Photographic illustrations of cutaneous syphilis / by George Henry Fox.

Contributors

Fox, George Henry, 1846-1937.
Emory University. General Libraries

Publication/Creation

New York : E.B. Treat, 1881.

Persistent URL

https://wellcomecollection.org/works/n9wpy5qe

License and attribution

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

George S. Murray
Columbus
Ga
1946


SYPHILIS
FROM LIFE

PHOTOGRAPHIC ILLUSTRATIONS

OF

CUTANEOUS SYPHILIS.

BY

GEORGE HENRY FOX, A.M., M.D.,

Clinical Lecturer on Diseases of the Skin, College of Physicians and Surgeons, New York; Surgeon to the New York Dispensary, Department of Skin and Venereal Diseases; Fellow of the American Academy of Medicine; Member of the New York Dermatological Society, the American Dermatological Association, etc.

Forty-eight Plates from Life.

COLORED BY HAND.

NEW YORK:

E. B. TREAT, NO. 757 BROADWAY.

1881.

ARTOTYPE,
HARROUN & BIERSTADT
NEW YORK.

SAMUEL STODDER,
STEREOTYPER,
90 ANN STREET, N. Y.

PREFACE.

Among chronic diseases, Syphilis is the one of greatest frequency and highest importance. Few physicians are incompetent to treat the disease successfully when its nature is apparent, but there are many who are unfamiliar with its most characteristic forms. The surest diagnosis is that which is based solely upon observation; and it can be safely asserted that of the numerous and varied symptoms of Syphilis, there are none which point so unerringly to a specific origin as do its cutaneous lesions. In Syphilis of internal organs it is often necessary to base a diagnosis upon the history of the case or upon the results of treatment, but in Syphilis of the skin the diagnosis is usually written in characters so plain as to be unmistakable. The syphilodermata are legible lesions. To the skilled observer they proclaim at once the essential facts of the patient's history. They constitute a written language, for the teaching of which the clinic is the best school, and the study of actual cases the most valuable of all text books. In this work I have endeavored to transfer to paper the instructive features of the clinic and to present to the profession a panorama of Cutaneous Syphilis.

Concerning colored photographic illustrations as a means of portraying affections of the skin, nothing need be said. Their utility has been shown by the signal approbation which the profession has accorded to a previous work of this nature. The present series, though published as a separate work, is designed as a companion of the former series, the two combined constituting a complete atlas of cutaneous diseases.

In the text accompanying the illustrations my aim has been to present a practical exposition of the subject with special reference to points of diagnosis and treatment. In giving the characteristic features of the syphilodermata, I have endeavored to base my descriptions as far as possible upon notes of cases which I have generally taken in the presence of the nude patient.

To the kindness of Drs. W. T. Alexander, E. B. Bronson, T. H. Burchard, R. Campbell, E. Frankel, E. L. Keyes, N. G. McMaster, H. G. Piffard, G. W. Robinson, F. R. Sturgis and R. W. Taylor, who have placed patients or photographs at my disposal, and to many other friends who have expressed a willingness to do so, I feel deeply indebted. To Mr. O. G. Mason, the well-known photographer at Bellevue Hospital, I must also tender thanks for the loan of several negatives.

GEORGE HENRY FOX.

18 East Thirty-First Street,
New York, *April*, 1881.

CONTENTS.

ERRATA.—Commencing on page 46, the order of Chapters VII., VIII., IX., &c., &c., should read VIII., IX., X., &c., &c.

NOTES OF CASES.

I. Patient of Dr. E. B. Bronson. An unusually well-marked erythematous syphilide, with smooth, bright, pinkish macules.

II. A more common form of the erythematous syphilide, with macules slightly elevated.

III. 1. The brownish stains in this case were left by an erythemato-papular syphilide.

2. This patient was an Italian. The leucodermatous spots, with hyperpigmented interspaces, are frequently seen upon the neck of females, and constitute the so-called pigmentary syphilide.

IV. A relapsing erythematous eruption of unusual form, occurring in the subject of Plate I. about two months after the first exanthem.

V. A copious eruption of lenticular papules. Their arrangement in lines parallel with the ribs is quite marked.

VI. Patient of Dr. N. G. McMaster. The grouping of miliary papules, which is characteristic of this form of eruption, is scarcely apparent in the illustration on account of the unusual number of lesions.

VII. An instance of the "large, flat, papular syphilide," with slight amount of scaling compared with the considerable infiltration of skin. Four years later this patient exhibited pustulo-crustaceous lesions on legs.

VIII. Patient of Dr. R. W. Taylor. For description of the case, see *Am. Jour. of Syph. and Derm.*, Vol. IV., No. II., p. 107.

IX. This patient had a very severe type of disease. There were present nearly all of the usual symptoms of the disease, and treatment had comparatively little effect.

X. Patient of Dr. F. R. Sturgis. This patient had the initial lesion upon nipple of right breast. The lesions upon the neck appeared irritated from heat and friction of clothing.

XI. XII. Negatives from O. G. Mason.

XIII. A newsboy with a severe type of the disease. On the elbows were larger crusted pustules, and on the backs of the hands, large, flat papulo-tubercles.

XIV. Pustules crusted about the knees and covered with scales upon the legs, as a result of uncleanliness and external irritation.

XV. The miliary pustules of early syphilis, like the miliary papules, usually assume a clustered or corymbiform arrangement, as is shown in the plate.

XVI. Condition occurring six months after initial lesion, and persisting for several months. Patient suffered severely from the disease.

XVII. 1. A boy with vegetating syphilitic papules about the anus and a fading syphilide on body. Occasionally, as in this case, condylomata of warty or acuminate form develop upon a syphilitic base.

2. A common and characteristic eruption of moist papules. The tendency to dry in the center and leave a raw or crusted ring is seen in the lesion upon the scrotum.

XVIII. 1. A common form of eruption. The redness and elevation of the papules is so slight that they often pass unnoticed until the overlying epidermis begins to peel.

2. An unusual form of eruption, occurring four or five months after infection. The lesions upon the palm in this case were so numerous that the whole epidermis peeled after breaking at numerous points.

XIX. Upon this patient's palms we see an exaggerated form of the common scaling papular eruption shown in the first illustration of the preceding plate. It resulted from a more extensive infiltration of the skin and a naturally thick and horny epidermis.

XX. Patient of Dr. W. T. Alexander.

XXI. 1. A case of eczema occurring in circular patches in the center of palms and elsewhere.

2. An eczema with a circumscribed margin, an unusual feature of the disease, rarely noted save on the palms.

XXII. 1. A typical squamous syphilide, consisting of infiltrated and scaling rings inclosing healthy skin.

2. This patient suffered at the same time from ulcerative syphilis of the nose.

XXIII. Shows both feet of a patient who had contracted the disease many years before. The palms were unaffected.

XXIV. The eruption on the face consisted of numerous large, firm, fleshy tubercles, arranged in groups, while near the elbows the eruption exhibited a serpiginous tendency, and the tubercles at the border of the patches were softer and covered with crusts.

XXV. This patient, like many others who appear in this work, gave no history of any antecedent syphilitic symptoms, but the crescentic and circular arrangement of the lesions

left no doubt as to the nature of the affection. There is scarcely a more unmistakable eruption figured in the whole series.

XXVI. 1. Groups of tubercles exhibiting the characteristic tendency toward resolution in the center and extension at the periphery.

2. Patient of Dr. G. W. Robinson. No history of syphilis. The ulcers could scarcely have been other than syphilitic in this locality, and cicatrized in less than four weeks, under specific treatment.

XXVII. 1. Tubercular patches undergoing resolution.

2. Tubercular patches which have softened and ulcerated at their margin.

XXVIII. 1. A patch upon the thigh, with a thick "horse-shoe" or kidney-shaped crust over the softened tubercles at the periphery.

2. Just above the tubercular patch the prominence of a syphilitic bursitis may be noted.

XXIX. 1. Eruption occurring in the third year after infection. It had been spreading for a year, but yielded readily to treatment, leaving smooth, dull-red patches.

2. Ulcer of three years' standing in a phlegmatic girl of eighteen. It required nearly a year to heal, leaving a puckered cicatrix.

XXX. In this illustration (as in XXIV. and XXVII.) is seen the tendency to serpiginous extension and softening of tubercles at the margin of the patches. Negative from O. G. Mason.

XXXI. In this case the rupial crusts remained undisturbed while the subjacent lesions were healing.

XXXII. 1. Shows the crescentic arrangement of the lesions and conical crusts in profile.

2. A typical tubercular patch upon a man's side, the scalloped outline of the periphery resulting from the coalescence of several small groups.

XXXIII. This fluctuating tumor was reduced considerably in size by the use of iodide of potassium in moderate doses, when the patient, who was attending the N. Y. Dispensary, disappeared.

XXXIV. The grouping and location of these lesions is characteristic of their origin. Negative from O. G. Mason.

XXXV. This patient was an old man, a boatman, who had never had any systematic treatment, had lived a dissipated life, and who presented numerous evidences of the disease.

XXXVI. Patient of Dr. E. L. Keyes. For description of this and similar cases see *Am. Jour. of Med. Sci.*, April, 1876, p. 349.

XXXVII. The superficial ulceration in this case occurred during the first year of the disease. The lesions were flat pustules, and the patient was poorly nourished and weak.

XXXVIII. 1. An old lady of sixty-three years who had suffered from tibial nodes and former ulcerations.

2. A tuberculo-squamous eruption occurring in the second year of the disease, with peripheral ulceration.

XXXIX. Deep ulcers occurring late in the course of the disease. The scar of a former ulcer is seen below popliteal space.

XL. Gummatous nodules breaking down and forming deep ulcers. Disease contracted ten years previously.

XLI. Negative from O. G. Mason.

XLII. 1. The chancroids healed within three weeks under iodoform.

2. This patient was a lymphatic youth, and the chancre was accompanied by a suppurating bubo. A macular eruption appeared in six weeks, and a sparse papulo-squamous eruption two months later.

XLIII. 1. The induration in this case lasted four months. Constitutional symptoms appeared in seven weeks, and a large, flat, papular syphilide a month later.

2. The bubo in this case (following a chancre) resulted from suppuration around the gland, which protruded from the cavity.

XLIV. Negatives from O. G. Mason.

XLV. Patient of Dr. Robt. Campbell, showing the malformation of permanent teeth described by Hutchinson.

XLVI. A thin and poorly-nourished girl with a large node on tibia, of six months' standing. She was prescribed for at the dispensary, and seen two years later in a much worse condition, her mother having done absolutely nothing for her beyond taking her to various other institutions, and discarding all advice.

XLVII. 1. and 2. Negatives from O. G. Mason. No. 1. was a Charity Hospital patient, under care of Dr. Edw. Frankel.

XLVIII. 1 and 2. Patient of Dr. Sturgis. Child had a suspicious eruption upon thighs, and mother gave a tolerably clear history of having suffered from syphilis.

3. Patient of Dr. T. H. Burchard. The lesion was of doubtful nature, but improved under anti-syphilitic treatment.

4. Patient of Dr. C. Hitchcock. The affected finger was ulcerated, and there were ulcers on scalp and elsewhere. Mixed treatment for six months restored her to health.

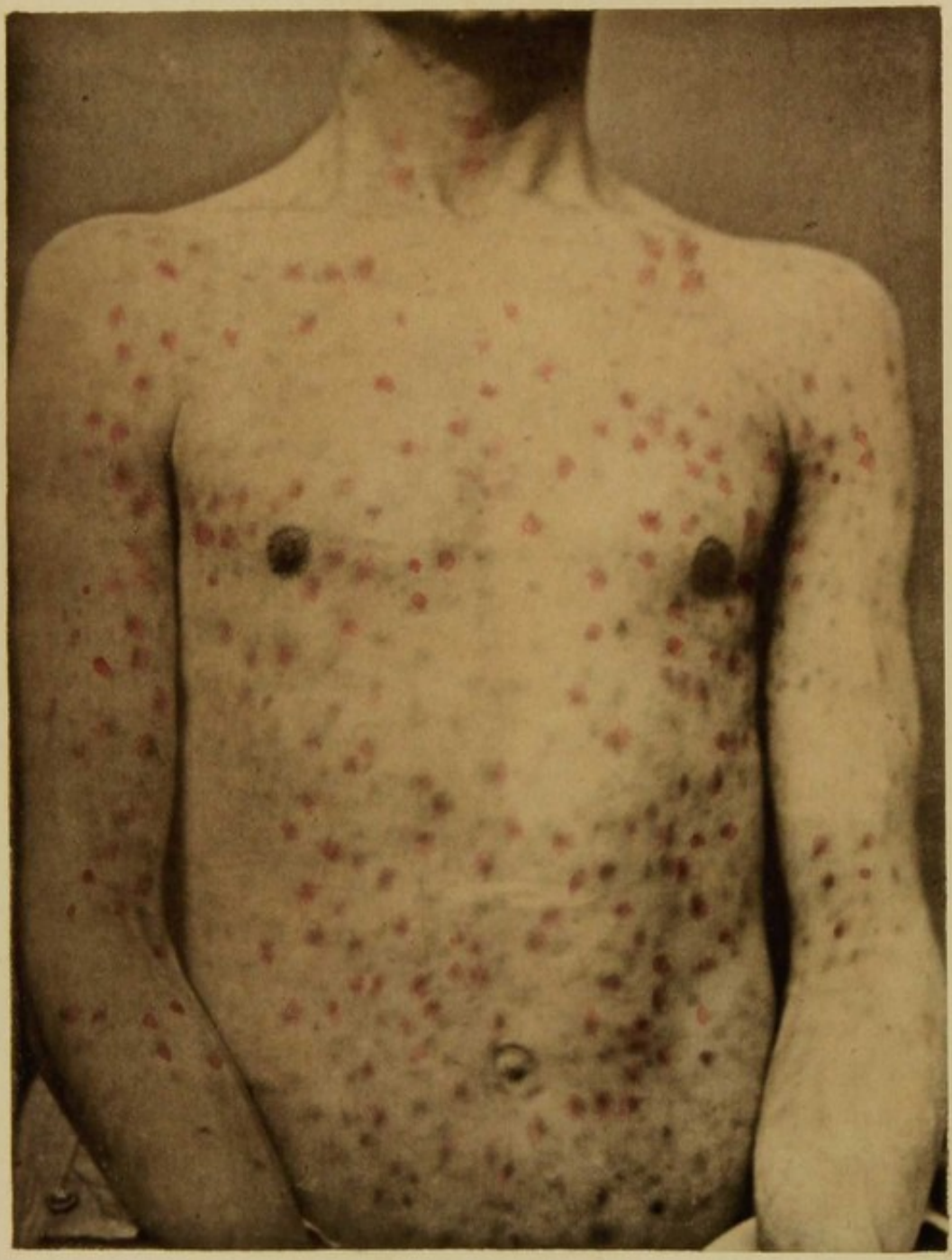
LIST OF ILLUSTRATIONS.

SYPHILODERMA ERYTHEMATOSUM.

PLATE I.

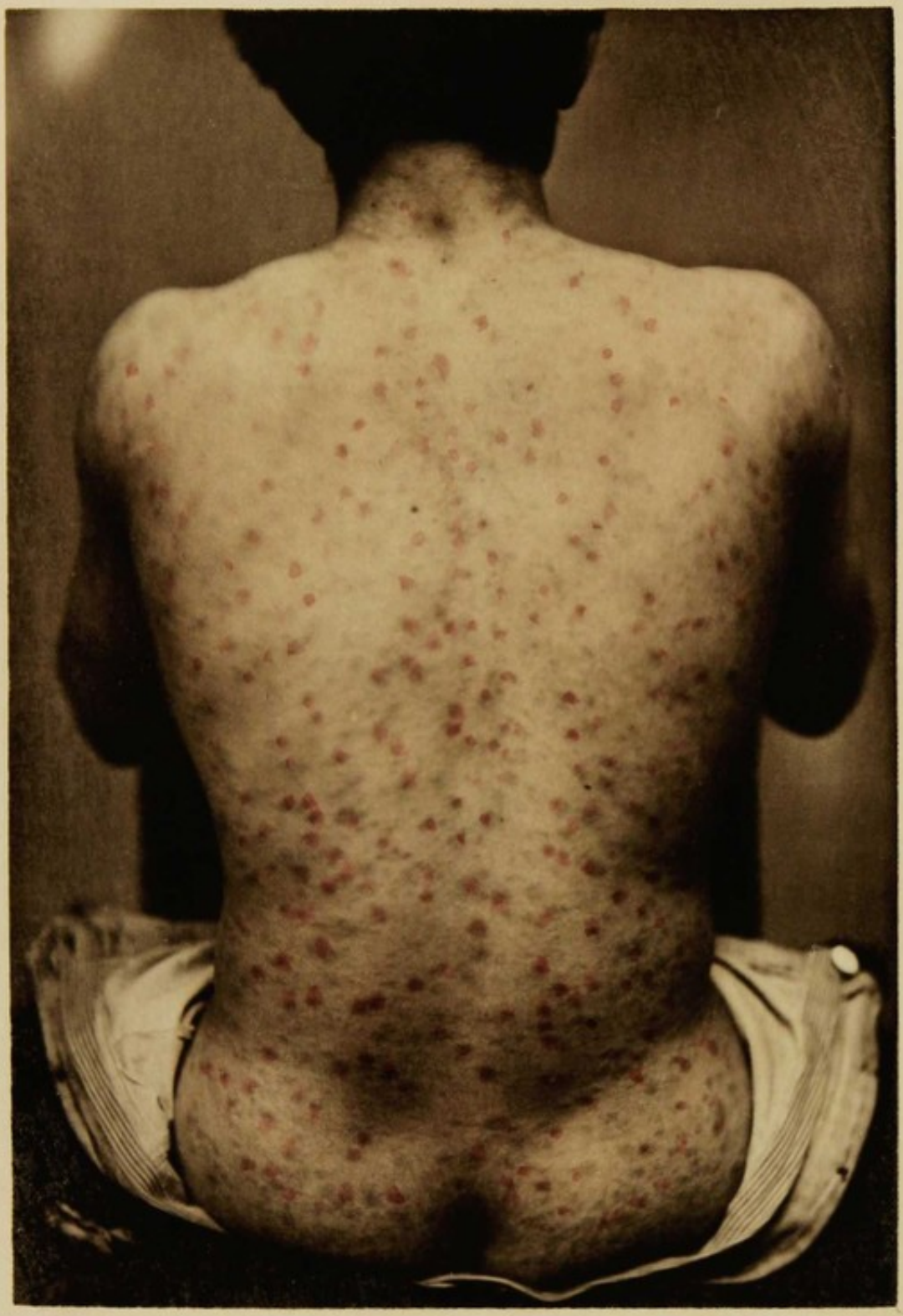
SYPHILODERMA ERYTHEMATOSUM.

PLATE II.



SYPHILODERMA ERYTHEMATOSUM.

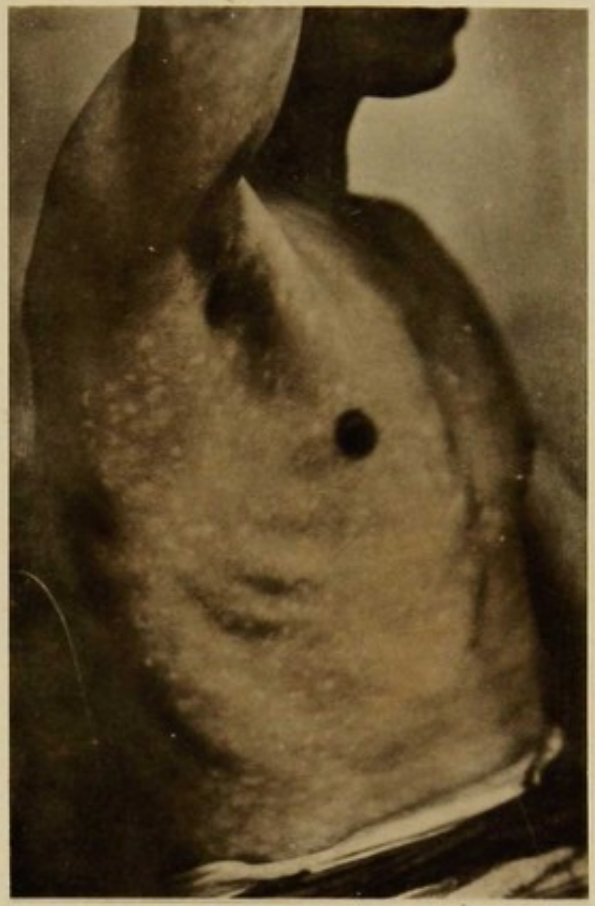
PLATE I.



SYPHILODERMA ERYTHEMATOSUM.

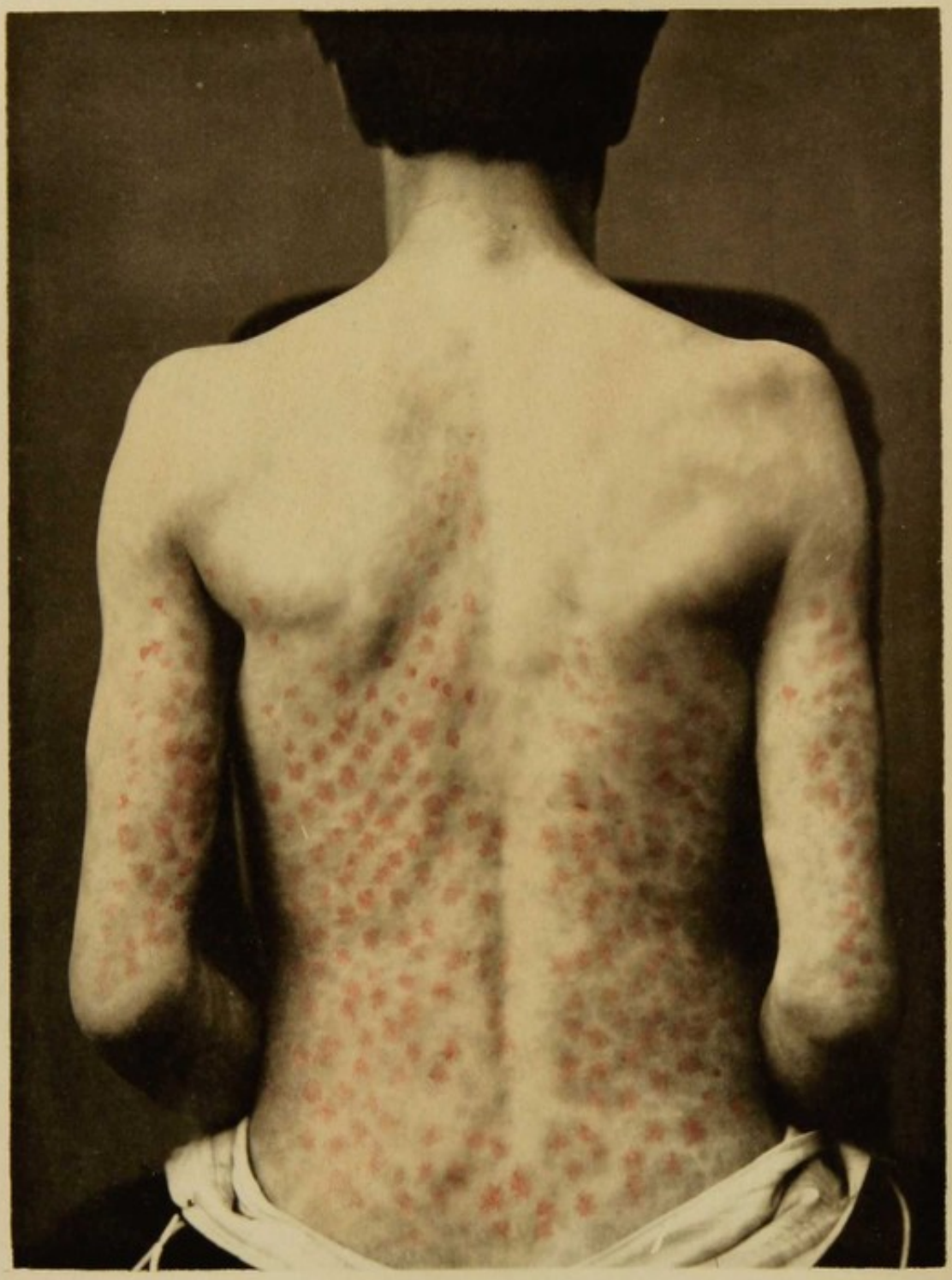
PLATE II.

PIGMENTATIO POST SYPHILODERMA.



LEUCODERMA POST SYPHILODERMA.

PLATE III.

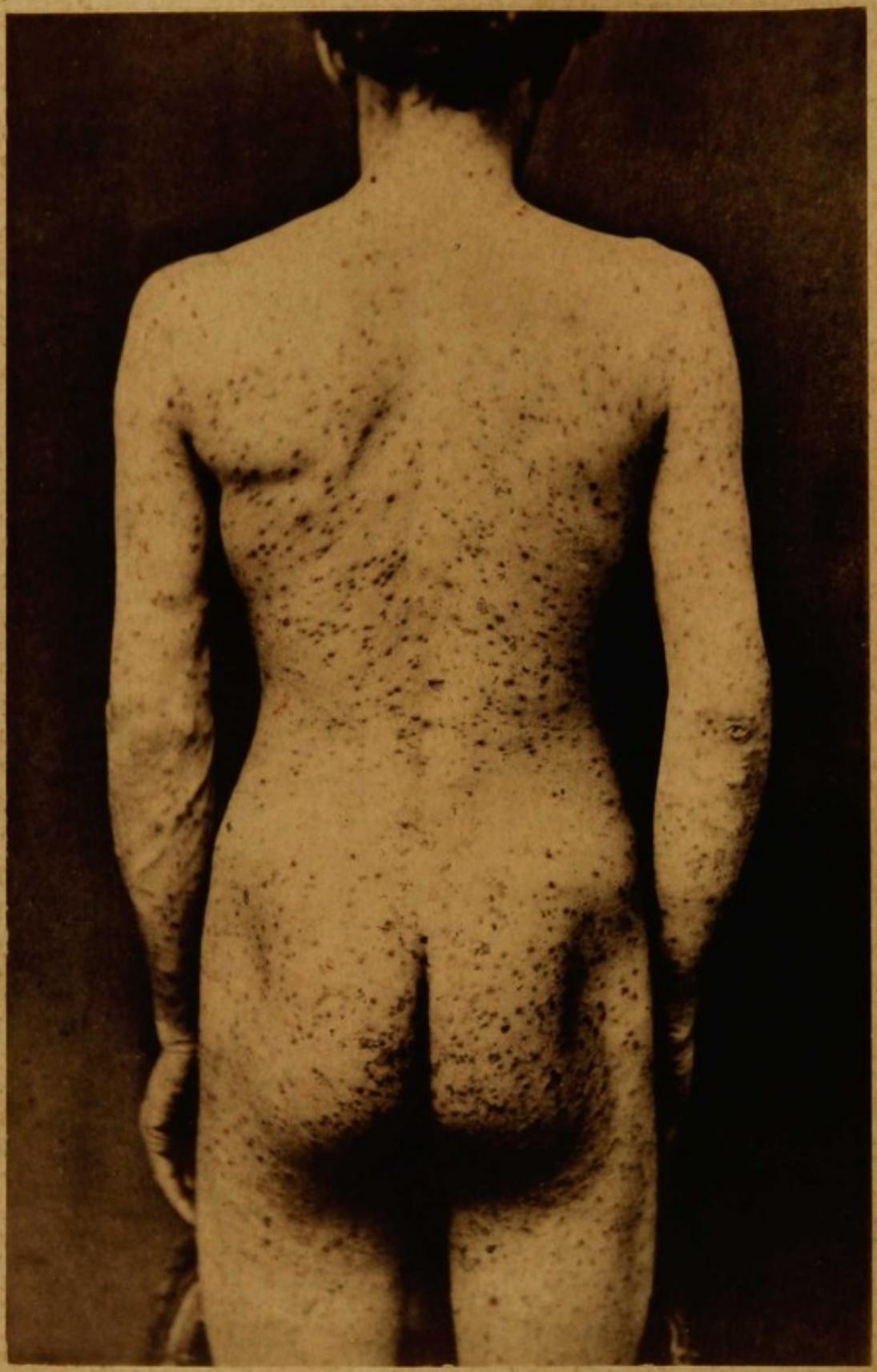


SYPHILODERMA ERYTHEMATOSUM.

PLATE IV.

SYPHILODERMA PAPULOSUM LENTICULARE

PLATE V

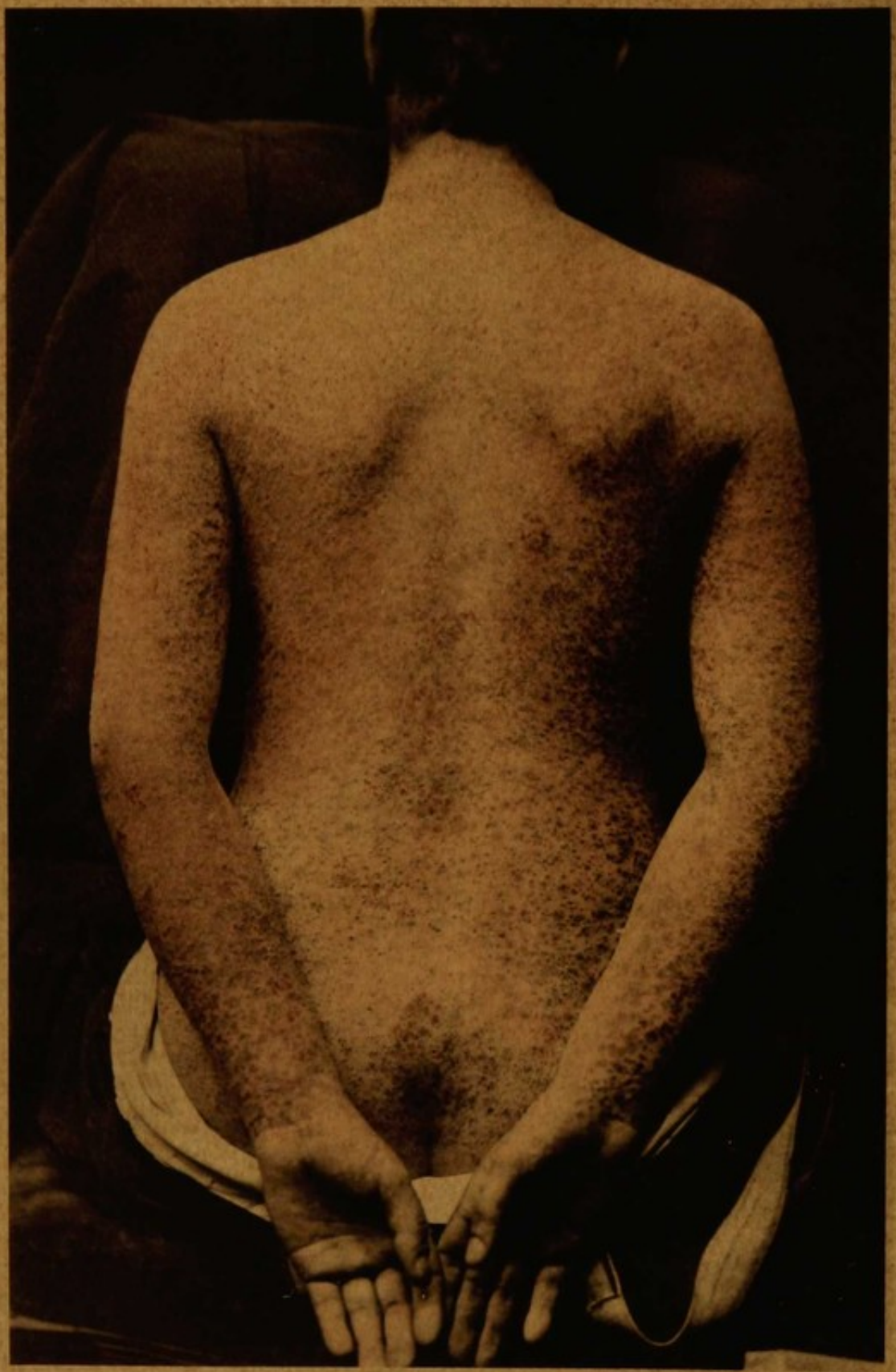


SYPHILODERMA PAPULOSUM LENTICULARE.

PLATE V.

SYPHILODERMA PAPULOSUM MILIARE.

PLATE VI.



SYPHILODERMA PAPULOSUM MILIARE

PLATE VI

SYPHILODERMA PAPULO SQUAMOSUM (Breast and Shoulder).

