Around the patches, small, stellate, characteristic lesions are found. The patches of psoriasis are usually symmetrically disposed. The scalp is generally involved and shows a dense, consistent scaliness, covering a dull red surface. The hair is not, as a rule, especially affected. The nails often show changes in appearance and are thickened, ridged and distorted.

The extent of the eruption varies. It may make its appearance and remain indefinitely upon the seats of predilection or it may spread widely

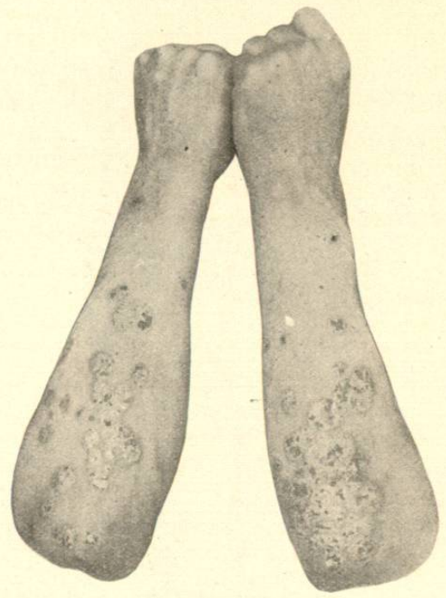

Fig. 83.—Psoriasis in Typical Situation.

and at times, though rarely, involve the entire cutaneous surface, merging into the condition of secondary exfoliative dermatitis.

Psoriasis is a dry eruption throughout and as a rule causes but trifling subjective symptoms.

Etiology. Psoriasis may occur at any age but is usually seen in children and young adults. Once established it tends to persist with recessions and aggressions throughout life. It is usually better in summer than in cold weather.

The essential cause of psoriasis is unknown. It is frequently hereditary through several generations. Its parasitic origin has never been demonstrated, although it has been advanced and seems to be gaining ground. The disease is often seen among stout, florid or rheumatic individuals. Unless very severe it has no special effect upon the general health and, on the

contrary, appears to occur by preference in those who are notably vigorous and robust.

Pathology. The changes begin in the prickle layer which shows evidence of inflammation and hyperplasia. Active proliferation of the cells of the prickle layer produces great increase in the horny layer, with incomplete cornification and the formation of large scales. There is also an increase in the lymph and blood vessels of the corium which is secondarily inflamed.

Diagnosis. Patches of eruption with sharply-defined borders, covered

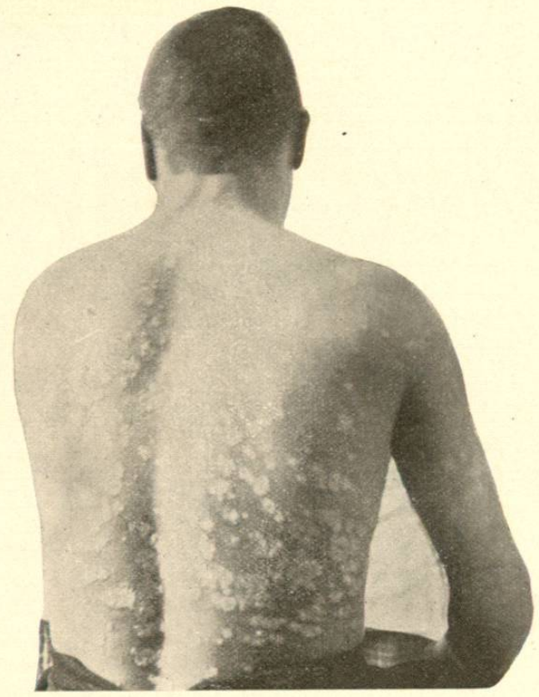

Fig. 84.—Psoriasis (Ohmann-Dumesnil).

with papery, white scales, punctate hemorrhage on removal of the scales, symmetrical distribution, dryness of the eruption, comparative freedom from itching or disturbance of the general health offer a combination so characteristic of psoriasis as to render its diagnosis easy.

It is most likely to be confused with *squamous eczema, seborrhœic eczema, lichen planus, papulo-squamous syphilide, lupus erythematosus.*

Eczema is prone to affect the flexures of the joints; its patches are markedly pruriginous, subject to exudation and are not well defined; the

scales are less abundant, less adherent, and do not reveal, on removal, punctate hemorrhage.

Seborrhœic eczema originates in the scalp, spreads downward to the face and ears, its scales are yellowish, greasy and non-adherent.

Lupus erythematosus affects the cheeks, presents less scaliness and shows plugs in the gland orifices and is followed by scarring.

Lichen planus somewhat resembles psoriasis in its papular stage, but the papules of the former are shining, angular, smooth, situated on a bluish-red ground upon the flexor surfaces of the wrists and upon the knees. Patches of lichen are formed by an aggregation of papules and not by an extension of individual lesions as in psoriasis.

