

Cutaneous lesions and eruptions other than the forms described above are neither numerous nor important, but have been described by authors. Brocson, of New York, has described an erythematous syphiliticum in which vesico-pustular and other lesions were grouped upon an erythematous base. Hemorrhagic effusions within the skin occur chiefly in patients who are the subjects of herpetic, and who have also contracted syphilis; in children afflicted with secondary syphilis; in patients with paraplegia resulting from syphilitic involvement of the cord (purpura of the lower extremities); and as an accompaniment of a number of secondary and tertiary lesions. The author has seen two such cases occurring in syphilitic disease of the cord. It should be remembered that the iodide of potassium, when administered for the relief of syphilis, may produce purpura, especially over the lower extremities.

Lastly, eczema, psoriasis, the animal and vegetable parasitic affections of the skin, psoriasis, and the various dermatites, all the result of acts due to the ingestion of the iodine compounds, and other cutaneous disorders, affect the syphilitic as well as the non-syphilitic patient. Each of them exhibits its special characteristics, apparently not at all or very slightly modified by the syphilitic infection, and is recognized as by its usual characteristics from the manifestations of syphilis without great difficulty on the part of the diagnostician. The recognition is a matter often of the highest moment, as the anxiety and dread occasioned in many patients by the discovery of these intercurrent affections (in which the mass of mankind is subject) are out of all proportion to the real import of the symptoms presented in such cases.

TREATMENT OF THE SYPHILIDERMATA.—The internal treatment of the sypylodermata is that of syphilis in general, including the use of mercury, the iodide and other salts of potassium, iron, cod-liver oil, and a nutritive regimen.

Many of the lesions, however, require local treatment. The salves which are most effectively used with this end in view contain one of the salts of mercury. Among these may be named the ammonio-chloride, in the strength of from five grains to two drachms to the ounce (0.33 to 32.0); the red oxide, in the strength of from five to ten grains (0.33-3.06) to the same quantity; the ten or twenty per cent. oxide of mercury; the mild chloride, in the strength of from ten to thirty grains (0.66-2.0); mercurial ointment, in the strength of from half a drachm to a drachm (3.0-4.0) to the ounce; and the ointment of the nitrate of mercury in nearly the same strength. The bases of these salves may be vaseline, cold cream, lanolin, or simple cerate, a drachm (4.0) or more of glycerin being added to the ounce (32.0) of each when requisite to prevent stiffness in the mass. Vaseline is preferably employed as a basis for salves to be applied over the scalp and hairy parts.

The tars also are often employed with advantage, including the oleum cadini and the oleum russi (rectified or crude), in the strength of from half a drachm to a drachm to the ounce (2.0-4.0 to 32.0) of base, adding an equal quantity of finely levigated precipitated chalk to obtain the softness of the tar. These are excellent applications to palmar and plantar sypylodermata, when preceded by maceration of the affected surfaces for several minutes in water as hot as can be tolerated. Often the thick epidermal scales of these regions are best removed at the time of these macerations by the aid of a shampoo prepared by adding an ounce of glycerin to two or more ounces of the fracture agents viridis of the Pharmacopœia. After the shampooing with hot water, the hands or feet are dried, the salves well rubbed in, and gloves are drawn over the hands or stockings over the feet. Other ingredients are often incorporated with such salves with excellent effect. Among these may be named salicylic acid, ten to twenty grains to the ounce (0.66-1.33 to 32.0); chrysarobin, pyrogallol, and kalyol, in the same strength; zinc oxide and the subnitrate of bismuth, half a drachm to a drachm to the ounce (3.0-4.0 to 32.0); and the oleate of lead, in the form best known as *Unguentum diachyli albi*.

Powders occupy a most important place in the local management of the sypylodermata, more particularly those that are ulcerative in type. Among them may be named eucrophen, iodoform, iodol, aristol, hydronaphtol (one part to fifty of fuller's earth), boric and salicylic acids, calomel, starch, camphor, and lycopodium. Many of these are advantageously employed over such moist lesions as condylomata after they have been washed in a lotion of chlorinated soda or carbolic acid, so as to be not only deodorized but thoroughly cleansed.