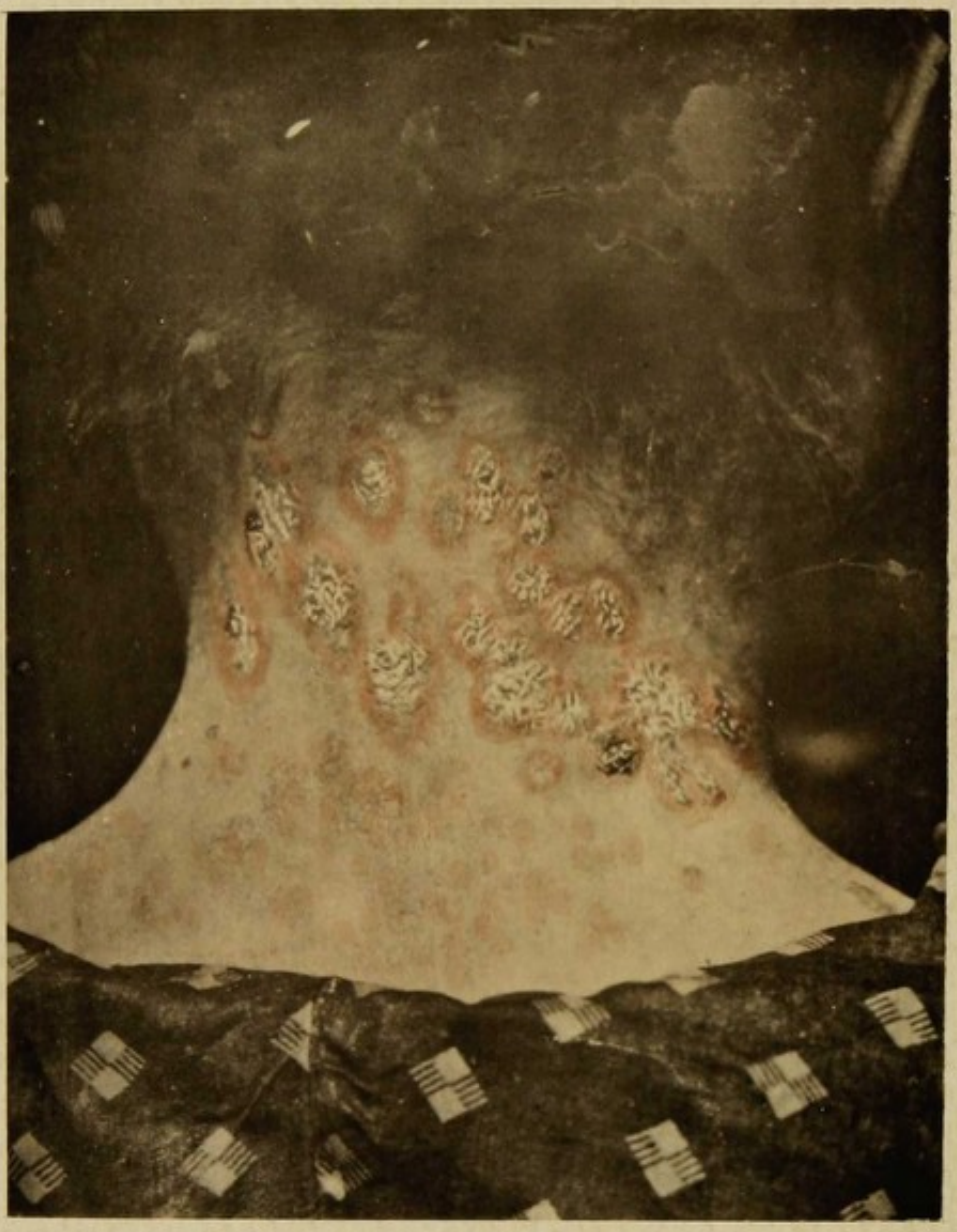
PLATE VII.

SYPHILODERMA PAPULOSUM.

PLATE VIII

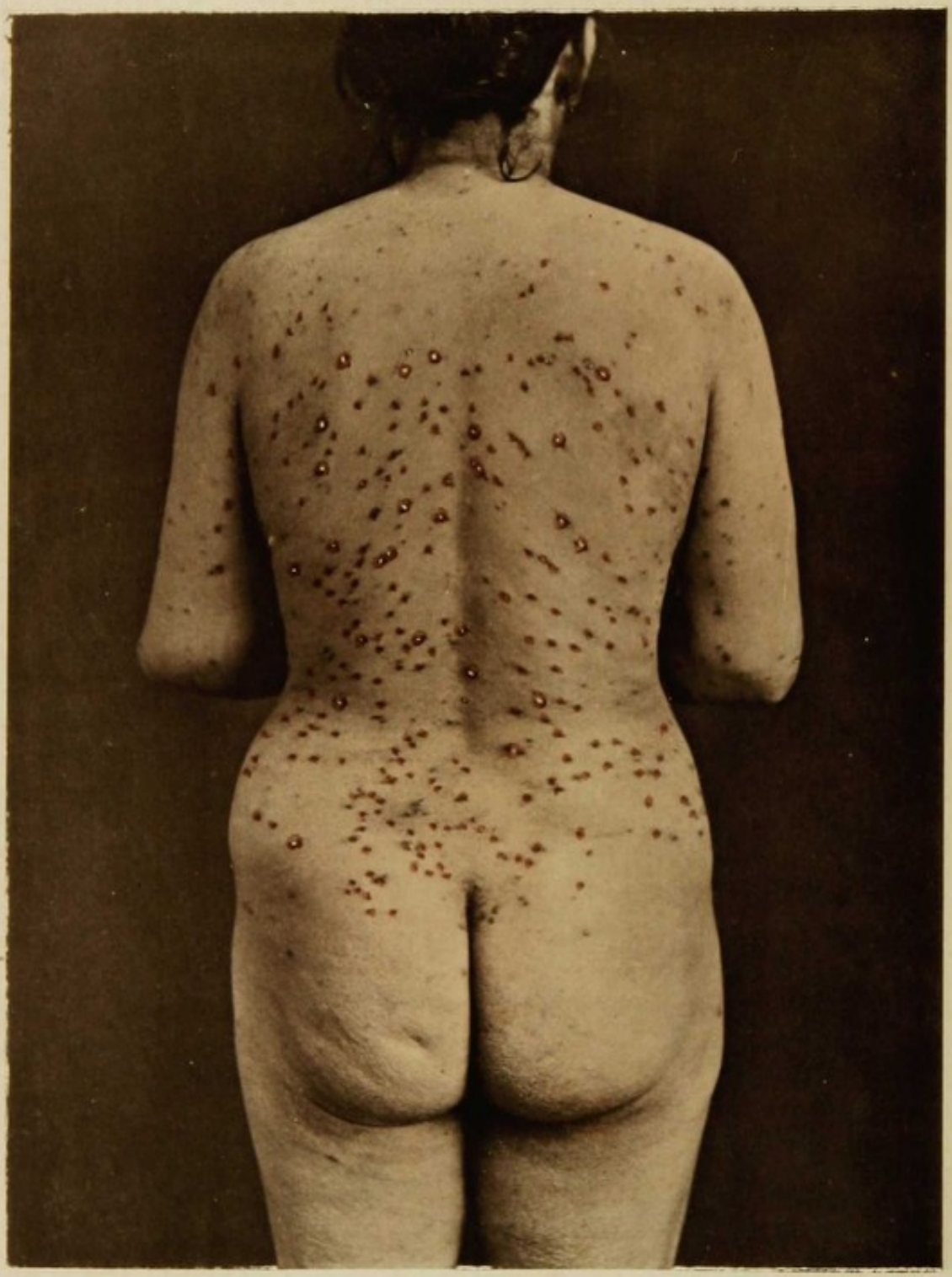
SYPHILODERMA PAPULOSUM CIRCINATUM.

PLATE IX.



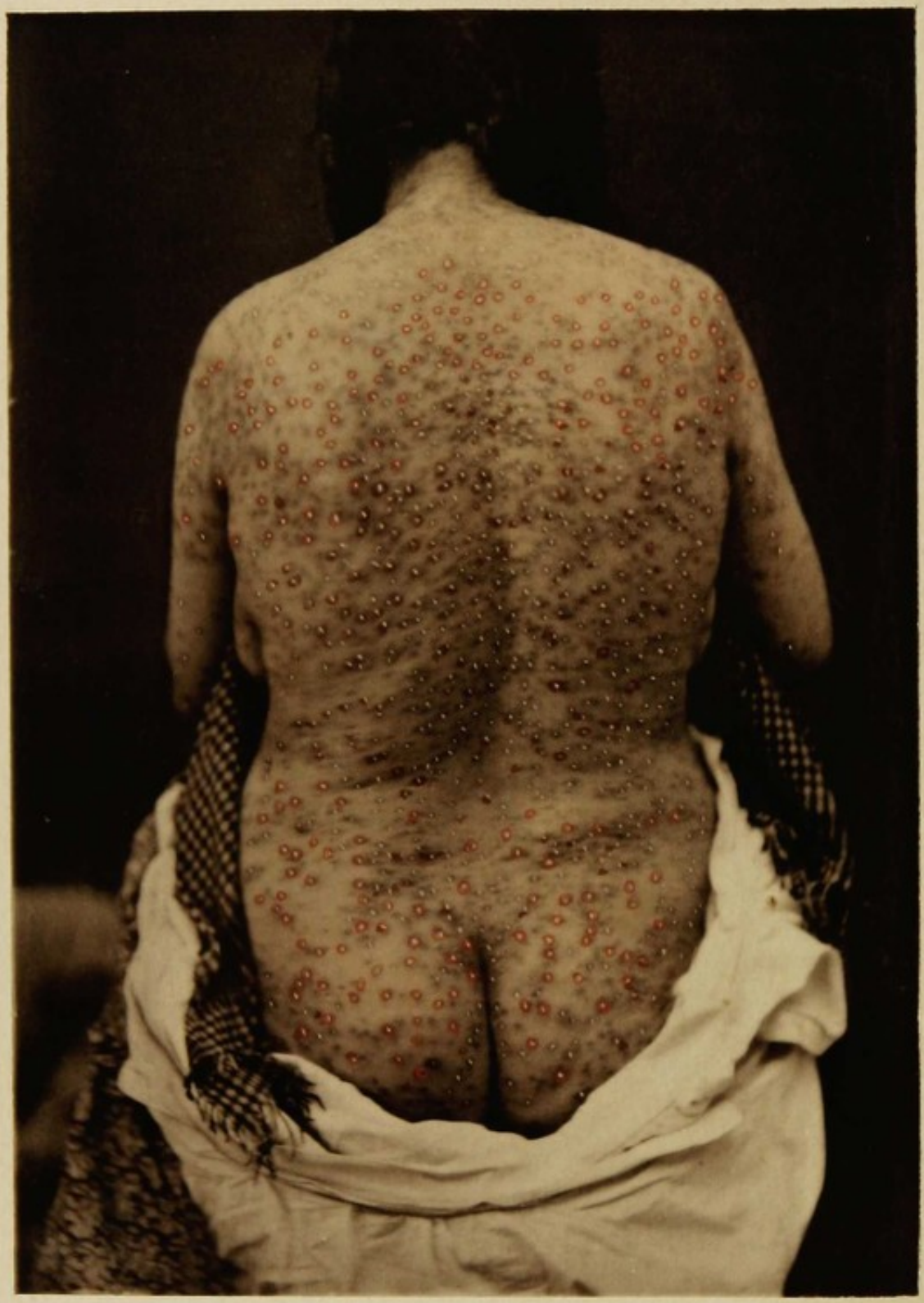
SYPHILODERMA PAPULO-SQUAMMOSUM.

PLATE X.



SYPHILODERMA PAPULO-PUSTULOSUM.

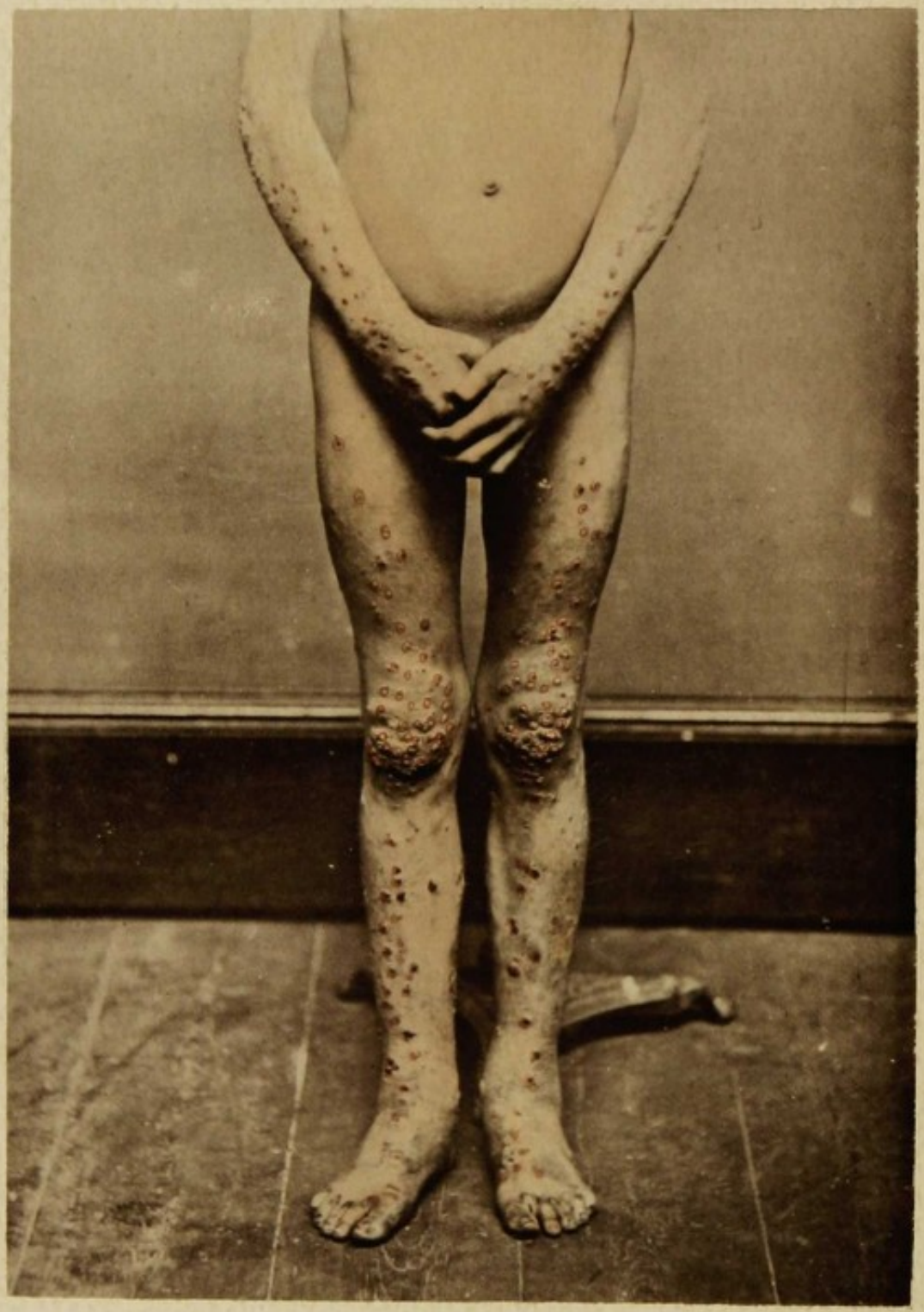
PLATE XI.



SYPHILODERMA PUSTULOSUM.

PLATE XII.

SYPHILODERMA PAPULOSUM ET PUSTULOSUM.
PLATE XIII.



SYPHILODERMA PUSTULOSUM.

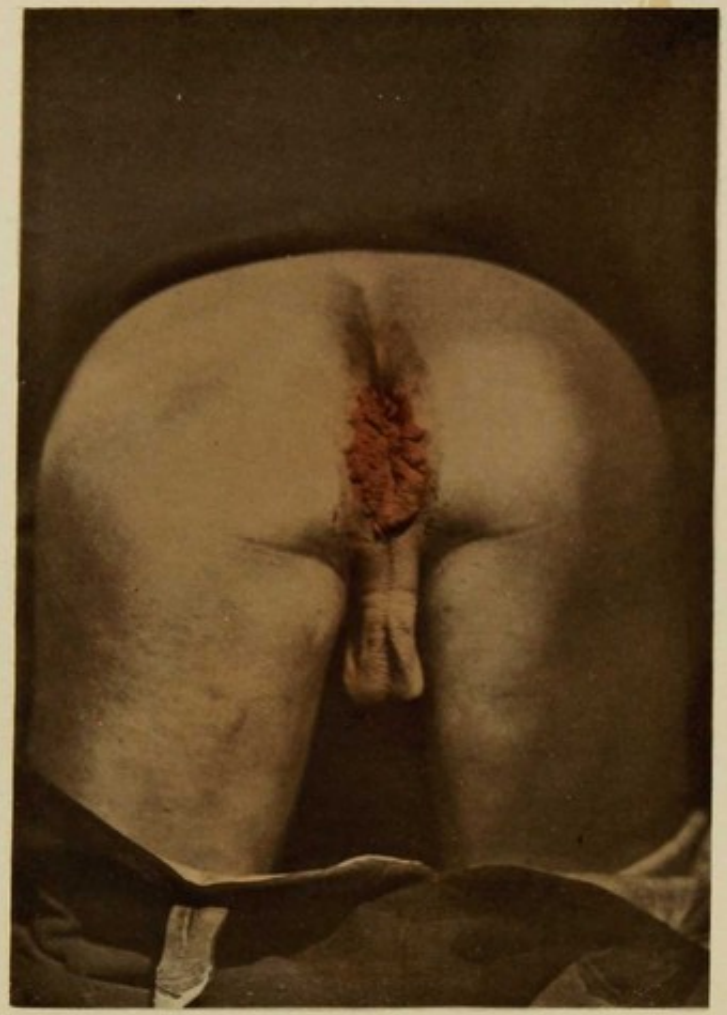
PLATE XIV.

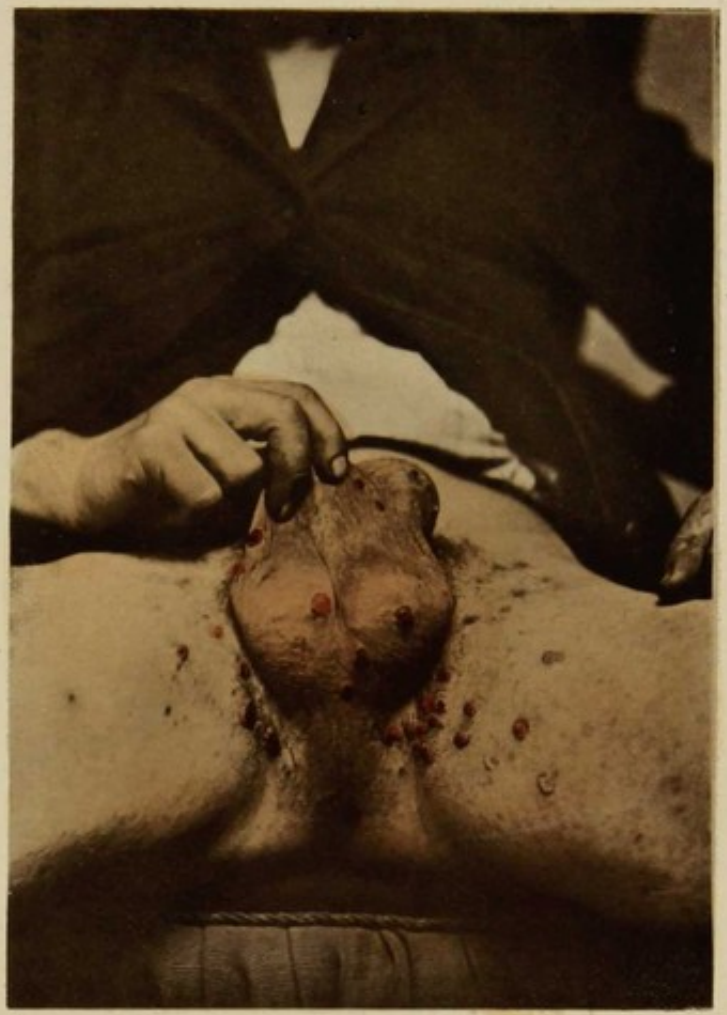
SYPHILODERMA PUSTULOSUM CORYMBIFORME.

PLATE XV.

ONYCHIA SYPHILITICA.

PLATE XVI.



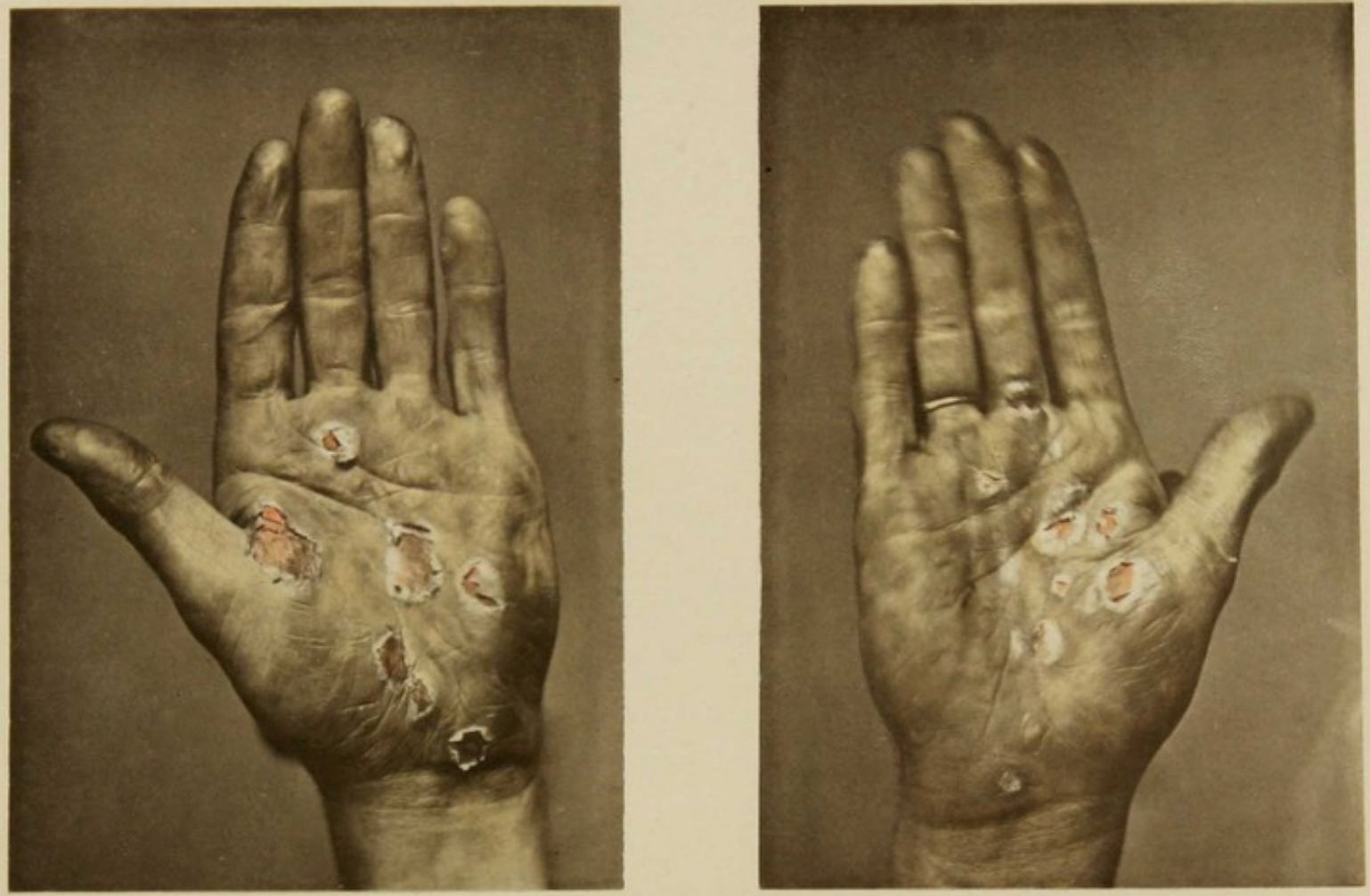


SYPHILODERMA PAPULOSUM HUMIDUM.

PLATE XVII.

SYPHILODEMRA PAPULO-SQUAMOSUM.

PLATE XVIII.



SYPHILODERMA PAPULO-SQUAMOSUM.

PLATE XIX.

HYDROA [PEMPHIGUS IRIS.]

(NON-SYPHILITIC.)

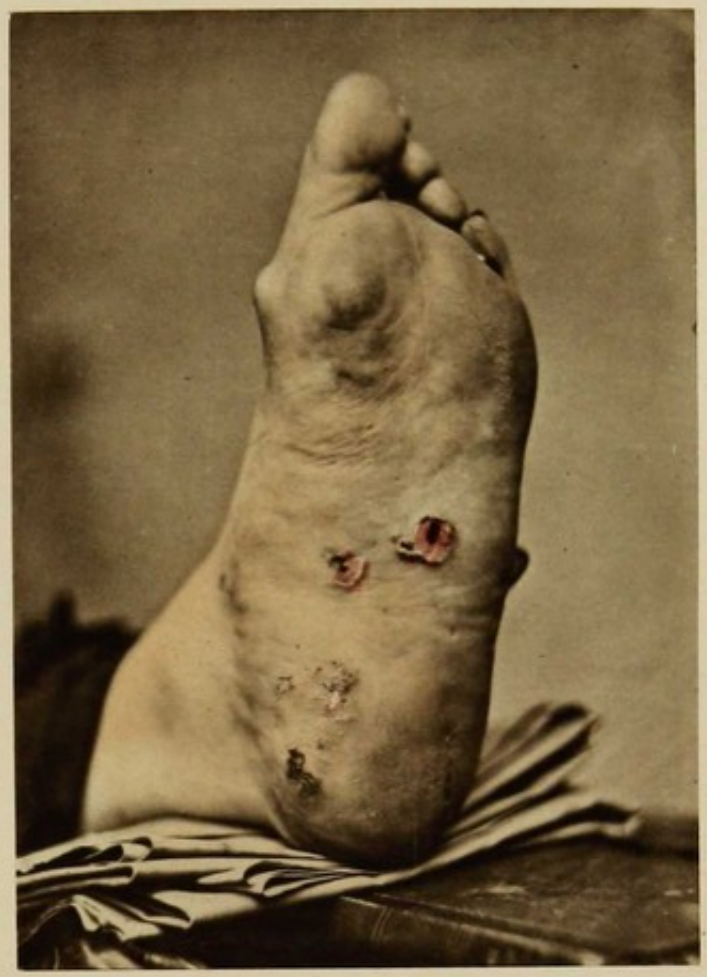
PLATE XX.

ECZEMA SQUAMOSUM.

(NON-SYPHILITIC.)

PLATE XXI.

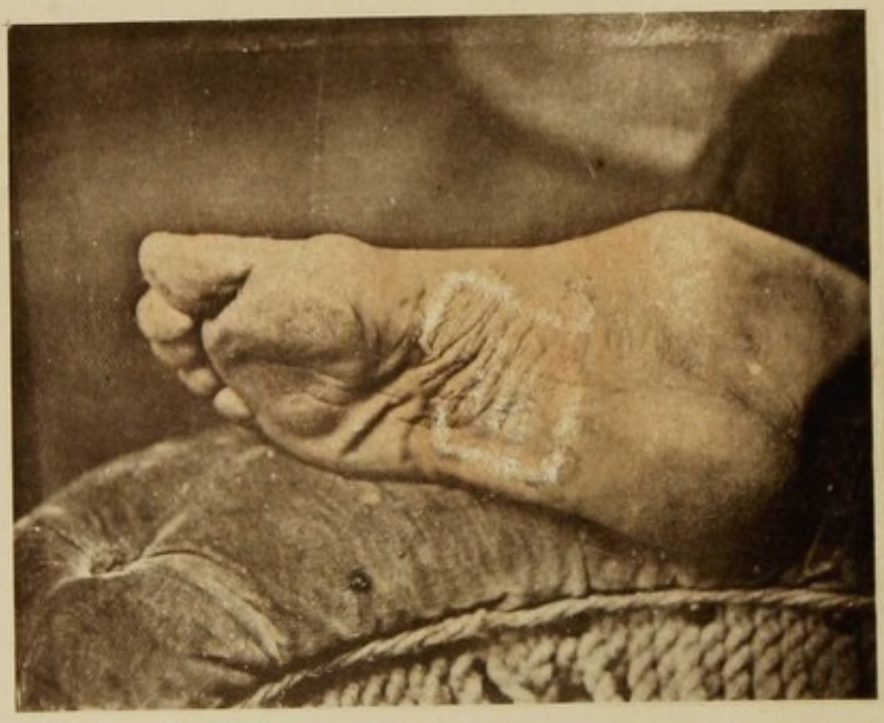
SYPHILODERMA SQUAMOSUM CIRCINATUM.



SYPHILODERMA TUBERCULOSUM ULCERATIVUM.

PLATE XXII.

SYPHILODERMA SQUAMOSUM GYRATUM.



SYPHILODERMA SQUAMOSUM CIRCINATUM.

PLATE XXIII.

SYPHILODERMA TUBERCULOSUM.

PLATE XXIV.

SYPHILODERMA TUBERCULOSUM.

PLATE XXV.

SYPHILODERMA TUBERCULOSUM.

SYPHILODERMA TUBERCULOSUM ULCERATIVUM.

PLATE XXVI.

SYPHILODERMA TUBERCULO-SQUAMOSUM.

SYPHILODERMA TUBERCULO-ULCERATIVUM.

PLATE XXVII.

SYPHILODERMA TUBERCULO-CRUSTACEUM.

SYPHILODERMA TUBERCULO-SQUAMOSUM.

PLATE XXVIII.

SYPHILODERMA TUBERCULOSUM SERPIGINOSUM.

SCROFULODERMA ULCERATIVUM.

PLATE XXIX.

SYPHILODERMA TUBERCULO-ULCERATIVUM.

PLATE XXX.

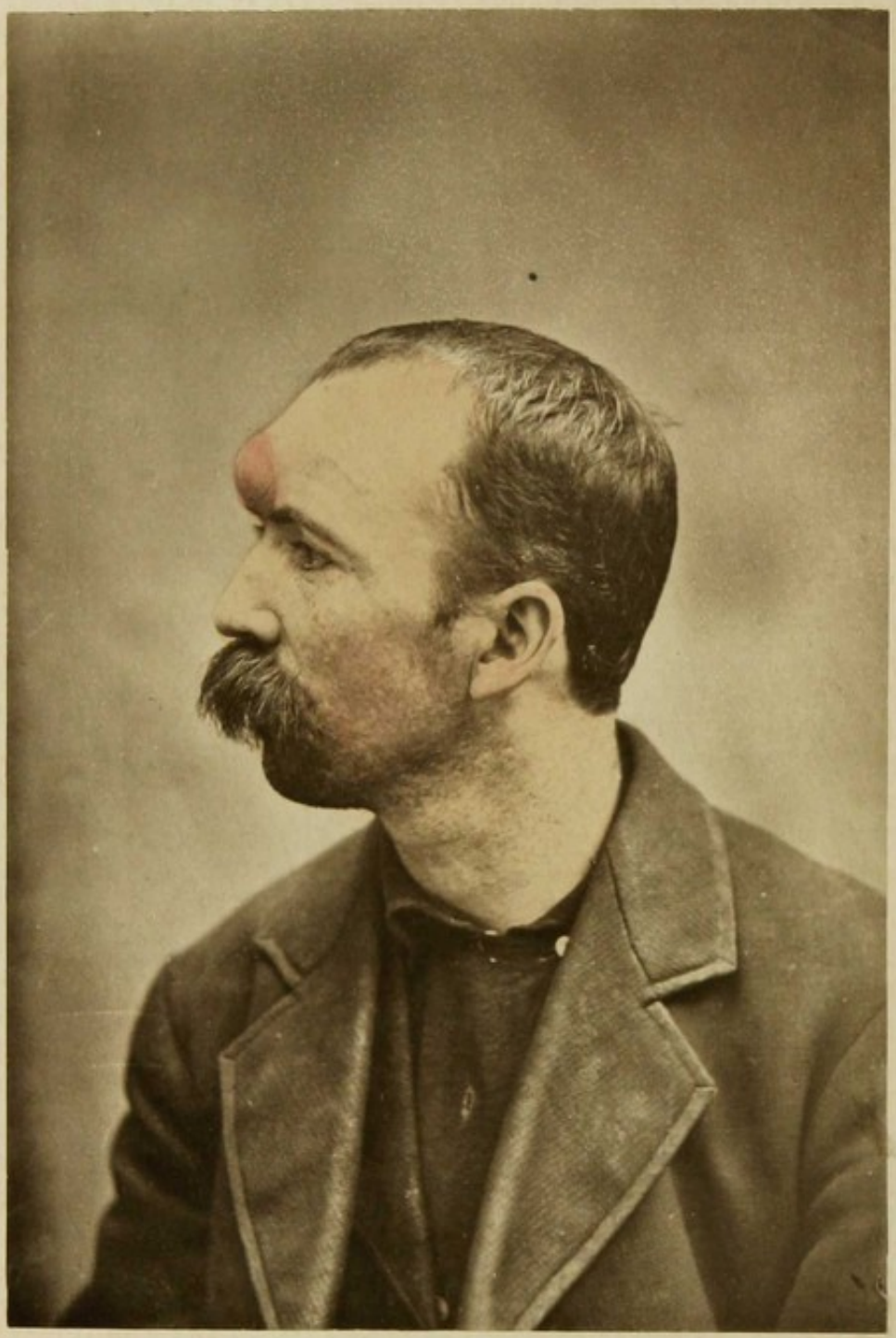
SYPHILODERMA PUSTULO-CRUSTACEUM.

PLATE XXXI.

SYPHILODERMA PUSTULO CRUSTACEUM.

SYPHILODERMA TUBERCULOSUM.

PLATE XXXII.



SYPHILODERMA CUMMATOSUM.

PLATE XXXIII.

SYPHILODERMA GUMMATOSUM.

PLATE XXXIV.

SYPHILODERMA GUMMATOSUM.

PLATE XXXV.

SYPHILODERMA GUMMATOSUM.

PLATE XXXVI.

SYPHILODERMA ULCERATIVUM.

PLATE XXXVII.

SYPHILODERMA ULCERATIVUM.

PLATE XXXVIII.

SYPHILODERMA ULCERATIVUM.

PLATE XXXVIII.

SYPHILODERMA ULCERATIVUM.

PLATE XXXIX.

SYPHILODERMA ULCERATIVUM.

PLATE XL.

SYPHILODERMA ULCERATIVUM PERFORANS.

PLATE XLI.

CHANCROID.

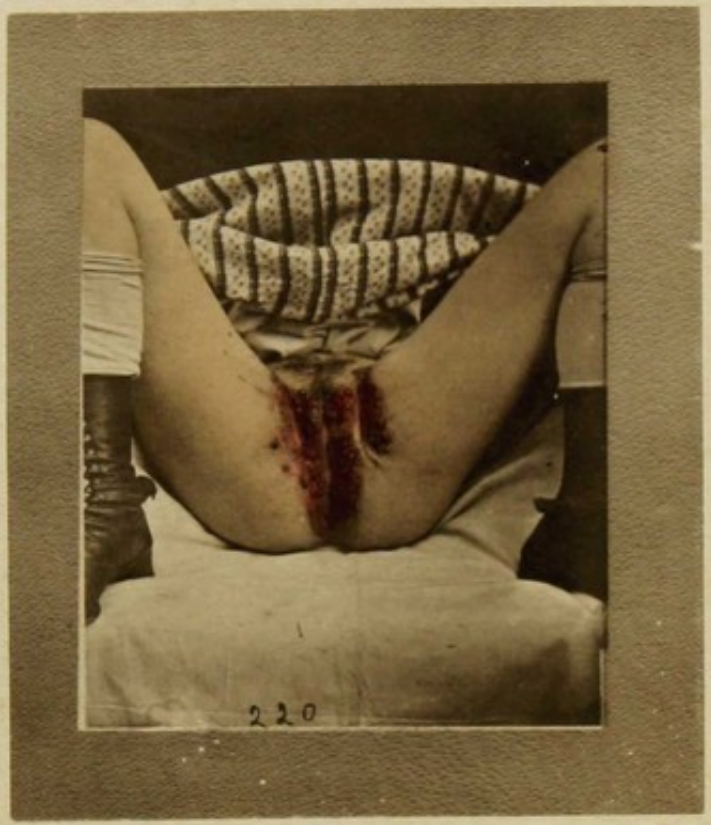
CHANCRE.

