinatus, ringworm of the body*) is more or less multiform being macular, vesicular, papular, or squamous, rarely pustular. The outlines of the lesions are more or less distinctly circular. The color is reddish with a tendency to pale at the centre and to desquamate at the periphery. Moderate itching accompanies the process and, in time, distinct annular lesions develop which gradually enlarge peripherally. The lesions are usually slightly elevated above the general surface. The erythematous form is the one most frequently observed. The vesicular form is

occasionally seen, the vesicles soon drying up and forming scales. The papular and pustular, especially, are seldom observed.

Tinea corporis is contagious to quite a marked degree.

Tinea cruris, or *eczema marginatum*, is a variety observed on the inner portions of the thighs and encroaching upon the scrotum. Its borders are sharply defined against the normal skin and more or less exudation accompanies the condition. The central portions clear up and the periphery is frequently studded with papules. The itching in this form is marked, and the disease obstinate, probably because an eczematous process is an accompaniment.

Tinea Unguium, or *onychomycosis*, is the term employed to designate this affection when it attacks the nails, which then become opaque, brittle and friable.

Some of the rarer forms of skin disease produced by a similar, if not identical, parasite, are *Tokelau ringworm*, *Burmese ringworm*, *Malabar Itch*, etc., the clinical symptoms being exaggerated.

Tinea Capitis, or *tinea tonsurans* (*herpes tonsurans, porrigo furfurans, tinea tondens, ringworm of the scalp*) is that form in which the scalp is affected. In this there is noted the occurrence of one or more circumscribed patches upon which the hair is dry, brittle, broken off short, and suggestive of partial alopecia. The scalp itself at the seat of the disease presents scaling, or crusting, or a vesicular eruption. There is marked itching present, the tendency being to spread. When an attempt to extract the hairs is made, they are apt to break off. Sometimes, exudation takes place, a greater or less

phlegmonous or suppurative process occurs and the formation of scars follows. The disease in this locality occurs most frequently in children and is highly contagious. It is also most rebellious to treatment.

Tinea Kerion, or *Kerion Celsi*, is sometimes observed to follow an active inflammation of a circumscribed portion of the scalp affected by ringworm. A tumor, reddish in color, forms, and from numerous distended follicles there exudes a thick, viscid fluid. It has a boggy appearance. It is rather uncommon.

Tinea Barbæ, *tinea sycosis*, or *sycosis parasitica* (*parasitic mentagra, sycosis contagiosa, barbers' itch*), is that form of ringworm which affects the beard. At first, small hyperæmic, slightly desquamating patches are observed; but, in a short time, larger areas become involved, the skin is congested, papules and tubercles form and eventually the tubercles break down and give exit to a mucoid, puriform fluid, the parts being then extremely painful. The hairs become dry, brittle and break off easily. They fall spontaneously and are easily extracted. Crusting of a portion of the surface is not an unusual occurrence.

The diagnosis of the various forms of ringworm is a comparatively easy matter, providing that the presence of the parasite be suspected. Ringworm of the body may be confounded with some forms of eczema, psoriasis, seborrhœa, syphilis, lupus erythematosus, and herpes iris. It is an epiphytic trouble and the fungus may be found on and between the scales of the horny layer of the epidermis. It consists of mycelium and spores, the latter

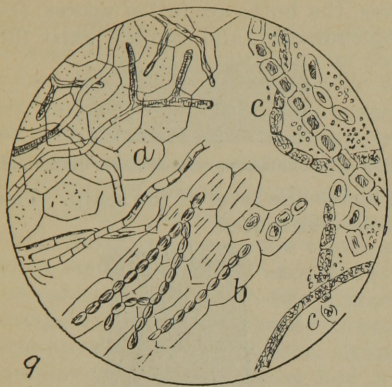

Fig. 23.—Tricophyton.

a, A part of the horny layer containing mycelia, some pale and others charged with protoplasm (x400); *b*, Spores occurring on the membrane of the internal root sheath of a lanugo hair; *c*, Mycelia, in some of which the membrane may be seen, in others not.

being arranged in chaplets. In the early stage of the disease spores alone may be present.