Lotions of the kind just suggested are useful in the management of a number of the secreting sypylodermata. Others are compounded with the corrosive sublimate, one-half to one grain to the ounce (0.33-0.66 to 32.0) of bay rum, cologne water, or the rectified spirit of wine. Lotions containing tar, salicylic acid, carbolic acid, and boric acid (often in saturated solution) meet the indications of many cases.

For the purpose of stimulating or otherwise dressing mucous patches and indolent ulcers, solutions of the nitrate of silver, five grains to a drachm to the ounce (0.33-4.0 to 32.0), or crayons of the solid salt may be used; or even the strong caustic solutions, *e.g.*, of the hydrate of potassium twenty to sixty grains to the ounce (1.33-4.0 to 32.0), or of nitric acid. Solutions of corrosive sublimate in tincture of benzoin, or of myrrh, one to two grains to the ounce (0.066-0.033 to 32.0); benzol, creosote, and solutions of the permanganate of potassium and resorcin, one to five per cent., are also useful in many cases; the first two for destructive effects, the last, as antiseptic dressings.

Many of the sypylodermata are effectively treated by the modern methods of radiotherapy (exposure to the x-ray). The duration and frequency of the exposures, together with the precautions needed to avoid the serious consequences of improper use of this effective and often proportionately dangerous agent, are governed by the rules formulated in experience acquired by treatment of non-syphilitic cutaneous affections by the same method. We have reserved the application of the rays to obstinate chronic engorgements of the skin, such as are occasionally recognized in the palmar and plantar sypylodermata; and to some of the persistent mucous and scaling patches of the living membrane of the mouth.

The principles on which should be based the local treatment of the sypylodermata are those recognized in all similar non-specific affections of the skin. Of chief importance is the treatment of the disease itself, whether by internal medication, inunction, fumigation, or hypodermatic injection. To this, in most cases, the local treatment may be added with marked advantage. The scalp, hands, and feet may be often shampooed, and subsequently dressed with a salve or lotion. Pustules are to be opened, crusts removed, and small or large ulcerated surfaces cleansed, cauterized, or stimulated, and antiseptically dressed. Soap and water are as imperatively required for the syphilitic as for the non-syphilitic skin. Frequent applications of water as hot as can be tolerated are often required for the relief of pain, and the surgeon's knife is needed for opening softened gummata. In extensive syphilitic ulcerations an exceedingly valuable resource is the use of the continuous hot-water bath as employed in Vienna, the patient, if his ulcers can be in this way immersed in the water, remaining in it for hours, the bath being kept as hot as is grateful to the surface of the immersed skin. The bath is left only on occasions requiring evacuation of the contents of the bladder or of the rectum, or in order to secure sleep. Lastly, the mercurial, rubber, lead, and other surgical plasters, borated cotton, antiseptic lint, and wool (medicated with the mercuric iodide), prepared oakum, fuller's earth, and the other articles needed to make the dressings of modern surgery, are never more useful than in the management of multiple or extensive syphilitic ulcers.

AFFECTIONS OF THE HAIR, HAIR FOLLICLES, AND HAIRY REGIONS OF THE SKIN.—A common manifestation of syphilis is a loss of hair, in excess of the physiological *defluvium capillitii*, resulting in alopecia. This



LATE SYPHILITIC ERUPTION (ULCERS) PRECEDED BY BULLAE, IN A CACHECTIC SUBJECT.

PHOTOGRAPH TAKEN A FEW DAYS BEFORE THE DEATH OF THE PATIENT.
(From the Collection of Photographs of Skin Diseases belonging to Dr. John A. Fordyce, of New York.)

may be an early or a late symptom, rapidly or slowly occurring, scarcely perceptible or greatly deforming, and transitory or resulting in permanent baldness.