Papulo-squamous syphilides are not symmetrical, the scales are not profuse, the base of the lesion is infiltrated. Careful search will usually reveal confirmatory evidence of syphilis.

Treatment. The treatment of psoriasis is constitutional and local. Constitutional treatment includes attention to diet, hygiene, proper clothing and climate. Of remedies for internal administration arsenic is the most relied upon, but must be reserved for the chronic states of the disease, those without active congestion. It is given in the form of Fowler's solution, beginning with three drops three times a day, to be increased to seven or ten drops and continued until mildly toxic symptoms appear. The Asiatic pill each containing one-twelfth of a grain of arsenious acid is a favorite with some clinicians. Kaposi advises giving one pill three times a day, to be increased to ten or twelve a day and continued until five or six hundred have been taken. Precautions against poisoning must be observed. Arsenic has no influence upon the prevention of recurrence.

Crocker recommends salicin in doses of fifteen grains a day, in acute and subacute stages.

Other remedies in use are thyroid gland extract; large doses of iodide of potash; hydrobromate of quinine; alkalies and diuretics.

Sea-bathing and sea-voyaging are often beneficial.

Local treatment. The scales should be removed by scrubbing with tincture of green soap and water, or a general bath of soap and water. Unless the disease is in an irritable and active state stimulating applications should follow the clearing of the surface of scales. One of the best is chrysarobin or chrysophanic acid. It is employed in the form of an ointment rubbed into the patches, or in solution in traumaticin, or collodion, may be painted on with a brush. Chrysarobin irritates the skin and stains the clothing and may produce a brisk conjunctivitis if it gains access to the eye. When used over extensive surfaces it is capable of producing toxic symptoms. For these reasons it must be used with caution and never about the face. The proportion of chrysarobin ranges from ten to sixty grains to the ounce, and even more. The chrysarobin on the market seems

much feebler in action than formerly and for that reason explicit recommendations as to dosage cannot be given.

The drug may be used in combination with others as in the following formula:

℞

Acid. Salicyl.,	ʒss-j.
Ol. Cadini,	ʒj-ij.
Saponis Viridis,	ʒij.
Chrysarobin.,	ʒij.
Ol. Lavandul.,	gtt. v.
Vaselin.,	ʒij.
Lanolin. ad,	ʒj.

M. Fnt. Ung.

Or

℞

Acid. Salicyl.,	gr. xx.
Alcohol.,	ʒiij.
Picis Liquid.,	ʒj.
Saponis Viridis,	ʒss.
Chrysarobin.,	ʒij.
Collodii,	ʒij.

M. Sig. Paint on twice a day.

The strength of the chrysarobin dispensed in the drug-stores varies greatly and care must be taken to secure a really effective preparation.

If these applications produce too much reaction, bland ointments such as oxide of zinc or boric acid should be substituted until the irritation has subsided.

Pyrogallol in ten per cent. ointment is similar in effect to chrysarobin, but though less irritating is toxic and must not be used over a wide area. Its toxic effect may be in a measure counteracted by the simultaneous internal administration of hydrochloric acid.

Ammoniate of mercury is very useful, especially in psoriasis of the face and scalp, and may be employed as an ointment, ten to twenty grains to an ounce of cold cream.

The various preparations of tar are exceedingly serviceable though they have the disadvantage of being dirty and of smelling disagreeably. Tar may be used pure (*pix liquida*) or as the oil of cade in ten to twenty per cent. strength in an ointment or in solution in alcohol or collodion to the same amount. A strong alcoholic solution of pix liquida brushed well into the patches is very useful.

Other remedies are sulphur, one to four drams to the ounce of cold

cream; thymol, fifteen to thirty grains to the ounce; oleum pini sylvestris, one dram to six drams of olive oil; salicylic acid, ten to twenty grains to the ounce of benzoinated lard.

The treatment by means of energetic frictioning with green soap, followed by bland, soothing applications such as the diachylon ointment, has been referred to in connection with the treatment of chronic eczema and often proves of great utility in removing obstinate patches of psoriasis.

Sulphur baths soften and remove the scales and often cause a temporary disappearance of the eruption.

Grindon recommends wearing a mackintosh next the skin to protect the clothing and hasten the removal of the scales.

The X-rays have been successfully tried in psoriasis but their use is not free from risk and the results are not more favorable than by other and safer methods.

Persistence is required in the treatment of psoriasis and every vestige of the disease must be removed before it is discontinued.

Prognosis. So far as life is concerned the prognosis of psoriasis is excellent, but the possibilities of ultimate cure and final disappearance are slight.

PURPURA.