Tinea capitis is easily recognized when typical. It might be confounded with alopecia areata, but this is hardly probable. Both diseases, however, sometimes coëxist, and ringworm of the scalp is also complicated by eczema in some cases. The fungus here is hypophytic. It penetrates into the

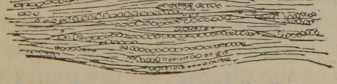

Fig. 24.—Tricophyton Tonsurans. Hair full of spores. (x150, about.)

mucous layer of the skin and even the corium. It invades the hair follicles and the hair bulb. In

these cases, the bulbs are full of spores, the shaft is split longitudinally, and conidia exist for quite a

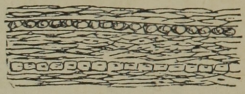

Fig. 25.—The same, magnified 400 diameters.

distance above the level of the scalp. The mycelia are sparsely distributed.

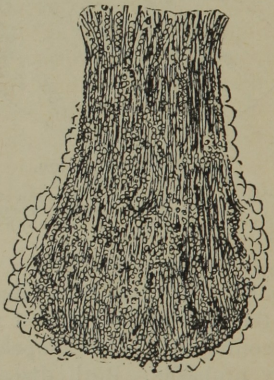

Fig. 26.—Root of hair invaded by spores of Tricophyton (x150).

Tinea barbæ can only be confounded with sycosis or eczema of the same region. The fungus produces a perifolliculitis invading the follicle and the hair. It is also hypophytic here and the process is similar to that occurring upon the scalp.

The treatment of these various forms has a three-fold object in view. 1° The prevention of the dissemination of the disease; 2° the limitation of auto-infection; and 3° the destruction of the parasite. The third is always paramount in importance, as it ncludes the other two.

In tinea corporis we have a comparatively simple matter to deal with. The condition is one easily amenable to treatment. The number of remedies which have been used for this purpose is very large. Thus, after washing with sapo viridis, apply ammoniated mercury ointment one-half to one drachm to the ounce. Nitrate of mercury ointment one to two drachms to the ounce, or yellow sulphate of mercury fifteen to thirty grains to the ounce are also efficacious. A method which is excellent is the application of corrosive sublimate two grains to the ounce of compound tincture of benzoin once daily. Two or three applications will suffice. Among the remedies employed are: sulphurous acid, hyposulphite of soda, tincture of iodine, acetic acid, boracic acid, campho-phenique, Wilkinson's ointment, etc. The choice of a remedy depends very much upon the amount of surface involved.

The treatment of tinea capitis is a more complicated affair. As the parasite penetrates more deeply it is a much more difficult matter to reach it with parasiticides. In the first place, all crusts and scales should be removed. Then epilation may be practiced. This may be done by extracting the hairs by means of epilating forceps, care being taken to go a small distance beyond the diseased area, or a quicker method (and one also more painful) is to employ Bulkley's adhesive sticks which are melted and made to adhere to several hairs at a time, which are torn out. These sticks are made as follows:

R	Ceræ flavæ	℥iij.
	Laccæ in tubulis	℥ss.
	Resinæ	℥vi.
	Picis Burgundicæ	℥xi.
	Gummi dammar	℥jss.

M.

The hairs having been extracted it becomes necessary to make some application, such as has already been mentioned under the treatment of tinea corporis.

Another method, practiced by some, is to produce an artificial kerion by means of croton oil which brings about suppuration in the hair follicles and thus destroys the parasites. Sticks made of two parts of the oil and one each of cocoa butter and white wax are used for this purpose. A solution of salicylic acid is applied after each treatment and poultices may be needed.

A method lately introduced is that by means of a galvanic current. The negative pole, saturated in a 1-1000 solution of corrosive sublimate, is applied to the affected part, the positive being at some indifferent site. The liquid penetrates the skin and attacks the parasite in *situ*. One of the latest methods devised for the treatment of various tineas of the head is as follows: All crusts are removed, the hair cut as short as possible and then a pasteboard cylinder which fits the head closely is put on the patient. This cylinder has wires passing through, some inches above the vertex, so as to form a support upon which a small dish containing sulphur is placed. The sulphur is ignited, a cover which fits tightly is placed on the cylinder. The sulphur soon ceases burning on account of the lack of air but enough sulphurous anhydride has been formed to destroy a portion of the fungus. This operation is repeated daily and cures are effected in three or four weeks.