The earliest form of alopecia may occur without local subjective or objective sensations, the symptoms being often limited to the loss of hair. It may again be accompanied by macular, pustular, papular, ulcerative, or crusted lesions of the regions affected. It may appear as early as the date of the first syphilitic eruption, and, indeed, may be the first significant or even the chief feature of general syphilis. In other cases it is conspicuous only after the third or later month of infection. It may affect any hairy region of the body, but is more commonly noticed on the scalp, beard, mustache, eyebrows, and lashes. Upon the scalp, it is probably much more common of occurrence than of observation, since it is often first recognized in men only after the hair is cut short.

The hair may appear to be merely thinned in syphilitic alopecia, when the pilary loss is actually conformed to type. The close-shaven head of the syphilitic, affected with the early form of alopecia, presents almost always the same appearance. The scalp is then seen to be covered with irregularly circular areas of baldness, symmetrically arranged as regards the two halves of the body, these areas varying in size from a split pea to a small coin. There is asymmetry, however, in the disposition of individual patches. The scalp thus affected may be apparently sound, or dry and lustreless, or, as described above, the seat of a syphilitic exanthem. When the hair is long, as in women, the striking disfigurement visible on the shaven scalp is scarcely apparent; in men whose hair has been cut moderately short the effect is that of a characteristic patchy irregularity, in which it is clear that the temple and occiput are as much affected as the vertex. The eyebrows, eyelashes, and mustache may be merely thinned, or suffer a loss in patches. The shaven beard may present an appearance nowise distinguishable from the condition of the same region when affected with alopecia areata.

The late forms of syphilitic alopecia are always due to destructive lesions of the cutaneous region covered with hairs; and the alopecia is hence usually the less important feature of the disease. Thus deep pustular, gummatous, ulcerative, and other like changes in the scalp are usually followed by an asymmetrical loss of hair, often limited to a single patch, where, after cicatrization, the resulting alopecia is remediless.

The early form of alopecia is unquestionably chiefly due to defective nutrition of the hairs in the hair follicles, and, as alopecia areata is probably due to the same immediate cause (the remote cause being essentially different), it follows that the shaven scalp presents almost the same appearance in two selected cases of the two diseases. The bulbs of the fallen hairs are seen under the microscope to be distorted and misshapen in early syphilitic alopecia, and the hairs themselves are usually dry and lustreless. The pathology of the late forms of alopecia in syphilis is that of the syphilitic process to be studied in the tissues generally. Usually a degenerating gummatous infiltration eventually encroaches upon and destroys the hair follicle. Syphilitic alopecia is to be distinguished from all physiological losses of hair by its sudden occurrence in persons of the age in which syphilis is most commonly encountered, its asymmetry, and its involvement of the temples and occiput equally with the vertex. A history of infection can usually be obtained, and other symptoms can often be discovered. Seborrhœa capitis, or alopecia furfuracea, is distinguished by its fatty or dry scales, and its failure to remove the hairs in distinct areas. The patches of alopecia areata strongly resemble those of early syphilitic baldness in the shaven head; the loss, however, in the former disease is more sudden, and recovery is marked by the appearance of whitish or grayish downy hairs, which is not often the case in restoration after syphilitic alopecia. The internal treatment is largely that of the secondary symptoms of the disease. The local treatment should consist of daily shampoos with hot water and the Sarg fluid

soap; or, when mere stimulation is required, by the aid of the tincture of green soap. After such shampooing the scalp may be anointed with scented lanolin or vaseline, or with an oleaginous lotion made by adding two drachms (8.0) each of the oil of sweet almonds and glycerin to an ounce (32.0) each of the spirit of rosemary and alcohol, and two ounces (64.0) of cologne water.

AFFECTIONS OF THE NAILS, MATRIX AND BED OF THE NAILS, AND ADJACENT PARTS.—The term onychia is applied to the changes which are first apparent in the nail; and paronychia to those which only secondarily affect the nail and primarily the matrix, nail-bed, or cutaneous folds by which the nail substance is surrounded. It is probable that the distinction is purely artificial, both forms being preceded by alterations of tissue exterior to the nail substance proper. These appendages of the skin are frequently affected in syphilis, both during the secondary and during the tertiary stages, and the resulting lesions may be transitory or persistent, and mild or grave in character. The course of these changes is usually chronic.