PLATE XLII.

CHANCRE.

PERIADENITIS.

PLATE XLIII.



CONDYLOMATA LATA.

CONDYLOMATA ACUMINATA.
(NON-SYPHILITIC.)

PLATE XLIV.

SYPHILIS HEREDITARIA.

PLATE XLV.

SYPHILIS HEREDITARIA.

PLATE XLVI.

SYPHILIS HEREDITARIA.

PLATE XLVII.

DACTYLITIS SYPHILITICA.

PLATE XLVIII.

CUTANEOUS SYPHILIS.

CHAPTER I.

INTRODUCTION.

The Prevalence of the Disease.—Former Investigations.—Progress during the last Hundred Years.—Our Indebtedness to the Past.

SYPHILIS is a disease of almost universal prevalence. It is met with at the present day in every clime and among every nation. It occurs in every rank of society, from the prince to the pauper. It attacks both the strong and the weak, spares neither the infant nor the greybeard, and, too often, the innocent as well as the vicious become the victims of its blighting influence. The physician encounters it in his practice, whatever may be the class of diseases to which its attention is devoted. Whether he regards it as an attractive study, or looks upon it as a loathsome pestilence, he is forced to meet it. His duty is to recognize it, and, with those means which are fortunately at his command, to destroy it.

The study of syphilis is but fairly begun. In the future, as in the past, the work must be carried on through successive generations, its utmost limit being far beyond the reach of our intellectual vision. How long syphilis has existed, and what was its origin, are questions of little practical importance. We know that for at least three centuries and a half it has prevailed in various portions of the civilized world, and that during this period the leading minds of the medical profession have devoted genius and energy to its study. By patient observation they have endeavored to trace its peculiar characters, and, with an ardent desire to rid mankind of the scourge, they have labored to perfect its treatment.

The success which has thus far been achieved—though as great, perhaps, as we could reasonably expect—is by no means all that might be desired. Our present knowledge of the nature of syphilis and its modes of propagation is far from complete. We cherish beliefs which, without doubt, are doomed to be uprooted and cast aside, and there are certainly many important facts which remain to be discovered. Though the age in which we live is one which will be marked by its rapid progress in scientific discovery, centuries may yet be required to solve the *questiones vexatæ* of this mysterious disease.

Our knowledge of syphilis is steadily increasing. In looking back upon the advances which have been made during the past hundred years—a period which includes the labors of

Hunter and Bell, of Ricord and Bassereau—we are forced to regard our present status with satisfaction, and enabled to discern an augury of future progress. It was a grand step when John Hunter introduced into the study of syphilis the practice of experimental inoculation, a practice which led to his discovery of the characteristic induration of the initial lesion. Another step was made when Benjamin Bell, following the lead of Balfour, demonstrated the independent nature of gonorrhœa, a labor which, though unappreciated in his day, has gradually led to the complete separation of these two affections. Within the past three decades additions have been made to our stock of knowledge, the value of which can scarcely be estimated at the present time, and an enumeration of the men whose energies have found ample scope in this domain of science would include many of the most gifted intellects of this age. Previous to the period mentioned, the study of syphilis was hampered by prevailing ignorance and superstition; it consisted largely in propounding absurd hypotheses and writing volumes in their defense. The treatment of most physicians consisted in pushing salivation by mercury to the extremest degree consistent with the life of the patient, or in the wholesale administration of guaiac and various other decoctions, until dropsical symptoms supervened. Nevertheless, in this period, lived and wrote Astruc, Boerhaave, and Van Swieten, men whose works command our admiration, and whose names shed a brilliance upon this page of the history of medicine.

When we think of how far we are in advance of those who treated syphilis in former centuries, we are apt to plume ourselves unduly upon our superior knowledge. But let us remember that for much of what we now know respecting the nature of syphilis we are indebted to men who had little knowledge to start with, and who groped in the dark for facts which are now as clear as day; whose pathway was illumined by no light of experience, and whose faltering steps oft diverged into by-ways of error and prejudice. While it may be pardonable to smile at their blunders, or to shudder at the cruel treatment imposed upon those whom they strove to benefit, let us not forget to accord them a tribute of gratitude for our indebtedness, and to think, and to speak of them with that reverence which is befitting the grandeur of their achievements.

CHAPTER II.

THE EXAMINATION OF PATIENTS.

Importance of studying the Entire Eruption.—A Proper Light.—Observation of the Lesions as a Basis of Diagnosis.—Liability to Error from a dependence upon the Patient's History.—Results of tentative Anti-syphilitic Treatment.—No Patient to be considered as above Suspicion.—Caution to be observed in asserting the Existence of Syphilis.

THE recognition of syphilis is the most important feature of dermatological diagnosis. An eczema, or a psoriasis, may be mistaken, the one for the other, and yet the treatment employed may prove eminently successful, in spite of the error which has been committed. Not so, however, with syphilis! In cases of this disease a correct diagnosis is absolutely essential to successful treatment; and the health and happiness of the patient will depend not so much upon the physician's thorough knowledge of drugs, as upon his skill in recognizing at the outset the nature of the disease.

Since the question as to the existence of syphilis in a patient presenting an obscure eruption may be such a serious one, it is highly essential that the patient be thoroughly examined, under the most favorable conditions. In many cases, a glance is all that is required to enable one to arrive instantaneously at a positive diagnosis. The faint rosy macules upon the abdomen, the red papules which form the classic *corona veneris* upon the brow, the scaling blotches of the palms, the crescentic or circular arrangement of a group of tubercles, or the peculiar form and crusting of ulcers, are lesions which speak more plainly than words.

In other cases, however, a careful examination of the whole body is requisite, and under no consideration should this be neglected. In private practice motives of delicacy often restrain the physician from making as complete an examination of the various portions of the body, especially in the case of females, as would be desirable. Women are often reluctant to disrobe and to expose themselves, and after showing their neck and arms will frequently strive to avoid a further examination, by stating that the eruption upon their back, or thighs, or elsewhere, is exactly the same as upon the parts which have been examined. In case of doubt, it is the duty of the physician to examine carefully the eruption upon all portions of the body; and even when it is not absolutely essential to the establishment of a correct diagnosis, it is advisable, on many accounts, for the physician to disregard the natural reluctance on the part of his patient, and to insist upon a complete survey of the eruption. Physicians in dispensary practice will find it advisable to make it a rule to examine every patient with syphilis in a nude or partially-stripped condition, as by this plan only can a thorough acquaintance with the syphilodermata be obtained. Furthermore, many non-syphilitic affections of the skin may, in this way, be discovered, which will serve to increase his knowledge of cutaneous disease. A good light is always essential to the thorough

inspection of every skin disease, and when the diagnosis, as is frequently the case in syphilitic eruptions, is based in part upon the peculiar hue of the lesions themselves or the stains which they have left, the importance of a proper light is evident. In the evening, under artificial illumination, an eruption usually presents an appearance quite different from that which is seen in the daylight, and unless one has had considerable experience in the examination of color by artificial light, he should withhold his diagnosis, in a case of suspected syphilis, until he has had an opportunity of examining the eruption in the daytime. Even by daylight there is generally but one part of the room where the eruption can be observed to advantage, and that is by the window.

And now, having insisted upon the patient showing the whole extent of the eruption, and having studied it in a proper light, the diagnosis should be made at once, provided the physician has an amount of skill and experience which will enable him to do so. It is a grand mistake to begin the examination of the case by asking the patient questions. It is far better to study the eruption in silence, to find out, if possible, what the eruption is, and not what the character or habits of the patient would lead one to imagine that it might be. Catechizing the patient at the outset may assist one in arriving at a correct diagnosis in some cases, but it will tend to mislead in many others.

A diagnosis founded on the statements of the patient can never be a positive diagnosis. It is a guess, a lucky hit, an opinion based upon the chances in the case. On the other hand, when the diagnosis is based upon the clinical features of the eruption, the elements of error are reduced to a minimum, and when the diagnostician does not outrun his experience the diagnosis is almost as certain as a mathematical demonstration.

I do not share in the common opinion that the statements of syphilitic patients are untrustworthy by reason of a desire on their part to deceive, or to withhold the truth. Their statements are untrustworthy because the patients, in the majority of cases, are ignorant of the fact that they have contracted syphilis, even when they know that they have been exposed. Some physicians declare that a pathognomonic sign of syphilis is the fact that the patients will lie. This is witty but by no means true. Patients affected with syphilis have nothing to gain by lying to their physician, and, in my experience, they evince little disposition to do so. Their notorious misstatements are the result of ignorance rather than dishonesty. In hospital wards, a large proportion, if not the majority of the patients suffering from syphilis, will give no satisfactory history whatever of a primary lesion, and the early manifestations of the disease. This is particularly apt to be the case in the female wards. On the contrary, another class of patients who have had gonorrhœa, chancroid, &c., in their youth, and suffered subsequently from a guilty conscience, will freely confess to having had "the disease," and will often lead the unwary physician to an erroneous diagnosis, by ascribing their present (non-syphilitic) eruption to the vices of their earlier days. They mean to be truthful, but the fact is, that the statement of a syphilitic patient, no matter how intelligent he may be, is, in the majority of cases, worth little or nothing as a basis for diagnosis.

CUTANEOUS SYPHILIS.

The initial lesion of syphilis is often disregarded by the patient, and in females it is often overlooked by the physician. The early symptoms are often slight—are considered by the patient as of no account, especially as they produce no discomfort. The sore throat is regarded as a result of cold, and the arthritic pains are thought to be of similar origin, or perhaps a touch of rheumatism. The patient goes untreated, the usual impairment of the health and strength passes away, and in six months or a year, the patient has not the slightest recollection of any trouble whatever, far less a suspicion of having had syphilis. Now, when the poison has perhaps lain dormant in the system for years, and suddenly manifests itself in the form of grouped tubercles, crusted pustules, or serpiginous ulcers, what chance is there of obtaining any history of syphilis? And this is a fair sample of many cases of late syphilis occurring in intelligent patients. In those devoid of education and refinement, there is greater probability of the early symptoms being overlooked or mistaken, and more likelihood of the circumstances being forgotten in later years. In dispensary practice, I frequently meet with patients whom I remember to have treated for syphilis three or four years before, and yet they are unable to give any definite history of anything except the fact of their having been previously treated for some venereal disease. I have known an intelligent-looking patient to come to the dispensary on account of uncomfortable lumps in the groin, and to assert that he had had no private disease whatever, and to assert this honestly, in spite of the fact that I was staring at a macular eruption on his abdomen, and conscious that I would find, as I did in that case, a typical, indurated chancre upon his penis. How much would such a man's history be worth twenty years after infection?

I would not be understood as saying aught against the custom of taking full histories of cases. Indeed, it would be far more conducive to the acquisition of sound medical knowledge, if physicians were in the habit of studying their cases more and their books less. No case is worth treating which is not worth the time and trouble involved in making a brief record of its peculiar features, and a great portion of one's experience is of comparatively little value, or even apt to be misleading, if facts have not been carefully recorded.

The utmost care is requisite in eliciting the history of a patient with suspected syphilis, for in scarcely any other disease will the physician have to encounter so many inducements to substitute inference for fact. A preconceived notion on the part of either physician or patient that syphilis does or does not exist, is an element of error which must be carefully avoided. Two physicians holding opposite views as to the syphilitic nature of an eruption may question a patient, and each elicit a satisfactory history in support of his own belief. This is by no means an unusual occurrence. On the other hand, patients often labor under the impression, as has been stated, that they have had syphilis or "the disease," when, in fact, they have merely suffered from local venereal ulcers. The patient of average intelligence may state that so many years ago he had a sore. If asked whether it was hard, he naturally concludes and asserts that it was, not having the slightest recollection upon this point. If questioned as to sore throat, pains in the joints, etc., he will usually be able to call to mind some simple laryngitis or rheumatic attacks which he has had, and a pretty clear history

seems to have been made out. Now I will repeat that the patient rarely deceives intentionally; and while there are few who would gladly conceal from the physician the fact of previous debauchery, there are also some who seem to take pride in having gone through the list of venereal affections, and had each in its severest form. They gloat over their shame as old soldiers glory in their scars. Again, the patient may lead the physician astray by a failure of memory or a non-expert use of technical terms; but most frequently of all, the physician deceives himself by asking leading questions, with a view to the establishment of a certain diagnosis. By a species of one-sided cross examination, a stupid patient may frequently be made to give a history either of previous infection or of exemption from syphilis; and even in the case of intelligent patients, the biased examiner may make what is merely possible appear as though it were highly probable. But the physician should not examine a case like an advocate in the presence of the jury. In seeking to elicit the simple truth he should put his questions carefully, and judge the value of the answers impartially. Moreover, when the fact has been clearly established, that the patient has, at some previous time, been infected by the poison of syphilis, it should not be hastily assumed that the present eruption is therefore syphilitic in its character, for a syphilitic person may present an eruption which has nothing whatever to do with syphilis. In illustration of this point, I can recall a number of syphilized cases who have come to me with a chromophytosis (*Tinea versicolor*) for which they had long been taking anti-syphilitic prescriptions, usually upon their own responsibility, though, in some cases, by the advice of the physician who had treated them. In a doubtful eruption, however, a clear history of syphilis renders the diagnosis sufficiently certain to justify the tentative employment of anti-syphilitic measures. But here another element of error is met with. The disappearance of a suspicious eruption under anti-syphilitic treatment is by no means an absolute proof of its syphilitic nature, as is frequently imagined to be the case. The eruption may tend to run an acute course, and hence, may disappear during the treatment, though not as a direct consequence. On the other hand, mercury and iodide of potassium are remedies which very often produce a marked improvement, if not a cure, in many chronic, non-specific skin affections. I have seen the symptoms in a case of macular leprosy undergo a decided amelioration as a result of anti-syphilitic treatment. Furthermore, there are some cases of syphilis in which anti-syphilitic remedies act very slowly, although it must be granted that there are few remedies in the vast domain of therapeutics which are able to produce such surprisingly brilliant and gratifying results as are seen to follow the administration of mercury and the compounds of iodine in the great majority of cases of syphilis. Mercury, then, must not be considered to be in every case a "touch-stone" of diagnosis.

It is evident, from the foregoing, that the only safe basis for a diagnosis of cutaneous syphilis is the appearance of the eruption. A moderate amount of experience will enable one to recognize syphilis of the skin by a glance at the characteristics which are presented in most instances, and though cases occur now and then to baffle the most experienced diagnostician, it should be the aim of every physician who deals with syphilis, to cultivate his powers of

observation, and to acquire this faculty of recognizing its objective symptoms without seeking the aid of the patient. Indeed, the inability to recognize the characteristic features of syphilis, which prevails to an undesirable extent throughout the profession, is due, mainly, to the prevalent custom of relying largely upon the statement of the patient, and upon the result of a tentative treatment.

A word, now, as to necessity and the danger of suspecting syphilis in all cases. In every case of skin disease, in which the diagnosis is not apparent after a thorough examination of the objective symptoms, and a careful inquiry into the history of the case, the possibility of the eruption being due to syphilis must never be forgotten. It matters not who the patient may be, or what position in society he or she may occupy. No one is exempt from syphilitic infection; and, when we consider in how many innocent ways the disease may be contracted, it may be added that no one is above suspicion. Syphilis is not necessarily a venereal disease, and the existence of a syphilitic eruption is by no means a proof of unchastity. The disease may be contracted innocently by some whose immoral habits would instantly lead a physician to regard the infection as the result of impure intercourse, while, on the other hand, it may occur as the result of a single false step in patients whose reputation in the community is such as to raise them almost above suspicion. Serious errors in diagnosis have been repeatedly made in just such cases. The first duty of the physician is to decide whether the patient has contracted the disease or not. The manner in which it has been contracted is a secondary consideration. While in cases of doubtful nature the physician should be ever on the alert, and never allow himself to be blinded by preconceived notions of the patient's correct habits, he should not fall into the opposite and common error of suspecting every doubtful case to be of syphilitic nature, and strengthening his diagnosis by the fact that the patient has not led a virtuous life, and therefore may have contracted the disease. As in a court of justice, the person accused is always to be considered innocent until his guilt is proven, so, in medical practice, every eruption of doubtful nature should be considered as non-syphilitic until good grounds are discovered for a contrary belief. It is no disgrace to the physician to fail in the recognition of syphilis in a large number of cases in which the characteristic features are obscure or absent, but it is unfortunate, and even somewhat disgraceful for him to declare that an eruption is syphilitic, and to be forced, by the results of treatment or further observation of the case, to retract this opinion. In private practice, such an error may result in untold injury to the patient, and the caution which is so requisite in one case should be exercised by the physician in every case.

CHAPTER III.

THE STAGES AND COURSE OF SYPHILIS.

The Resemblance of Syphilis to the Acute Exanthemata.—Its four Chronological Divisions.—Signification of the terms Secondary and Tertiary, as applied to Stages of Syphilis.—Division of Disease into Hereditary and Acquired Forms.—Course of Acquired Syphilis.

SYPHILIS may be conveniently and justly regarded as a chronic exanthematous affection, bearing a strong resemblance, in many respects, to the acute eruptive fevers. Like the latter, it possesses a specific contagion and runs a definite, though a prolonged course. It has its stages of incubation, invasion and efflorescence, and its symptoms are as well marked and peculiar as those of small-pox, measles, or scarlet fever. The stage of incubation includes the period which elapses between the entrance of the virus into the system, and the development at this point of the first evidence of the disease, viz.: the chancre. The stage of invasion or outbreak, or, as it is commonly called, the period of primary syphilis, includes the time during which the chancre or initial lesion develops, and a characteristic swelling of the glands takes place. Then, with the sudden appearance of a specific exanthem accompanied by a varying amount of malaise or fever, begins the stage of efflorescence, or the period of secondary syphilis. After this, the disease in many cases is at an end. The activity of the poison in the blood has ceased, or at least it has subsided, and thus far the resemblance between syphilis and one of the acute exanthemata is so striking, save in respect to the duration of the stages, that one could scarcely hesitate to class them in the same category.

But, unlike the acute eruptive fevers, syphilis does not always cease at this point, notwithstanding that its regular course is run and its force apparently spent. A tendency to the development of peculiar tumors in the various tissues and organs of the body is observed to follow in a large proportion of cases, and the disease, when not appropriately treated, is very apt to be transmitted to succeeding generations. According to some syphilographers, this period of tertiary syphilis is not, properly speaking, a stage of the disease. The so-called tertiary lesions are regarded by them in the light of mere *sequelæ* of syphilis—lesions of a local nature and amenable therefore to local treatment. Without devoting space to argument upon this point, or laying stress upon any particular names employed to denote its stages, it may be well to emphasize by repetition the four chronological divisions of syphilis which have been mentioned in the preceding:

1. *Period of Incubation.*—From the absorption of the virus to the appearance of the chancre.

2. *Period of Invasion*, or "*Second Incubation.*" *Primary Syphilis.*—From the development of the chancre to the outbreak of constitutional symptoms.
3. *Period of Efflorescence. Secondary Syphilis.*—From the appearance to the disappearance of symmetrical eruptions, and other indications of blood-poisoning.
4. *Period of Decline. Tertiary Syphilis.*—From the cessation of symmetrical manifestations *ad infinitum.*

The terms "primary," secondary" and "tertiary," as applied to the stages of syphilis, are too well grounded in common use to allow of their being discarded. And yet, it must be confessed that to the minds of most physicians, they convey but an ill-defined notion of the sequence of phenomena which characterize the disease. The term primary syphilis is generally well understood as referring to the initial lesion and its coexistent adenopathy; but the boundary line between secondary and tertiary disease is so indistinct that many have sought to abolish the terms. Ricord classed as secondary symptoms certain affections of the skin, mucous membrane, eyes and lymphatic ganglia, while under the head of tertiary symptoms a deeper-seated set of affections involving the subcutaneous or submucous tissues, the testicles, the fibrous and osseous tissues and the viscera. From an anatomical point of view this division is unnecessary, while on chronological grounds, it may be condemned as being too arbitrary and tending to induce an erroneous conception of the natural course of syphilis. If it is necessary to speak at all of secondary or tertiary disease (and it surely seems convenient to do so), the line of demarcation should be drawn at the time when, according to Hutchinson, syphilis ceases to be a blood disease; when general and symmetrical manifestations no longer appear, but are supplanted by certain localized symptoms affecting various organs of the body. Some writers have seen fit to establish an intermediate stage between the secondary and tertiary stages, as well as a subsequent or quarternary stage. These refined divisions, though not without a natural basis, are of comparatively little practical value, and in general are disregarded.

In order to pursue a satisfactory study of the phenomena of syphilis it is necessary to make a grand division of the disease into two classes, viz.: hereditary and acquired syphilis. These two forms usually present a marked contrast as regards the age of the patients, the character of the cutaneous manifestations, and the course and termination of the disease. The inherited form will not concern us at present, but before describing in detail the cutaneous lesions resulting from acquired syphilis, it will be well to take a brief survey of the course which, under ordinary circumstances, this form of the disease is observed to run.

Acquired syphilis results from the inoculation of a specific virus upon a non-syphilitic person. This inoculation may be intentional, as in the case of experimental transmission of the disease, or it may be accidental, as is commonly the case, and occur through impure sexual intercourse or in some perfectly innocent manner. Not alone the secretion from the infecting sore or chancre is capable of transmitting the disease, but also the secretion from various subsequent lesions, as well as the blood of the affected person throughout the period

in which the disease provokes symmetrical manifestations. To insure the successful inoculation of syphilitic virus, whatever may be the vehicle by which it is transmitted, two things are essential, viz.: a wound or abrasion of the integument through which the virus may enter the system and a complete freedom from the disease on the part of the person inoculated. Instances of syphilitic re-infection have been recorded, but as a rule the disease is only contracted once in a lifetime. In every case of re-infection the disease has undoubtedly run its course, aided perhaps by appropriate treatment, and at the time of the second infection the patient has been practically non-syphilitic.

At the point where the syphilitic virus enters the system there develops inevitably a lesion which is commonly known as the "chancre," or the initial lesion of syphilis. This may be a dry or moist papule, a small indurated tumor or an ulcer with more or less induration of the base. Usually its characteristics are so pronounced that it is recognizable without difficulty as the initial lesion or first indication of syphilis. It may, however, lack all characteristic features and pass unnoticed, or at least unsuspected. In spite of the marked differences which exist between the typical "chancre" and the typical "chancroid" (the soft or non-infecting chancre of some writers), the reader must not imagine that the initial lesion of syphilis can always be recognized. A study of the table prepared for the purpose of showing the points of differential diagnosis, and which is to be found in nearly every text-book, will aid the student or physician in a large majority of cases, and experience in the examination of cases will give him a far greater degree of confidence. But now and then venereal sores are met with which defy the most experienced examiner to pronounce a positive opinion as to their nature, and in this particular field of diagnosis I have yet to meet with an expert capable of giving an infallible opinion in every case. The initial lesion may be observed not only upon the external genitals, but upon various other parts of the body, and in some instances it has been found to exist in the urethra, cervix uteri, and certain other parts where direct observation is impossible.

The chancre, unlike the chancroid or simple contagious ulcer, so often met with upon the genitals, does not develop immediately after the absorption of the virus, but only when a certain period of time has elapsed after the inoculation. This constitutes the period of incubation. The pathological processes which take place throughout the economy during this time are as yet undetermined. Indeed, the chancre is regarded by some as a local lesion from which the system subsequently derives its infection, while others regard it as a sign that constitutional infection has already taken place. The period of incubation usually lasts from two to three weeks. In exceptional cases which have been reported by various writers, eight or ten weeks have elapsed between the impure coitus and the development of the chancre.

Deferring a description of this interesting and important lesion, attention is called to the period of invasion or stage of latent syphilis, which extends from the development of the initial lesion to the outbreak of constitutional symptoms. This is the "second

period of incubation" of some writers. This stage lasts usually about six weeks, although it varies considerably in different cases, and is apt to be prolonged when mercury is administered during the interval. The chancre usually persists during this stage, and may be readily detected in many cases after general symptoms have appeared. At least the characteristic induration of the chancre persists, although the superficial ulceration or erosion which was at present at the outset has generally long since healed. During this period no symptoms, other than local, are experienced by the patient. The lymphatic glands nearest to the initial lesion become somewhat enlarged and painlessly indurated shortly after the development of the chancre, and toward the close of the period a general adenopathy may be detected in most cases if carefully sought for. The post cervical and epitrochlear glands, in particular, can often be felt almost as distinctly as those in the neighborhood of the chancre.

About this time the patient becomes suddenly affected in a peculiar manner, and though he himself is often unconscious of the nature of his symptoms, the physician in attendance, especially if he has treated the initial lesion and is on the lookout for subsequent phenomena, will at once detect their meaning. An unusually severe headache lasting for several days will usually be complained of, and accompanying this, a feeling of lassitude with slight or sometimes severe pains in the larger joints. A moderate rise of temperature may be noted in a large proportion of cases, constituting what has been termed the syphilitic fever, or the eruptive fever of syphilis. The severity of the above-mentioned symptoms usually subsides in a few days or weeks, during which time an exanthematic eruption will have made its appearance upon the trunk and extremities, and a peculiar redness of the fauces will be discovered if sought for, although the patient at this time rarely complains of sore throat. During the next few weeks or months, the intense headache and febrile reaction having subsided, other symptoms which are commonly present will give the patient more or less trouble. The eruption gradually develops into a well-marked erythematous or papular syphilide, or possibly into a commingling of both; the arthritic pains are most noticeable in the joints of the shoulders, elbows and knees, and are felt especially towards evening. In the morning when the patient gets out of bed a sensation of stiffness is present, which disappears after a little exercise. The throat may feel sore and give the patient some pain in swallowing. The course of the disease from this time on is so varied in different cases and so apt to be modified by treatment that no typical course can be sketched. But during the first six months, or perhaps the first year, if the patient is not properly treated, there are certain symptoms which are present in a large proportion of cases. A tendency to headache, languor and dull arthritic pains sometimes felt both by day and at night, a falling or thinning of the hair, mucous patches on the lips, tongue and throat, and sometimes about the anus and genitals, and a succession of macular, papular or pustular eruptions, disseminated over the greater portion of the body, are those most frequently met with. The early secondary symptoms of the disease are now usually at an end, and in the large majority of cases the patient

at this time looks, acts and feels well. An interval of freedom from specific symptoms now ensues as a rule, and in many cases, especially those which have been appropriately treated, no further indications of the disease may appear for several years. Indeed the patient is often exempt for the remainder of his life. On the other hand, this interval may be broken by relapses of the oral symptoms, by slight, recurring eruptions, or by affections of the eyes or the testicles.

During the second year of the disease, sometimes earlier and frequently much later, a series of lesions often occur which are commonly regarded as tertiary symptoms of the disease. They differ in many respects from the early lesions, being more deeply seated and confined to limited regions of the body.

In malignant cases the later or tertiary symptoms of the disease may ensue without any interval of repose whatever, or they may even develop coincidently with the secondary lesions.

This hasty sketch of the course of acquired syphilis must not be looked upon as the type of the course which the disease runs, for syphilis runs no typical course. Its variability in different cases is so marked a feature of the disease that it is almost impossible to think of a typical case of syphilis as we do of a typical case of measles.

There is a marked variability in the severity of syphilis in different quarters of the globe. This has been ascribed to climatic influences, intercourse between different races, immunity of certain peoples by virtue of an inherited taint, &c. Be the cause what it may, there is a similar variability in the severity of the disease as it occurs among individuals, and of this no satisfactory explanation has been given. While one contracts the disease and is scarcely incommoded by it, another in equally good health and under apparently similar circumstances is totally unfitted for the discharge of his ordinary duties. While in one the disease runs a mild and rapid course even when no systematic treatment is pursued, in the other the utmost skill of the physician is taxed to hold in check the ravaging tendencies of the subtle poison. This extreme variation in the course of the disease is a feature of practical importance, and one which should be borne in mind by every physician who would judge accurately of the effect of his remedial agents.

CHAPTER IV.

GENERAL CHARACTERS OF SYPHILITIC ERUPTIONS.

Peculiarities which are Indescribable.—Favorite Location of Various Eruptions.—Early Eruptions Disseminate, Later Ones Aggregated.—Configuration.—Polymorphism.—Color.—Pigmentation.—Peculiarities of Scales, Crusts, Ulcers and Cicatrices.—Absence of Subjective Sensations.—Eruptions Modified by Syphilis.

HAVING asserted that cutaneous syphilis can be recognized in the majority of instances by a mere inspection of the lesions of the skin, the reader will naturally infer that the syphilodermata present certain peculiarities which are not present in ordinary non-syphilitic affections. Such is the fact. Some of these peculiarities are well marked, and a mere mention of them ought to enable the reader to trace a positive diagnosis in a large proportion of cases. There are other peculiarities of syphilitic eruptions which are not so well marked and which defy description. We recognize acquaintances even at a distance by certain characteristics, such as form, features, gait, tone of voice, &c., but no powers of description which we may possess will alone suffice to teach others to recognize them as readily. In like manner the experienced observer is able to recognize an eruption as being syphilitic, and yet he may be utterly unable to tell how it is done. The more striking features of cutaneous syphilis can be satisfactorily outlined, but skill in diagnosis reaches far beyond the set rules for the recognition of syphilis which are to be found in the books. In a typical syphilide these rules are applicable, though seldom required. The difficulty in diagnosis invariably occurs in cases which are not typical, in which the ordinary rules do not apply, and in which experience alone will prove of service.

In order to discover some features which characterize nearly all syphilitic eruptions, attention may be advantageously directed to the following points, viz. : localization and configuration of the lesions, polymorphism, color, pigmentation, the secondary phenomena, such as scaling, crusting, ulceration and formation of cicatrices, and finally to the notable absence of subjective sensations.

Syphilitic eruptions may occur on any portion of the integument. There are certain parts, however, which are most likely to be affected by the various forms of cutaneous syphilis. The macules which appear coincidently with the first outbreak of the disease being simply hyperæmic in character, are most readily seen upon portions of the body where the skin is thin and delicate, *e. g.*, the inner and flexor aspects of the arms, the sides of the chest, the loins, abdomen and inner aspect of the thighs. The papules which occur in the vast majority of cases of recent syphilis are often especially noticeable on the forehead, back of the neck, palms and soles, while they are likewise to be found

upon those portions mentioned above as being the favorite seat of macules. The early pustular form of syphilis is disseminated over the trunk very much after the manner of the papular syphilide, but it is far more apt to extend down upon the thighs and legs. Very frequently pustules are seen upon the glans and sheath of the penis. The moist papules which are seen early in the course of the disease are almost invariably seated on the lips, around the anus, or upon the genitals. The later tubercular eruptions are very apt to appear upon the central portion of the forehead, the portion of the cheek adjoining the nose, the back of the neck and shoulders and other parts of the trunk. Large pustular and rupial lesions are common upon the face and extremities, while the most severe forms of cutaneous syphilis, viz., the deeply-ulcerating, gummatous patches are especially prone to locate themselves near the joints. The early eruptions of syphilis—those occurring during the first six months—are disseminated over the whole body. Nearly every square inch of surface is affected in some cases, but it is to be noted carefully that the individual lesions at this time show no tendency to coalesce and form confluent patches. The eruption, therefore, can never be said to be universal in the sense of occupying the entire skin, a condition which we find in certain rare cases of eczema, in lichen *ruber*, and in dermatitis *exfoliativa*. After the first six months, or toward the close of the first year, the eruptions which occur in the course of the disease may be still disseminate and symmetrical, but it is easy to notice a tendency of the individual lesions to appear aggregated or in distinct groups. The late syphilides are no longer disseminate in character, are rarely symmetrical, but on the contrary present themselves in the form of circumscribed lesions, or groups of lesions, occupying but a limited portion of the integument.

The configuration of syphilitic eruptions is quite characteristic. The early disseminate ones bear a strong resemblance to those of the acute eruptive fevers, extending as they usually do over the greater portion of the body. Indeed it would be difficult to confound an early, well-marked syphilide with any affection of the skin save one of the acute exanthemata. I have never known syphilis to be thus confounded, but in my service at the New York Dispensary I have more than once had cases of measles and varioloid stripped for examination, and found that physicians present, as well as students, not expecting to see anything but chronic cases of skin disease, would fail to recognize the true nature of these acute eruptions. The later forms of cutaneous syphilis may be instantly recognized in a large proportion of cases by the marked tendency of the individual lesions to dispose themselves in a crescentic or circular manner. This tendency furnishes an extremely valuable guide in diagnosis.

Polymorphism, or the simultaneous occurrence of different primary lesions, such as macules, papules and pustules, is frequently cited as an especial characteristic of the syphilodermata. But the co-existence of several primary lesions is common in acne, scabies and other ordinary affections of the skin, and the prevailing tendency in the study of dermatology at the present time is to lay far less stress upon primary lesions than was

the custom of the older writers, who believed that each skin disease had, or ought to have, but one characteristic primary lesion. The existence of two or more primary lesions in syphilis is not therefore a distinctive feature nor one of any particular importance.

To the color also of syphilitic eruptions an undue importance is usually attached. Although the lesions sometimes present a peculiar hue—that of raw ham, as was suggested by Fallopius, or the tint of copper, as was suggested by Swediaur—this characteristic coloration can rarely, if ever, be relied upon as a trustworthy element of diagnosis. In the majority of cases it is not present in any marked degree, while on the other hand many non-syphilitic affections, and especially those characterized by a chronic congestion, may present almost the same hue.