My improvement upon this method is to enclose the scalp in a rubber cap connected by a tube with a receiver in which a lamp, burning bisulphide of car-

bon, is placed. By means of a stop-cock the air contained in the cap is driven out by the sulphurous

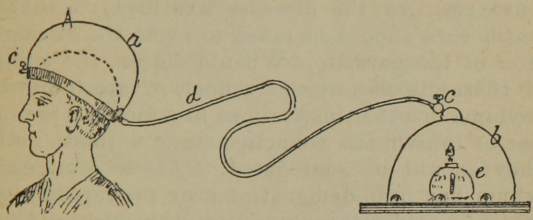

Fig. 27.—Apparatus for treating tinea of the head.

A a, Rubber cap; *b*, Glass bell, with perforations at bottom to admit air; *c*, Stop-cock; *d*, Rubber tube connecting glass bell and cap; *e*, Lamp in which bisulphide of carbon is burned.

anhydride, which is then allowed to accumulate in the cap until it attains a certain pressure. The pressure serves the purpose of forcing the gas to penetrate more deeply into the follicles, and of causing more surface to come in contact with it.

The large number of methods devised for the treatment of this affection shows its obstinacy and the most expert often fail to procure any relief. In such cases, the disease finally cures spontaneously, after a number of years, and often without any consequent alopecia.

The treatment of tinea barbæ is similar to that of tinea capitis. Epilation should be practiced on alternate days. On the other days the beard should be shaved. Parasiticides are to be employed. If pustules or small subcutaneous abscesses form, they should be promptly opened and treated with antiseptics to prevent the re-formation of pus. Like the disease affecting the hairy scalp, this form is frequently intractable and it requires much patience to arrive at a satisfactory result.

Favus and ringworm are diseases, which require much attention not only in treatment, but in prophylaxis. As the diseases are highly contagious much care should be taken to avoid the dissemination of the parasite. When children, the subjects of these diseases attend school, or are inmates of asylums or other institutions in which a large number of individuals come in contact with each other, they should be segregated. This is a necessity, which has been demonstrated by the rapidity with which an epidemic springs up and the great difficulty of stamping it out. All the clothing, toilet articles, towels, etc., used by one affected with a vegetable parasitic disease should be reserved for him alone and no one else permitted to employ them.

CHROMOPHYTOSIS.

Syn.—Tinea Versicolor, Chloasma, Pityriasis Versicolor.

This vegetable parasitic disease is eminently epiphytic. It appears as brownish macules, irregular in shape and size and distributed for the most part over the chest and back. There is present a furfuraceous desquamation, the itching being slight. Upon rubbing one of these macules it will be observed that the upper layers of the epidermis roll up and fall off. It is generally seen in adults and it occasions but slight discomfort. It spreads with greater or less rapidity and seldom invades the limbs although the groins and axillæ are often affected.

It is due to the microsporon furfur, a low vegetable organism with weak contagious properties. It presents the appearance of slender, short mycelia, which are abundant and cross each other in all directions. In addition there are masses of spores

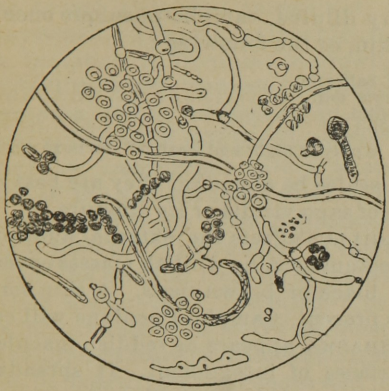

Fig. 28.—Microsporon Furfur (x450).

occurring in groups with, here and there, single ones scattered and occurring at the tips of the mycelia.

The diagnosis is sometimes difficult to make from vitiligo, from the objective symptoms solely. It also resembles chloasma, closely, at times. Microscopic examination, however, will clear up any doubts which may exist.

The treatment is simple in principle although not always successful in practice, as the disease is often most intractable. Moreover, unless the applications be made thoroughly, the fungus will grow anew. On this account the disease must be closely watched during treatment. Among some of the methods, which are successful in the treatment of this affection we have mercurials such as corrosive sublimate lotions two or three grains to the ounce, saturated solution of boric acid, sulphurous acid, hyposulphite of soda, the red oxide of mercury in ointment, oleate

of mercury diluted, campho-phenique once daily to the dry skin, or the following:

℞ Acid Salicylic.....ʒss.
Sulfuris loti.....ʒjss.
Lanolini,
Vaselini, āā .....ʒj.
M. Sig.: Apply at night and wash off the next morning.