In the most frequent form of onychia (*onyxis craquelée*—dry or friable form) a portion or the whole of one or several of the nails may become dry, lustreless, grayish-yellow in color, friable, rugous, irregularly thickened, traversed by furrows in one or more directions, or singularly disfigured by numerous minute pockets, from which the crumbling nail substance has fallen or been removed by washing and scrubbing. The nails are usually tilted up at the free border and separated from their beds. Careful examination will often reveal a ridge of thickened epidermis at the sides or attached border of the nail, which may be normal in appearance or dull purplish in color and scaling; or, on pressure, a few drops of thin, ill-conditioned pus may escape from beneath it. This form is said to be more common in women. Under treatment these phenomena may disappear, and the distorted nail be pushed forward and replaced by a healthy new one. In other cases one or several of the nails are insidiously loosened from bed, matrix, or nail-fold, and are shed without the occurrence of any appreciable change in the surrounding parts, precisely as the hairs fall in many cases of syphilitic alopecia. Sometimes, even when attached at its border, the nail is seen to be completely separated over its entire area from the bed beneath. When the nail, on the other hand, is affected with an onychiauxis, it may increase to three or four times its normal bulk, a condition described by some writers as hypertrophic onychia.

Paronychia may affect the whole or a part of the nail, and be dry or ulcerative in type. In the former case a dull-purplish ridge of cutaneous tissue, in the vicinity of the nail-fold and including it, becomes indolently thickened, scaling, and fissured. Superficial ulceration may follow, with purulent or hemorrhagic secretion and crust formation, the ulcer spreading slightly beneath the nail at one point, the substance of that organ having already exhibited the changes due to impaired innervation. The characteristic feature of this complication is a finger with its distal phalanx having a bulbous appearance, its partially altered, dirty-looking nail tilted upward or to one side, and a dry, scaling, or indolently granulating surface exhibited in the exposed part of the bed.

Ulcerative paronychia is characterized by a shallow or deep ulceration extending at the central or lateral parts of the nail-fold, matrix, or bed, bathed with a sanguinolent, thin, or ill-conditioned pus. It may begin with the dry lesions described above, or with the development of marginally seated papules or pustules. The nail may, as a result, be in lateral deviation from the axis of the phalanx, or partially or wholly loosened from its attachments. In this state it may present any of the changes seen in syphilitic onychia. The nail-bed, when thus exposed, is usually tumid, covered with a thin, puriform secretion, granulating, or the seat of an irregular, firm, and whitish, epithelial investment. Thin layers of new nail substance speedily form over this surface if proper treatment be instituted; and, even in the cases in which a distorted

nail at first covers the bulbous phalanx and its purplish, tumid nail-fold, the restoration is eventually complete. In some cases the ulcer first forms beneath a crust under the free edge of the nail, and thence, when not properly managed, spreads irregularly over the matrix, the nail becoming loose and undergoing the changes already described. Care should be taken in the diagnosis of such cases to exclude trichophytosis unguium (where the parasite is recognizable under the microscope); eczema and psoriasis (in which there is no history of syphilis and none of its other symptoms); digital chancres (in which the nails are not chiefly involved); and ordinary forms of paronychia (which commonly spare the nail-bed and matrix).

The treatment is largely internal; locally the white precipitate salve [one scruple to the ounce (1.33 to 32.0)] may be applied on rags. Ulcers may be dressed with pencillings of the nitrate of silver, followed with iodoform or iodol in powder.

THE RELATIONS OF THE SYPHILODERMATA TO THE PROCESS OF SYSTEMIC INTOXICATION AND TO THE ACCIDENTS OF ENVIRONMENT.—The view was once generally held, and is still largely entertained, that the several eruptions observed in the course of evolution of syphilis are due solely to the constitutional malady. This position, viewed in the light of modern science, is seen to be untenable. The eruptions minutely described and definitely catalogued in the treatises upon this subject can, without difficulty, be assigned etiologically to several categories.