Definition. Purpura is the term applied to non-traumatic hemorrhage into the skin. When the hemorrhage is punctate, the lesions are called *petechiæ;* when streaked, *vibices;* bruise-like and slightly elevated, *ecchymoses;* rounded or elevated in the form of a tumor, *hematoma.*

Hemorrhage may occur in any part of the skin. It takes place suddenly, does not disappear on pressure; the color at first is red, then runs through shades of blue, blackish, yellow, white and finally disappears. The color effect is due to the deposit and gradual absorption of the coloring matter (hematin) of the effused blood.

Varieties. Three varieties of purpura are somewhat arbitrarily separated and described, *purpura simplex, purpura hemorrhagica,* and *purpura rheumatica.*

The varieties are probably the same affection appearing in varying grades of severity, mild, severe and moderate.

Purpura Simplex. Purpura simplex is the commonest variety and shows itself as round or oval *petechiæ,* occurring suddenly in crops upon the flexor surfaces of the extremities of adults, the neck and upper part of the back in children. The lesions are small, more or less abundant, symmetrical, and of a red or purplish color. They run their course without constitutional disturbance in one or two weeks. At times the eruption is more or less generalized and may be prolonged by successive outcroppings of the lesions.

Subjective symptoms are generally absent but occasionally an urticarial element with itching (*purpura urticans*) is added.

Purpura simplex may exceptionally pass into the severer grade.

Purpura Hemorrhagica (land scurvy, *morbus maculosus Werlhoffii*). This variety is usually attended by general symptoms of headache, fever, prostration, sometimes convulsions. There are no prodromata. The lesions appear suddenly and are more of an ecchymotic than a petechial character. They are first observed upon the lower part of the trunk and spread by successive crops to the entire surface of the body. There may be free hemorrhage from the mucous membranes and blood may be poured out into the cavities of the body and into the substance of the viscera.

Death may occur from cerebral or meningeal hemorrhage, or uncontrollable bleeding at other points may exsanguinate the patient and cause death. The bleeding may, however, be moderate in extent, continue for

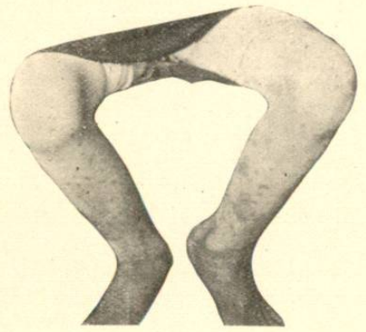

Fig. 85.—Purpura Rheumatica.

some weeks, gradually cease and the patient recover though subject to recurrences.

Purpura fulminans is the name given to a very rapid and fatal form of purpura hemorrhagica, accompanied by albuminuria, endo- and pericarditis, gangrene of the skin and terminating in death in a short time. It has been noted in several members of the same family and after scarlet fever.

Purpura Rheumatica (*peliosis rheumatica*) resembles purpura simplex with the addition of constitutional symptoms of a rheumatic character, malaise, rise of temperature, pain and sometimes swelling of the joints. The eruption is most abundant upon the limbs, especially about the ankle and knee-joints, and occurs in rounded or oval spots of a bluish or purplish color.

The constitutional symptoms usually disappear when the eruption is established.

It may continue for a few weeks or be prolonged by successive crops

and in a few cases pass into the hemorrhagic form. Valvular lesions may follow as in true rheumatism or septic conditions.

Etiology. Purpura may be produced by any cause which brings about a change in the blood or blood vessels permitting an effusion of blood into the tissues. These causes are chiefly toxic, such as gonorrhœa, rheumatism, malaria, and those in general which are concerned in the production of exudative erythema.

Purpura is regarded by some as due to a specific micro-organism, but this theory has not met with general acceptance.

Pathology. The hemorrhage takes place in the corium and subcutaneous tissue. The blood undergoes changes in color and is finally absorbed.

Diagnosis. The diagnosis of purpura is made by the distinctive features of purpura, sudden occurrence of an eruption of bright-red, slightly-elevated spots or patches, the color of which is unaffected by pressure.

Scurvy, which is due to lack of vegetable diet, is characterized by swelling of the gums, loosening of the teeth, brawny tumefaction of the limbs—peculiarities which serve to distinguish it from purpura.

Treatment. The treatment of purpura is that addressed to the causative factor. The salicylates and quinine are usually indicated. Iron and the mineral acids are of service. Adrenalin chloride together with other stypties such as gallic and tannic acid, are used in the hemorrhagic form.

The diet and hygiene of the patient should be carefully regulated.

Prognosis. The prognosis of simple purpura is favorable. Of the other varieties, the course of the disease is uncertain, as the severe form may result from the simpler and for this reason the prognosis should be guarded.

RHINOSCLEROMA.