The term "copper-colored," which has so long been freely used in connection with syphilitic eruptions, is really a term which conveys no definite idea to the majority of minds. While one thinks of bright, untarnished copper, another may have in mind the metal in a more or less oxidised condition. The term indeed, is not of the slightest value as a descriptive adjective and might be advantageously dropped. No one ever notes a coppery color in an eruption, until its syphilitic nature is suggested by some more marked characteristic of the disease. Then, the spots may suddenly assume a coppery hue, simply because the older books, as a rule, have taught, or led one to infer, that syphilitic eruptions are, or should be, copper-colored. The early disseminated eruptions usually present a yellowish-red hue, to be carefully distinguished from the pink of an active erythema. They become duller after a brief existence, and in rare instances exhibit a certain amount of pigmentation. The late syphilides, which are deeper-seated and more chronic in their course, are of a duller, brownish-red hue, contrasting strongly with the violaceous or purplish-red, which is characteristic of other cellular infiltrations of the skin, and notably those which seem related to the scrofulous diathesis. The most "coppery" eruption which I have ever noted has been in the large papulo-squamous syphilide, but the very same hue I have sometimes seen in an acute guttate or nummular psoriasis. The color of lean ham is quite applicable to many of the late syphilides, when the infiltration of the skin is not concealed by scale or crust; but of all the characteristic features of cutaneous syphilis, the color is one of the least important from a diagnostic point of view.

There is nothing peculiar in the fact that pigmentation may follow a syphilide, for this is constantly observed in many ordinary skin affections. But there are certain peculiarities in the character of the pigmentation which ensues in some cases, to which attention will be called hereafter, in speaking of a condition of the skin to which has been applied the term "pigmentary syphilide."

There are other secondary phenomena pertaining to syphilitic lesions, such as scaling, crusting, ulceration and cicatrization, which may be mentioned in passing, as they are somewhat peculiar and sometimes of assistance in basing a diagnosis in a doubtful case. The scales which form on syphilitic papules or tubercles are always thin, and quite

disproportionate to the amount of infiltration beneath, as compared with the scales of ordinary psoriasis. In syphilis the epidermis never peels off in large flakes as in certain non-specific affections. Indeed the scale formation is so scanty that in many instances the scale only covers the central portion of a papule, thus leaving a little margin bare. The crusts or scabs in syphilis are usually thick, roughened and of a greenish or blackish hue. They often manifest a tendency to increase in thickness by additions to the under surface, and in many instances become conical or like an oyster shell in appearance (Rupia). The ulcers of syphilis are usually circular, save in cases where two or more have coalesced, and present sharply-cut borders. A number of small ulcers frequently co-exist and evince the characteristic tendency to assume a crescentic or circular form, to which reference has already been made. Syphilitic ulceration frequently travels over the surface of the skin in a serpiginous manner, one side of the ulcer creeping into the healthy tissue while the opposite heals, leaving a band of cicatricial tissue in its path. This serpiginous tendency often produces a characteristic form of ulceration known as the "horse-shoe ulcer." Sometimes the affected part becomes thickened, of a purplish-red hue, and finally dotted with numerous small pea-sized ulcers, which coalesce here and there and give the part a "worm-eaten" appearance. The scars of syphilitic ulcers are apt to be round or oval, and smooth and soft. The brownish-red pigmentation which at first is present gradually disappears, leaving the scar perfectly white. In many cases, especially in negroes and persons of dark complexion, a narrow brownish border will remain for years around the white cicatrix.

The absence of pain and itching is a characteristic of the early syphilides, and to a somewhat less extent of the later ones. While an extensive ulcerative lesion cannot exist without causing a certain amount of pain or discomfort, any one of the early syphilides may exist as a general eruption without the patient being conscious of its presence save through the senses of sight and touch. Not infrequently the erythematous or the papular syphilide (especially in patients not addicted to frequent bathing) escapes unnoticed for weeks. As regards itching, it may be laid down as a rule that syphilitic eruptions do not itch ; and this is a diagnostic point of extreme value.

Having endeavored in the foregoing pages to trace briefly the peculiar characters of syphilitic eruptions, with a view to assisting the reader in his diagnosis of the cutaneous manifestations of the disease, I cannot forbear to add a few remarks respecting the influence which a syphilitic taint is supposed to exert upon non-syphilitic affections.

The modification of ordinary eruptions by the presence of the syphilitic poison in the blood has been taught by eminent writers on dermatology, and is accepted by many as beyond a doubt. I will not presume to deny the statement that a mere taint of syphilis lingering in the system may exert an influence upon the course and treatment of a non-specific affection, but I feel constrained to say that I have as yet to see the first instance of an eczema, a psoriasis, or any non-syphilitic eruption, which has been definitely modified in its appearance by the co-existence of syphilis. It is certain that

syphilis does not exempt a patient from the ordinary affections of the skin to which he or she might be liable. Non-syphilitic eruptions may occur in patients who have contracted and are suffering from the specific constitutional infection, and in our large clinics it is no uncommon sight to see a patient presenting at one time an undoubted syphilitic and a typical non-syphilitic affection. These two classes of eruptions, though usually presenting characteristic peculiarities, sometimes bear a strong resemblance to each other. The distinctive features of each may be lacking, especially in certain regions (the palm of the hand, for example), but the existence of a cross between the two, a hybrid eruption partaking of the characteristic features of each, is something beyond the pale of my experience. The existence of such a mixed eruption has been frequently assumed, but never to my knowledge has it been satisfactorily demonstrated. As many ordinary eruptions of the skin depend in great measure upon impairment of the general health of the patient, it is quite easy to understand how an eczema for example, or even a parasitic disease like chromophytosis, might flourish more luxuriantly upon the skin of a patient whose strength had been impaired by the undermining influences of syphilis. And such eruptions would naturally prove more obstinate to the ordinary means of treatment, and might yield only when the patient's health had been improved by the administration of mercury. But I contend that although these symptoms may be undoubtedly influenced to a certain extent by the existence of the syphilitic diathesis, they are never modified in even the slightest degree as regards their outward appearance. While syphilis does not modify the appearance of an ordinary skin affection, it must be stated that the reverse may sometimes happen. Or in other words, a syphilide may be changed completely in appearance by a secondary dermatitis, which is often the result of caustic or over-stimulating applications, or by the occurrence of eczema in the immediate vicinity of a syphilitic ulcer or other lesion, in patients whose skin is prone to the catarrhal form of inflammation.

The doctrine of hybrid affections or eruptions modified by syphilis has tended to discourage attempts at accurate diagnosis, and many have succeeded in concealing ignorance beneath the flimsy pretext that the appearance of the eruption was modified by the existence of syphilis. It is not uncommon for certain physicians who find themselves in the utter darkness of doubt as to the nature of a suspected eruption to settle the whole question to their own satisfaction, by saying: "Well, it may be psoriasis, or lupus, or this or that, but it is undoubtedly more or less modified by the syphilitic diathesis." This is a convenient way of hedging one's diagnosis so that in whatever way the case may turn out the non-committal diagnostician is able to remark, "That was the opinion, you will remember, which I expressed when called to see the case." Now an eruption is always syphilitic or it is not syphilitic, and there is no exception to this rule, unless we make one in those cases in which the most experienced student of cutaneous lesions is forced to confess, as he must do occasionally, his inability to decide the point.

CHAPTER V.

THE TRANSMISSION OF SYPHILIS.

The Contagious Principle or Virus.—Vehicles of Contagion.—Conditions essential to Inoculation.—Modes of Direct Contagion.—Coitus.—Kissing.—Vaginal Examinations.—Nursing of Infants.—Modes of Mediate Contagion.—Vaccinal Syphilis.

SYPHILIS, whatever may have been its origin, is a disease which never appears at the present day *de novo*. Like variola and the other acute exanthemata, it is ranked as a *specific* affection, and acknowledges but one source. It reproduces itself by the transmission from a diseased to a healthy, or non-syphilitic individual, of a contagious principle which is conveniently spoken of as the syphilitic virus. Of the exact nature of this principle we know nothing. Chemical analysis is utterly incompetent to detect it, and the highest power of the microscope fails to reveal it. We know that it exists, for its existence is amply proven by its effects. All attempts to prove the dependence of syphilis upon a characteristic cell, a fungus, or anything appreciable by the senses, have failed in the past, and bid fair to fail in the future. The view that the specific contagion of the disease results from the power possessed by degraded germinal cells to infect those with which they come in contact, is one which has met with favor and may eventually prevail.

The contagious principle of syphilis may be found in the scanty serous secretion or the cellular *debris* of the initial lesion, in the blood of an affected individual during the stage of efflorescence or active period of the disease, and likewise in the secretion of any of the cutaneous or mucous lesions occurring at this time. Although the chancre is the lesion which in the great majority of cases transmits the disease, a careful investigation of cases will show that secondary lesions of the mouth and genital region are responsible in a large proportion of cases.

There are two modes by which acquired syphilis may be transmitted, viz.: by *direct* and by *mediate* contagion. In normal sexual intercourse, by which act the disease is generally transmitted, we have the most striking example of contagion by immediate or direct contact. It must not be inferred, however, that coitus between parties, one of whom bears a genital chancre, necessarily results in the transmission of the disease to the unaffected participant. Two essential conditions required in the inoculation of syphilis have already been mentioned in a preceding chapter, viz.: freedom from the disease on the part of the person inoculated and a lesion of the integument, be this ever so slight a scratch or abrasion. The secretion from a chancre or syphilitic lesion may be applied to the unbroken skin without producing a sore, but the minutest rent in the epidermis, such as might result from coitus under ordinary circumstances, at once renders syphilitic infection possible, and in the case of impure inter-

course highly probable. It is not unusual for a patient to feel disposed to doubt the diagnosis of chancre in his case, on account of the fact that some friend had had intercourse with the same female and escaped unscathed. The presence or absence of an abrasion in such a case will furnish a solution of the mystery. An interesting case is cited by Jullien, of a patient with scabies who underwent the soap-friction treatment in the morning and contracted nineteen chancres the following evening, the virus having found entrance at each point where the itch furrows had been opened.

Direct contagion of syphilis often takes place in various innocent and unexpected ways, as through a kiss, or the vaginal examination of a syphilitic female. A discussion of the folly of promiscuous kissing would be out of place here, but a word of caution to the physician to refrain from making a vaginal examination of any suspected female without first paying careful attention to the condition of his hands, and particularly his finger-nails, may save some reader from contracting the disease in the discharge of his duty. This not unfrequently happens, and when we regard the frequency of "hang-nails," cuts, and scratches on the fingers, it is strange that physicians are not more frequently infected in this manner.

Through nursing the disease is frequently transmitted, both from nurse to infant and from infant to nurse. A nurse suffering from recent syphilis is almost certain to infect a healthy infant, where secondary lesions, as is usually the case, are present upon her lips or on her breast. The danger is still greater when, after having been accidentally infected through some syphilitic infant which she has previously nursed, the initial lesion develops on her breast. In such a case there is no possibility of detecting the danger by careful examination of the nurse, and the healthy infant is generally infected before the chancre, of which the nurse is wholly ignorant, is discovered. The nurse may contract syphilis from a diseased infant, and the chancre be found upon her breast, or elsewhere. Through kissing the infant her lips may become the seat of the initial lesion, or through carrying the child upon her arm this may develop upon her neck, where accidental contact with the child's mouth is frequent. The chancre may develop on her forearm, and result from a secondary lesion of the infant's thighs or buttocks.

By mediate contagion is meant the transmission of the syphilitic virus from one person to another by means of some solid or liquid vehicle to which the virus adheres or with which it is mingled. Transmission of syphilis through mediate contagion is usually accidental and not of venereal origin. Pipes, spoons, pencils, and various articles which are liable to pass from mouth to mouth, and likewise various surgical and dental instruments, may be the vehicle by which the virus is conveyed, and in most instances some secondary lesion, such as a mucous patch of the lip or oral cavity, will be found to be its source. Though in the nursing of infants the transmission of the disease is usually through direct contagion, it is not invariably so. A nurse, for example, may have care of two infants, one of which is syphilitic. After this one has been at the breast, the secretion from some oral lesion may remain upon the nipple and possibly infect the second infant, while the nurse in case of an unabraded epidemis might escape infection. In like manner an infant, after being at the breast of a

nurse with chancre of the nipple, could convey the syphilitic virus in its mouth and infect a healthy nurse to whom it might be temporarily intrusted. Either case would be an instance of transmission through mediate contagion.

Syphilis has been transmitted in many authenticated instances through vaccination. This fact has been proclaimed so loudly by those who, on various grounds, are opposed to the practice, that among the lower classes nearly every eruption occurring in childhood, whatever may be its nature or cause, is looked upon as an indication of "bad blood" and at once ascribed to the influence of vaccination. Clinical experience teaches that vaccination does evoke various eruptions both syphilitic and non-syphilitic, but in these cases the tendency to the eruption has invariably existed, and the local irritation or the constitutional disturbance has merely acted as an exciting cause. A large proportion of children who inherit syphilitic disease present no cutaneous manifestations until many months after birth. If now vaccination has been performed during this period, it is quite natural, although illogical, for the parents and friends to assume that the subsequent outbreak of syphilis was the direct result of the operation.

It is generally conceded at the present time, that no physiological secretion nor pathological product of a non-specific lesion is capable of transmitting syphilitic disease. Pure serum therefore, taken on the eighth day from a vaccine vesicle on the person of a syphilitic child, would not convey syphilis to healthy subjects. But if the faintest tinge of syphilitic blood were mingled with this serum, its inoculation upon a healthy subject would inevitably result in a chancre. The same result would be likely to follow if the dried crust of a vaccine pustule were taken from a syphilitic arm and used in the vaccination of others. While it is very plain that the utmost care should be exercised in obtaining pure lymph from healthy subjects where arm to arm vaccination is a necessity, the fact must be recognized that vaccination from a syphilitic subject only transmits the disease when blood or specific matter is mingled with the lymph. This accounts for the circumstance that some have been infected with syphilis while others have escaped even when the lymph for all of the vaccinations has been taken from the same vesicle. In such cases it has been shown that the vaccinifer was syphilitic, and that those who escaped infection were those first vaccinated, *i.e.*, at a time when pure unmixed lymph was readily attainable. As soon as the lymph in the vesicle became nearly exhausted and only lymph mingled with blood could be obtained, the vaccinations resulted in syphilitic infection.

CHAPTER VI.

THE CHANCRE, OR INITIAL LESION.

Definition.—Synonyms.—Period of Incubation.—Acquired Syphilis always preceded by a Chancre at point of Inoculation.—Development of the Chancre.—Specific Induration.—Varieties.—Concomitant Symptoms.—Genital and Extra-genital Chancre.

By the term chancre we understand a peculiar lesion of the skin or mucous membrane developing at the point where the contagious principle of syphilis, or the so-called virus, has gained entrance to the system. It is the first indication of syphilitic infection, and has been justly entitled the "initial lesion of syphilis." It is sometimes spoken of as the "hard chancre," the "infecting chancre," the "Hunterian chancre," or the syphilitic chancre; but the use of these terms is objectionable, since, in this country at least, they only lead to confusion. The term "hard chancre" has led many to the erroneous belief that the initial lesion of syphilis is invariably indurated. The variety of initial lesion which Hunter described is only met with exceptionally, and therefore the term does not apply to all forms of the initial lesion. The term "infecting chancre" implies that there is a chancre which does not infect, and in like manner the term "syphilitic chancre" involves the existence of a chancre which is not syphilitic. In accordance with the usage of every prominent syphilographer in this country, the simple term "chancre" should be restricted in its application, being used merely to indicate the lesion which is the result of syphilitic infection, and which invariably precedes and is followed by general syphilitic manifestations.

The period of incubation of syphilis, or the time which elapses from the date of infection to the first appearance of the characteristic primary lesion, is a matter of considerable importance, since the diagnosis of the syphilitic nature of a doubtful sore frequently rests upon this point. A chancre never develops immediately after the inoculation of the syphilitic virus; and although in exceptional instances the period of incubation may vary between widely separated limits, the majority of cases present a notable uniformity in this respect. While it must be admitted on the highest authority that a variation from ten to seventy days is possible, the practical point to be borne in mind is the fact that most chancres develop about three or four weeks after exposure to contagion. This has been demonstrated by those who have made inoculations upon healthy persons, and opportunities for verifying the same are constantly occurring in practice. The cause of the occasional variation in the duration of this period is not easy to explain. It evidently depends upon some peculiarity of the individual rather than upon the nature of the virus, since the variation has been noted where the same virus has been used to inoculate a number of persons.

It is often difficult or impossible to determine the precise duration of the period of incubation in ordinary practice for two reasons. In the first place, the patient may have had

recent intercourse with two or more females, and is consequently unable to decide as to which he is indebted for his chancre. And even when he has had repeated intercourse with only one, it is not easy to state at what time the inoculation took place. In the second place, the patient may have contracted a chancroid at the time of syphilitic inoculation, and the first appearance of the chancre upon the site of the local contagious ulcer would be apt to pass unnoticed. In patients subject to præputial herpes, an attack of this affection not infrequently precedes the development of the chancre, and apparently shortens its period of incubation. The statement of a patient that his sore developed immediately after a suspicious intercourse should not be regarded therefore as evidence of his freedom from syphilitic infection. His statement that his sore did not appear until after several weeks (if true) is a tolerably convincing proof that he has contracted syphilis. Bumstead lays down the following rule: "An interval of two weeks or more between the last exposure and the appearance of a suspicious sore upon the genitals, renders it extremely probable that the latter is a true chancre."

In connection with the period of incubation a most interesting question arises as to whether the chancre should be regarded as a local lesion which is invariably followed by constitutional infection; or whether, on the other hand, it should be considered as an indication that the system is already under the influence of the syphilitic disease. The question is one of vital importance on account of its bearing upon the treatment of the chancre by early excision or destructive cauterization, and will be considered later.

Before proceeding to a description of that remarkable neoplasm which is conceded by all to be the initial lesion of syphilis, two important facts are to be noted, viz.: the existence of a chancre at the beginning of every case of syphilis, and its development at the point where inoculation has taken place.

It is as certain that a chancre invariably precedes the outbreak of constitutional syphilis as it is that general infection is in most cases an inevitable sequence of the characteristic initial lesion. Careful clinical observation may fail to detect the chancre in rare instances, but the possibility of its existence in localities where it would be likely to escape notice renders it highly improbable that it has not existed at all. Some time ago I was consulted by a young physician who presented a well-marked disseminate pustular syphilide and other symptoms which pointed to a tolerably recent infection. He was not ignorant of the nature of his malady, although perplexed at its occurrence without any preceding chancre. He had repeatedly made a most careful examination of his genitals and other portions of his body, but in vain; and with his medical knowledge and anxiety on his own behalf, it is not likely that any external lesion had been overlooked. In cases like the above it would be going too far to claim that no chancre had existed, unless a careful examination were made of the urethra and other mucous surfaces, to which the virus might in some way have been conveyed.

As regards the development of the chancre at the point of inoculation, no doubt is enter-

tained as to this fact, but it is not always an easy matter to determine how the virus was conveyed to the locality where the chancre has developed. Bumstead mentions a case where the inner surface of the eyelid was the seat of a chancre. In such a case the virus may have been conveyed on the finger or thumb of the patient. Where the initial lesion is found in the anal region or deep in the oral cavity, an appreciation of the mode of inoculation involves a knowledge on the part of the physician of various practices, which, though common among the depraved classes of the community, are preferably left undescribed.

The development of the chancre, as would naturally be expected, is the same whether it be the result of intentional or accidental inoculation. There is a difference, however, in its development according as it is seated on the skin or on a mucous membrane, and, as will be seen later, a considerable variation in the appearance of the lesion results from its peculiar situation in various regions. When inoculated upon the skin, a small red macule first appears after the period of incubation has elapsed. The central portion of this red spot speedily becomes elevated and assumes a dull-red hue. A slight desquamation supervenes after a week or ten days, and the lesion now bears a resemblance to the scaling papule so frequently noticed as the characteristic lesion of the early secondary eruption. But, unlike the last-named lesion, the chancre develops a superficial moist surface which may be gradually transformed into a slight ulceration with more or less induration of its base. A crust usually forms upon the central portion of the papule, which, upon removal, leaves a dull-red and depressed or cup-shaped surface.

When the chancre develops on a mucous surface, it may appear at first as a minute herpetic vesicle upon a reddened and itchy base, or, as is more frequently the case, as an erosion which may gradually assume the appearance of a very slight ulceration. The amount of induration present depends mainly upon its situation.

The induration of the initial lesion of syphilis is such a common and distinctive feature that we constantly hear this lesion referred to by certain of the laity, as well as by physicians, as the "hard chancre," in contradistinction from the local ulcers which are termed "soft" or "eating chancres." This peculiar feature was observed and described by many of the earliest writers on syphilis. John Hunter laid so much stress upon the induration of the chancre as a characteristic sign of syphilitic infection, that the term "Hunterian chancre" is very frequently employed at the present day as a synonym for what has been regarded as the typical form of initial lesion. In the majority of chancres specific induration is present in a marked degree, especially among males. It varies in individuals and in accordance with the seat of the chancre. It is not inflammatory in its nature, but results from a gradual proliferation and accumulation of small cells. It can be appreciated readily, when conveniently situated, if the chancre is gently pressed between the thumb and the finger applied to opposite sides. Although the induration is almost always appreciable to the touch, and particularly to the *tactus eruditus*, it must not be regarded as an absolutely essential feature of the chancre, since in some cases it is so slight as to be practically absent.

The variation in the form and appearance of the chancre, as met with in practice, has

led to the establishment of numerous varieties. These, it appears to me, may be reduced to three clinical forms, as follows:

1. The dry papular chancre;
2. The eroded chancre;
3. The large indurated chancre.

Through certain non-essential modifications we may have:

4. The diphtheritic or mucoid chancre;
5. The inflamed or suppurating chancre.

And finally, where the syphilitic virus is inoculated at any point where a chancroid exists or where it subsequently develops, we have a most important lesion, which is known as,

6. The mixed chancre.

Certain rare and interesting forms of initial lesion have from time to time been described by various writers; as, for instance, the multiple herpetiform chancre (Dubuc), the diphtheroid of the glans penis (Morrow), etc.; but on account of their extreme rarity it is hardly necessary to give them a place among the clinical varieties of chancre.

The dry papular chancre is not frequently observed, for two reasons: In the first place, it is one of the rarest forms of the initial lesion, and, secondly, on account of its superficial character, it is very apt to be overlooked, not only by the patient but by the physician. It has undoubtedly existed in many of the cases where syphilis appears to have been contracted without any primary sore. This form of initial lesion is usually rounded, of the size of a three cent piece, of a dark, dull-red color, and its incubation is said to be habitually long. The accompanying induration is always slight, and, occurring upon the integument, the surface of the lesion usually presents a scaly appearance.

The eroded chancre, with more or less induration, is the form which is most common, occurring in nearly three-fourths of all cases. It is simply a papular chancre, in which the cell proliferation has cut off the blood circulation and consequent nutrition of the superficial layer of cells to such an extent as to prevent their normal growth. It has usually a livid color, and varies considerably in size. The induration may be quite superficial, giving to the lesion the characteristic of a "parchment chancre," or it may involve the deeper tissues, and produce the feeling of a "split pea," when the lesion is held between the thumb and finger. The eroded surface may appear of a bright-red hue, and secrete a thin serum, or it may be covered, especially in the central and deeper portion, by a greyish pellicle. In certain instances the surface becomes coated by a thick whitish membrane, and the lesion becomes transformed into what has been termed the diphtheritic or mucoid chancre. Repeated observations have shown that it is possible for the initial lesion to be gradually transformed *in situ* into that peculiar secondary lesion known as the moist papule or mucous patch, a description of which will be given in connection with the discussion of the papular syphilide. Frequently the erosion becomes a veritable ulceration, and under certain circumstances it is transformed into the inflamed or suppurating chancre. In this case, the ulcer can only be distinguished from the chancroid by the firm elastic rim and induration of its base.

The large indurated chancre is the most striking form which the initial lesion may assume. The common seat is the prepuce or some other lax tissue. It is rounded or oval in outline, somewhat flattened, and presents either a smooth glossy surface or a central depression, giving the lesion a peculiar saucer-like appearance. Not infrequently the central portion of the surface is eroded, and the lesion presents the peculiarities of the last-described variety of chancre, though upon a larger scale. Sometimes this erosion becomes converted into an ulcer of considerable depth and with sharply-cut edges and pultaceous base. It then bears a superficial resemblance to the chancroid, although lacking the purulent secretion of this lesion. In the female this variety of chancre is often met with upon one of the labia majora, when it appears to be deeply seated, and with the surrounding œdema or inflammatory thickening is apt to involve the whole labium. When a chancre is seated upon the upper lip it almost invariably assumes this form.

The mixed chancre is a lesion which not only combines the peculiarities of the chancre and chancroid, but which results from the inoculation of two distinct contagious principles. Many who still hold to a belief in the syphilitic nature of the chancroid, or "soft chancre," are disposed to ridicule the idea of a mixed chancre, and claim that it was originated by Rollet as a matter of necessity to explain the fact that in rare instances syphilis is known to follow a lesion which is seemingly devoid of induration. It is evident from every-day experience that the subject of syphilitic disease is no wise exempt from the action of the chancroidal secretion. Although not liable to contract a second chancre, the syphiltic individual may and frequently does contract chancroids after every exposure. A prostitute suffering from recently acquired syphilis often has both secondary lesions and simple chancroids upon her genitals, and is consequently in a position to bestow both chancre and chancroid in a single intercourse. When this happens the chancroid develops first, and is sometimes nearly or quite healed before the first indications of a chancre are noted. More frequently one lesion is inoculated upon the other.

The duration of the chancre varies considerably, the lesion disappearing in some cases after two or three weeks, remaining in others for as many months. This variation depends to a certain extent upon its form and seat, and to a far greater degree upon the treatment to which the patient is subjected. The erosion or superficial ulceration has usually cicatrized before the appearance of the earliest general manifestations of the disease, although the induration frequently remains, and can be discovered by a careful examination of the genitals or other portions of the body at this time. As has been stated, it may persist and gradually become transformed into a mucous papule, not to be distinguished from those which frequently occur during the stage of efflorescence.

In the great majority of cases, the initial lesion of syphilis disappears without leaving any scar. Sometimes a dull-brownish discoloration remains, even after no trace of induration can be detected, and enables one to decide as to the exact point of infection. Where the ulceration of the surface of the chancre has involved the papillary layer of the skin, as happens in the inflamed variety, a slight cicatrix may result. Phagedena or gangrene may attack

the chancre where there is any predisposition resulting from constitutional debility, low diet, and dissipation, although in my experience this is an exceedingly rare complication, save in the case of mixed chancres. Should the tissues be destroyed, however, either by molecular death or by sloughing, a marked cicatrix would naturally result.

Having in the foregoing described the forms and general features of the chancre, we pass naturally to certain concomitant symptoms which, as will be seen later, are often of considerable value in establishing a diagnosis of syphilis. The lymphatic vessels in the neighborhood of a chancre become affected in a small proportion of cases. In the male an indurated cord may be found running along the dorsum or side of the penis backward as far as the pubes, indicating the track of a lymphatic vessel. It is painless to the touch, and the skin over it is of normal hue. Though usually pursuing a straight course and of equal calibre throughout, it may appear somewhat tortuous and beaded by a number of small, hard nodules. This condition is one of little importance as a rule, and often escapes notice. Occasionally, however, an abscess may form in or around the vessel and give rise to a lymphatic festula. This symptom when present usually precedes the induration of the inguinal glands. This latter symptom may be said to be always present, although in certain corpulent patients it is almost or quite impossible to make a satisfactory examination of the condition of the glands in this region.

The induration of the inguinal glands may occur upon one or both sides. The whole chain of glands is usually involved, although frequently one gland can be found which is swollen far more than those in its vicinity. Only in rare instances, and then as an accidental circumstance, is there any sign of inflammation. The swollen glands are painless to the touch, even when they are pressed upon firmly, and the skin above them is unaffected. Of course, the inguinal glands are primarily affected only when the chancre is seated upon the genitals. When this lesion occurs upon other parts of the body the group of glands lying nearest are the ones invariably affected. The glandular induration takes place in the second week after the appearance of the chancre.

Syphilis is by no means a disease which invariably acknowledges a veneral origin. Indeed the careful investigation of the modes of transmission have shown that it occurs among innocent persons with a lamentable degree of frequency. Impure intercourse is naturally to be regarded as the fountain-head of the disease, and the genital region in both the male and female furnishes the ordinary seat of the initial lesion. There is no region of the body, however, which is insusceptible to syphilitic inoculation, and but few localities either upon the external integument or adjoining mucous surfaces upon which the chancre has not been observed.

The following tables, compiled by Jullien from Martin, Carrier, Bureaux, Bassereau, Fournier, Clerc, and Le Fort, show at a glance the various parts of the body which have been observed to be its seat, and the comparative frequency with which it has occurred upon the genitals and elsewhere:

In Females.		In Males.	
Labia majora,	81	Prepuce and glans,	1343
Labia minora,	41	Sulcus,	217
Fourchette,	28	Meatus,	89
Meatus,	18	Urethra,	17
Clitoris,	3	Scrotum,	20
Vestibule,	16	Base of penis,	10
Cervix uteri,	1	Anus,	12
Anus and perineal region,	21	Abdomen,	9
Buttocks,	4	Buttocks,	1
Thigh, groin, and genito-crusal fold,	8	Lower extremity,	3
Lips,	20	Fingers,	2
Tongue,	2	Lips,	36
Palate,	2	Gum,	1
Mouth,	4	Tongue,	8
Wing of nose,	6	Cheek, nose,	3
Forehead,	3	Eyelids,	2
Breast,	11		
Neck,	1		1773
	270		

	Genital Chancres.	*Extra-genital Chancres.*
In females,	277	61
In males,	1700	65
	1977	126

Having referred in the previous description of chancre to its peculiarities in a general way, the features of the lesion dependent upon its location may now be properly considered. Occurring where it is most apt to be found, upon the prepuce, the specific induration of the chancre may be studied to advantage, for in this location it is usually well marked. When the lesion is at the preputial orifice, where the cutaneous and mucous layers come together, the greater portion of the ring is apt to become the seat of induration, and the resultant rigidity of the tissues very often leads to phimosis. This is the rule where the prepuce is long and the orifice unusually small. Upon the mucous surface of the prepuce, the chancre may induce phimosis if the induration is very great, and when, as sometimes happens, there is considerable inflammatory swelling in addition to the specific sclerosis. When seated in the sulcus behind the *corona glandis*, the chancre very frequently presents a rugous or papillomatous aspect. If the induration extends any distance upon the internal surface of the prepuce, the chancre is very apt to become large and flattened, and to present a bloodless or even waxy projection when it is rolled over on itself in the act of retracting the prepuce. This characteristic blanching of the tissues is very like what is seen in the tarsal cartilage when the eyelid is everted. On the glans penis the chancre is always flat, and its induration, which is usually slight, can only be detected with difficulty. When the prepuce is unusually tight this superfi-

cial chancre is apt to become inflamed and be obscured by the balanitis which naturally results.

Chancre of the urethra, as would naturally be expected, is generally seated at the point where inoculation would most readily occur, viz.: at its anterior extremity. It may involve one lip or the whole circumference of the canal, and can be distinguished with far greater ease when compressed vertically than when the finger and thumb are applied upon either side of the extremity of the glans. The oft-repeated irritation of the sore by the passage of urine is very apt to inflame the lesion, and in many cases the affection is regarded by both physician and patient as a urethritis, especially when, as may happen, the lesion is situated at some distance behind the meatus. The induration always occasions a temporary stricture and more or less diminution in the size of the patient's stream of urine. With the disappearance of the chancre, however, the normal condition of the urethra is restored.

Chancre of the anus, which is fortunately rare in this country, may bear a resemblance to simple fissure and be mistaken for it when the physician has no reason to suspect its true nature and is consequently not on the watch for the specific induration. The possibility of rectal chancre, which has been observed, must be borne in mind in certain cases where syphilis seems to appear without any primary lesion.

In the female, genital chancre usually presents wider variations from the ordinary type, and as a consequence is more frequently difficult to diagnosticate. Upon the labia majora the characteristic induration is frequently seen, but it is very apt to be obscured by surrounding œdema or inflammatory thickening of the affected lip. Upon the labia minora, vestibule, and fourchette the eroded chancre may appear with little or no induration, and be obscured by surrounding inflammation and a muco-purulent discharge.

Extra-genital chancre, though it may occur at any point upon the body, is most common upon the face, upon the hands, and in the female upon or around the nipples. A reference to the table given will show at once its comparative frequency upon the lips and in the oral cavity. In this location the chancre is very liable to pass unheeded or to be mistaken for some trifling lesion. Without doubt many cases of syphilis, occurring in those whose statement that they have never had impure intercourse or suffered from any suspicious sore upon the genitals is entitled to full credence, are cases which have originated in an oral or other extra-genital chancre. In the practice of one unaccustomed to the study of syphilis in its varied forms, and especially in a case where the patient has a high social position and a character calculated to disarm suspicion, an error in the diagnosis of an oral chancre may be pardonable. Still the mistake is none the less unfortunate. Upon the immediate recognition of such a lesion depend in some degree the reputation of the physician and in great degree the health and future happiness of the patient. The case demands specific treatment, if not at the outset, at least as soon as the first constitutional symptoms occur, and before they would be apt to be recognized if neither physician nor patient were in expectation of their occurrence. Furthermore, the safety of other members of the family liable to contract the disease in accidental ways is jeopardized when a patient has a labial chancre, for instance, and is

allowed to remain in ignorance of the nature of the affection. In such cases of acquired syphilis the innocent too often suffer for the guilt of others. Among rich and poor may be found the victims of accidental disease, but it is chiefly in the latter class that syphilis is permitted to infect a series of innocent persons through oral chancres which pass unrecognized and untreated.

The following cases and comments, published in the *New York Medical Journal* (Feb., 1880), will serve to illustrate some of the features of this variety of extra-genital chancre.