In the first are grouped syphilodermata due solely, so far as can be ascertained by our present methods, to the influence of the toxin of the disease. These eruptions constitute probably the smaller number of all with which the physician needs to be familiar.

In a second category are to be recognized the syphilodermata due wholly to externally operating causes, the accidents of environment. Some eruptions should be here included, in which manifestly the pyogenic staphylococci are the efficient factors in the production of the lesions, some of them resulting from inoculation, others from auto-inoculation. It is quite noticeable of the pustular syphilodermata that they are nowhere seen so abundantly and in such typical expression as among the filthy, the impoverished, and the neglected. They are decidedly among the rarer complications of the evolution of the disease among the cleanly, the well fed, and the comfortably clad. Specific treatment being for the time abandoned, the pustular syphilodermata as a rule respond rapidly to the treatment indicated by the existence of such lesions, viz., bathing, disinfection, asepsis, proper clothing, and shelter of the body. Some of the pustulo-crustaceous and bullous lesions acknowledge similar causes. It is an error to dissociate syphilis in all cases from the category of the filth-diseases. The worst varieties of the malady, without any question, are to be found in the lowest class of patients in the out-departments of public charities, where attacks are daily made upon the unwashed skin by micro-organisms, animal and vegetable parasites, the "flora dermatologica" of Unna, and the finger-nails of the sufferers.

In a third class are to be named the eruptive phenomena, due without question to the operation of an internal cause, but brought into existence, or encouraged, or precipitated, by externally operating accidents. This includes an enormous number of all the syphilodermata, and there are few that may not acknowledge influences of the sort to which attention is here directed. The mouth of the tobacco-chewer and smoker is often freed from mucous patches when relieved of the irritation thus aroused; the anus of the infant is no longer surrounded by a group of condylomata when its surface is properly cleansed and disinfected; the palmar plaques of the toiler with material or tool cease to ulcerate and begin to heal when labor is suspended, or the hands, when thus engaged, are protected from injurious contacts.

In a fourth class are to be placed a small number of

supposed syphilodermata, due to causes operating internally, and to be attributed only in part to the infective process. Here should be described all the medicamentous eruptions, due to the iodine compounds administered for relief of the disease, chiefly the acneiform lesions (acne artificialis, acne varioliformis). With these should be enumerated eruptions of the class represented by the pigmentary syphiloderm which refuses to succumb to the action of the remedies commonly effective in syphilis, and which is in reality a pigmentary disorder only very indirectly associated with the toxic condition of the system.

In a fifth class are represented a number of the cutaneous pictures of syphilis, due to the commingling of syphilodermata with simpler dermatoses. Chief among these is the combination of syphilis and seborrhœa seen so often about the nose, the brow, and over the scalp of the subjects of the two disorders.

THE BEHAVIOR OF THE SYPHILODERMATA IN THE PRESENCE OF OTHER INFECTIVE PROCESSES.—The knowledge had respecting the relation of syphilis to other diseases was of the vaguest character prior to the date of an exact appreciation of the etiological importance of micro-organisms in disease. The mutual antagonisms of the latter in several of the infective processes are made apparent in many of the morbid conditions presented in syphilis. Erysipelas may affect the skin which is the seat of syphilodermata, but then the result, far from suggesting a complexus of two disorders with a confused picture of each, is a typical erysipelas having an issue which leaves the skin, after relief of the later infection, free from the lesions first occupying the ground. Similarly, in observation of a series of cases of typhoid fever occurring at the moment of an abundant eruption of syphilodermata of an early type, the cutaneous symptoms wholly disappear with all other traces of syphilis, only to return, usually in milder expression, after the conclusion of weeks or months of illness and protracted convalescence, when the bodily weight is again nearly approaching its normal standard.

SYPHILOMA OF THE SUBCUTANEOUS GLANDS (Gummatous involvement of the lymphatics, so-called "tertiary bubo").—In those periods of syphilis, when gummatous material is deposited in any of the bodily tissues, the subcutaneous glands may suffer. This complication of the disease is more common than is generally supposed, and, when the glands of the neck are involved, presents a condition which is often mistaken for tuberculosis.