Definition and Description. Rhinoscleroma is a very rare disease affecting the nose and nasal mucosa. It is characterized by the presence in the nose and contiguous parts of flat, slightly-raised, dense, hard, sharply-defined elastic plates, tubercles or tumors, painful on pressure and covered with normal colored or reddish-brown skin. The surface is sometimes fissured and discharges a viscid fluid. The growth somewhat resembles keloid. It is movable with the skin though not attached to it.

Symptoms. Rhinoscleroma begins in the septum nasi as a hard spot and is progressive, showing no tendency to absorption or ulceration. The nose undergoes marked deformity, broadening and the nostrils narrowing. The disease may affect the mouth and larynx, interfering with mastication, deglutition and respiration.

Etiology. The disease has been observed in Europe, Asia, and North America. It occurs at any age. A bacillus resembling Friedlander's pneumonia bacillus, short, thick, ovoid and encapsulated, has been held responsible for the disease.

Diagnosis. The diagnosis of rhinoscleroma is based upon the existence

of a growth of bony hardness in the nose and upper lip, showing no tendency to absorption or ulceration.

Treatment. Treatment has but little effect. The growths when excised promptly return. Pyrogallol, in ten per cent. ointment, has been recommended, also boring into the growth with zinc chloride.

Prognosis. The prognosis is unfavorable. Suffocation may result from laryngeal involvement.

ROSACEA.

Synonym: Acne Rosacea.

Definition. Rosacea is a chronic disease affecting the nose, cheeks and chin, and characterized by redness, dilatation of capillaries, and connective tissue hypertrophy. The nose is the part chiefly concerned and often is alone affected.

Varieties or Stages. Rosacea is a common affection and is observed in three stages, a *first stage* in which the skin of the middle zone of the face is congested diffusely or in patches, pink or purplish, varying much in degree. This may be temporary, following the imbibition of hot liquids, over-eating and the like, or it may be habitual. With repeated flushing the capillaries become more or less permanently dilated. They may be traced along the nose especially at its junction with the cheek and may be few and inconspicuous, or numerous, arborescent and prominent. More or less seborrhœa is present, giving the skin a greasy, shining appearance. The surface, though apparently hot, is cool, often damp and clammy to the touch.

The *second stage* occurs after permanent redness has been established. Papules and pustules, in greater or less number, stud the affected area and mark the obstruction of the sebaceous gland duct, with retention of its secretion and subsequent inflammation. Some cases present tubercles which are soft and lupoid in appearance, and occur upon the chin and about the corners of the mouth. When incised the tubercles do not collapse but discharge a small quantity of pus and some blood. Acne lesions and comedones are frequent but not necessary concomitants of rosacea.

It is rare that the disease proceeds beyond this stage but occasionally the chronic hyperæmia leads to connective tissue hypertrophy and constitutes a *third stage*. The change is observed chiefly in the nose, which becomes broader, enlarges and in severe cases becomes lobulated and pendulous (*rhinophyma, potato nose*). In this condition the nose is dusky-red or purplish and presents deep openings, the enormously dilated sebaceous gland orifices. These pits are sometimes the seat of inflammation and ulceration and the subsequent scarring increases the deformity.

The region principally concerned in rosacea is the middle third of the face and at times the whole face and scalp, especially when the latter is devoid of hair. The conjunctivæ become congested and a hypersecretion appears as a frothy accumulation at the angles of the lids.

Etiology. Rosacea is variously regarded as a vaso-motor neurosis, a trophoneurosis, and as a form of seborrhœic eczema. All but about five per cent. of cases develop upon a long-standing seborrhœa, which frequently has its origin in the scalp. The disease is an affection of adult life and is more common in women than men. Digestive disturbances, menstrual disorders, habitual indulgence in alcohol, excessive tea drinking, feeble circulation, exposure to extremes of temperature, the use of cosmetics containing irritating substances, tight-lacing, hypertrophic rhinitis, are among the causes enumerated of rosacea.

Pathology. Rosacea is a vaso-motor reflex neurosis and is followed

Fig. 86.—Rhinophyma (Ohmann-Dumesnil).

by an inflammation of the sebaceous glands and peri-glandular structure, with a dilatation of the vessels of the cutis.

Diagnosis. The diagnosis of rosacea is not difficult. It might be mistaken for erythematous lupus, but lacks the scaliness of lupus and is not raised nor does it, as a rule, show atrophic scarring. Tubercular syphilides tend to soften and ulcerate, show a preference for the forehead, and there is usually a previous history of syphilis. Acne vulgaris presents pustules with comedones. It is possible for acne and rosacea to coexist, but they are quite independent affections.

The faces of stout, elderly people frequently present telangiectases but they are not the result of disease nor are they marked in the rosacea zone.