If the scales be abundant they are best removed by means of sapo viridis or its tincture.

ASPERGILLUS affects the external auditory canal and the rectum forming whitish masses covered with greenish, black or brown spots. A thin serous discharge is present. Campho-Phenique will cure this.

ERYTHRASMA appears as reddish macules on opposed surfaces of integument. It spreads slowly and is chronic. It is due to the *microsporon minutissimum* consisting of spores and mycelia. The treatment is that of chromophytosis.

MYCOSIS VAGINALIS is due to either the *leptothrix vaginalis* or the *oidium albicans* and is characterized by pruritus. A weak solution of sulphate of copper cures the disease.

SCABIES.

Syn.—The Itch.

The itch is a multiform dermatitis due in part to an animal parasite—the sarcoptes scabiei—and partly to scratching and other external irritants. There is considerable itching accompanying the eruption. Those portions of the skin where it is thinnest or which are subject to pressure are the ones principally attacked, although the disease may involve the entire cutaneous envelope. The webs of the fingers, the flexures of the wrists and elbows, the axillæ, the penis, the scrotum, the nipples, the buttocks, and the feet are especially subject. In in-

fants, the breast, abdomen, extremities, face and head are attacked. The manner in which the disease takes its inception is from the burrowing of the female itch-mite, which tunnels into the epidermis for the purpose, chiefly, of depositing her ova. A papule first appears and this is followed by a vesicle, which may be transformed into a pustule. The scratching of the patient opens this and the young readily escape and begin their depredations. The spreading is then easily explained. A careful examination and the peculiar location of the lesions will readily yield a diagnosis. The furrows, or cuniculi, also give important corroborative testimony. They present the appearance of dark lines about one-eighth of an inch in length rather tortuous and presenting an appearance as if a piece of black thread had been introduced under the skin. A careful search will also result in finding the parasite.

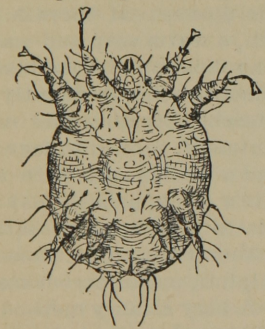

Fig. 29.—Sarcoptes Scabiei. (Drawn from a living specimen by Dr. James.)

The sarcoptes (acarus) scabiei is about one-fifth of a line in length, and one-seventh in breadth, rather shield-shaped, provided with two three-jointed

mandibles and inside of these two palpi provided with bristles. Numerous conical projections, provided with hairs, stud the body. Four feet are attached to the abdomen. The male is somewhat smaller and does not burrow as deeply as the female. Two weeks are required to hatch the young acari, the females living three to four months.

As may be readily inferred, scabies is highly contagious, the acari being easily transferred from one person to another by contact. The disease is as yet not very common in this country, being less frequently found in the Western than in the Eastern portions.

From time immemorial, sulphur has been regarded as the specific for the treatment of scabies, in which external remedies alone are indicated. The treatment is to be governed largely by the tenderness of the skin, the severity of the lesions and the duration of the disease. If there is not much secondary eruption, a warm soap and water bath is followed by the application of Vlemingkx's solution, two such treatments being frequently sufficient. If there is considerable crusting and many pustules, Wilkinson's ointment, rubbed in four times in forty-eight hours, and a woolen suit worn next the skin, is effective. In a week, a bath may be taken. A rapid method is to take a warm bath, with black soap, and then anoint with an ointment composed of two parts of sulphur, one of carbonate of soda, and eight of lard. A very cleanly method which is efficacious is as follows: A saturated solution of hyposulphite of soda is freely applied at night, allowed to dry, and a suit of clean underwear put on. The next morning a dilute solution of muriatic acid is applied and allowed to dry. Sulphur is precipitated

in a very finely divided state in every portion where an acarus might find its way. One application generally suffices, if a warm soap and water bath has been taken previously. The list of remedies is a very large one, and they are all based upon the same principle.

Scabies is amenable to careful treatment. Filth, excessive scratching, and some other similar conditions may retard recovery. It is only found among the lower classes, as a rule.

PEDICULOSIS.

Syn.—Phthiriasis, Lousiness, Morbus Pedicularis, Malis Pediculi.