The subjects of the disease are not always in what has been termed the "late" stages of the disease. They are often the recently infected, even within a few months of the date of that accident, and, as a rule, are of the type formerly described as strumous. They are usually individuals of weak constitution, under normal weight, and poorly nourished, or severely taxed in daily toil. The glands are recognized as round and oval, dense and at times elastic swellings, involving one or a group of several glands ("pleiades" of French writers), which may pursue a gradual course terminating in disintegration, or undergo resorption of the deposit in any stage of development. The glands are at first in a purely irritative condition, thus probably resenting the entrance of either bacilli or toxins of the same in their meshes; later, there is a well-marked cell proliferation with degeneration of the central pulp of the gland, pus formation, and exit of the same, either spontaneously or by means of surgical interference; in other subjects caseation results, the cell proliferation decreases *parsi passu* with increase of the intercellular tissue, and fatty metamorphosis eventually takes place.

The glands most frequently involved are, first, those of the neck (submaxillary, infraclavicular); next, those of the inguinal regions; lastly, the axillary, cubital, and popliteal.

The tumors vary in size from small nuts to large eggs, are both painful and tender, and soften when about to break down at or about the central point of the mass. They are exceedingly indolent, and even when

converted into an abscess have little or no tendency to burst, but retain for weeks at a time, even longer, their pulpy and ill-conditioned contents. They are at first covered by a movable and normally colored integument; later this becomes dark-hued and livid. When spontaneously bursting, the rent of the gland capsule reveals a discolored grayish-yellow or darker admixture of thin pus and detritus of tissue, a healthy-looking wound being produced after scraping, which in well-managed cases proceeds without delay to repair. The scars left in either event strongly resemble those resulting from the similar process in tuberculous involvement of the lymphatic glands.

Actinomycosis should always be differentiated by the aid of the microscope; tuberculosis, if not by the same means, at least by the relative rapidity of evolution of the syphilitic process; for though at times but a few months are required for the entire career of the syphilitic lesion, the tuberculous are commonly far slower of career and soften centrally only after long delay. The lymphoma of syphilis rarely requires a twelvemonth for its completed curriculum. Carcinoma of the regions named is exceedingly rare; sarcoma is even more rare of occurrence.

The more lately devised methods of treatment in syphilis have not yet supplanted the older and approved devices, nor do they contain the promise of so doing. Tommasoli has employed intramuscular injections of a fluid obtained by keeping the blood of lambs for twenty-four hours on ice, separating thus the serum. From 2 to 8 c.c. of the latter are injected for a dozen or more times. The lesions of syphilis are reported to have rapidly and permanently disappeared under this treatment; and the reactive effects from these injections were in no case severe.

Wellander, of Stockholm, has employed for injections a mixture of the acetate of thymol mercury, gr. 1.5 in liquid paraffin, injected every fourth day till six or seven injections have been made. Indurations and abscesses at the site of the operation were minimized in number and severity; the reactionary effects were reported mild, and the symptoms of the disease yielded with varying but satisfactory promptness, some relapses occurring.

The other mercurial salts lately employed besides hydrargyrum thymolicum (thymolacetatum) are salicylicum, succinimidicum, alaninicum benzoatum, oxycyanatum, formamidatum. The basis employed by Schadek is an emulsion of gum arabic. The oxycyanide is used in injections of one-quarter of one per cent. The benzoate is employed in solution as follows:

Hydrarg. benzoat.....	0.30
Sod. chlorid.....	0.10
Aq. destillat.....	40.00

The succinimidicum is used also in one-per-cent. solutions.

Moncorvo and Ferreira report the treatment of a large number of young children affected with syphilis by hypodermatic injection, the corrosive sublimate being preferred by them for this purpose. The doses were exceedingly well tolerated by the children, who exhibited but little tendency to the after-occurrence of stomatitis, salivation, or intestinal colic.