Treatment. Removal of the source of irritation is one of the prime

considerations of internal treatment. Relief of the causative condition will materially assist in a cure of rosacea.

One of the most valuable remedies for internal administration is ichthyol, given in doses of from five to ten grains in a capsule on an empty stomach twice daily.

Other substances for internal use are tincture of nux vomica, extractum rumicis radicis, nitro-muriatic acid, salol and ergot.

The external treatment is practically that of acne vulgaris and seborrhœa. Sulphur is one of the most serviceable remedies. It may be used with ichthyol, as in the following formula:

℞

Zinc Oxid.,	
Sulphur. Præcip.,	āā ʒj.
Ichthyol.,	gtt. xx.
Ol. Terebinthin.,	gtt. v.
Pulv. Amyli,	ʒj.
Vaselin. ad,	ʒj.

M. Ft. Ung.

Lotio alba may be used as in acne. If the sulphur contained should prove too drying and cause irritation, bland ointments may be temporarily substituted for it.

Ichthyol is beneficial in solution, five to forty per cent.

In obstinate cases Vlemingkx's solution, diluted, will prove of benefit.

It is often advisable to alternate the use of the strong preparations with calamine-zinc oxide lotion, or a lotion of boric acid.

Peeling the face with twenty to fifty per cent. resorcin paste, followed by soothing applications, produces marked improvement.

The local application of adrenalin chloride, 1:1000, is worthy of trial.

The enlarged venules may be destroyed by multiple scarification with a fine-pointed scalpel or a flat needle, dividing the vessel obliquely.

Electrolysis has been successfully employed, using a very fine needle attached to the negative pole, and introducing it into the calibre of the vessel.

Excrescences should be pared off with a razor or knife and the lobulated masses of rhinophyma treated on surgical principles.

The high frequency current is of value and the X-rays are useful, but not so much so as in the treatment of acne.

Prognosis. Rosacea though an exceedingly stubborn disease is susceptible of great improvement, even actual cure, with persistent treatment.

RÖTHELN.

Synonyms: German Measles; Rubella; Roseola.

Definition. Rötheln is an acute, contagious disease resembling measles and scarlet fever. Its period of incubation is ten to fourteen days.

Symptoms. The eruption begins on the face and spreads to the body. It fades in two or three days and is sometimes followed by slight desquamation or transient pigmentation.

The eruption somewhat resembles measles but is light in color and does not show crescentic arrangement. It is not so intense nor diffused as scarlet fever.

The constitutional symptoms are very mild but present one diagnostic point of value, enlargement and tenderness of the post-cervical glands.

The diagnosis in the absence of epidemic is often difficult.

SARCOMA CUTIS.

Definition and Description. Sarcoma cutis is a malignant new growth characterized by variously sized and shaped, pigmented or non-pigmented tumors of connective tissue origin. The growths may originate from nævi, spring from the normal skin or occur secondarily from growths of a similar character situated elsewhere. In consistence sarcomata are firm, smooth, and elastic, the skin covering them being normal in color, bluish-red, violaceous or pigmented. They are at first movable, later become adherent and show a tendency to ulcerate. The neoplasm varies in size from that of a pea or a hazelnut to much larger dimensions. It is softer and more vascular than a carcinoma and bleeds readily. The lymph glands are not usually involved for the reason that metastasis takes place chiefly through the veins. Sarcoma often occurs in young people, multiplies with greater or less rapidity, involves the internal organs, and usually ends fatally in a few months or a few years. It may be taken as the type of malignant disease.

Varieties. There are three histological types of sarcoma, which display a varying degree of malignancy, the *round cell*, the *small cell*, and the *melano-sarcoma*. Two clinical varieties are described, the *pigmented* and the *non-pigmented*.

Melano-sarcoma, or pigment sarcoma, arises from a mole, wart or ulcer but may appear independently. At first it is single, small, oval or round, hard, and of a bluish-black color. It enlarges to the size of a hazlenut; new growths appear near by or at a distance. Some of the tumors disappear, while others ulcerate and secrete a black fluid or a little pus. Neighboring lesions unite to form large melanotic masses; finally, generalization occurs and the patient soon dies.

Melanotic whitlow is a rare form of sarcoma developing at the nail fold as a blue mark and later showing extreme malignancy.

Non-pigmented primary sarcoma is local or general. When local it usually developes from a nævus and upon the extremities. It reaches the size of an orange and is hard, wrinkled and tends to ulcerate. It is covered with normal or reddened skin and is apt to remain stationary for a long time before becoming generalized. When generalized it starts upon the hands and feet as a hard, tense, itching œdema; or reddish purple or

violaceous patches upon which small, enlarging nodules appear; or as an elevated livid patch. When established the extremities are swollen, dense, hard, the skin shining and of a bluish-red. The nodules are sessile or pedunculated. The disease then appears upon the trunk and after undergoing changes of absorption or ulceration, affects the mucous membranes and internal organs and causes death.