A patient at the New York Dispensary presented an eruption, evidently syphilitic, though of unusual appearance and distribution. My notes run as follows: October 22d.—Syphilitic papules, mostly lenticular, many being quite small; especially numerous in the axillæ, the bend of the elbows, the popliteal regions, and around the inner malleoli; a few on the forehead, and a number of small crusts on the scalp. On the arms some of the papules are scaling, while on the body a few are covered with thin and lightly adherent scabs. The inguinal glands are very slightly if at all affected. There is swelling of the posterior cervical glands, and the right epitrochlear is quite prominent. The submaxillary glands, which are now enlarged and indurated, have, the patient says, been very much swollen. No angina at present, although the throat was sore about six weeks ago. A mucous patch, healing, is seen on the left side of the upper lip, but no induration can be felt here or anywhere about the genitals. There are a number of red spots upon the glans penis and upon the inner surface of the prepuce, one of the spots on the glans being superficially ulcerated, but not at all indurated. The patient feels "heavy" and "dull," and says the eruption made its appearance a month or more ago. In this case syphilis was undoubtedly the cause of the eruption, but the site of the initial lesion was not immediately apparent. Closer examination revealed a dark-red patch on the gum, below the left lower incisors, which, according to the patient, had been swollen and hard for two months or more previously, and this condition had preceded the swelling of the submaxillary glands, which he first noticed on the left side. A diagnosis of oral chancre was now made, and, as the patient's little daughter, eight years old, had also come to the dispensary with an eruption on her body, I took the opportunity of examining her. She was pale, and had some sores at the corners of her mouth, and a large ulcerated patch on the inside of the lower lip. The fauces were reddened, and the submaxillary glands were enlarged, as were likewise the inguinal glands. Upon her body there was a fading lenticular papular syphilide, some of the papules being scaly, and others, as on the forearms, having disappeared and left pigmented macules. Her health was impaired, and, according to her father's statement, she did not look or act as she had done before. Here evidently was a second case of syphilis resulting from an oral chancre. I now made a prying examination into the affairs of the family for the preceding year, and learned that about eight months before they had had a boarder, a woman, who had whitish sores on her lips, and had complained to the patient's wife of suffering from "piles" (condylomata lata?). She was accustomed to play with and fondle the patient's little son, two years old, who soon got a sore on his tongue, with lumps in the neck, and afterward had a copious eruption on the body. This little patient had been treated by Dr. Morrow at the dispensary, and, upon referring to

his case-book, I distinctly remembered having been asked by Dr. Morrow to look at the child, who had a specific eruption on the body, especially well marked upon the buttocks, which at that time we supposed to be a manifestation of hereditary disease.

Next, the wife and mother, who was pregnant at the time, acquired a sore mouth, with submaxillary swelling, followed in a month or so by spots over the body. Then the daughter, eight years old, became infected, as already described, and lastly the father. The mother had been confined a few days before my first examination of her husband, and, though very weak, she had, it was said, "a nice, healthy boy." November 21st.—To-day the mother came to the dispensary at my request, and exhibited a coppery papulo-squamous eruption, disappearing on the body, but especially well marked about the wrists. The baby, five weeks old, was covered with a papular eruption, which had appeared suddenly four days before, and had spread rapidly from the head over the whole body. The infant soon died, and what this family suffered, through no fault of their own, but merely from the unfortunate circumstance of having kept a syphilitic boarder, the reader can readily imagine. A few such instances of wholesale infection come to our notice now and then, but scores doubtless are constantly occurring in the lower walks of life, of which no record is made, no history written.

While it is always important to recognize oral chancre, it must be said that it is not always an easy matter to do so. Extra-genital chancre on other portions of the face is much more readily recognized, since the question naturally arises, If not a chancre, what can it be? In the oral cavity and on the lips, however, superficial ulceration and a certain amount of inflammatory swelling and hardness may arise from such a variety of causes that often the nature of the trouble is not suspected until later and more striking manifestations of syphilis present themselves.

A year ago a married gentlemen, aged thirty-one years, was sent to me by a physician of this city, with a request that I should make a diagnosis of the skin-disease from which he was suffering. Upon examination I found him to have a well-marked papular syphilide, a slight induration occupying the site of a recent excoriation upon the prepuce, and a very suspicious indurated and somewhat painful swelling upon the right side of the upper lip. There was no doubt about the patient having syphilis, although it was difficult to say at once where the initial lesion was seated. His physician had noticed and remarked upon the syphilitic appearance of the eruption, and would have made the diagnosis, but, here was the rub—just where it so frequently occurs—the patient declared that he had had no connection with any one but his wife, who was at that time apparently well and above suspicion. Convinced that the patient must have contracted the disease in some way, I questioned him very closely, and elicited the admission that about four months before he had on repeated occasions kissed a woman of easy virtue, who, as he distinctly remembered on calling the circumstance to mind, had a sore mouth. Soon after this a sore appeared upon his lip, and he squeezed out a little blood; hardness of the sore supervened, and a month or so later he became sick and weak, and had pains in his joints and bones both day and night. The present eruption, he said, appeared two weeks before I saw him.

This case shows the importance of recognizing syphilis by merely observing the objective symptoms of the disease, and by asking questions for the purpose of verifying rather than for the sake of establishing the diagnosis. It illustrates, moreover, the proneness of a patient who would seek medical advice for the slightest scratch upon the penis to regard a labial chancre as an insignificant though a troublesome lesion.

Oral chancre generally attacks the lips. It may be wholly seated upon the vermilion surface, or it may encroach upon the adjacent skin. When the chancre is situated upon the inner or mucous surface of the lip, it usually presents a smooth or eroded surface, while on the contrary, if seated on the outer or cutaneous portion, it is commonly incrusted. Very often a chancre will present a crust upon one-half of its surface, viz., that portion which is exposed to the air, while the remaining half, which is kept moist, will appear smooth. There seems to be little difference in the frequency with which the respective lips are attacked, although statistics seem to indicate that in men the upper lip, and in women the lower lip, is more frequently the seat of the lesion. It is certain that the lower lip is more subject to abrasions and fissures, which would render it prone to become infected. Labial chancre may vary in appearance according to its position on the lip, its stage of development, and the general health of the patient. Marked swelling and induration, with superficial erosion or crusting, are its characteristic features.

Chancre upon the gum is extremely rare. In Jullien's compiled lists we find that, among seventy-three oral chancres, fifty-six were on the lips, ten upon the tongue, four in the mouth (without further specification), two on the uvula, and one on the gum. When chancre affects the tongue, it is commonly seated, as would naturally be expected, upon its tip. The occurrence of chancre in the deeper portions of the oral cavity has been questioned and even denied, but cases have been reported by competent observers of chancre of this region occurring in the persons of nurses, glass-blowers, and others. There is no reason why the syphilitic virus should not be carried in a variety of ways to this locality, and there is no proof that this or any other portion of the body possesses any insusceptibility to syphilitic infection. Doubtless, mistakes in the diagnosis of deep oral chancre have occurred, and patients presenting these unique lesions of syphilis should be subjected to a most rigid examination.

The lymphatic engorgement accompanying oral chancre is generally marked, and is of the highest importance, since by its presence the character of the sore is often diagnosticated. The neck is usually affected chiefly upon one side, although glands upon both sides may be swollen. When the chancre is near the median line, this is very apt to be the case. Labial chancres are attended with swelling and induration of the submaxillary glands, those near the angle of the jaw being usually involved by a chancre of the upper lip, while in a case of chancre of the lower lip the glands beneath the chin are generally affected. When any lesion of the lip or oral cavity becomes indurated, and is accompanied by swelling of the submaxillary or cervical glands, the possibility of its being a chancre must always be borne in mind. A positive diagnosis can not always be made at once without risk of error, but the persistence of these symptoms is an almost infallible indication of oral chancre.

CHAPTER VII.

DIAGNOSIS OF THE CHANCRE.

Importance of a Correct Diagnosis.—Difficulty of Making it at Once in all Cases.—The Chancroid.—Its Specific Nature.—Auto and Hetero Inoculation.—Period of Incubation of Chancroid.—Inflammatory Base Simulating Specific Induration.—Condition of the Lymphatics Accompanying Chancroid.

The diagnosis of chancre is of supreme importance, not simply as an aid to proper treatment, but as a means of determining the prognosis in a given case. If a patient has contracted the initial lesion of syphilis, it is quite as important for him as for the physician to know what the natural result will be. When a sore of doubtful character has been contracted, and the physician deems it a wise plan to be on what he is disposed to regard as the safe side, and treats it as though it were a chancre, the patient is often allowed to remain for years in doubt as to whether he is free from disease or in constant danger of manifold evils which he naturally associates with the dread disease. I would much prefer to have syphilis, and to get through with it, than to be forever in the anxious frame of mind of many who at some previous time have had a simple local lesion of the penis, which some physician has foolishly treated as a chancre. In case of doubt, it is far better for the physician to be silent as to the nature of the sore, whatever may be the treatment adopted, than to inform the patient that he probably has syphilis, and that the sore had better be treated as a chancre.

An acquaintance with the general character of the initial lesion of syphilis, together with a moderate amount of clinical experience, should enable the physician, in the majority of cases, to pronounce unhesitatingly respecting the nature of a suspicious lesion. At the same time, I must repeat what has been already stated, that in certain cases it is an impossibility to judge from the appearance of the sore itself whether it be a chancre or not. Even with the aid of those concomitant symptoms to be found in the condition of the neighboring lymphatics, the most experienced physician is at times liable to error, and may find himself considerably surprised by the subsequent appearance or non-appearance of secondary symptoms.

In discussing the diagnosis of chancre, it will be advisable to devote some attention to a consideration of that very common affection with which the initial lesion of syphilis is so apt to be confounded, viz., the local contagious ulcer of the genitals. Indeed, it is impossible to discuss the distinguishing characteristics of chancre without constantly making allusion to the points of difference which exist in this non-syphilitic affection, which is so like the chancre that it has almost universally received the name of chancroid. In France it is called the simple chancre, in contradistinction from the true or syphilitic chancre. In Germany it lays sole claim to the term chancre, the initial lesion of syphilis being spoken of as such. It should be borne in mind, then, that the "schanker," or chancre, of most German writers, is

the "chancroid" of American writers. This local ulcer is often called the "soft" or "non-indurated chancre," a term which is not strictly correct, since the chancroid is frequently observed to present a certain degree of inflammatory hardness, while on the other hand, induration is not absolutely essential in every case of true syphilitic chancre. It has likewise been called the "non-infecting chancre," since it is of local nature, and not followed by any manifestations of syphilis; but it is, in reality, not a chancre at all, in the limited sense which attaches to that term in this country. The term "chancrelle" is employed by Diday.

The chancroid is well described by some of the earliest medical writers as a disease of local character. In the writings of those who lived during, or soon after, the widespread appearance of syphilis in the last decade of the fifteenth century, we find it confounded with chancre, and until a century ago this local affection, together with gonorrhœa, was universally looked upon as of syphilitic nature. The view that chancroid was entirely distinct in its nature and origin from the chancre, and not allied to syphilis, was first put forward by Bassereau in 1852, although John Hunter had observed as early as 1786, that not all venereal sores were followed by constitutional syphilis, but only those which were indurated.

The chancroid is an acute, contagious ulceration, usually occurring upon the genitals as a result of impure sexual intercourse. The existence of a distant relationship to the syphilitic poison is believed in by many at the present time, though all agree that this lesion is neither the cause, nor the immediate result of syphilis. The confrontation of patients, which was carried on to a large extent by Ricord and his disciples, taught the profession what has since been frequently verified, viz., that through venereal contact the chancre produces only a chancre, while the chancroid in like manner invariably reproduces itself.

The question as to the specific nature of chancroid is one concerning which syphilographers are not agreed. While it is generally admitted that pus of an irritant character is capable of inoculation, especially upon persons in a debilitated condition, and the production of ulcers, which may be successively inoculated, it is claimed by many that these inoculable sores are not true chancroids. The most careful examination of chancroidal pus by means of the microscope, or by chemical analysis, fails to reveal any peculiarity which renders it distinguishable from the pus of gonorrhœa or non-venereal affections such as impetigo and ecthyma. The clinical observation of its effects, however, is amply sufficient to prove a marked difference in its character, but whether this difference in its action is due to the existence of a specific virus, comparable to that which exists in the chancre, or whether it is owing merely to its degree of irritability, is a problem extremely difficult to solve. The supporters of either view put forth many strong, though by no means convincing arguments, and it is probable that time and further study will be required before the question can be definitely settled. Whether, under favorable circumstances, chancroid may be developed *de novo*, or not, it is certain that this peculiar type of ulcerative action is ordinarily produced by the inoculation of pus from a pre-existing chancroid, or chancroidal bubo. As in the case of the chancre, contagion may be either direct or mediate. Accidental chancroids are usually

the result of direct contagion. Save in case of intentional inoculation, the transmission of chancroid by mediate contagion is rare.

The purulent secretion from a chancroid will only take effect upon the skin or mucous membrane when there exists a solution of continuity in the epidermis at the point of contact. Were this not the case, the lesion would be frequently observed upon the fingers of both patient and physician. Unlike the secretion of the chancre or mucous patch, the pus of chancroid possesses irritating properties which render it likely to produce an abrasion if left for a short time in contact with a mucous or cutaneous surface. Doubtless, ablution of the genitals after impure intercourse prevents the development of chancroid in many instances, while, on the other hand, it is probable that it rarely, if ever, acts as a preventative of syphilitic infection.

The chancroid is both *auto-inoculable* and *hetero-inoculable*, being capable of producing its like upon the person bearing it, or upon any other person, and upon any region of the body. The susceptibility of certain regions, the head, for example, is said to be less than others, while chancroids produced by inoculation upon this part, or upon the body, are usually smaller and heal more rapidly than sores produced upon the extremities. The chancre, on the other hand, is not auto-inoculable, save under peculiar circumstances, and will not reproduce a similar lesion when inoculated upon a syphilitic person. Although auto-inoculation does not possess the diagnostic importance which was formerly ascribed to it, nevertheless, it may be resorted to in many cases where the nature of the lesion is doubtful, and with a most satisfactory result. If the secretion from a suspicious sore can be readily inoculated, the diagnosis will lie between chancroid and the mixed chancre, and the question will be generally settled by careful examination of the neighboring glands. If the result of inoculation be negative, the sore is not a chancroid, but may be either a chancre or a simple ulcer. Inoculation may be performed in the same manner as vaccination, all that is necessary being a slight scraping of the epidermis sufficient to remove the horny layer and to leave a moist surface without drawing blood. The chest or side of the patient below the level of the nipple should be selected in preference to the abdomen or thigh, since experience, resulting from the repeated inoculation of chancroids in the so-called "syphilization" of patients, has shown that in this location the sore is apt to be smaller, less subject to phagedæna and less likely to induce suppuration of neighboring lymphatic glands. When it is evident that the inoculation has been successful, the resulting chancroid should be cauterized without delay, and thus converted into a simple ulcer which will usually heal rapidly.

The period of incubation of the chancroid is much shorter than that of the chancre. Indeed, where an abrasion of the epidermis exists at the time of sexual intercourse, or in case of intentional inoculation, the inflammatory process begins at once, redness being noticed within twenty-four hours, and the typical pustule developing within three days. Two or three days may be set down then as the duration of this period, viewing the matter from a clinical standpoint, although, strictly speaking, there is none. It should be stated in this connection that according to some writers the chancre likewise has no true period of

incubation, inasmuch as a process of cell proliferation is believed to begin at the very moment of inoculation.

The typical chancroid differs greatly in appearance from the chancre, and can generally be recognized at a glance by its depth, its well-defined and often ragged edge, its soft pultaceous floor, and its free purulent secretion. Unfortunately, neither lesion presents invariably a typical appearance, and it is naturally in these cases that difficulties in diagnosis arise. A correct conclusion as to the nature of the sore can only be arrived at after all the characteristics have been considered. At the outset, it is usually very difficult, if not actually impossible, to pronounce upon the nature of the lesion, although the chancroid usually commences as a pustule, especially when seated on the skin, and presents in this regard a contrast to the chancre, which in its incipiency is papular in form. On the mucous membrane either may appear at the start as a superficial ulceration. The main point to bear in mind in the diagnosis of these lesions is the fact that the chancroid invariably results from an inflammatory destruction of tissue, while the chancre, on the other hand, is mainly characterized by cellular growth, the ulceration, when it is present, being superficial and secondary. This fact will be of great service in all cases save those in which the chancre and chancroid co-exist at the same point (mixed chancre). We have then a well marked chancroidal ulceration beneath which the proliferation of cells occasioned by the syphilitic infection is taking place. The diagnosis in such a case being difficult, the prognosis should be guarded. Indeed, it is often necessary to wait until the ulceration is healed before the presence or absence of the chancre can be determined, and then, only by the development of its specific induration.

The diagnosis between chancre and chancroid is determined at once in many cases by the sense of touch. The surface of the suspicious sore may not present the characteristics of either lesion in any marked degree, but the slight pressure of the thumb and finger on either side will reveal at once the existence of a dense and resilient base, which enables the physician to pronounce positively as to the syphilitic nature of the lesion. This specific induration, however, is not always typical, and in many cases is simulated so closely by the inflammatory hardness which accompanies the chancroid that experienced observers are often led astray. When a patient comes to the physician with a simple chancroid to which caustic has been ineffectually applied, the sore is very apt to be irritated, and to present an amount of thickening and hardening of the base which renders it impossible for any one to speak positively as to the existence or non-existence of primary syphilis. A few days of soothing, antiphlogistic treatment, will often cause this pseudo-sclerosis to disappear and leave only the characteristics of the chancroid. At the same time, the fact that the true chancre is not necessarily indurated in every case must not be forgotten, and therefore, while we regard the induration of a suspicious lesion as one of the most important points in the diagnosis between chancre and chancroid, we must bear in mind that it frequently proves deceptive, when other symptoms are not taken into consideration.

One of the most important elements in the diagnosis between chancre and chancroid is to be found in the condition of the nearest group of lymphatic glands, and frequently in the

condition of the lymphatic vessels leading to them. We have already seen that in connection with the chancre the neighboring lymphatics are always more or less enlarged and indurated, this condition being due to a chronic inflammation and cell proliferation, very similar to that which occurs in the initial lesion. With the chancroid, the lymphatic vessels and neighboring glands are often wholly unaffected, and in every case in which they are affected, the inflammatory process is decidedly acute in form. Upon the dorsum of the penis a swollen and painful cord may extend back from the seat of the chancroid on the prepuce or glans. Accompanying this, there is usually present considerable heat and redness of the skin, which, together with tenderness on pressure, are symptoms contrasting strongly with the indurated lymphatic cord which sometimes accompanies the chancre, and with which there is neither redness, pain, nor other symptom of acute inflammation. The inguinal glands never present the characteristic painless induration which is never absent in case of chancre. If at all affected, as the result of a genital chancroid, they are acutely inflamed, and whenever a bubo is produced by the chancroidal pus which has found an entrance into and through the lymphatic vessel, this is certain to suppurate and produce a chancroidal ulceration in the groin. Very frequently, however, the inguinal adenitis in connection with the chancroid is not wholly the result of the genital lesion, but may owe its origin in great part to jumping, lifting, or indulgence in any straining exercise, which would be likely to occasion mechanical injury. Such a simple inflammatory bubo may occur in connection with the chancre, or apart from any venereal disease. And when suppuration takes place, as sometimes happens, it frequently occurs in the peri-glandular tissue.

By way of emphasis, I must repeat that it is rarely safe to make a positive diagnosis between chancre and chancroid, from a consideration of only one or two features. All of the characteristics of either lesion should be borne in mind. After reference to such an excellent chart as the following one (prepared by the late Prof. Bumstead), it seems to be the easiest task in the world to differentiate between the two lesions. But experience teaches that many cases occur in which most of the characteristics are absent, or obscured, or doubtful, and in which the diagnosis is far from being an easy task.

DIAGNOSTIC CHARACTERS OF THE CHANCRE AND CHANCROID.

[After Bumstead.]

THE CHANCRE.	THE CHANCROID.
Origin (Confrontation).	*Origin (Confrontation).*
Always due to contagion from the secretion of a chancre, syphilitic lesion, or from the blood of a person affected with syphilis.	In practice generally due to contagion from a chancroid, or chancroidal bubo, or lymphitis.
Incubation.	*Incubation.*
Constant. Usually of from two to three weeks duration.	None. The sore appears within a week after exposure.
Commencement.	*Commencement.*
Commences as a papule or tubercle, which afterwards, in most cases, becomes ulcerated.	Commences as a pustule, or as an open ulcer.

Number.

Generally single; multiple, if at all, from the first; rarely, if ever, by successive inoculation.

Depth.

Most frequently a superficial erosion, "scooped out," flat, or elevated above the surface; rarely deep, and then cup-shaped, sloping toward the center.

Edges.

Sloping, flat, or rounded; adherent.

Floor.

Red, livid, or copper-colored, often iridescent, sometimes covered by a false membrane, scaly exfoliation, or scabs.

Secretion.

Scanty and serous, in the absence of complications. Auto-inoculable with great difficulty.

Induration.

Firm, cartilaginous, circumscribed, movable upon neighboring tissues; sometimes thin, resembling a layer of parchment, or again, annular; generally persistent for weeks or months.

Sensibility.

So little painful as often to pass unnoticed.

Destructive Tendency.

Phagedæna rare and generally limited.

Frequency in the same Subject.

One chancre usually affords complete, and always partial protection against another.

Lymphitis.

Induration of the lymphatics common.

Characteristic Gland Affection.

The superficial ganglia on one or both sides enlarged and indurated, painless, freely movable; suppuration rare and pus never auto-inoculable.

Transmission to Animals.

Peculiar to the human race.

Prognosis.

A constitutional disease. General symptoms usually occur in about six weeks after the appearance of the sore, and very rarely delay longer than three months.

Effects of Treatment.

Improves under the influence of mercury.

Number.

Often multiple, either from the first or by successive inoculation.

Depth.

Perforates the whole thickness of the skin, or mucous membrane; "punched out" and excavated.

Edges.

Abrupt, sharply cut, eroded, undermined.

Floor.

Whitish, grayish, pultaceous, "worm-eaten."

Secretion.

Abundant and purulent. Readily auto-inoculable.

Induration.

No induration of base, although engorgement may be caused by caustic or other irritant, or by simple inflammation, in which case the engorgement is not circumscribed, shades off into surrounding tissue, and is of short duration.

Sensibility.

Painful.

Destructive Tendency.

Often spreads and takes on phagedænic action.

Frequency in the same Subject.

May affect the same person an indefinite number of times.

Lymphitis.

Inflammation of the lymphatics rare.

Characteristic Gland Affection.

Ganglionic reaction absent in the majority of cases. When present, inflammatory; suppuration frequent, pus often auto-inoculable.

Transmission to Animals.

May be transmitted to the lower animals.

Prognosis.

Always a local affection; the general system never infected.

Effects of Treatment.

Treatment by mercury always useless, and, in most cases, injurious.

CHAPTER VII.

Classification of the Syphilodermata.

Undue Importance attached to Classification in Dermatology.—Historical Sketch of Classifications of Syphilitic Eruptions.—The Importance of Distinguishing the Early from the Subsequent Eruptions.—Objections to the Lesional System of Classification.

As a correct diagnosis of syphilis is the key to its successful treatment in most cases, the first and chief duty of the physician is to determine the fact that the eruption which he is called upon to treat is a manifestation of this disease. It is of vastly less importance to be able to state the exact form of cutaneous syphilis which the patient presents. Classification in dermatology has received an undue amount of attention, and for a subject of such little vital importance it has too often proved to be the hobby of the teacher and the bugbear of the student. A classification of skin diseases is not intended to serve as an aid in their diagnosis, for it is seldom that one thinks of the class to which a disease belongs until after a diagnosis has been made. Nor does it have any especial bearing upon their treatment. It is simply an arrangement which is convenient for purposes of teaching, and may serve in this capacity, whether the arrangement be in accordance with color, seat, or elementary lesion, or in harmony with anatomical, pathological or etiological facts. In such a limited field as syphilo-dermatology the refinements of classification are of very little consequence. That there are various clinical forms of cutaneous syphilis is an important fact, but too much stress should not be laid upon their minute differentiation.

Since the classification of syphilitic eruptions is by no means of recent origin, it may prove instructive to glance hastily over the labors of an earlier period as well as at the work of a more recent date. In doing so, we find that attempts at classification were made by the earliest writers on this disease. Whatever view be entertained as to the antiquity of syphilis, it must be acknowledged that previous to the great epidemic which began in Italy at the close of the fifteenth century, and spread over the greater portion of Europe, no writer furnished any accurate description of the syphilitic lesions of the skin. At this time, however, the cutaneous lesions of the *morbus gallicus*, as the apparently new and strange disease was then called, became so common and striking that the disease was generally regarded as a contagious skin affection, and some very accurate descriptions of its lesions were written by physicians of that age. According to the account of contemporary writers, the cutaneous lesions, at the beginning of this sudden outbreak of the disease, were of unusual severity. A few years later, the tendency to extensive ulceration

seemed to have diminished from some cause, and this change in the character of the eruptions is mentioned by several writers.

At this early date attempts at a classification of the various cutaneous lesions were made, and with a commendable degree of success. As one would naturally expect to be the case, many non-syphilitic affections were ranked as manifestations of syphilis, and the relation existing between the primitive and consecutive lesions (primary and secondary syphilis) was not generally appreciated. All of the cutaneous lesions ascribed to the influence of the *morbus gallicus* or *lues venerea*, as the disease was termed later, were described by the earlier writers as "pustulæ," this term not possessing at that time the limited signification which attaches to it at the present day. Indeed, until a quite recent date, this term has been employed by writers to denote the various forms of cutaneous syphilis, and is to be regarded as a synonym of our term "syphilides" or "syphilodermata."

One of the very earliest attempts at classification was that made in 1498, by Gaspard Torelli, who spoke of dry and moist eruptions, and described three forms of each. Later writers (Nicolas Massa and others) based their division of syphilitic eruptions upon the sequence of the lesions (early and late pustules), their size (large and small pustules), and color (black and gray pustules). Benevinio (in 1502) made five classes of syphilitic pustules, based upon their size and degree of ulceration, while Gabriel Fallopius described pustules with crusts, pustules without crusts.

Throughout the course of the sixteenth century the writers on syphilis lay great stress upon the color and other peculiarities of the eruptions, which served to distinguish them from ordinary cutaneous affections, but the different forms of cutaneous syphilis were not particularly described.

The first step toward our present division of the syphilodermata was made a hundred years ago, by Joseph Jacob Plenck, an illustrious physician of Vienna, and a pioneer in the field of dermatological classification. Plenck made fourteen classes of cutaneous diseases, among which we find mentioned and described the following affections, supposed at that time to be of venereal origin.

(1) Maculæ Venereæ.

Sunt maculæ, quæ a *viru venereo* proveniunt.

Sunt maculæ duræ, circulares, rubræ, parum elevatæ cum margine calloso, albido, quæ in lue confirmata in fronte, circa tempora & in thorace efflorescunt.

Circa frontem formant sic dictam *coronam veneream.*

(2) Scabies Venerea.

Quæ in fronte & aliis locis papulas duras, in apice suppurantes cum maculis venereis format.

(3) Herpes Syphiliticus.

Est herpes, qui a miasmate venereo excitatur, auribus & capilatæ capitis parti insidere solet, noscitur symptomatibus venereis.

(4) Tinea Venerea.

Præter luis venereæ signa adsunt crustæ albæ circa tempora & frontem, & in malo inveterata maculæ & pustulæ venereæ frontis, atque herpes farinaceus aurium.

(5) Mentagra Venerea.

Ingentem numerum talium crustarum, gluten viscidum exsudantium bis, in magna copia venereorum vidi.

(6) Impetigo Venerea.

Quæ a viru venerea.

(7) Verrucæ Venereæ.

Sunt moris, val frambæsiis similes, quæ in venereorum facie erumpunt, ut aliquoties vidi.

(8) Condylomata Venerea.

Quæ vix dolent & ex prægressis vel præsentibus aliis symptomatibus venereis noscuntur.

(9) Aphthæ Venereæ.

Ulcera superficialia, muco gryseo tecta, faciunt: noscuntur signis luis venereæ.

(10) Rhagades Venereæ.

Quæ in volis manuum plantisque pedum, atque circa ani & vulvæ orificium oriri solent, noscuntur morbis venereis prægressis.

A few years later Trappe and Lagneau, surgeons of Paris, each published a classification of syphiltic eruptions, which formed the basis of that of Cullerier, which was published in 1820.

In 1832, Baron Alibert, the illustrious dermatologist of the Hôpital Saint-Louis, in Paris, published his "Monographie des Dermatoses," in which work we first encounter the term *syphilide*. This has since come into common use in other countries than France, and been found to be a most convenient synonym for syphilitic eruption. Alibert divided the syphilides into three groups, and subdivided these groups, as will be seen below.

La Syphilide Pustulante.	(Syphilis Pustulans.)
1. Squameuse.	(squamosa.)
2. Crustacée.	(crustacea.)
3. Pemphigoïde.	(pemphigoïdes.)
4. Lenticulaire.	(lenticularis.)
5. En grappe.	(racemiformis.)
6. Merisée.	(cerasiformis.)
7. Miliaire.	(miliaris.)

8. Ortiée.	(urticata.)
9. Serpigineuse.	(serpiginosa.)
10. Scabioïde.	(scabioides.)
11. Varioloïde.	(varioloides.)
12. Tuberculeuse.	(tuberculosa.)
La Syphilide Végétante.	(Syphilis Vegetans.)
1. Framboisée.	(frambœsia.)
2. En choux-fleurs.	(cauliflora.)
3. En crêtes.	(crysta galli.)
4. En poireaux.	(porri formis.)
5. En verrues.	(verrucosa.)
6. En condylômes.	(condyloma.)
La Syphilide Ulcérante.	(Syphilis Exulcerans.)
1. Serpigineuse.	(serpiginosa.)
2. En profondeur.	(excavata.)
3. En fissures.	(fissata.)

This arrangement and fanciful nomenclature of syphilitic eruptions, doubtless excited the admiration of the large body of students who had thronged the wards of the great hospital, and pursued their studies under the guidance of this eminent master, but it utterly failed to meet with general acceptance. The teachings of an English contemporary, the distinguished Robert Willan, were fast gaining ground in France. The system of classifying skin diseases, according to the characteristic elementary lesion—a system which was introduced by Plenck and perfected by Willan, was being generally accepted as a marked advance in the study of dermatology. At this time Biett, a colleague of Alibert, made a division of the syphilodermata, in accordance with the lesional plan, which was adopted by Cazenave and others, and which serves as a basis for the classification of syphilitic eruptions at the present day. The divisions made by Biett and Cazenave are as follows:

1. Exanthematic.	4. Tubercular.
2. Vesicular.	5. Papular.
3. Pustular.	6. Squamous.

To this Devergie added later the varicellar and the bullous syphilides.

Without burdening the reader, by giving the classifications of all who have written on cutaneous syphilis, it may be useful to insert for the purpose of comparison those of certain recent and influential syphilographers.

Bazin divided the syphilides according to their mode of termination into those which undergo resolution and those which ulcerate, the former class being subdivided into the exanthematic and circumscribed.

Hardy makes a division upon a chronological basis, as will be seen by the following table:

1. The early syphilides.
   - *a.* Exanthematic.
   - *b.* Papular.
   - *c.* Superficial pustular.
   - *d.* Varioliform.
   - *e.* Vegetant.
2. The intermediate syphilides.
   - *a.* Pigmentary.
   - *b.* Vesicular.
   - *c.* Pustular.
   - *d.* Squamous.
   - *e.* Tubercular.
3. The late syphilides.
   - *a.* Pustulo-crustaceous.
   - *b.* Ulcerative.

Zeissl makes the following division of the syphilides, based upon the elementary lesion of the various eruptions:

1. The erythematous form.
   - *a.* Erythema maculosum.
   - *b.* Erythema elevatum or papulatum.
2. The papular form.
   - *a.* Syphilis papulosa lenticularis.
   - *b.* Syphilis papulosa miliaris.
   - *c.* Psoriasis palmaris etplantaris.
   - *d.* Moist papules.
3. The pustular form.
   - *a.* The acne-form pustular syphilide.
   - *b.* The impetigo-form pustular syphilide.
   - *c.* The varicella-form pustular syphilide.
   - *d.* The ecthyma-form pustular syphilide.
   - *e.* Rupia.
4. The tubercular form.
   - *a.* Superficial syphilitic nodules.
   - *b.* Deep-seated syphilitic nodules.

Bäumler arranges the different forms of cutaneous syphilis in the following groups:

I. *Circumscribed Hyperæmias with but slight Infiltration.*
   Macular syphilide. Roseola.

II. *Marked Infiltration of the Papillary Body.*
   1. In the form of papules:
      Papular syphilide.
   2. In large patches:
      Squamous syphilide.
   3. On mucous membranes, or at favorable points in the cutis:
      Moist papules (condylomata lata).

III. *Especial Implication of the immediate Vicinity of the Follicles.*
   (Hair and sebaceous follicles.)
   1. Simple infiltration, with either scanty or no exudation in the follicles:
      Lichen syphiliticus.

2. With acute suppuration in the follicle :
   Acne syphilitica.
3. Exudation into small, markedly infiltrated groups of follicles, with rapid formation of crusts :
   Impetigo syphilitica.

IV. *Infiltration with Sub-epithelial Suppuration and Superficial Ulceration.*
Pustular syphilide :
   Varicella syph. Pemphigus syph.
   Ecthyma syphiliticum.
   Rupia syphilitica.

V. *Infiltration with Disintegration to a considerable depth (gummous development).*
Tubercular syphilide (lupus syphiliticus).

Bumstead and Taylor apply the qualifying adjectives "erythematous," "papular," "pustular," etc., to the generic term "syphilide," using the words "ulcerating," "serpiginous," etc., as the features of the eruption require. They describe the following :

The erythematous syphilide.
The papular syphilides.
   Large miliary syphilide.
   Small miliary syphilide.
   Small lenticular syphilide.
   Large lenticular syphilide.
The pustular syphilides.
   Acne-form syphilide.
   Variola-form syphilide.
   Impetigo-form syphilide.
   Ecthyma-form syphilide.
   Rupia.
The bullous syphilide.
The tubercular syphilide.
The gummous syphilide.
The serpiginous syphilide.
Superficial serpig. syphilide.
Deep serpig. syphilide.
The pigmentary syphilide.