AFFECTIONS OF THE EYES.—The bones composing the orbit may be involved in osteitis or periostitis, with degenerative results in the form of caries or necrosis. In this way may be lighted up an intra-orbital cellulitis resulting in abscess. Nodes also occur within the orbit, and may be followed by serious consequences when productive of pressure effects. The lachrymal passages also may be involved in obscure catarrhal changes, associated with pharyngeal lesions. Mucous and subcutaneous tissue, periosteum, and bone may be eventually implicated, with the result of producing lachrymation, epiphora, abscess, and eventually fistula. The treatment is by division of the canaliculi and dilatation of the canal by probes. The parts may then be treated with weak injections of the nitrate of silver, or, what is fully as valuable,

two- to five-per-cent. solutions of resorcin. When the canal is pervious to the probe, the trouble is usually due to changes in the periosteum of the nasal process of the superior maxillary bone. The frequent application of water, as hot as can be borne, to the affected parts, if required in connection with the application of fomentations, will often give relief in these cases when energetic constitutional measures are adopted. Bumstead and Taylor report syphilitic changes in the lachrymal gland sufficient to produce a species of ptosis, and also gummata of the caruncles.

The eyelids may be severely and extensively involved in syphilis. They may be the seat of chancres, as also of papules, pustules, ulcers, and resulting cicatrices dragging the lids into ectropion. Syphilitic ulcerations attack the canthi and free edges of the lids, encroaching also upon the mucous surfaces. The author has seen both upper lids symmetrically involved in ragged ulcerations of the edge resembling the work of a punch. Degenerating gummata of these regions often leave disfiguring cicatrices. The palpebral conjunctiva is often the seat of mucous patches. Subcutaneous indolent nodules, the size of a hemp-seed to that of a pea, occasionally form in the lid, and they may obstinately persist when treated. The tarsus is reported also by several observers to have been involved in a tarsitis syphilitica, which is at first productive of tumefaction of the lids, and later of changes in the cartilage itself. The fasciæ and tendons of the ocular muscles are also liable to syphilitic changes, which may result in thickening, in abscess, or in fistula. All syphilitic lesions of the eyelids are to be distinguished from chancres of the lid, accidents not of very rare occurrence in the large cities. In these cases there is great tumefaction, brawny, empurpled thickening (of the inner canthus usually, the part most apt to be rubbed by the finger that transports the infective secretion), and a specific induration of the preauricular or submaxillary gland—far more commonly the former.

The conjunctiva may be the seat of mucous patches, circumscribed macules, papules, tubercles, and gummata. These are, however, rare. The ocular conjunctiva is spared most of the lesions of syphilis, save when it becomes engorged with blood as a consequence of iritis.

The cornea, when participating in syphilitic changes, is usually recognized in the victim of inherited disease. There is found, first, slight pericorneal vascularization, in the diffuse form, with one or several centrally situated or marginal opalescent points showing in the cornea. These increase till the whole or a great part of the cornea is involved, producing thus a characteristic opacity limited to the field of the keratitis. With the keratitis of inherited syphilis are often seen the alterations in the color, size, and shape of the permanent incisor teeth, first described by Mr. Jonathan Hutchinson, who regards the permanent upper central incisors as the test-teeth. These are usually vertically and transversely shortened and thinned, with a crescentic notch at the free border, its convexity regarding the root of the tooth. This notching, most conspicuous in childhood, becomes partially obliterated by attrition in later life. The teeth are also often convergent, occasionally separated; in other cases "pegged," and again discolored in shades of a dull brown.

The punctate form of keratitis is seen both in acquired and in late inherited syphilis. Intracorneal puncta, the size of a pinhead, are then visible, careful observation of which reveals the lack of lustre or grayish shade of color of corneal opacities in general.

The sclera may be involved (1) in an episcleritis beginning with pericorneal hyperæmic macules of a dull-red-dish hue, with few if any subjective sensations. A circumscribed portion of the sclera may then appear thickened, and in some cases radii of engorged conjunctival vessels indicate an extension of the hyperæmia to the overlying membrane. In extreme cases the cornea, sclera, iris, and lens are involved in a common inflammatory process; cases which the writer believes originate