Idiopathic Multiple Pigmented Sarcoma (Kaposi). This type of sarcoma occurs in middle aged men as pea-sized, deep-seated, diffused lesions, livid on the hands, brownish-black on the feet. These members become œdematous, pruritic, hard and infiltrated. The trunk and face are gradually invaded, the latter becoming swollen, thickened, scaly and rough. The lesions are of the size of a cherry or larger, nodular, sessile or pedunculated, dark-blue or purple.

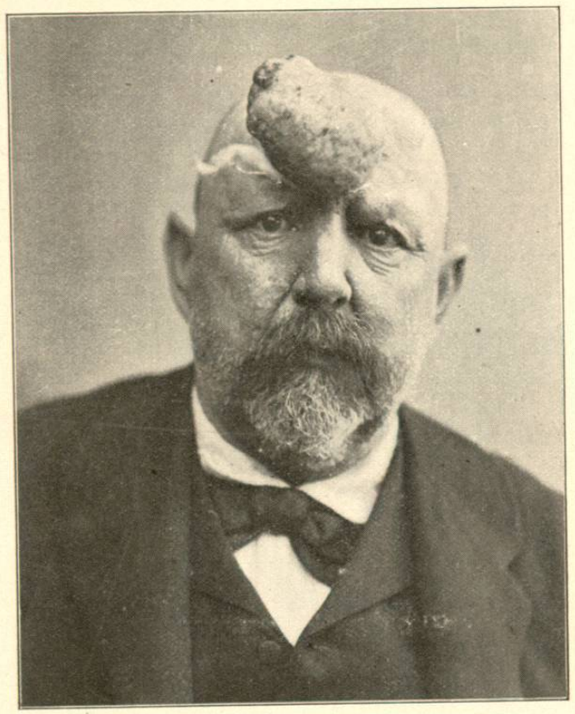

Fig. 87.—Sarcoma (Unna).

Some tend to flatten and form patches. Ulceration is rare. The lesions are tender and painful; they may undergo resolution with pigmented scarring.

The disease is of slow course, lasting for fifteen or twenty years, and terminates in recovery or more often in extension to important organs and death. The coloring matter of the tumors is not pigment but altered hematin from effused blood.

Angioma Serpiginosum. Angioma serpiginosum is an affection consisting of bright red, grouped, vascular points, occurring on the ear, breast or extremities and arranged in peripherally extending rings. It is regarded as a form of sarcoma.

Etiology. The etiology of sarcoma is obscure. It is prone to occur before the fifteenth and after the forty-fifth year of age.

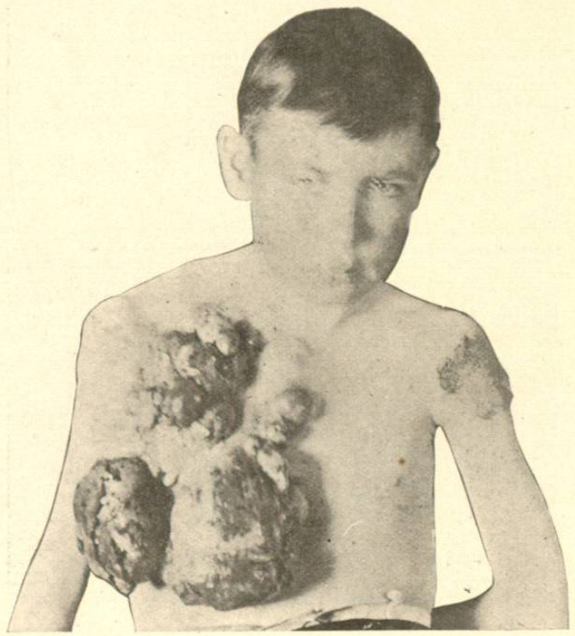

Fig. 88.—Ulcerating Sarcoma (Dr. W. P. Nicolson).

Diagnosis. A tumor which arises from previously healthy skin, or from a mole or wart, or at the seat of an injury, which is soft and reddish from its vascularity (a marked feature of sarcoma) or bluish from its pigment, and which after a period of slow growth rapidly projects above the surface and readily ulcerates and bleeds, is probably a sarcoma (Morris).

Treatment. Surgical removal of single, non-pigmented growths is sometimes successful. In other varieties operation seems to hasten dissemination. Arsenic in the form of Fowler's solution, diluted with two parts

of water, may be given hypodermically in doses of two to four, and later of six, minims once daily. The Asiatic pill may also be used.

Sarcoma has disappeared under the use of the X-rays but it is yet to be determined whether or not the results are lasting.

Injections of the toxins of the *bacillus prodigiosus* (Coley's fluid) are occasionally followed by a favorable result.