Keyes describes seven varieties of syphilitic eruption occurring during the secondary and intermediary (late secondary) periods :

1. The erythematous syphilide.
2. The papular syphilide.
3. The pustular syphilide.
4. The pigmentary syphilide.
5. The vesicular syphilide.
6. The squamous syphilide.
7. The tubercular syphilide.

He describes the following as belonging to the tertiary period :

1. The pustulo-bullous syphilide.
2. Pustular syphilide : { *a.* With infiltrated base. *b.* In groups.
3. Gumma { *a.* As infiltration { 1. Non-ulcerative. 2. Ulcerative. *b.* Tumor.

From a glance at the foregoing arrangements, and especially at those of recent writers, a diversity is apparent which indicates at once the difficulty of perfecting a classification which will commend itself to the experience of every careful student of this erratic disease. According to my own view, the most important point to bear in mind in classifying the syphilides is the period at which the eruption appears. As a notable change in the extent, configuration and symmetrical development of syphilitic eruptions usually takes place in the course of the disease (about the end of the first half-year in the great majority of cases), the most natural division of syphilides is that which separates the early from the subsequent eruptions. Each of these classes has its characteristic features, the eruptions of the former being disseminated, symmetrical and superficial, while those of the latter are confined to limited portions of the body, are not usually symmetrical, are deeper seated and are extremely prone to ulcerate and to leave permanent cicatrices.

The plan which is commonly adopted in the classification of the syphilodermata, viz.: their divisions into clinical forms based upon the predominance of certain elementary lesions, is one which has served a good purpose, but which has outlived its usefulness. The anatomical or lesional system adopted by Willan, in his classification of skin diseases, was of immense value at the time in which he lived, and greatly aided the progress of dermatological study. When a fuller knowledge was acquired respecting the nature and relations of the individual diseases, it was deemed unwise to associate in one group such widely different diseases as variola and scabies, simply on account of the presence of pustules in each; and hence the lesional system came to be discarded in favor of one which rests chiefly on a pathological basis, and is more in accordance with the present state of dermatological knowledge. In like manner, the division of the syphilodermata according to the predominant elementary lesion, was of great value in the time of Willan and Biett, but since a prolonged and diligent study of cutaneous syphilis has given us a far more complete knowledge of the natural history of the disease, and the chronological sequence of the various syphilitic eruptions, it appears to me to be as unwise to associate under the term pustular syphilide, *e. g.*, two eruptions so distinct in character as the early pustular syphilide and a late rupial eruption, as it would be to associate variola and scabies. To be sure, a pustular element is characteristic of both, but the fact that one invariably occurs a few months after the initial lesion, while the other is usually met with several years later, is a point of vastly more importance than the fact that we have a pustular lesion in both instances. No one will deny that a distinction should be made between the desquamating papules of early syphilis, seen so frequently upon the palm and the horny circinate patches, which sometimes occur as a late lesion. They differ not only in their objective characters, but, likewise, in their prognosis and treatment, and yet many writers who attach this undue importance to the presence of an insignificant lesion will class these eruptions together as examples of the squamous syphiloderm, a term which should be only applied to the latter. To a certain extent the lesional system of classifying syphilitic eruptions is convenient, but

the distinction between the early and the subsequent, or late eruptions, must be regarded as the one grand division of supreme importance.

A simple and convenient arrangement of the syphilodermata, and one which I prefer, is the following:

I. The Early Syphilides.
   1. The erythematous syphilide.
   2. The papular syphilide.
   3. The pustular syphilide.

II. The Subsequent Syphilides.
   1. The tubercular syphilide.
   2. The squamous syphilide.
   3. The pustulo-crustaceous syphilide.
   4. The gummatous syphilide.
   5. The ulcerative syphilide.

This is a classification of syphilitic eruptions, as they are met with in practice. It is sufficiently ample to include all forms of syphilis of the skin, although it makes no special provision for certain varieties which have been described by various writers, but which are rarely, if ever, encountered outside of the text-books.

CHAPTER VIII.

The Erythematous Syphilide.

Its Date of Apppearance.—Description.—Portions of the Body Affected.—The Macular and the Maculo-papular Varieties.—Course and Termination.—Relapsing Forms.—Pathological Condition.—Diagnosis.

The erythematous syphilide, or, as it is frequently termed, the macular syphilide, or the syphilitic roseola, is the earliest cutaneous manifestation of syphilis subsequent to the chancre. It occurs in nearly every case of the disease, although it frequently passes unnoticed by the patient. According to many syphilographers it is a constant phenomenon, but in some cases of syphilis which I have had an opportunity to observe with unusual care, the papular form of eruption has developed at the very commencement of the stage of efflorescence. In these cases there have been no persistent macules but merely a transient macular condition, which could only be regarded as the incipient stage of the papular syphilide. Excluding this condition as unworthy of the name, the common statement that the erythematous syphilide is the most frequent of the cutaneous manifestations of the disease is one which admits of a doubt. Indeed, a well-marked and purely erythematous syphilide, such as is illustrated by Plate I., is rare, and by no means so frequently brought to the notice of the physician as the papular form of the disease portrayed in Plate V. If, however, we apply the term erythematous syphilide to those common cases in which there is a commingling of macules and papules, the statement as to its frequency is correct.

It has been already stated that the stage of invasion of syphilis, or that period which extends from the appearance of the initial lesion to the first cutaneous outbreak, is usually of six weeks' duration. At the expiration of this period, therefore, the erythematous syphilide may be looked for, and it may be remarked in this connection that throughout the whole course of the disease, which is characterized by notable irregularities and exceptions to the rule, there is no date so little subject to variation. And yet in rare instances this syphilide may appear as early as three or four weeks after the appearance of the chancre, while in other cases it may be delayed several months. When mercury is administered during the period of invasion the outbreak of the early syphilides is almost invariably delayed, while at the same time their character is apt to be considerably modified. The appearance of the erythematous syphilide bears no relation to the character or course of the initial lesion, and it is difficult to say why the interval elapsing between the appearance of the chancre and the subsequent eruption should be subject to such a notable variation.

The erythematous syphilide consists of hyperæmic macules, very slightly if at all elevated above the level of the surrounding skin, and scattered over certain portions of the trunk and extremities. These are usually numerous, about the size of a ten-cent piece, of a faint

rose-red color, circular in form, and with a somewhat indistinct outline. However copious the eruption may be, the individual lesions are usually distinct, although in a relapsing form of the eruption they show a tendency to aggregate upon certain parts of the body and then may coalesce to a slight extent. (In Plate IV. we see a relapsing erythematous syphilide occurring two months after the original outbreak, which is seen upon the same patient in Plate I.) The macules are nearly all of the same size, and it is only in rare cases and chiefly in relapses that they are met with as large as a quarter dollar.

The color of the lesions when they first appear is very faint, and often a keen eye and diligent search is required to detect them. Exposure of the body to a cooler atmosphere, as happens when the patient gets out of a warm bed or removes his clothing, will usually render them temporarily more distinct, and when not apparent at first sight they may be brought to view by allowing a side light to fall across the patient's body. The macules, which are at first of a rose-red color, speedily assume a duller purplish-red hue, which in the course of a week or two changes to a tawny or yellowish red. When recent, the macules may be made to disappear entirely under a pressure of the finger, but after they have assumed a duller hue, and especially when they are somewhat elevated, firm pressure of the finger tip merely dispels the hyperæmic redness, and leaves a pale yellowish stain. In their stage of decline the macules assume a darker or brownish-yellow hue. This is frequently described as being of a copper color, but it requires considerable faith or a decided stretch of the imagination to appreciate the comparison. In most cases the macules disappear and leave no trace, but sometimes a considerable amount of pigmentation is left (as is seen in Fig. 1, Plate III.). This, however, is never permanent.

In this connection, a brief reference may be made to a singular condition of anomalous pigmentation which sometimes occurs shortly after the disappearance of an early syphilide of macular or papular form. It consists of numerous small, whitish, circular or oval macules, presenting the same distribution as the lesions of the preceding syphilide whose site they occupy. They may be seen upon the trunk (as in Fig. 2, Plate III.), although the sides of the neck appear to be their favorite location. Frequently the macules are made to appear more distinct by a hyper-pigmentation of the intervening skin, which serves as a contrasting background. This condition has been described by several writers under the name of the pigmentary syphilide. In my judgment, it is not a direct manifestation of syphilis, but a form of incomplete leucoderma appearing as a sequel rather than as a symptom of this disease. The condition is one which is of greater frequency and of less importance than one would imagine from all that has been written on the subject.

The erythematous syphilide is usually limited in its distribution to the trunk and flexor surfaces of the extremities. The macules are most distinctly seen where the skin is thin and delicate, as upon the abdomen, sides of the chest, and upon the forearm below the bend of the elbow. The lower portion of the abdomen is one of the earliest sites of the eruption, and hence, in examining a suspicious genital sore of six or eight weeks' standing, it is both convenient and advisable for the physician to take a hasty glance at the skin of this region,

with a view to the discovery of a possible eruption. Occurring in a person with a fair complexion the macules are naturally seen to the best advantage. The face is usually unaffected, but it may become the seat of indistinct macules of a dull, purplish-red hue. The palms are rarely affected at this early date.

Two varieties of the erythematous syphilide are usually described. The former is characterized by smooth, hyperæmic macules, and is comparatively rare. The lesions in the latter form are more or less elevated and tend to become transformed into papules. The former may be termed the macular variety of the erythematous syphilide, while the latter may be distinguished by regarding it as the maculo-papular variety. The lesions in this latter variety may be evenly raised above the surface of the surrounding skin, or they may be dotted with small follicular elevations, which become vesicular or pustular in some cases. Frequently these leave red points, which remain scattered in groups over the body for several weeks after the eruption has faded. Sometimes the follicular openings are left slightly depressed and patulous. The macular eruption is usually the sole cutaneous manifestation of the disease during the period of its existence. The maculo-papular eruption is sometimes difficult to be distinguished from the papular syphilide, of which it may be considered to be a forerunner. While some of the macular lesions of this maculo-papular variety become transformed directly into papules, others maintain their original flat or slightly elevated character, and the lesions of the papular syphilide develop among them in the interspaces of sound skin. There are some cases of early syphilis in which it is difficult to say whether macules or papules are the predominating lesion, and whether the term erythematous or papular be applied to such a syphilide is a matter of little consequence.

The development of the erythematous syphilide is usually rapid, and there are certain exciting causes, such as fatigue, dissipation, &c., which seem to promote its development when acting about the time it is due. For instance, after some vigorous exercise which has caused a determination of blood to the surface, the patient may take a bath and with surprise behold his body mottled in certain regions with rosy spots. Or the patient may have devoted a night to dissipation, and found the eruption on his body upon dressing himself on the following day. In other cases, and particularly with patients who do not indulge in frequent ablution, the rash may pass unnoticed for days or weeks, as there is no itching or other subjective sensation, likely to attract attention to the skin. In dispensary practice it is very common to find a well-marked macular or papular syphilide existing unknown to the patient. If he has not been instructed to examine his body daily, the physician who has treated his chancre, knowing just when and where to look for the rash, will generally be able to discover and call the patient's attention to it.

In some cases the development of the macules is somewhat slower, and about fourteen days will elapse before the eruption is well marked. If the eruption is a scanty one it may disappear in a very few weeks, especially if mercury is administered, although the purely macular form of the eruption often persists with very little change in its appearance for one or two months. The ordinary maculo-papular form, is very prone to either assume a papular

form itself or to disappear and be shortly followed by a typical papular or pustular eruption. According to Hardy, the sooner the eruption appears after the development of the initial lesion, the shorter will be its duration.

In rare instances the erythematous eruption relapses, although in such an event it never assumes precisely the same form which it presented at its first appearance. The early disseminated macules may not have entirely disappeared when a second outbreak occurs, usually upon a somewhat limited portion of the trunk, and presenting lesions of a larger size and duller hue. Now and then an erythematous syphilide is met with in the course of the disease, occurring as late as the close of the first year. This is usually still more limited as to the extent of surface involved, and the individual lesions exhibit a marked tendency to assume a circinate or a crescentic form. I have seen but two or three instances of this peculiar form of eruption and in each case the forehead or lower portion of the face was the part affected. It may, however, occur upon the trunk or extremities, the gluteal region being a favorite locality. A striking peculiarity of the eruption is noted in the fact that the erythematous circles show no tendency to increase in size through peripheral extension, and in this respect it differs from the ordinary circinate erythema of non-syphilitic origin, as well as from the circinate papular syphilide.

A study of the morbid anatomy of the erythematous syphilide by various microscopists has shown that the macules result from a circumscribed capillary hyperæmia of the papillary layer. A few granules and newly-formed cells are found along the walls of the blood-vessels, and more especially in the slightly elevated maculo-papules. The escape of blood corpuscles through walls of the vessels often takes place, and their subsequent decomposition and the diffusion of coloring matter through the tissues gives rise to the pigmentation which is so noticeable a feature of certain cases.

The diagnosis of the erythematous syphilide is simple, if the eruption is at all distinct. When the outbreak of syphilis is expected and there are but a few small hyperæmic spots on the body, the physician may be puzzled to decide whether these are of specific nature or merely an accidental condition which might be present in any case. Frequently the mottling or marbling of the skin, which is common in debilitated subjects with a sluggish cutaneous circulation, is mistaken for a specific exanthem. This condition is simply the result of capillary venous stasis, and is frequently seen when a patient free from syphilis is stripped, and the skin exposed to the influence of a cool atmosphere. It does indeed bear a strong resemblance at times to a faint macular syphilide, but the liability to error will be avoided if it is borne in mind that in this condition we have light macules with dull purplish-red interspaces, while in the erythematous syphilide we have macules of a reddish tint and interspaces of normal skin of a comparatively light hue. It is quite rare for this eruption to be mistaken for any other affection of the skin, but it is not so rare for other non-syphilitic skin affections to be mistaken for the eruption under discussion. For instance, it would be almost impossible for one to mistake the erythematous syphilide for a case of measles, but in the dispensary, and the clinic where syphilitic cases are common, I have known measles in the adult to be

repeatedly mistaken for the erythematous syphilide. The medicinal rash resulting from over-doses of copaiba and cubebs, and which is known as *erythema balsamicum* is very apt to be mistaken for syphilis, especially as the patient who has contracted a gonorrhoea is surely not above the suspicion of likewise having syphilis, and not infrequently the two diseases co-exist. This rash, however, differs in many important respects from the erythematous syphilide. It partakes of an urticarial character, occurs in aggregated patches, chiefly upon the extensor surface of the extremities, upon the backs of the hands, around the joints and upon regions subjected to pressure. It is accompanied by an elevated temperature of the skin and tends to disappear as soon as the exciting cause is removed, or in other words, as soon as the medicine is discontinued. In a case of doubt as to the balsamic origin of the erythema, the common test of adding nitric acid to the urine may be resorted to.

As a result of the administration of mercury, some writers have described the occurrence of patches of cutaneous hyperæmia. I have never seen such in my own practice, and am confident that they are not liable to result from a discreet use of this valuable drug. Chromophytosis (*Tinea versicolor*) is an eruption which is often thought to be a manifestation of syphilis, by the patients who happen to be affected by it. Its peculiar distribution in small, closely aggregated circular spots, or in confluent patches, is such that I can hardly imagine a physician confounding it with either the erythematous syphilide or its resulting pigmentation.

Finally, the diagnosis of either of the early forms of cutaneous syphilis is usually rendered easy by a consideration of certain concomitant syptoms of the disease which are rarely absent. These are swollen glands, headache, dull arthritic pains, falling of the hair, sore throat and mucous patches.

The increase in size of the superficial lymphatic ganglia of certain portions of the body is of great assistance in the diagnosis of early syphilis, and yet too much reliance must not be placed upon this symptom, since the engorgement of these glands is not always sufficiently marked to be readily detected, especially in certain well-nourished and thick-skinned subjects. The glands which are most commonly found to be affected are those situated upon the side of the neck, at the upper portion of the posterior border of the sterno-cleido-mastoid muscle. Also, the epitrochclear gland above the internal condyle of the humerus. In one case I have seen the glands scattered along the inner edge of the biceps muscle, so enlarged that they could be seen as well as felt. This condition of the lymphatic glands often precedes the development of the earliest eruption. It is only present in cases of recent syphilis, and hence there is nothing to be gained from an examination of the neck in case of a late eruption. In rare instances the glands suppurate. This was the case with the patient who presented the corymbous pustular eruption shown in Plate XV., and I have, at the time of writing, a syphilitic patient with a sharply cut ulcer on the side of the neck, resulting from suppuration around a swollen gland.

The headache from which patients generally suffer at the date of the outbreak of the earliest eruption, is a most important diagnostic symptom, and often enables the physician who examines the patient several months later, to fix the exact date of the commencement of

the period of efflorescence (secondary syphilis). It affects different portions of the head in different cases, and is usually present by day as well as by night. The first onset is frequently very severe, and lasts for two or three days. It then recurs in a somewhat milder form, and at greater or less intervals for several weeks, unless it is checked by treatment.

Another very constant symptom of the disease which accompanies the early eruptions is a rheumatoid affection of certain joints. The shoulders, elbows and knees are particularly apt to suffer, and I have repeatedly noticed that the shoulder on one side is affected coincidently with the elbow on the opposite side. The pains are often severe at night, and interfere with sleep, and the patient arises in the morning with a feeling of general stiffness, which disappears soon after a moderate amount of exercise. There may be more or less effusion into the joint causing a certain amount of swelling. In many cases the pain is not felt in the joint itself, but in the neighboring ligaments, and sometimes the periosteum of the long bones is affected even at this early stage. Many patients complain of a tenderness of the sternum and sterno-costal articulations.

Falling of the hair is observed in a large proportion of cases of early syphilis. It is usually noted on the scalp, although it may also affect the eyebrows and other hairy portions of the body. There is in most cases, a mere thinning of the hair, the roots appearing to be loosened so that an unusual number of hairs come out with each combing. In rare instances a partial alopecia will be seen following the course of a nerve.

An erythematous condition of the fauces is almost invariably present at this early date, although it may not occasion any discomfort to the patient. A little later, however, a complaint is usually made that the throat is sore, and an examination shows the mucous membrane to be decidedly inflamed, and often the seat of whitish patches or erosions. Upon the inner surface of the lips and less frequently upon the tongue, and buccal membrane, slightly elevated circular patches, presenting a milky or opaline appearance, develop, and constitute what are commonly known as "mucous patches." Similar lesions are not infrequently met with upon the vulva in the female, in the groin, and upon the scrotum and under surface of the penis in the male, and about the anus in both sexes. Here they are apt to assume a peculiar hypertrophic form, which will be described in connection with the papular syphilide. The foregoing symptoms are of extreme diagnostic importance when considered in connection with an early eruption, and some of them, though seldom all, are discoverable in every case.

The prognosis of syphilis when it presents an erythematous form is good, and a syphilitic patient is to be congratulated when his eruption is a purely macular one. At the same time his future exemption from syphilitic symptoms will depend in great measure upon his habits, and the fidelity with which he pursues a judicious plan of treatment.

CHAPTER IX.

THE PAPULAR SYPHILIDE.

Varieties.—The Lenticular Form.—Color and Distribution.—Peculiarities of Location.—Course and Termination.—Diagnosis.—The Miliary Form.—The Large, Flat, Papular Form.—Squamous Papules.—Circinate Papules.—The Moist Papular Form.

The papular syphilide is without doubt the most important of the three forms of early cutaneous syphilis, being of frequent occurrence, and liable to undergo striking modifications in its appearance. It does not develop as early as the erythematous form, but usually appears a few weeks later, either in connection with macules or following closely upon their disappearance. In some cases, as has been stated in the previous chapter, it may constitute the initial exanthem. Although it is usually but the first of a series of cutaneous manifestations, extending through many years, it may, in rare instances, be the last as well as the first eruption. It consists of a greater or less number of firm and rounded elevations of the skin, scattered evenly or in groups over the whole or a portion of the body, and varying in size from a large pin-head to a quarter dollar.

There are two distinct varieties of the papular syphilide admitted by all writers, and commonly known as the lenticular and the miliary papular syphilides. The lesions of the former are about the size of a lentil or a split pea, while those of the latter are no larger than a millet seed or a large pin's head. In addition to these, there are two peculiar forms of papular eruption which may be regarded either as varieties of the papular syphilide or as modifications of the lenticular variety. In either case it will be convenient to consider them separately, as the large, flat or circinate papular syphilide, and the moist papular syphilide.

The lenticular variety of the papular syphilide is by far the most common. Its lesions are hemispherical or flattened, and at the stage of full development constitute firm, fleshy prominences, with a smooth and sometimes glossy surface. Indeed, the superficial layer of epidermis is often absent from the central portion of the papule and slightly detached around its base, where it appears as a whitish fringe. The papules are at first of a light-red hue. This does not entirely fade on pressure with the finger, as was the case with the early macules, but leaves a yellowish stain. Gradually the color of the papules becomes dull, and finally they acquire that peculiar hue which is so frequently compared with copper or lean ham. On the lower extremities this color is especially well-marked, and on the legs the papules sometimes assume a purplish or hemorrhagic appearance. On the face and neck a papular eruption is sometimes noted, which scarcely differs in hue from that of the surrounding skin.

The eruption is usually a copious one, and the papules are disseminated over the greater

portion of the body, their general distribution being similar to that of the macules of the erythematous syphilide, with which they are frequently intermingled. On the back and sides of the chest it is often noticeable that the lesions follow the course of the intercostal nerves and consequently tend to form parallel lines sloping downward on either side of the spine. This peculiarity is apparent on the back of the patient in Plate V. The papules are usually more numerous upon certain parts of the body than upon others, although they rarely appear in groups at the time of their first appearance. In some cases the eruption is very scanty, and there may be scarcely enough papules present to form the basis of a diagnosis.

The face is usually affected by the papular syphilide to a less extent than other portions of the body, although in some cases its expression is quite changed. The forehead is especially apt to be the seat of papules, a fact noted by the earliest writers on the disease, who applied to the eruption in this locality the term *corona veneris*. On the portion of the cheeks adjoining the wings of the nose the papules are often small, closely aggregated and covered with fine crusts. On the scalp they are never well developed, but in all of the early forms of syphilis this region is the seat of a few papulo-pustules which develop around the mouths of the hair follicles, especially on the occiput. These become crusted and slightly itchy, so that the patient is conscious of their existence and disposed to pick at them.

The palms and soles are generally affected if the eruption is a copious one, though not until the papules have existed for some time upon the trunk. Owing to the thickness of the epidermis in this region the papules are but slightly elevated. They appear at first as reddish spots upon which the epidermis breaks and peels off. When these lesions are numerous the epidermis of the palm may undergo extensive desquamation, and if the papules have faded from the rest of the body, the eruption upon the palm is very likely to be mistaken for a squamous eczema. Plate XVIII. shows a palm in such a condition. It likewise shows a more common form, in which the lesions are discrete. This early scaling papular syphilide must be carefully distinguished from the late scaly palmar patches which I shall describe hereafter as the true squamous syphilide.

The lenticular papular syphilide develops gradually, and usually runs a chronic course when uninfluenced by the administration of mercury. New papules develop successively, so that it is not uncommon to see some which are recent scattered among those which are already disappearing. The eruption usually lasts one or two months, and invariably terminates in resolution, leaving pigmented stains in some cases, and even slight depressions, which, however, are never permanent. When the papules have existed for some time, and are beginning to undergo resolution, it is not unusual for the dead epidermis to accumulate upon their summit, and to give them a scaly aspect. (See Plates VII., X., XVIII. and XIX.) This condition of the eruption is designated as a papulo-squamous syphilide. In many patients, who are weakly or debilitated, and therefore especially prone to the pustular form of eruption, some of the papules soften at their summit and undergo a partial transformation into pustules. To such cases the term papulo-pustular may be appropriately applied. (See Plate XI.)

The prognosis in a typical case of the lenticular papular syphilide is good, as indeed it

is in the case of dry lesions generally. The occurrence of the eruption in this form indicates a tolerably strong constitution on the part of the patient, and little prospect of late grave lesions. If the patient be naturally weak, of a strumous constitution, or poorly fed, some of the papules are apt to undergo modifications to be presently described, and in such a case the prognosis will be less favorable.

The diagnosis of this form of cutaneous syphilis is simple, as it is almost always accompanied by the other symptoms of recently-acquired disease. There is, moreover, no non-syphilitic eruption which is likely to bear a strong resemblance to it. Acne occurring in a papular form might lead a careless observer into error, especially if coexisting with a suspicious genital lesion, but the chronic nature of this eruption, its strict limitation to the face, breast and back, and its glandular character, as shown by the usual co-existence of comedos, will always serve as reliable diagnostic points. Erythema papulatum or urticaria often present disseminate papules, but they are readily distinguished by their acute course and intensely pruritic character. Purpura might be suggested by the papules on the lower extremities, as these are rarely well developed and often assume a deep vinous or hemorrhagic hue, but the occurrence of papules or pigmented spots on other portions of the body would dispel all doubt.

The miliary papular syphilide is by no means as common as the form which has just been described. It consists of numerous small conical papules of a purplish-red hue, scattered over the whole body or aggregated in certain localities and tending to form groups with a circular outline. The papules are developed at or around the follicular openings and are sometimes slightly umbilicated. At the summit of many of the papules a fine vesicle or vesico-pustule may be detected by close inspection, and sometimes the closely-packed lesions become covered by minute crusts. The eruption may appear as early as the lenticular form, in which case it is apt to be very copious. When it occurs a few months later, as a relapsing eruption, the lesions are usually fewer in number and exhibit a marked tendency to appear in groups. This form of eruption develops rapidly, and when occurring at the commencement of the stage of efflorescence is apt to be accompanied by febrile symptoms. The color of the lesions gradually assumes a brownish-red or duller tone, and when these disappear, which they only do after a somewhat chronic course, a discoloration and pitting of the affected skin is generally left. The eruption may be confounded with one of the non-syphilitic forms of lichen, but the detection of the presence of other symptoms of syphilis will serve to make clear the diagnosis. The prognosis, in case of a miliary syphilide, is not as favorable as in the lenticular form, although the eruption itself may give the patient but little annoyance.

The large, flat papular syphilide is rarely if ever seen as a general eruption. It is usually limited to certain regions of the body, and may occur either alone or, as is commonly the case, in connection with small lenticular papules. It is never met with in the first few months after infection or during the period in which the lenticular syphilide is in full bloom, but is generally observed about the time when this eruption has nearly disappeared. It frequently makes its appearance a few months later as a relapsing form. The lesion consists of a papule

characterized by a flattened surface and a circular outline. This differs considerably in appearance from the ordinary rounded or oval lenticular papule, with its hemispherical surface, even when there is no marked difference in their size. While the ordinary papule is always isolated and shows no tendency to enlarge by peripheral extension, the flat papules often coalesce and form patches with an irregular outline, or, remaining single, they increase in circumference by an advancing marginal ring. When a coalescence of flat papules takes place, the irregular patches which result become frequently scaly and present an appearance which might lead one to the diagnosis of psoriasis. (See Plate VII.) Indeed, this condition has long been known as Psoriasis *syphilitica*, but in the generally accepted nomenclature of the present day, the term psoriasis is limited in its application to a skin disease, which in every case is wholly independent of syphilis, and consequently a syphilitic psoriasis does not exist. Many syphilographers speak of this condition as the squamous syphilide, but with a view to preventing the confounding of early and late forms of cutaneous syphilis, I deem it advisable to regard this eruption simply as a desquamating stage of the papular syphilide and to restrict the term squamous syphilide (as will be seen later) to a more chronic form of cutaneons syphilis, which occurs as a comparatively late manifestation of the disease. The diagnosis of this scaling papular syphilide from ordinary psoriasis will be readily made if the following features are taken into consideration: The amount of scaling, which is never very great, is by no means proportionate to the amount of infiltration of the skin. The scales are thin, adherent, and do not cover the whole of the patch, as in psoriasis, but leave a reddish margin of smooth, infiltrated skin. The patches are frequently noted upon the flexor aspect of the extremities, and especially in the bend of the joints, and are not apt to appear about the elbows and knees and along the frontal margin of the scalp.

When the large flat papules do not coalesce into scaly patches they frequently tend to increase in circumference and present quite a different appearance. The center of the papule becomes depressed as the elevated margin enlarges, and in this manner a circinate lesion is developed. Sometimes the surface of the papule becomes moist and presents an opaline or diphtheritic appearance, somewhat similar to the condition which is observed in mucous patches of the lips. The elevated margin of the disk is extremely apt to be eroded, and generally a thin dark crust forms at the edge of the papule, as is illustrated in Plate IX. Sometimes the crust is yellowish, thick and friable, circular or crescentic in form, and with an inclosed area presenting a smooth surface and a dull crimson hue. It then bears a resemblance to the crusted tubercular syphilide, shown in Plate XXVIII.

The moist papule is a modified form of the ordinary lenticular papule, and is very prone to develop upon portions of skin which are in contact with each other and where there is consequently an unusual degree of heat and moisture. It has usually a circular form and a flattened surface, and in some cases the center is observed to be depressed and comparatively dry, like the large flat circinate papule already described. On the under surface of the penis and upon the opposing surfaces of the scrotum and thighs moist papules are extremely apt to occur, and to present the appearance of slightly elevated and eroded rings or crescents. The

papules do not usually coalesce except around the anus and upon mucous membranes. They vary little in size and rarely exceed two centimetres in diameter. When recently developed, moist papules have a bright red or raw appearance, but very soon their surface becomes covered with a dirty whitish coating, consisting of thickened and softened epidermis. Frequently the papules manifest a tendency to marked exuberance of growth, and the surface then presents a papillomatous aspect. Around the anus and upon the vulva this condition is very common, and the pressure of the soft parts gives rise to the development of large flattened tubercules (*condylomata lata*), which may be confounded with ordinary venereal warts (*condylomata acuminata*) which are not dependent upon syphilitic infection. The sickening odor of moist papules or condylomata is a very striking feature. When they are numerous and the patient is of uncleanly habits, they constitute a most disgusting form of eruption.

Moist papules may occur in connection with any of the early syphilides but are especially apt to accompany the papular form. With the miliary papular syphilide, however, they are rarely observed. They are due in a great measure to neglect of personal cleanliness on the part of the patient, for, if kept perfectly dry and clean, they evince no tendency to further development and often change to dry papules. They may be quite persistent, especially on mucous surfaces, although they usually yield readily to proper treatment. Though sometimes superficially ulcerated they never destroy the tissues or leave perceptible scars.

The contagious character of moist papules is one of their most important characteristics, and they are frequently responsible for the transmission of the disease. The secretion from their surface is scarcely if at all less virulent than the secretion of the chancre. And as these lesions are usually numerous, persistent and recurrent, the chances of their causing infection through sexual intercourse are greatly multiplied. When a mucous papule occurs upon one of two opposing cutaneous surfaces, *e. g.*, the anal or vulvar region, it is quite common for a similar papule to develop exactly opposite. This would seem, at first thought, to be the result of auto-inoculation, but it is more probable that the mere irritation of the skin is sufficient to determine the location of a papule already disposed to make its appearance.

The tendency of moist papules to relapse must be taken into consideration when the question arises as to the marriage of a syphilitic patient. The chancre may have healed, and the last vestige of induration have passed away, but until the physician is assured that a sufficiently prolonged treatment has rendered the recurrence of these lesions impossible, his consent to marriage should be withheld.

CHAPTER X.

THE PUSTULAR SYPHILIDE.

Restriction of the term "Pustular Syphilide."—Its Relation to the Papular Syphilide.—Course.—Prognosis.—Varieties.—Lenticular Pustular Syphilide.—Miliary Pustular Syphilide.

It has been the custom of most syphilographers to describe as the pustular syphilide, all syphilitic eruptions in which the lesion is of a pustular character. This custom has associated forms of the disease which differ widely in their clinical aspect, their severity and in the date of their appearance. Believing, as I do, that the date of appearance of an eruption is a far more important element in classification than the character of its lesion, I prefer to restrict the application of the term "pustular syphilide" to the disseminate pustular eruptions occurring early in the course of the disease, and to apply the term "pustulo-crustaceous syphilide" to those later and more deeply-seated eruptions which have usually been described as pustular, but in which the pustule is rarely well marked and usually succeeded by a crusted ulcer. In this restricted sense the pustular syphilide differs but slightly from the typical papular form of eruption. Indeed, it may with justice be regarded as an ordinary papular syphilide occurring in an unhealthy subject, and in which the lesions have consequently undergone a greater or less degree of suppuration. On the other hand, there is but a very slight connection between this pustular syphilide and what will be later described as the pustulo-crustaceous syphilide, and I deem it unfortunate that, under a common name, they have been so intimately associated.

The pustular syphilide, though less frequently met with than the erythematous and papular forms of eruption, is by no means rare. It frequently occurs early in the course of the disease, but never, according to my experience, does it appear as the first general eruption. It may occur after an erythematous or a papular syphilide has ushered in the stage of efflorescence, and is apt to be encountered at any time during the first year of the disease, especially when no systematic treatment has been pursued. Frequently the pustular syphilide does not makes its first appearance as such, but develops gradually from a pre-existing papular eruption, just as the papular syphilide may develop from an erythematous or macular eruption. As we have already seen that macules and papules frequently exist in certain cases and make it difficult to say whether the eruption should be classed as an erythematous or a papular syphilide, so we find in many cases a certain number of pustules mingled with a papular eruption and presenting a clinical picture to which the term papular syphilide or pustular syphilide might with equal propriety be applied. It is convenient and customary

to regard such cases (of which Plate XI. furnishes an example) as being papulo-pustular in character, or, in other words, as constituting an intermediate form.

The course of the pustular syphilide is slow, and, save in cases of exceptionally malignant or precocious syphilis, it disappears without leaving any permanent changes in the skin. Pigmentation, however, is particularly marked in connection with a fading pustular syphilide, and dark macules or stains are much more frequently left than is the case with the papular form of eruption.

The prognosis of the pustular syphilide is by no means as favorable as that of the erythematous or the papular syphilide. Its occurrence indicates a depraved constitution and consequent pyogenic condition of the skin, and portends the probable occurrence of subsequent and graver lesions. Whereas the dry forms of early cutaneous syphilis tend to disappear spontaneously in the course of a few months, and are not necessarily followed by subsequent lesions even when no specific treatment is adopted, the pustular syphilide, on the other hand, is prone to a persistent course through the recurring development of crops of pustules, and even when the most careful hygienic and medicinal treatment is instituted, the possible occurrence of late lesions can never be set aside.