Pediculosis is an affection found chiefly in individuals who are living in circumstances which engender filth, carelessness, and overcrowding. The parasites are prone to roam about, and easily change their host. Unlike the acarus scabiei, they are epizoic. They live upon the surface of the integument and deposit their ova upon the hairs or in the clothing. Three principal varieties of pediculosis are recognized, viz.: pediculosis capitis, pediculosis corporis, and pediculosis pubis.

Pediculosis Capitis.—This form of pediculosis is characterized by itching of the scalp, the violence of which may produce excoriations or even an eczema-like eruption. A multiform dermatitis is not an unusual condition in cases of long standing. The hairs are found to have small white bodies adherent to them, here and there, these being the ova or "nits" of the parasite.

The *pediculus capitis*, or head-louse, has a long, ovalish shape. It consists of a head, thorax, and abdomen. The thorax is provided with six legs,

having stout claws. It is grayish in color, and varies in length from two-thirds of a line to one and a half

Fig. 30.—Pediculus Capitis. (Drawn from a living specimen by Dr. James.)

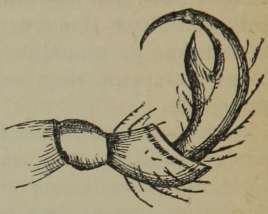

Fig. 31.—Details of claw of pediculus capitis.

lines, the female being larger than the male. It takes about a week for the young to hatch.

The head is the favorite habitat of this variety, although they are occasionally found upon the general surface.

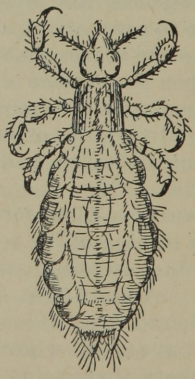

Fig. 32.—Pediculus Corporis. (Drawn from a living specimen by Dr. James.)

PEDICULOSIS CORPORIS.—The body-louse lives in the seams of clothing, and sallies forth occasionally for the purpose of obtaining nourishment. The itch-

ing occasioned by these invasions is marked, and the lesions produced by the scratching are very characteristic. Excoriations and parallel scratch-lines, blood-crusts, pustules, crusts, etc., are observed. The scratch-marks are long and streaked or short and jagged. The back, abdomen, chest, thighs and hips are the portions most often invaded. Adults are generally the subjects of this affection.

The *pediculus corporis*, or body-louse, is similar in shape to the head-louse. It is considerably larger however, varying from three-fourths of a line to two lines, or even more. It is dirty-white or grayish in color. The ova are hatched in five or six days, in the clothing or seams. They reproduce quite rapidly.

PEDICULOSIS PUBIS.—In this form the parasite has a predilection for the pubes. The lice, however,

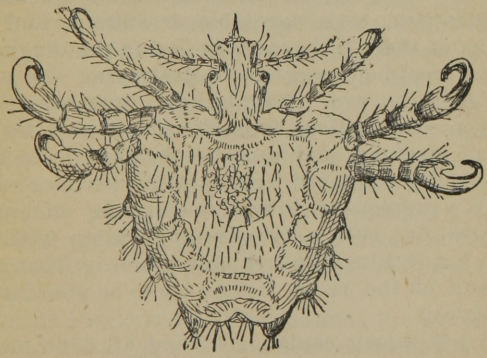

Fig. 33.—Pediculus Pubis. (Drawn from a living specimen by Dr. James.)

will spread to the legs, chest, axillæ, beard, eyebrows and eyelashes, even. Adults are principally infested, and the lice occasion irritation which may be severe or insignificant. At times they cause pur-

plish spots to appear on the anterior portions of the thighs. They are usually contracted through sexual intercourse, although water-closets, street-cars, and other means of a similar nature may be the cause of their dissemination.

The *pediculus pubis*, crab-louse, morpio, or phthirius inguinalis, is smaller than either the head or body-louse. It is flat, shield-shaped or roundish, measuring from one-half to one line. The thorax is provided with three legs armed with very strong claws, the first claw being light and the others heavy. It is yellowish gray in color, the male being the smaller. They cling closely to the skin, and the female deposits her ova on hairs.

The diagnosis of pediculosis is not very difficult. In cases of itching, search should always be made for parasites, both vegetable or animal, and the finding of them will generally decide the diagnosis.