Prognosis. The prognosis of sarcoma is bad; that of the melanotic being worse than the non-pigmented which is of slower course.

SCABIES.

Synonym: The Itch.

Definition. Scabies is a contagious disease of the skin due to the *acarus scabiei,* or itch mite, and is accompanied by an eruption of characteristic distribution and intense itching.

Symptoms. The seats of predilection of the parasite are the fingers,

Fig. 89.—Scabies (Ohmann-Dumesnil).

wrist, genital organs in men, and nipple in women, axillæ and abdomen. Any part of the body, with the exception of the scalp and face, may occasionally be involved. The female *acarus* enters the skin and moves forward, depositing eggs and fæces, which, with the larvæ, constitute the dark points seen in the course of the tunnel or *cuniculus.* The *cuniculus* is visible as a slightly elevated, straight or sinuous, grayish or blackish streak from one-eighth to one-twelfth of an inch in length. The acarus may sometimes be found in the inner end of the cuniculus which is slightly reddened. It appears as a shining, white dot and may be lifted out on the point of a needle. The cuniculi are not numerous and are often concealed under a crust, or torn open by scratching.

The irritation produced by the passage through the skin of the acarus, or by its secretions, causes the developement of papules, pustules and vesicles with intense itching, and the consequent scratching leads to the production of crusts, excoriations and inflammation.

Furuncles, urticarial wheals, and ecthyma are among the incidents in

the course of the eruption of scabies. A true eczema may be aroused from irritation and the traumatism of scratching.

The itching of scabies is intense and is especially marked when the patient is in bed at night.

The favorite localities for the depredations of the itch parasite are the inner faces of the fingers, the wrist, the body and glans penis, the nipples and mammary areola in women. On the fingers, vesicles and pustules will be found mingling with secondary lesions occasioned by scratching and pus infection, and on the penis and nipples raised, red, crusted papules. In

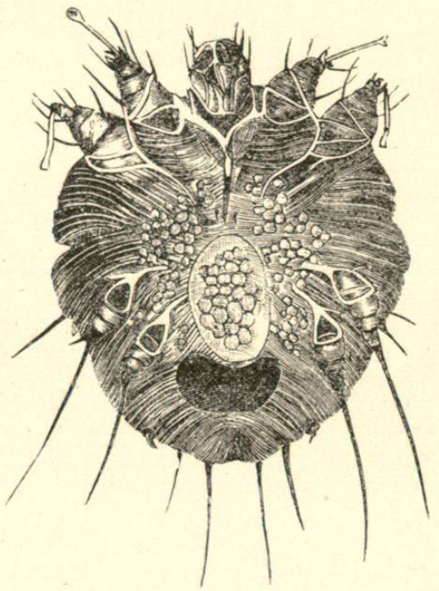

Fig. 90.—Acarus Scabici (female), as seen from ventral surface. A mature ovum within body x 300 (Eichhorst). (From Filatov-Earle.)

children, the ankles and spaces between the toes may be affected and the inflammatory reaction be very great.

Occasionally the hands are free from eruption and the lesions scarce elsewhere, but in such cases careful examination of the genital organs will frequently reveal the cuniculus of the acarus.

Etiology. Scabies is due to the *acarus scabiei* or *sarcoptes hominis* and the irritation resulting from its presence. It is contagious but requires prolonged contact for its transmission.

Pathology. The acarus is faintly visible to the naked eye. The female is one-sixteenth to one-eightieth of an inch long, and its width is two-thirds of its length. The male is smaller. The insect has eight legs, the anterior

four having suckers attached, the posterior armed with flexible bristles. There are also bristles on the back. The female lives six to eight weeks and lays from fifty to eighty eggs, which are fructified and hatched and reach the surface to be impregnated by the male. The cuniculus is situated mid-way between the epidermis and the corium.

Diagnosis. Scabies is distinguished from pustular and vesicular eczema by the characteristic location of the lesions, the nocturnal character of the itching, and the recognition of the burrow with the itch mite in it. From pediculosis it is differentiated by the region affected and the multiformity of the lesions. A vesiculo-pustular eruption of the fingers, combined with papulo-pustules of the penis in men, and nipples in women, is almost invariably scabies.

Fig. 91.—Cuniculus. A mature larva. The black points denote the feces of the parasite, visible at ventral end (Eichhorst). (From Filatov-Earle).

Treatment. The prime object of treatment is to kill the parasite without material injury to the skin. To this end the patient is directed to take a warm bath, using friction with a wash rag or bathing glove. The surface is then dried and the following ointment rubbed in:

℞

Sulphur.,	℥j.
Potassii Carbon.,	℥j.
Ung. Aq. Rosæ,	ad ℥j.