A marked variation in the clinical appearance presented by the pustular syphilide has led to the description of a number of varieties by various authors. These have usually been designated in accordance with their resemblance to certain non-specific pustular eruptions, and are described in the text-books as the Acne-form, the Varicella-form, the Variola-form and the Ecthyma-form pustular syphilide, together with syphilitic eczema, syphilitic herpes and syphilitic pemphigus. This manifest endeavor to make the eruptions of syphilis correspond with the ordinary non-specific affections of the skin has been carried to an unwarrantable extent, and become a fruitful source of confusion. If we bear in mind the important fact that the syphilitic pustule is simply a modified or suppurating form of the syphilitic papule, it seems to be more in accordance with clinical observation to designate the forms of pustular syphilis, as far as is possible, by means of terms which have already been employed in describing the forms of papular syphilis. I shall therefore describe the lenticular pustular syphilide, and the miliary pustular syphilide.

The lenticular form of the pustular syphilide (Variola-form syphilide) occurs as a disseminated eruption of small, hemispherical, pea-sized pustules, having a hard, papular base and more or less of an inflamed areola. It may appear first as a papular syphilide, the lesions of which gradually soften at their summit and assume a pustular form, or it may appear as a papulo-pustular eruption at the outset. In the latter case its outbreak is attended by a certain amount of fever, which is apt to recur from time to time with the outbreak of fresh crops of pustules. The eruption is usually well-developed upon the face, and may appear upon the trunk and extremities as copiously distributed as is the case with a well-marked papular syphilide. Plate XII. illustrates an unusually well-developed pustular syphilide upon the back. The individual lesions show little or no tendency to coalesce, and rarely, if ever, do we meet with them in groups. Frequently an abundant eruption may be seen upon the extrem-

ities, while the trunk, especially the abdomen, remains perfectly free. (See Plate XIV.) When the pustules are numerous upon the thighs it is not uncommon to find them upon the penis, seated on the exposed portion of the glans as well as upon the sheath. The occasional occurrence of a few papulo-pustules in the midst of a typical papular syphilide has already been mentioned. In Plate XIII. we have an illustration of the not infrequent occurrence of pustules upon one portion of the body and papules upon a distant part. When the pustules are fully developed but a few days elapses before desiccation begins. If they are of large size the central portion sinks and an umbilicated condition results. The crust formed is superficial and of a dirty-yellow or brownish hue. It falls in a short time, and leaves in some cases a considerable depression surrounded by a narrow pigmented areola. Both the pitting and the pigmentation disappear in a few months in most cases, and leave no subsequent trace of the eruption.

The diagnosis of the lenticular pustular syphilide is by no means difficult, as a disseminate pustular eruption possessing the characteristics above described and running a slow course could only result from syphilis. At the same time there have been numerous instances in which this eruption has been mistaken for variola or varioloid. The firm papular base of the pustules, and the fever accompanying their outbreak, might lead to error at first glance, but the variation in size and stage of development of the pustules, their absence on the oral mucous membrane, and finally their slow course, ought speedily to remove all doubt as to their nature. In the colored race, which is as prone to the pustular form of syphilis as it is to variola, the diagnosis is especially apt to be mistaken.

The miliary form of the pustular syphilide (Acne-form syphilide) bears the same relation to the miliary papular syphilide as the lenticular pustular syphilide does to the lenticular papular syphilide. It consists of millet-seed or pin-head sized accuminate pustules, occurring in small groups about the size of a quarter or half dollar. The eruption may occur upon the greater portion of the body, although I have never seen it as abundant as the miliary papular eruption, represented in Plate VI. It is apt to appear upon the face, and is usually much more marked and lasting upon the extremities than upon the trunk. The pustules are liable to coalesce, especially when occurring upon the flexor aspect of the joints, and in this respect they present a marked contrast with the lenticular pustular syphilide, the lesions of which almost invariably remain distinct. The miliary papulo-pustules are developed in and around the hair follicles, and on certain parts of the body it is not uncommon to see each pustule perforated by a fine hair.

The eruption rarely appears at the outset in a pustular form, but develops gradually, from the miliary papular syphilide. In many cases the papular base does not entirely disappear, and we see merely the summits of the papules assuming a vesicular or vesico-pustular form. Small crusts speedily develop, which may remain isolated or appear as thin, dark-colored scabs. New groups of pustules may present themselves from week to week throughout the course of the eruption, which usually lasts two or three months, if active treatment is not instituted. When the crusts fall the lesions resume a papular condition, but the duller tint and

pigmentation of the papules at this time causes them to present a marked contrast with the incipient stage of the eruption, during which the papules are of a comparatively bright red hue. For many weeks after the elevation of the lesions has passed away their grouped character appears strikingly apparent, and frequently pigmented pits or light-colored depressions with a pigmented rim remain for several months. When the patient is first seen at a late stage of the eruption it may be difficult to say whether this has been pustular or simply papular. A few scattered pustules, however, may still be detected here and there between the groups, and these are an indication of the pre-existing pustular character of the eruption. Furthermore, the pigmentation is apt to be much more marked after the pustular form than after a simple miliary papular syphilide. On the legs and about the ankles small cent-sized ulcerations sometimes occur, and leave pigmented cicatrices, which look as though the skin had been burned with the lighted end of a cigar.

The diagnosis of the miliary pustular syphilide is easy. It might be confounded with acne were the eruption limited to the face, breast and back, which is never the case. Even then the grouping of the pustules, the tendency to crusting, and the absence of comedos would serve as points of distinction.

In some cases of early pustular syphilis the cellular infiltration of the corium is more or less diffused instead of being limited to the vicinity of the hair-follicles. The pustulation in this form is usually confluent and produces an impetiginous crust (impetigo-form syphilide). Frequently the crusting is only seen at the border of the patch, and we have then a central, dull crimson or brownish-red area surrounded by a thick yellowish crust of circular or crescentic form. This eruption is generally met with on the face, arms or thighs. Although many writers speak of this as a pustulo-crustaceous form it is quite superficial, occurs during the first year of the disease, and is consequently to be distinguished from the late pustulo-crustaceous syphilide which will be shortly described. Frequently a few superficial ecthymatous pustules develop at this stage of the disease, but they only serve as an exception to the rule that ecthyma is a late manifestation. When present, they occur chiefly on the lower extremities, and never appear as a general eruption.

CHAPTER XI.

THE TUBERCULAR SYPHILIDE.

Significance of the terms "Papular and Tubercular."—Date of Appearance of the Tubercular Syphilide.—Description.—Irregular and Annular Groups.—Location.—Course.—Termination.—Diagnosis.

There is little essential difference between a papule and a tubercle. The latter is commonly supposed to be larger than the former; but, as a matter of fact, the so-called tubercles of many cases of lupus are scarcely one-half as large as the lesions in a case of erythema *papulatum*. Indeed, it is simply in accordance with custom that we speak of certain lesions of lupus and leprosy as being tubercular, and of somewhat similar lesions of urticaria and acne as being papular, without having any reference to their exact size. In like manner the terms *papular* and *tubercular*, as applied to a syphilide, have little reference to the size of the lesions, but are based upon other and more important clinical features. The early disseminated eruption which has been described as the papular syphilide ought never to be spoken of as tubercular, no matter how large its lesions may appear. On the other hand, the eruption of grouped lesions, now about to be described, is called the tubercular syphilide, not because its lesions are necessarily larger than those of the papular syphilide, but because custom has associated the term "tubercular" with this particular form of cutaneous syphilis. The eruption which some writers have described as the disseminated tubercular syphilide is really a papular syphilide with lesions of unusual size. According to my experience, it occurs invariably as an early eruption, while the eruption to which the term tubercular is properly applied is a comparatively late form of cutaneous syphilis, and is met with only in exceptional instances during the first year of the disease. The early syphilides usually disappear before the lapse of six or eight months, even when no systematic treatment is adopted, and are commonly followed by a period of exemption from cutaneous symptoms of varying duration. When the syphilitic infection has been of decided character, and the general health of the patient is at the same time poor, and particularly when the treatment at the outset has been insufficient or wholly neglected, it is always quite probable that a second series of cutaneous manifestations, usually of tubercular or pustulo-crustaceous character, will make their appearance some time in the course of the second or third year. At this time the tubercular syphilide commonly makes its first appearance; but it may be encountered as a recurrent form of syphilis five, ten or twenty years after the initial lesion. It is never an early eruption, and its occurrence is a tolerably strong proof that infection has taken place at least a year or more previous to its development. How much longer the disease has existed

is not always an easy matter to determine, although the greater the period which has elapsed since infection, the more liable are the tubercles to undergo softening and transformation into ulcers.

From the foregoing it will be seen that the tubercular syphilide is an eruption of clustered nodules occurring at any time after the first year of the disease. The lesions develop in the deeper portions of the corium, and differ in this regard from the early papules, which merely involve its superficial layer. At first they have but a faint red color, although the elevation of the skin is quite apparent to the touch. Gradually they assume a dull red hue, and finally become much darker in appearance than the early papules. In size they vary from a split pea to a hazel nut, and constitute firm, elastic, fleshy protuberances. Their surface may be rounded or flattened. In the former case they appear smooth and sometimes almost glossy, while in the latter case they are apt to appear rugous and withered, and are frequently covered by a desquamating epidermis.

The configuration of the lesions of the tubercular syphilide varies somewhat in different cases, although the grouped or clustered character is invariably a striking feature of the eruption. Sometimes the groups are irregular in outline, as upon the face of the patient represented in Plate XXIV. The larger tubercles are apt to be found in the center of the patch, while smaller ones are scattered around them, a few at the margin being isolated. In the majority of cases the lesions of the tubercular syphilide appear in a circumscribed group with a circular or crescentic margin. An annular form of eruption may be produced in two ways. The individual lesions may develop in a curving line and form a crescent or even a complete circle, inclosing a central area of perfectly healthy or perhaps slightly discolored skin. On the other hand, the lesions constituting a circular group may flatten and disappear in the center and thus leave a central rim or ring.

The tubercular syphilide may consist either of numerous groups scattered in a somewhat symmetrical manner over various portions of the body, or it may consist in a single group. Its most frequent location is upon the face, or upon the posterior portion of the neck and upper portion of the back, but it may be observed upon almost any portion of the body. The later the occurrence of the eruption the more likely is it to consist of a single group.

The course of the tubercular syphilide is always slow when uninfluenced by treatment, and through the continued development of new patches, as older ones disappear, the eruption often lasts for years. It may terminate in either of two ways, viz., by resolution or by ulceration. In the former case the tubercles gradually flatten and decrease in size after having existed for a few months, and finally disappear, leaving slightly depressed and non-pigmented cicatrices. In the latter case the tubercles gradually soften and become superficial abscesses, the skin breaks here and there, and a small rounded ulcer with a sharply-cut edge and a yellowish sloughing base occupies the site of a former tubercle. These little ulcers are usually observed at the curved border of the tubercular patch, and are frequently covered by yellowish crusts which contrast strongly with the dull crimson hue of the surrounding skin. When all of the tubercles of a patch undergo softening, the small ulcers resulting may

coalesce and form a single large and deep ulceration. Frequently, however, the small ulcers remain distinct and heal without coalescing, leaving characteristic traces. A group of a dozen or more small cicatrices is always indicative of a pre-existing tubercular patch. These cicatrices are at first of a livid hue. Gradually they become lighter and form a strong contrast with their pigmented border, and finally they present the appearance of smooth white disks of skin which are not adherent to the subjacent tissue, and which show no tendency to contract or pucker.

The diagnosis of the tubercular syphilide is usually quite easy, but cases occur in which the resemblance of the eruption to lupus *vulgaris* is very apt to lead to error. The following table shows the distinctive features of the two affections:

THE TUBERCULAR SYPHILIDE	LUPUS VULGARIS
Is observed almost exclusively among adults. It may occur upon various portions of the body.	Is common in youth, and rarely develops late in life. It occurs most frequently upon the face.
The eruption usually runs a rapid course. A large patch may develop in a few months.	The eruption always runs a slow course. A large patch is only developed after existing several years.
Its lesions have a deep, brownish-red hue.	Its lesions have a dull, yellowish-red, and sometimes a purplish hue.
Ulceration is frequently deep and extensive.	Ulceration is usually superficial and of limited extent.
Ulcers are apt to be numerous, small and circular, with sharply-cut edges.	Ulcers have no regular form nor sharp margin.
Suppuration is usually abundant.	Suppuration is usually slight.
Crusts are thick and greenish.	Crusts are thin and dark.
Cicatrices become soft and white. Often small and numerous.	Cicatrices tend to become firm, contracted and puckered.
There is frequently a history and other indications of syphilis.	There is usually no history of syphilitic infection.
The eruption yields readily to appropriate internal treatment.	The eruption yields only to a vigorous local treatment.

CHAPTER XII.

THE SQUAMOUS SYPHILIDE.

Propriety of using the Term.—Its restricted Application.—Description.—The Discoid Form.—The Circinate Form.—Diagnosis between palmar Syphilis and palmar Eczema.—Non-existence of palmar Psoriasis.

The propriety of recognizing the squamous syphilide as a distinct form of cutaneous syphilis, apart from the papular and tubercular forms of the disease, is a point concerning which syphilographers are not agreed. Bassereau, in accordance with the custom of older writers, recognizes a squamous form of cutaneous syphilis, and describes under this head a syphilitic pityriasis, occurring chiefly upon the scalp and face; a syphilitic ichthyosis, of which he records but a single case; a syphilitic psoriasis, or scaling papular eruption, together with a squamous condition of the scrotum and of the hands and feet. Bazin does not admit the squamous syphilide in his classification as a special form, but speaks of the papulo-squamous and the tuberculo-squamous forms of eruption. Hardy, in treating of the squamous syphilide, says that scales indeed appear often upon papules and tubercles, but that in certain cases the scales are not preceded by any other elementary lesion, and that they occur at the very outset of the eruption. He describes the three following varieties of the squamous syphilide: *a*. The guttate squamous syphilide (psoriasis syphilitica); *b*. The circinate squamous syphilide; and *c*. The palmar and plantar syphilide. The German writers regard the squamous lesions of syphilis as partaking of a papular character, and in this view are supported by Bumstead and Taylor. Keyes admits the squamous syphilide in his classification, but remarks that except upon the palms and soles, it is usually a papulo-squamous or a tuberculo-squamous eruption.

From a pathological point of view, the condition of the skin which has given rise to the name of squamous syphilide may properly be considered as a phase of the papular or tubercular syphilide, since it is invariably a sequence of cellular infiltration. Upon clinical grounds, however, the squamous eruption about to be described may be conveniently regarded as a special form of cutaneous syphilis.

It has been already stated that custom has associated the term papule with an early disseminate eruption, and that in like manner the term tubercle implies a late manifestation of the disease. Although there may be no difference whatever in the size and pathological nature of the two lesions, the use of two distinct names is advisable, since these serve to emphasize the early appearance of the one lesion and the later appearance of the other. The chief object in a classification of cutaneous syphilis should be, as I have already claimed, to

separate the early from the late forms of the disease. Now, it is evident that if we include under the head of squamous syphilide all of the lesions in which more or less epidermal desquamation is present, we at once defeat this object, and associate in one class both early and late manifestations. I deem it proper, therefore, for the above and other reasons, to restrict the term squamous syphilide to certain late manifestations of an essentially scaly character. To the early disseminate lesions in which desquamation is sometimes observed as a feature of secondary importance, the term papulo-squamous may be applied. But to those late, or tuberculo-squamous manifestations of syphilis, occurring on the palms and elsewhere, and in which the scaling is the chief and often the only apparent lesion, the term squamous syphilide is highly appropriate. This restriction of the term will obviate all confusion as to the date of the eruption.

The squamous syphilide is, therefore, one of the late eruptions, and is never met with in the stage of effloresence during the first year of the disease. Like the tubercular syphilide, it may occur at any time from one to twenty years or more after syphilitic infection. It appears in the form of circular or irregular patches, characterized by thin horny scales, seated upon an infiltrated base.

Two forms of the squamous syphilide may be described—the discoid form and the circinate form. The guttate form (*syphilide squameuse en gouttes* of Hardy) has been already described as a scaling phase of the papular syphilide.

The discoid form of the squamous syphilide develops chiefly, if not entirely, upon the palms and soles and neighboring integument. Frequently a tubercular patch upon some other portion of the body becomes scaly, as has been stated, and as is illustrated in Plate XXVIII, but in such a case it is always evident that the eruption is of a tubercular nature, and that the scaling is merely a secondary phenomenon. On the palms and soles, however, the desquamation constitutes the only apparent lesion, and although there is always a certain amount of specific infiltration of the skin in such a patch, it seems scarcely appropriate to speak of it as a tubercular or even as a tuberculo-squamous eruption. On the palms and soles the patches are usually rounded, and in most cases a tendency to serpiginous development is to be noted. Often commencing in the center of the palm or hollow of the foot, the raised and horny margin of the patch creeps gradually over a considerable portion of skin. Sometimes one side of the patch fades away while the opposite border is advancing, and in other cases the center of the patch heals partially, and leaves an elevated and scaling marginal ring. Occasionally but a portion of the ring is well marked, and when two such curving lines unite, a gyrate form of eruption may be produced, as is seen in Plate XXIII. The skin beneath the scales is always dry and thickened, and frequently fissures form in the natural creases of the palm, and give the patient considerable pain and discomfort. The eruption runs invariably a chronic course, and sometimes persists for many months, or even for years.

The circinate form of the squamous syphilide may be met with upon the palm (see Plate XXII.), and likewise upon other portions of the body. I have seen it repeatedly upon the penis and scrotum. It usually has a decidedly infiltrated base, although no distinct tubercles

are present. Unlike the discoid form, it does not always develop by peripheral extension from a central point, but a curving line or circle forms, and includes an area of healthy skin. The course of the eruption is not as chronic as the discoid form, and it yields much more readily to local treatment.

The diagnosis of the squamous syphilide, particularly when occurring upon the palms, is often very perplexing. The eruption may bear such a close resemblance to ordinary chronic scaling eczema, that the most careful student of cutaneous syphilis finds it difficult to make a positive diagnosis in all cases. There is no cutaneous manifestation of the disease which has so few characteristic indications of its origin, and which is so liable to present an uncertain appearance. As in the case of the differential diagnosis between chancre and chancroid, the characteristic features of palmar syphilis and palmar eczema can be easily traced on paper, but in practice many cases occur which are by no means typical of either disease. The history of the patient often furnishes no clew whatever, and the therapeutic test which is applicable in certain other forms of cutaneous syphilis, frequently fails in cases of the squamous syphilide of the palm. The following points are often mentioned by writers as a guide to the differential diagnosis of palmar and plantar eczema, and the squamous syphilide of these parts: The former eruption is diffused, shows a tendency to extend upon the back of the hands and feet, and is always itchy, while the latter eruption is more apt to be circumscribed, occurring especially as a circular patch in the central portion of palm or sole, and is not usually itchy. In very many cases, these points are insufficient as a basis for a diagnosis. In Plate XXI., for example, we have an illustration of circular patches occurring in the center of the palm, which were undoubtedly eczematous, for eczema existed on the face and legs of the patient, and the palmar patches were speedily and permanently cured without the use of mercury or iodine. In the second case shown in the same plate, we have a patch with a well marked circumscribed border, which would suggest syphilis, but the eczematous nature of the patch was beyond doubt in this case; and, indeed, the other palm of this patient was selected as a typical picture of chronic eczema, and appears as such in the previous series of "Photographic Illustrations of Skin Diseases." The most trustworthy diagnostic feature of the squamous syphilide of the palm is an elevated, *crescentic*, and extending ridge, with an inclosed area of healthy or comparatively smooth skin. This is never observed in eczema of the palm. It should be borne in mind that in rare instances an eczema may develop as a secondary eruption in connection with a neglected or ill-treated palmar syphilide.

Most writers speak of the difficulty in the diagnosis of the squamous syphilide from ordinary psoriasis of the palm. I have already stated that, properly speaking, there is no such thing as a syphilitic psoriasis. I will now add that, according to my experience, a non-syphilitic psoriasis of the palm does not exist. Of many cases of almost universal psoriasis which I have seen, I do not remember a single case in which the palms were not exempt from eruption. A scaly patch upon the palm, bearing a strong resemblance to ordinary psoriasis, I should have no hesitancy in pronouncing to be either syphilis or eczema.

CHAPTER XIII.

The Pustulo-crustaceous Syphilide.

Restricted use of the term.—Distinction from early crusted pustules.—Description.—Ecthymatous, Rupial and Pemphigoid forms.

The term pustulo-crustaceous syphilide is applicable, and indeed has been applied by some writers to all crusted pustular lesions occurring in the course of the disease. I propose, however, in the following description, to restrict the application of the term to those lesions which occur after the first year, save in rare cases of malignant precocious syphilis, and which are characterized by large, and usually deep-seated pustules or ulcers, covered by prominent and peculiar crusts. This clinical form of cutaneous syphilis is to be distinguished from the early, disseminate pustular syphilide, in which small and soft crusts are sometimes formed by the drying of the pus. It includes the deep-seated pustules, the purulent bullæ, the suppurating tubercles, and all lesions which dry into thick flat or elevated and conical crusts. It includes the ecthyma and rupia of most writers, and the pustulo-bullous eruption of Keyes. A better name than the pustulo-crustaceous syphilide might be suggested, but I deem it better to employ this term with the restriction mentioned above than to introduce a new name.

With the early pustular syphilide, small flat and superficial pustules frequently develop upon the legs, and from lack of cleanliness and external irritation become scratched, and finally crusted or scabbed over. Similar lesions are liable to appear from time to time in the course of the disease, and especially in ill-nourished subjects, who, from poverty or innate disregard of personal comfort are unable to take proper care of themselves. With each relapse these pustules are found to be deeper seated, and more apt to form thick, dry crusts, until finally we have a condition which may be regarded as the typical pustulo-crustaceous syphilide. There is no strict line of demarcation between the early ill-defined lesions and the later typical cases, especially when the lesions occur upon the legs.

The pustulo-crustaceous syphilide occurs as a late circumscribed form of the disease, and never as a general eruption. It attacks principally those of a weak constitution, and especially such of these as are debilitated by dissipation, and various forms of wasting disease. Its development is gradual, and it is never accompanied by the febrile symptoms which are commonly associated with the outbreak of the early disseminate pustular eruption. Occurring, as it does, after the first year, it is not accompanied by glandular engorgement, sore throat and alopecia. Severe nocturnal headache and osteocopic pains, however, may co-exist in many cases. This eruption may be seated on almost any portion of the body, although the scalp and face and the extremities are most frequently affected. Its course is essentially

chronic when no treatment is instituted, and frequently the patient suffers for years from recurring lesions, each of which may last for many months.

There are three aspects under which the pustulo-crustaceous syphilide may appear, and although the differences existing between them are slight, it may assist in the minute description of the lesions to follow the custom of most writers, and speak of the ecthymatous, the rupial, and the pemphigoid forms.

The typical ecthymatous form begins with the development of one or more flat circular pustules, with a dark inflammatory areola, and a swollen and indurated base. Frequently these lesions are almost furuncular in appearance. When fully developed, they are usually about the size of a quarter or half-dollar. The pus dries rapidly, and, mingled, as it frequently is, with bloody serum, forms a flat dark-colored crust. The center of this crust is sometimes more elevated than its periphery, while, in other cases, it may be slightly depressed. The edges are at first adherent to the healthy skin surrounding the pustule, but in time they are apt to become detached, either through the drying of the crust and its consequent contraction, or through an increase in size of the pustule. The crust then appears to be too small, and an ulcerated moat surrounds and separates it from the neighboring skin. It is now very lightly adherent, and when removed discovers an ulcer with sharply cut edges and a foul base bathed in sanious pus. This discharging surface dries rapidly into a new crust, if no local application is made to prevent, and the rapidity with which this second crust is formed has been looked upon as a diagnostic point indicative of the syphilitic nature of the lesion. Under appropriate treatment the inflammatory areola fades, the pus formation is checked, the crust becomes harder and more adherent, and only falls when the subjacent ulcer is very nearly or quite healed. Frequently the crust becomes loosened by the increased suppuration and is cast off. We then have the pustulo-crustaceous form of syphilis, transformed into the ulcerative. Even in the event of the pustule or ulcer healing beneath the crust an indelible cicatrix inevitably remains. This is at first of a dull red hue, but gradually becomes smooth and white, although a pigmented border may persist long after the color of the scar itself has faded.

The rupial form of the pustulo-crustaceous syphilide differs chiefly from the ecthymatous form just described in being more superficial at the outset, and in the formation of a peculiar conical and laminated crust. The lesion begins either as a superficial pustule or a flattened bulla of small size, with no inflammatory induration. A small greenish crust speedily develops, beneath which suppuration continues. This pus or sero-pus raises the epidermis at the margin of the initial scab, and speedily dries into a second layer a trifle larger than the first. The suppuration continues to extend peripherally, until the initial crust becomes considerably raised above the surface of the skin by the successive formation of layers, each one being somewhat larger than the preceding. In this way, a conical crust is developed a half-inch or more in height, and one or two inches in diameter. When the ulceration progresses chiefly in one direction, instead of enlarging in a uniform centrifugal manner, the apex of the cone will not occupy the center of the crust, but appear in an excen-

tric position, and the crust will consequently present an appearance which has been aptly compared to an oyster-shell. When the crusts are numerous, they are usually small and conical. When few, they are apt to attain a much larger size, being in some cases one or two inches high, and several inches in diameter. These large laminated crusts are attached only at the borders, and cover superficial ulcerations. Pressure upon their summit will often cause the underlying and confined pus to burst out from beneath their margins. When removed, either by accident or design, an ulcer is revealed, which is usually more superficial than that formed beneath the ecthymatous crust. Like ecthyma, rupia leaves an indelible cicatrix. The question has been repeatedly raised, as to whether or not there exists a non-syphilitic rupia. For my part, I have never met with this peculiar form of eruption, except in connection with syphilis.

The pemphigoid form of the pustulo-crustaceous syphilide (bullous syphilide) is very rare in cases of acquired disease. It consists in the development of superficial purulent bullæ, which are soft and flattened, from one to five centimeters in diameter, and which tend to dry into thick crusts. Ulceration usually takes place beneath these crusts, and its depth depends in great measure upon the general health of the patient. I have seen large, tense and well-developed bullæ, occurring upon limited portions of the body, in the case of a patient who gave a clear history of syphilis. But whether these lesions were syphilitic or not was not an easy matter to determine, as they presented no characters which would enable one to distinguish them from ordinary non-syphilitic bullæ.

The diagnosis of the pustulo-crustaceous syphilide is sometimes difficult, as it may occur in an imperfectly-developed form, and without other indications of the disease. The affection to which it is most likely to bear a strong resemblance, is that which has received the descriptive title of ecthyma *cachecticum*. This affection occurs chiefly in youth and advanced age, and is commonly seated upon the lower extremities. Many writers speak of a distinctive difference in the shape and color of the crusts and hue of the surrounding skin, but the diagnosis in this, as in many other uncertain cases, must rest mainly upon that knowledge which comes only as the result of experience.

CHAPTER XIV.

The Gummatous Syphilide.

Cellular Infiltration in all Syphilitic Lesions.—Gummatous Degeneration.—The Gummy Tumor.—Gummata in Groups.—Diffused Gummous Infiltration.—Syphilitic Dactylitis.—Syphilitic Bursitis.

The cutaneous lesions of syphilis are characterized by a greater or less amount of cell proliferation, which forms a new growth in the skin. Even in the earliest hyperæmic exanthem, which some have considered to be nothing but an ordinary roseola, resulting from mere vaso-motor disturbance, microscopic investigations have shown that there is a deposit of newly-formed cells along the walls of the vessels. In the chancre, the syphilitic papule and tubercle, and in the infiltrated base of all pustular lesions, we have a new growth of granulation tissue, which causes syphilis to be ranked with lupus, leprosy, and other neoplastic formations. There is nothing peculiar about this cellular infiltration which is present in the lesions of syphilis, and under the microscope there are no means of distinguishing a syphilitic from a lupus tubercle. In all of the early syphilodermata, a fatty degeneration and absorption of this neoplasm takes place, and save in lesions where a considerable amount of suppuration occasions a loss of substance of the corium, the cellular growth disappears and leaves no permanent trace. In many cases of late cutaneous syphilis, we have simply the same cell proliferation which is characteristic of the chancre and early papule, although the tendency to suppuration and destructive ulceration is apt to be a marked feature of lesions at this stage of the disease. In other cases, we have a peculiar pathological process taking place in the cellular growth, as a result of which the central portion of the mass degenerates into a gelatinous substance, and produces a gummy deposit in the skin, as well as in the connective tissue of other organs. The result of this pathological process imparts to certain late lesions a peculiar aspect, which is conveniently designated by use of the term gummatous or gummous syphilide.

The gummatous syphilide may appear in the form of a diffuse infiltrated patch, a group of nodules or a single tumor. In either case it tends to soften and to produce deep ulceration. The gumma or gummy tumor begins as a small, pea-sized nodule, seated in the subcutaneous connective tissue, and at first can only be detected by the sense of touch. It is usually of slow growth, and several months may elapse before it attains the size of a filbert. The skin is now elevated, though frequently unchanged in color, and the small tumor, being unattached to the surrounding tissue, is quite movable, and rolls beneath the finger. There is no pain experienced by the patient at this time, even when the growth is compressed by the fingers, unless it happens to be seated directly over a nerve trunk or plexus. It is firm to the touch, though not indurated, and possesses a very slight degree of elasticity. Gradu-

ally the skin becomes involved by the increase in size of the new growth, and assumes a dull reddish hue. The tumor is now no longer movable, and soon the central portion begins to soften, and an obscure sense of fluctuation is the result. In this condition it may remain for months, before the skin is broken and an ulcer is formed. When the tumor is seated in a region where there is but a small amount of lax connective tissue it is not so apt to be movable at the outset, and there is a tendency to more speedy ulceration. At the period of central degeneration and softening, the size of the tumor may vary considerably. Though usually about the size of a pigeon's egg, it may, in some instances, be as large as a small orange. The sense of fluctuation, especially in a growth of large size, is very apt to mislead the physician into a belief that an abcess has formed. In rare instances, free suppuration does take place, but as a rule an incision only evacuates a very small amount of sanious pus, and reveals a semi-solid gelatinous mass, quite different in character from the contents of even an unripe abscess. As there is a slight prospect, in nearly every case, of the tumor undergoing resolution under specific treatment, the use of the knife should be withheld, and the tumor allowed to open spontaneously, if this occurrence cannot be prevented. Just before the ulceration takes place, the central portion of the skin over the tumor becomes thin, soft, and of a purplish-red hue. When it breaks, a semi-solid or honey-like mass oozes out, and leaves a characteristic deep and round ulcer. The single gummy tumor occurs on various portions of the body, but most frequently upon the scalp and forehead.

When a number of tumors occur in a group, as is frequently the case, the intervening skin is apt to become infiltrated with a gummatous deposit, and to present the deep brownish-red hue which is so characteristic of late syphilitic lesions. The aggregated tumors do not usually attain the size of the isolated gumma. They run a somewhat similar course, however, and when they finally break down, a large irregular ulcer is produced. This form of the gummatous syphilide is frequently met with upon the scalp, the nose, the outer aspect of the extremities, especially in the vicinity of the joints, and around the lower portion of the leg and ankle. In this latter region, a very large number of small gummy nodules may be seen clustered and dispersed over a markedly infiltrated integument. The enlargement of the ankle, which results in many cases, produces a striking deformity, the swelling of the dorsum pedis giving to the extremity the appearance of a hoof.

Diffuse gummous infiltration of the skin is spoken of by Keyes, as being uncommon, though presumably preceding all ulceration of the serpiginous sort, whether coming on as a sequence of rupia, ecthyma, or any other lesion. In many cases of late ulcerating tubercular syphilis, we have a cellular deposit in the skin, which differs in no respect from the gummy tumor in its incipient stage. This may be properly spoken of as gummous infiltration, and from a clinical as well as a pathological point of view, it is difficult to draw a line of distinction between some cases of ulcerating tubercles, and cases of gummata occurring in groups. Diffused gummous patches which terminate in resolution are even more rare than gummy tumors which do not ulcerate.

In connection with the gummatous syphilide, it is quite proper to speak of certain

syphilitic lesions of subcutaneous structures, which produce a deformity very apparent to the eye, and to a limited degree involve the skin. In late syphilis, gummy infiltration of the periosteum often occurs and produces nodes upon the cranium, clavicle, sternum, ulna and tibia. At first the skin is quite movable over these tumors, but in some cases the bone becomes necrosed and ulceration of the integument follows. There are, however, two interesting forms of syphilis, of which illustrations are given in this work, and to which attention is now called. These are syphilitic dactylitis and syphilitic bursitis.

Syphilitic dactylitis, an affection which has been admirably described by Taylor, results from a gummatous formation in the subcutaneous tissues of the fingers and toes. One or more phalanges may be involved and the proximal phalanx appears to be the one selected by the morbid growth in the majority of cases. The gummy infiltration of the part produces a most characteristic deformity, and seriously interferes with the motion of the joints. The color of the integument often remains unaltered, but in some cases presents a livid or violaceous appearance. The course of dactylitis is remarkably chronic, and relapses are not uncommon. The affection may terminate in ulceration and destruction of the joint, but in most cases it undergoes resolution, and through bony absorption produces marked shortening of the phalanx.

Syphilitic bursitis, according to Keyes, is most apt to involve the bursa patellæ, the bursa at the inner side of the knee, and next, the bursa behind the olecranon. The gummy infiltration of the part may commence in and be limited to the bursa, producing in such a case the appearance of ordinary "housemaids' knee," or it may begin in the integument and involve the bursa secondarily. (See Plate XXXVI.) Sometimes a tubercular patch may be situated near the knee, but have no direct connection with a swollen and infiltrated bursa. (See Plate XXVIII.)

CHAPTER XV.

The Ulcerative Syphilide.

Syphilitic Ulcers, a Sequence of Various Lesions.—The Superficial Form.—The Serpiginous Form.—The Deep or Perforating Form.—Peculiarities of Ulcers according to Locality.—Syphilitic Cicatrices.