The treatment consists in destroying the parasites and the ova. Staphisagria, pyrethrum, sulphur, cocculus indicus, tobacco, carbolic acid, bichloride of mercury, and campho-phenique have been successfully employed. Strict attention to cleanliness is a prerequisite to a successful issue. Mercurial ointment has been a favorite application with the laity, but it, like all other ointments, is disagreeable, and, on the whole, lotions are to be preferred in pediculosis.

In pediculosis capitis, acid and alkaline lotions will remove the nits, dilute acetic acid being good for this purpose. In children and males the hair may be cropped close when these little bodies exist in numbers. After removal of the nits, washing the head well with soap and water, and then applying a five per cent. lotion of carbolic acid, or a lotion

containing a grain of bichloride of mercury to the ounce of water, will prove efficient. Pure camphophenique, applied before any washing is done, will destroy these pests promptly, and also act advantageously upon any lesions which may be present.

In pediculosis corporis, the most important part of the treatment is to be directed to the clothing, which should be thoroughly boiled or exposed to a very high temperature. An alkaline bath to the body and a carbolic acid lotion will generally prove sufficient, if care be aken to change the undergarments frequently and have them thoroughly cleaned.

In pediculosis pubis, the same methods as those for head-lice will prove efficient.

Among animal parasites which infest the body and inflict more or less damage are the following:

LEPTUS.—There are two species of this parasite—the *leptus Americanus*, or American harvest mite, which attacks the scalp, axillæ, and other parts of the body, more particularly of children; and the *leptus irritans*, or mower's mite, which attacks the ankles and legs. The former insinuates the anterior portion of its body in the skin, causing a small papule to appear, while the latter buries itself in the integument, causing papules, vesicles and pustules to appear.

PULEX PENETRANS.—This animal, known also as the sand-flea, chigger, or chigoe, burrows in the skin, causing marked inflammatory changes. Vesicles, pustules and ulceration may occur. It only occurs in tropical countries.

FILARIA MEDINENSIS.—This parasite is known as Guinea-worm and dranunculus, and is only found in tropical countries. It is about a half line in thick-

ness, and about three feet in length, when mature. It bores in the skin, and remains until the irritation forms a tumor. The feet are usually attacked.

CISTICERCUS CELLULOSÆ.—A few cases of cysticerci in the skin and subcutanous tissues have been described. Small tumors form, which remain unchanged.

ŒSTRUS.—There are several species of this parasite, known as the gad or bot-fly which infect the human integument. The irritation is due to the fly depositing its ova in the skin.

DEMODEX FOLLICULORUM.—This parasite known also as the steatozoon inhabits the sebaceous follicles but causes no untoward symptoms. It is derived from the outer world and usually a number are found together, head down, in the follicles. It is microscopic and has a worm-like appearance. The thorax is

Fig. 34.—Demodex Folliculorum.

short and provided with eight short legs, the abdomen being long and composed of rings. It occurs chiefly in the face, about the nose and ears and in the upper part of the chest and back.

CIMEX LECTULARIUS.—This insect, acanthia lectularia—familiarly known as the bed-bug is found in beds, in grooves, about joints, under wall-paper, in floors, etc. It is very voracious and tenacious of life. It feeds upon human blood and it produces an urticarial wheal having a small hæmorrhagic point at its centre. The itching it produces is quite annoying. Corrosive sublimate lotions, aqua ammoniæ or similar remedies cause a disappearance of the lesions.

PULEX IRRITANS.—This parasite is found everywhere. Better known as the common flea, it becomes a source of discomfort by its bite which produces a small erythematous spot with a small hæmorrhagic centre.

CULEX.—The type of this insect is the culex pipiens or common mosquito which causes wheals, erythematous spots, or papules. These are best relieved by ammonia water.

IXODES.—Ticks are a pest commonly encountered, being giant mites. They insert their proboscis in the skin and suck the blood until they attain enormous proportions. If forcibly detached, the proboscis remaining in the skin causes considerable irritation. By dropping some bland or essential oil upon the parasite, it relinquishes its hold and drops of its own accord.

NOTE.

It will be observed that the therapeutic measures mentioned in the foregoing pages are such as are simple or easily obtained. The more complicated methods, rarer drugs, and difficultly procurable means, have not been alluded to, nor have many of the more recent methods received any mention. Current dermatological literature teems with therapeutic measures of more or less doubtful value. But in a handbook, there appears to be no justification in mentioning them, especially as it is intended merely to serve the purpose of a guide and stimulus to more extended reading upon the subject.

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