M. Fnt. Ung.

This is repeated for three nights successively. The underclothing and bed-linen of the patient are then changed and thoroughly boiled and disinfected. The outer garments are also disinfected or thoroughly ironed, especially about the seams of the trouser legs and pockets. This plan of treatment is nearly always promptly curative.

The irritation of the skin resulting from the strong sulphur application is readily subdued with an ointment of zinc oxide or boric acid.

In children with sensitive skin, balsam of Peru, styrax or beta-naphthol may be substituted for sulphur as in the following formula:

℞

Bals. Peruv.	℥ss.
Storacis,	℥iij.
Beta-Naphthol.,	gr. xx.
Vaselin.,	℥iij.
Lanolin.,	℥jss.
M et Ft. Ung.	

Sherwell advises the use of dry sulphur rubbed over the body and spread between the bed clothes.

The domestic remedy of a decoction of poke berry is effective but too irritating. Kerosene oil thoroughly rubbed in will destroy the parasites but has obvious disadvantages.

Prognosis. Good. If untreated scabies is of indefinite duration but is readily cured.

SCARLATINA.

Synonym: Scarlet Fever.

Definition. Scarlet fever is an acute infectious disease, characterized by sudden onset, febrile movement, sore throat and an erythematous rash. Its period of incubation is two to six days.

Eruption. The eruption appears on the first or second day on the neck and upper part of the chest and spreads to the entire body. It is at first punctate, later becoming a diffused intense redness which disappears on pressure. It may remain punctate on the groin, axillary spaces and hard palate. The eruption comes out in crops, the older fading as the new appears. In severe cases the rash may be miliarial and, rarely, hemorrhagic. The eruption disappears and desquamation begins on the seventh to the twelfth day and continues from two weeks to a month. The desquamation varies in amount according to the severity of the rash and may be so slight as to be scarcely perceptible, or profuse and abundant resembling exfoliative dermatitis.

Diagnosis. Acute exfoliative dermatitis resembles scarlatina but is recurrent, does not affect the throat, and is usually attended by shedding of the skin of the palms and soles. Measles has a longer period of incubation than scarlet fever, and is marked by catarrhal symptoms, papulo-macular rash tending to assume a crescentic form on the thorax and abdomen, and presents the so-called Koplik's spots in the mouth. Scarlatiniform erythema is of milder course than scarlet fever, lacks throat symptoms, desquamates early, is prone to relapse and is not contagious. Drug rashes from the ingestion of quinine, belladonna, potassium iodide and other substances, are transient and afebrile. In doubtful cases the diagnosis of scarlet fever must be constructed upon the presence of fever, "strawberry tongue," tumescence of the fauces, associated with a scarlet rash.

SCLEREMA NEONATORUM.

Definition and Description. Sclerema neonatorum is a disease of newborn infants either congenital or appearing shortly after birth, and characterized by tense, waxy induration of the skin. In well-marked cases the skin is hard, cold, stiff, livid or mottled and from its rigidity permits the infant to be lifted *en bloc*. The mouth cannot be opened on account of the stiffness of the skin, and for the same reason the infant is unable to nurse. The temperature is subnormal and the pulse and respiration weak and feeble. Death results as a rule in a short time, though in cases of limited extent the percentage of recoveries is not small.

Etiology. The etiology of sclerema neonatorum is indeterminate. It is supposed to be due to a coagulation or congelation of the dermal fat. It may follow diarrhœa, pneumonia, or may be the result of profound malnutrition.

Treatment. Supportive measures aimed at the elevation of the temperature and sustaining nutrition are appropriate. The infant should be enveloped in cotton batting or kept in an incubator. Friction with oil and the application of warmth may be beneficial in stimulating the circulation and diminishing the rigidity of the skin.

SCLERODERMA.

Definition. Scleroderma is an affection characterized by localized or diffused hardening and stiffness of the skin.

Varieties and Description. The disease is very uncommon in the diffused form and begins suddenly without ascertained cause, or may follow exposure to dampness and be ushered in with a chill or pains of a rheumatic character. Large areas may be suddenly involved or patches appear gradually, spreading slowly. The upper part of the body is usually first affected and the hardening is as a rule symmetrical.

There are two forms of scleroderma generally described, the *infiltrated* and the *atrophic*.

In the *infiltrated* variety the skin is hard in ill-defined patches. It has the consistency of bacon-rind, does not move over the subjacent structures nor pit on pressure, and cannot be pinched up between the fingers. When the hardness affects the skin of the face, or of a joint, the former is drawn, fixed, and corpse-like, the latter rigid and immobile.

The breathing is interfered with from the hide-bound condition of the skin of the thorax. The skin is whiter than normal and its natural lines are obliterated. The sclerodermatous areas are colder than the unaffected; the sweat and sebaceous secretions are lessened or suppressed.