The ulcerative syphilide is a stage rather than a variety of cutaneous syphilis, and it may follow a pre-existent tubercular, pustulo-crustaceous or gummatous eruption. Those writers who base their classification of the cutaneous lesions of syphilis upon the existence of certain primary lesions naturally regard the ulcerative syphilide as belonging to the pustular, tubercular or gummatous syphilide, and describe it only in connection with these forms. But as it is a distinct clinical form it seems to me to merit a separate description. It is true that the ulceration is always secondary, but it is also true that when the patient applies to the physician for treatment there is frequently no means of determining whether the ulcer was preceded by pustules or tubercles. Moreover, it matters little what may have been the nature of the primary eruption as far as the treatment is concerned. If we know that the ulceration is the result of syphilitic infection we have at once the key to successful treatment, and the knowledge as to the exact manner in which it developed in any given case is of little practical value. In this work the classification of syphilitic eruptions is based upon the general clinical features of the case rather than upon the primary lesion, and hence the term "ulcerative syphilide" is applied to all cases in which ulceration is the most striking feature. In eczema, as the reader is aware, the papular vesicular and ichorous forms all tend to finally assume the squamous form. So, in syphilis, we find that different forms tend toward the ulcerative process. An eruption which is a well-marked tubercular syphilide at one time may in a few weeks change its clinical form and appear as an ulcerative syphilide. The gummatous syphilide of to-day is almost certain to be converted into an ulcerative syphilide a few months hence.

Of the ulcers which occur upon various portions of the body as a sequence of syphilitic lesions, the majority present features which enable one to recognize their specific origin at first glance. Their number, their form or arrangement and their location usually serve to make their diagnosis an easy matter. There is no single type of syphilitic ulcer, and many differ widely in appearance which might be regarded as equally typical in character. It will be convenient, therefore, to describe the superficial, the serpiginous and the deep or perforating forms of syphilitic ulceration.

The superficial syphilitic ulcer is circular in form, with sharply cut edges and a dirty-yellowish purulent base. It is most frequently observed to follow a pustular or pustulo-

crustaceous lesion, and may appear at a comparatively early date. Apart from cases of precocious malignant syphilis, in which any or all of the late lesions may appear within the first year, it is not uncommon to find superficial ecthymatous pustules at this time, which may be readily converted into superficial ulcers, especially in an ill-nourished or debilitated subject. These ulcers are usually of a quarter or half-dollar in size, and frequently coalesce to form ulcerated patches with scolloped margins. They are generally seen either upon the face or legs, and an illustrative case is seen in Plate XXXVII.

In the serpiginous form of the ulcerative syphilide, the eruption tends to creep over the surface of the skin, leaving behind it a track of cicatricial tissue. It may develop in either of two ways. A single, circular and crusted ulcer, after attaining considerable size, may heal in the center and upon one side. The crust becomes thinner, and finally falls, leaving a reddened cicatrix bordered on one side by a crescentic or "horse-shoe" ulcer. This has a sharp, convex margin, beyond which is a narrow zone of infiltration, upon which the ulceration constantly encroaches. The concave edge of the ulcer heals in the meantime, and in this manner the ulcer slowly moves. In other cases a group of crusted pustules or softening tubercles form a number of small round ulcers, of which the outer ones usually form a curving line. While those in the center and upon one side tend to heal, there is a constant development of new lesions at the periphery on the opposite side. These ulcerate and perhaps coalesce, and in this way the patch often travels quite a distance from its starting-point. This form is often observed upon the back and on the extremities. This form of syphilitic ulceration is not particularly painful, even when it is very extensive, and often the patient's general health is seemingly unimpaired.

The deep ulcers of syphilis usually result from the softening of gummy deposits, and when small, usually present a crater-like appearance, unless covered by a blackish crust. Often the cutaneous opening of the gummy tumor is smaller than the ulcerating cavity beneath, and in some cases of multiple gummata, the cavities run together subcutaneously.

A study of the ulcerative syphilide shows that in different localities peculiar features are usually present. On the scalp a tendency to softening of syphilitic lesions is the rule, and even in connection with the earliest eruptions, we find that the lesions are pustular in this locality, even when they are dry upon all other parts of the body. In an advanced stage of the disease the lesions may consist of nodules seated either in the cutaneous or subcutaneous tissue, and presenting the characteristic tendency to form a circular or a crescentic patch. Sometimes the eruption may extend over the greater portion of the scalp, and when the thin, viscid, sero-purulent secretion has matted the hairs together, a hasty examination might readily lead one to an erroneous diagnosis of eczema. When the ulceration results from the softening of deep-seated gummatous nodules, the edges are considerably undermined, and the affected portion of the scalp often presents a peculiar honey-combed appearance. Not infrequently the ulcerated surface becomes the seat of exuberant granulations, or fleshy outgrowths of considerable size. Ulceration of the scalp usually yields promptly to specific medication, but in those cases in which periostitis occurs, and is followed by necrosis

of the outer table of the skull, the healing process is apt to prove tedious. As a result of the ulceration, patches of cicatricial tissue, with partial baldness, are always left.

Ulceration of the face may occur either upon forehead, cheeks, or lips, as a sequence of pustulo-crustaceous lesions, and after cicatrization leave a marked disfigurement. The nose, however, is the feature which is most apt to suffer from destructive ulceration in late syphilis. In the incipient stage of the eruption upon this organ a diagnosis from lupus is sometimes difficult (see page 71), but in an advanced stage the depth of the infiltration and consequent ulceration and the more rapid progress of the disease tend to reveal its nature.

On the legs, ulcers from various causes are common, and in their treatment it is of prime importance to be able to recognize their syphilitic origin. Excluding ulcers of purely traumatic character, which are acute, and constitute a comparatively small class, it is safe to assert that chronic leg ulcers are for the most part syphilitic or eczematous. If the ulcer is tolerably superficial, with an indurated margin or a wide border of pigmented and scaling skin, we may regard it as eczematous. On the contrary, if a leg ulcer is deep and surrounded by healthy skin, a suspicion of syphilis is naturally awakened. If there are several ulcers grouped and arranged so as to form a curving line, and particularly if these single or multiple ulcers are situated on the upper third of the leg, there is a very strong probability of their being syphilitic.

In case of ulcers, as in all late manifestations of syphilis, too much dependence must not be placed upon the history given by the patient.

CHAPTER XVI.

Character and Prognosis of Syphilis.

Natural Course of Syphilis.—Its Variable Severity.—Modifying Influence of Struma, Alcoholism, &c.—Frequent Benignity of the Disease.—Its Amenability to Treatment.

Syphilis is a disease which tends to run its course and to terminate spontaneously. Though it is usually cut short by appropriate medication, in very many cases Nature, unaided by the skill of the physician, carries the patient through the disease and restores him to seemingly perfect health. When we compare syphilis with variola and other acute exanthematous diseases, we find that its course is greatly prolonged and of indefinite duration, and that its symptoms are irregular in character and of varying severity. It is quite difficult to study the natural course of syphilis, inasmuch as the disease extends over so many years, and in no case does the physician feel warranted in adopting a mere expectant plan of treatment. It is only from the observation of symptoms in those who are neglectful of proper treatment that we can form an idea of the natural history of the disease, and in Chapter III. a hasty sketch of the course of acquired syphilis has been given.

That syphilis runs an extremely variable course in different cases, is a fact which is not sufficiently appreciated. In the mind of the physician there is frequently outlined a certain typical course for the average case of syphilis, in which is included most of the symptoms which are described in the text-books. This imaginary course, I am convinced, is a more severe one than the disease is apt to run in an average case, even under no treatment. Consequently in many cases the mildness of the symptoms is unduly ascribed to the effect of curative measures which have been employed; an error which, in other diseases than syphilis, has so often proved a stumbling-block to therapeutic advancement. While there is no shadow of a doubt as to the fact that appropriate treatment does much to ameliorate the symptoms of syphilis and to shorten its course, it must be admitted that some cases run a severe and prolonged course in spite of the best of treatment, and on the other hand that many cases run a comparatively mild course with little or no treatment.

It is an extremely difficult matter to account for the variation in the severity of syphilis in different cases. It is quite certain that this variation does not result from the character of the inoculation, for it has been frequently noted that two persons infected from the same source are apt to present quite different symptoms. Nor it is it probable that the variation is due, as has been imagined, to the amount of syphilitic virus which is absorbed at the time of infection. Indeed, there is good reason for believing that syphilis is the result of a perverted

cell action, and that in case of syphilitic infection there is no foreign material introduced into the system.

We know that the constitution, habits and general condition of the patient exert a considerable influence upon the course of syphilis. When the disease is engrafted upon a markedly strumous constitution, the symptoms are apt to be more obstinate if not more severe, and frequently it will be found that the ordinary plan of treatment does not produce its usual results. In patients of intemperate habits the later forms of the disease are especially apt to be aggravated. According to Sturgis, alcoholism is an important factor in producing the rapid and often fatal course of the disease which has received the name of "galloping syphilis." Impairment of the general health, from whatever cause, occurring either before or after infection, tends not only to increase the severity of syphilitic symptoms, but at the same time to render the patient less susceptible to the effect of specific treatment. The occurrence of the disease in patients of advanced age also tends to make its prognosis less favorable. But apart from the modifying influences of age, health, habits, &c., there is a notable variation in the course of the disease, which, in the present state of our knowledge, must remain unexplained.

To a certain extent a prediction as to the character of the ensuing disease in a given case may be based upon the aspect of the early lesions. If the chancre has a long incubation and does not ulcerate, if the glandular engorgement speedily lessens, and if the early efflorescence is of an erythematous or papular character, a favorable prognosis may be given. But if the chancre appears soon after the infecting coitus, and presents a massive induration, or becomes deeply ulcerated, and if the early symptoms are pustular in character, or tend to relapse at short intervals, there is a strong probability that a severe type of the disease will manifest itself in the future. Too much dependence, however, must not be placed upon the character of early lesions, and particularly the chancre, as a basis of prognosis, for exceptions to the rule are numerous.

Syphilis, like many other diseases, appears in a mild as well as a malignant form. A comparison of the experience of contemporary observers with that of physicians who wrote concerning the disease a few centuries ago, has led many to believe that the type of the disease is gradually losing its force, and that the syphilis of the present day differs materially from that of the fifteenth century. This, I am neither prepared nor disposed to deny, but it seems probable that then, as now, mild cases of syphilis were overlooked, and that the description of the disease was based largely upon a study of the most aggravated cases. At the present day syphilis is not the fearful disease which tradition and quackery have conspired to paint in the popular imagination. Though, when viewed in its social relations, it is now, as heretofore, one of the sorest plagues of civilized humanity, when considered in its individual aspect it is by no means a disease of remarkable gravity. Were it not for the idea of disgrace which is naturally associated with syphilis, and the danger of transmitting the disease to others, I have no doubt that many physicians who are well acquainted with its various

phases, would choose to have syphilis in preference to rheumatism, scrofula or malaria, supposing the necessity and the option to exist.

In its malignant form syphilis is beyond doubt a terrible disease. Though often dwelt upon, its horrors have never been exaggerated. Indeed, it would be difficult to exaggerate them. No one will deny that the disease is capable of producing as frightful ravages upon man's physical nature as the most fertile imagination could portray, and the misery which the disease is liable to entail upon the progeny of those affected by it is painful to contemplate. But, fortunately, it is not in every case that the terrible aspects of syphilis are manifested. The disease frequently occurs in so mild a form that the person affected experiences no discomfort beyond that which might result from various trivial causes, and passes through life apparently in as healthy and as happy a condition as though no infection had ever taken place. This can be verified by observation of numerous cases in persons who are ignorant of the fact that they have ever contracted the disease, and consequently have gone untreated. In very many cases in private practice the mental anxiety of the patient over his misfortune, greatly outweighs his corporeal symptoms. It is a common impression among the laity, and one which is shared by many medical men, that syphilis is in every case a terrible malady, one which must necessarily prove pernicious in its effects, and one which can never be wholly eradicated from the system. As a result of the prevalence of such an impression it is not uncommon for the physician to encounter the disease in many patients who are really more scared than hurt.

I do not believe that my experience in the study of syphilis in hospital wards, in private practice, and in the extensive Venereal Department of the New York Dispensary, has been confined to exceptionally mild cases, although I must confess that I am disposed to look upon the disease more favorably than the majority of writers. I do believe, however, that physicians will be better able to manage the disease successfully when they disabuse their minds of the notion that syphilis is a morbid demon, which in every case is bent upon exerting a malign and destructive influence. In the great majority of cases syphilis is a disease which will warrant a favorable prognosis. In its more severe form it is rarely fatal, although it may shorten life in many instances by inducing disease of the brain and nervous system, lungs, liver and other organs. Van Buren and Keyes remark that it is highly probable that more deaths occur from gonorrhœa as their first cause, than from syphilis.

In addition to the benignity of the disease in a large proportion of cases, its marked amenability to treatment under nearly all circumstances adds greatly to the favorable character of its prognosis. There is scarcely any chronic disease which responds so quickly to appropriate medication, and though it is to be regretted that no sanitary legislation has as yet been adopted with a view to checking the propagation of syphilis, we can rejoice in the fact that medical science is able to confront this dread disease and to disarm it of its deadly sting.

CHAPTER XVII.

Treatment of the Chancre.

Tendency to Spontaneous Disappearance.—Relation of Chancre to Syphilis.—Impropriety of Cauterizing all Suspicious Sores.—Excision of the Chancre.—Local Applications.—The Internal Use of Mercury.

The initial lesion of syphilis demands but little treatment in the majority of cases, beyond keeping the part clean and dry. Its natural course is towards spontaneous disappearance, and when there are no complications to subdue, time is the most important factor in its cure. I have already described the development of the chancre, and stated that not infrequently it may develop, run its course and disappear without the patient being conscious of its existence. With women this is more frequently the case than with men, since the former cannot so readily inspect the parts upon which chancre is most apt to appear. But in most cases in which the lesion is discovered, the aid of the physician is immediately sought, and it must be confessed that much credit is often awarded to his treatment which is really due to a natural *vis medicatrix*.

Were the chancre always an independent local affection, the question of its treatment would be a matter of little importance. It rarely occasions more than a trifling degree of physical discomfort, and with an ordinary regard for personal cleanliness on the part of the patient, it disappears nearly as soon as it is wont to do under the ordinary plan of treatment. But the chancre is not to be considered as a local affair. It is the forerunner of a grave constitutional disease, and, just in so far as the physician believes that the occurrence or the severity of the constitutional symptoms of syphilis depend upon the cure of the chancre, will he exert himself to hasten its disappearance.

If chancre be the result of general syphilis, its treatment is of no more importance than is the treatment of a mucous patch or any other cutaneous lesion, which, like it, is capable of transmitting the disease to others. But if general syphilis, on the other hand, be the result of chancre, the early destruction or the rapid healing of this lesion is evidently of next importance to its prevention.

There is an important difference of opinion among writers on syphilis, respecting the relation of the chancre to constitutional infection. While many regard this lesion as indicative of a complete saturation of the system with the so-called virus of syphilis, other writers of experience and authority consider it to be merely the starting-point from which the poison gradually finds its way into the blood by means of lymphatic absorption.

Naturally, the supporters of the former view believe that no treatment of the chancre can have any beneficial effect whatever beyond a mere hastening of its disappearance. On the

other hand, those who believe that constitutional infection only takes place after the chancre has existed for several weeks, strive either to prevent this by an early excision of the initial lesion, or to lessen its intensity by active treatment of its source. My advice to the reader is to treat the chancre in accordance with this latter view, and to leave the vexed question undecided until further evidence has been submitted.

It is impossible to discuss the treatment of chancre without referring to the treatment of certain lesions, which frequently appear after illicit intercourse, which excite considerable anxiety in the mind of the bearer, and which may or may not prove to be the initial lesion of syphilis. One of the earliest rules respecting the treatment of venereal disease, which I learned from an esteemed teacher in this department, was the following, "Cauterize every suspicious sore." This is to-day the guiding principle of many, if not most, physicians throughout this country, and I mention it only to condemn it. The beneficial effect of such treatment is extremely doubtful, while the injurious results of cauterizing simple abrasions, progenital herpes, and even chancroids is apparent to every physician of large experience, who does believe in and practice according to this rule. As a result of my own observation and experience, I should be rather inclined to say: "Do not, as a rule, cauterize any suspicious sore." If it prove to be a mere abrasion or an inflamed patch of herpes, it will rapidly heal under the simplest treatment, or even with no treatment at all. If it prove to be a chancroid, it will not be necessary to cauterize it unless phagedenic symptoms appear which will not yield to the application of iodoform. Finally, if it should prove to be a chancre, as it might in a small proportion of cases, it is quite probable that it would develop in spite of the cauterization, which is usually superficial and only sufficient to cause a small and inflamed ulcer. When a chancre makes its appearance from ten to fifteen or even twenty days after inoculation, nothing less than a thorough and deep cauterization will be sufficient to destroy it. As, at this time, there is apt to be considerable doubt as to whether the lesion is really a true chancre or not, I hold that it is better to wait, until all uncertainty as to its nature is removed, even if this delay necessitates a still deeper cauterization, or, what is preferable, a complete excision of the induration.

Of course the earlier an attempt is made to destroy a chancre by cauterization, the greater is the prospect of success, but even in the incipient stage of the lesion the mere application of fused nitrate of silver or any other superficial caustic is too weak a measure to place any dependence upon. The suspicious lesion must be totally destroyed if cauterization is resorted to. The question is then as follows: Shall we subject a patient with a suspicious sore to pain and annoyance by converting the same into an ulcer, with the hope, but not the certainty of preventing a merely possible attack of syphilis? I answer, no!

As to the value of early excision of the chancre there is a wide difference of opinion among authoritative writers, and the influence of theory is plainly seen in the inferences which have been drawn from certain experiments and statistics. As a matter of fact, the clinical observations representing the value of excision are not as yet sufficiently numerous and satisfactory to convince any one who is predisposed to reject either conclusion. Auspitz, a promi-

nent advocate of this operation, claims that in fourteen out of thirty-three cases in which he excised the initial sclerosis there was no subsequent syphilis. Bumstead and Taylor state that in fifteen cases in which they tested this form of treatment they never succeeded in averting syphilis. In all of their cases, however, the inguinal ganglia were indurated.

When the chancre is well developed at the time the physician is called upon to treat it, and the beneficial result of excision is not to be hoped for, there are various local applications which can be made, with three objects in view; viz., (1) the prevention of any acute inflammatory complication ; (2) the healing of ulceration when it exists, and (3) the lessening of the sclerosis.

In most cases, a chancre that has not been burned and is kept fairly clean shows no tendency to become inflamed. But often a lack of cleanliness, or, on the other hand, the unnecessary use of soap, will produce a reddened and angry condition of both the chancre and the surrounding parts. In such cases the occasional ablution of the lesion with warm water, and the constant use of lint, charpie, bibulous paper or absorbent cotton, will do much toward the comfort of the patient and the cure of the lesion. The use of ointments and lotions in the treatment of chancre is of questionable value. When the lesion is ulcerated and covered with a dried crust, as often happens when it is situated upon some portion of the dry integument, the temporary use of either a bland ointment for the removal of the crust, or a continued dressing with mercurial ointment or plaster might be of service, but on the mucous surface of the genitals such an application is never advisable. The various astringent lotions recommended by many writers may prove serviceable whenever chancre is associated with chancroid, but when it exists alone, these are never of sufficient value to compensate for the slight trouble occasioned by their use. The favorite black-wash which is so extensively employed by many physicians has no remarkably beneficial effect, and is certainly a remedy which can lay no claim to pharmaceutical elegance.

In my experience, nothing is more satisfactory to both patient and physician than the use of various applications in the form of powder. These serve to absorb moisture and to keep the lesion and surrounding parts dry and clean. When some form of mercury enters into their composition they conduce in a marked degree to the healing of a raw surface and to the lessening of the specific induration. When the chancre occurs, as it so frequently does, on the glans penis or inner aspect of the prepuce, or on the mucous surface of the vulva, a powder of some kind may be applied, either alone or in connection with lint or absorbent cotton.

Iodoform is frequently used in the treatment of chancre as well as chancroid, and there can be no doubt as to i ts beneficial effect. But since its pungent and undisguisable odor is such a decided objection to its employment in private practice, and since there are other odorless applications which are equally or even more efficacious, its use can hardly be recommended. Tannic acid, alum and other astringents are rarely called for in the treatment of chancre, while lycopodium, bismuth, starch and oxide of zinc, have no particular value, save as they are used for the attenuation of the mercurial salts.

The simplest and best application which can be made to a chancre under ordinary circumstances, is, according to my experience, either calomel or the black oxide of mercury (1x). The application of this powder should be made two or three times daily, and when, in irritable cases, it is considered necessary to reduce its strength, it may be mixed with from two to five parts of lycopodium or any other smooth and inert powder. This application tends to keep the lesion clean and dry, to favor cicatrization and to reduce the induration. In case of an inflamed or suppurating chancre, or a chancre complicated with chancroid, it is better to substitute iodoform either in powder or in the form of a ten per cent. ethereal solution.

The question as to whether mercury should be administered internally for the cure of chancre, is one which has evoked as much difference of opinion as that concerning the excision of the lesion. Whether the chancre is considered to be an indication that the general system is already contaminated or not, it is certain that the internal use of mercury has a marked effect in lessening the specific induration, and in hastening a cure of this lesion. And yet there are good reasons for withholding the administration of this drug in many cases, until the earliest eruption, and its concomitant symptoms, have made their appearance. I have already stated that it is often difficult and sometimes impossible for even an experienced physician to make a positive diagnosis of chancre. Under such circumstances it is far better to treat the lesion locally, and to wait patiently until the appearance or the non-appearance of secondary symptoms have settled this important question of diagnosis.

The time lost is of very little importance to the patient, in case the lesion proves to be a chancre. Indeed, Bumstead states, in agreement with many observers, "those cases ultimately do best in which specific treatment is deferred until the secondary stage." On the other hand, the practice of many physicians, who place every patient on mercurial treatment, who is even suspected of having a chancre, is harmful for various reasons. If the lesion is merely a chancroid or a herpes, the internal use of mercury is simply a waste of time and medicine. But a far more important reason is that it often leads the patient to be apprehensive, throughout the remainder of his life, of evils with which he has never been threatened.

CHAPTER XVIII.

Hygienic and Tonic Treatment.

Its Importance not fully appreciated.—A Routine Plan not adapted to all cases.—Moral Treatment of Patient.—Information to be imparted.—Advice to be given.—Value of Iron.—Value of Cod-liver Oil in certain cases.—Value of Time and Vis medicatrix.

It is a common but erroneous idea that the successful treatment of syphilis depends wholly upon the administration of specifics. As a consequence of this, the hygienic and tonic treatment of the disease is too often neglected in favor of specific medication. In most cases there is no reason why both general and specific treatment should not be employed, but there are few physicians who appreciate the fact that one is quite as essential as the other. Many, I think, are inclined to overrate the value of specific medication, and firmly believe that if mercury is withheld the patient must necessarily remain uncured of his malady, and eventually suffer from some of the various forms of so-called tertiary disease. This I believe to be an error, and one which is apt to draw the physician's attention from the undoubted benefit to be derived from regularity of habits, good food, fresh air, and a contented mind. The specific medication of syphilis is of the highest importance, but, nevertheless, there are moral agencies, hygienic measures, and tonic remedies, which may be employed with the greatest benefit to the patient, and which, doubtless, would be more generally employed were it not for the prevailing belief that mercury is the all-powerful and indispensable remedy.

Considering the prominent rank which syphilis holds among chronic diseases, its treatment is remarkably simple. Indeed, it is so simple that there is tendency among most physicians to settle upon a routine plan of treatment, and to apply this indiscriminately. In a preceding chapter I have endeavored to impress upon the mind of the reader that syphilis is not invariably a grave disease, and I wish now to emphasize the fact that the plan of treatment which is so indispensable in severe cases is quite unnecessary, if not injurious, in certain mild cases. It must not be forgotten that syphilis often presents a benign aspect, and that it may run a rapid course without giving the patient any great amount of annoyance. Probably all experienced physicians can call to mind cases of men and women who have contracted the disease, perhaps unwittingly, and have had no treatment whatever, or cases in which the treatment has been of such a character or of such a short duration that it amounted practically to no treatment at all. And yet the disease has run

an average course in these patients. On the other hand, they may be able to recall cases in which the symptoms of the disease have been extremely annoying to the patient, and prolonged, perhaps, through the course of several years, in spite of careful specific treatment. No one will deny that syphilis is capable of rivaling leprosy in malignant aspect and chronicity, but that the disease may, and in a considerable number of cases does run its course and terminate within six, eight or twelve months, is a fact which should be more generally appreciated. I know that many will shake their heads at such a statement, and assert that in these seemingly mild cases the disease is never extinct, but certain to manifest itself in some form in later years; and I must admit that my view is not in accord with what is commonly taught. It is certain, however, that a wide variation in the severity of the disease exists, and this should not be overlooked in the treatment of cases. To my mind there is nothing more irrational than the common practice of treating syphilitic patients according to a fixed and unalterable routine.

When a patient contracts syphilis, and seeks medical aid, the first and foremost duty of the physician is to impart a certain amount of information, and to accompany this with wholesome advice. The future health and happiness of the patient will often depend largely upon such a course of treatment, for unless the patient is made to understand the character of his malady, its probable course, and the length of time which may be required for its complete cure, it is quite likely that he may convey the disease to others, that he will neglect treatment as soon as the outward manifestations of the disease have passed away, and that future relapses will be attributed to incompetency on the part of his medical adviser.

In most cases the physician should state to the patient, in no ambiguous manner, that he or she has syphilis, and, whenever it is necessary, he should explain in a general way what the term syphilis implies. Of course, it might not be advisable under certain circumstances to inform the patient—a faithful and trusting wife, for example—as to the nature of her affection, especially when the probabilities are that she will remain for years under the physician's observation; but the common custom of treating cases of recognized syphilis, and merely telling the patient that "the blood is a little out of order," or something equally non-committal, is certainly not to be commended. When apprised of the nature of the disease, the patient will often render the physician material assistance in its treatment.

As patients are not all of the same temperament, the physician must use tact in dealing with them at the commencement of treatment, in order to secure their confidence and submission. While the groundless fears of some are to be allayed, the dangers which threaten must be unvailed to others. Many young men, contracting the disease, are apt to be overburdened by a natural sense of shame and disgrace, and a vague fear of terrible consequences. Falling into the hands of charlatans, as so many do at the outset, their fears become magnified, and they fall into a state of mind which borders on desperation. The peculiar depression of spirits, which seems to be an essential feature of the early stage in every case of syphilis, may be combated by drugs, but for this superadded mental

disquietude a few kind, cheering, encouraging words are the best specifics. On the other hand, there are some who are naturally disposed to be careless of their present condition and indifferent as to the future. They are not likely to be easily frightened, and it is only by the repeated prediction of evil consequences that they can be induced to follow out a systematic course of treatment. In short, the moral element in the treatment of syphilitic patients is too important a matter to be overlooked.

When a patient presents the lesions of recently-acquired disease, the physician's duty is not simply to treat this individual case, but to do all in his power to prevent the transmission of the disease to others. He must, therefore, instruct the patient, in the first place, as to the contagious nature of certain oral as well as genital lesions, the danger of his infecting others in various ways besides sexual intercourse, and the consequent necessity for circumspect conduct on his part. In the next place, he must impress upon the mind of the patient the fact that a cure will depend upon the duration of the treatment rather than upon the amount of medicine taken. How often is the physician consulted by some unfortunate patient, who assures him that, on account of a marriage engagement, or some other consideration, it is imperatively necessary for him to be cured of the disease within a given number of months! He is willing to do anything and to pay anything for a cure within the specified time. Such a patient must be informed that time is as essential to the cure of syphilis as to the growth of a tree; that the progress of the disease may be greatly modified, but not cut short, by treatment; and that a marriage consummated before the expiration of a sufficiently prolonged course of treatment would almost certainly lead to the infection of his wife and the production of diseased progeny.

Having imparted to the patient the necessary amount of information, the physician must next proceed to the duty of giving advice as to his habits of life. There is no special hygiene for syphilitic patients, and this is not the place for a discussion of general hygienic topics. Suffice it to say that, in every case, the patient must be made to appreciate the fact that the course of the disease on the one hand, and the effect of curative measures on the other hand, will depend largely on the tone of his general health. He should be urged to renounce all injurious habits in which, under ordinary circumstances, he might see fit to indulge, and to undergo a sort of daily training for the conflict with disease, which has already begun, and from which there is no retreat. The diet usually needs no modification, and a moderate indulgence in wine does not interfere with treatment. The use of tobacco, however, is to be forbidden when oral lesions are present, and its excessive use, indeed, at any time, is very apt to induce their appearance. Late hours, intemperate habits, overwork, excitement, anxiety and everything that depresses the mind or exhausts the body will inevitably tend to aggravate the disease and lessen the beneficial effects of treatment.

In certain cases of syphilis a change of scene, involving complete exemption from work and worry, is of the utmost value, and will often produce a beneficial result which the best of advice and medication may have failed to accomplish. In the late stage of the disease a pleasant trip will sometimes work wonders, and to this potent remedy should

doubtless be ascribed the merit which is so often awarded to the hot springs of Arkansas and to the sulphur baths of Europe.

In addition to hygienic measures, tonics hold an important place in the treatment of many cases of syphilis. Cinchona, gentian and other bitters, and even arsenic and strychnia, may be frequently administered with advantage, but iron is the remedy which is most apt to be required. In the anæmic state, which is invariably a concomitant of early syphilis, and particularly in those patients who have been previously ill-nourished and feeble, iron proves to be of the greatest value. Indeed, I am inclined to regard it as not greatly inferior to mercury in the treatment of many cases. It may be given in almost any of the forms in which it is commonly administered. Pills of the carbonate of iron are to be preferred to the tincture of the chloride in cases where there is a tendency to constipation or headache. Dialysed iron will always be productive of good results, if a good preparation is obtained. Most physicians are in the habit of intermitting mercurial treatment, especially when the symptoms of the disease are no longer apparent, and it is in these intervals of rest that the iron may be advantageously employed.

Cod-liver oil is another inestimable remedy in the treatment of certain cases of syphilis. Whenever the disease is engrafted upon a strumous constitution it is very apt to prove rebellious to the ordinary hygienic and specific treatment. The pustular form of eruption is liable to prevail in these cases, and the cervical glands may inflame and form indolent abscesses or ulcerations, which do not readily heal. If a course of cod-liver oil and iodine or iodide of iron is ordered before administering the mercury, or, preferably, in connection with it, these otherwise obstinate cases may be brought under control. Bumstead recommends cod-liver oil as a vehicle for the bichloride of mercury, which has first been dissolved in a few drops of sulphuric ether. The bottle containing the mixture must be kept tightly corked, otherwise the bichloride will be precipated by the evaporation of the ether.

Without mentioning a host of other remedies which might be employed with advantage, let me emphasize the fact that in most cases of syphilis it is not only necessary to treat the disease, but to treat the patient as well. We have frequently to deal with morbid conditions, which may have existed long before the syphilis was contracted, which have been seriously aggravated by this circumstance, but which are not influenced in the slightest degree by ordinary specific treatment.

Finally, we must never forget that time and a *vis medicatrix* contribute largely to the cure of syphilis. While I advocate specific medication in every case, I would urge at the same time the importance of a hygienic and tonic plan of treatment, and claim that in some cases this alone is sufficient to effect a cure.

CHAPTER XIX.

Specific Treatment.

Specific remedies.—Mercury the most trustworthy.—Its internal administration.—Value of milk sugar triturations.—Tendency to a restricted use of the Drug.—Author's plan of treatment.—Inunction.—Fumigation.—Hypodermic injections.—Iodide of Potassium.—When and How to be given.—Toxic effects.—The mixed treatment.

Of the many remedies which have been employed in the treatment of syphilis, there are two which have come into general and almost exclusive use. These are mercury and iodine. Without doubt there is more or less virtue in other remedies, such as guaiac, sarsaparilla, stillingia, mezereum, gold, platinum, &c., and some of these may be profitably employed as adjuvants in the treatment of the disease in general, and especially in the treatment of certain symptoms. Their value, however, is insignificant when compared with that of mercury in almost any of its forms, and of iodine in its commonly prescribed form, the iodide of potassium.

In spite of its abuse by many who use it, and by some who do not, mercury is undoubtedly our most trustworthy remedy in the treatment of syphilis. It may be advantageously employed for a longer or shorter period in every case. There are several modes of employing the remedy, of quite unequal value, and some of them deserve but a brief mention.

The administration of mercury by the mouth is the simplest and, in nearly all cases, the best mode. The objection generally raised against it by those who favor other modes is its liability to induce gastric or intestinal derangement. But this objection is quite invalid if one selects an unirritating preparation and employs it in reasonable amount.

The preparation of mercury best suited for internal administration to syphilitic patients is one which is readily absorbed, and, at the same time, productive of least irritation of the digestive tract. Of the value of the various salts of mercury, as compared with each other and with the metal itself, I have little to say. The fact that one praises blue mass, another calomel, and another mercury with chalk, naturally leads to a belief that they are of no very unequal efficacy, although the fact is easily demonstrated that the proto-salts are far less irritating to the stomach and intestines than are the per-salts. I have been in the habit of using the green iodide of mercury in nearly all cases of early syphilis, but I must add that cases which I have treated with the mild chloride have done apparently as well. In late syphilis I have generally followed the custom of administering the red iodide or corrosive

chloride, with occasionally the bicyanide, but must confess that I see no good reason for not continuing the green iodide throughout the course of the disease. The benefit, which is said by many to result from the occasional change from one salt to another, I have not witnessed. There certainly can be no harm in this change if the preparations of the drug are equally efficacious.

The chemical composition of the mercurial employed is, perhaps, of less importance than its pharmaceutical character. Whether the metallic mercury or one of its numerous salts is chosen, I am convinced that a trituration of the same, with sugar of milk, may be employed to much greater advantage than any of the officinal preparations, such as pil. hydrargyri, hydrarg. cum cretâ, or the salts of the metal given in pill form. In the milk sugar triturations, as has been shown by microscopical examination, the globules of mercury or particles of its salts are much smaller than in the ordinary pill form, and therefore capable of more ready absorption. In the form of trituration, as Piffard justly claims, "a larger proportion of the drug is utilized for specific purposes, while but a small amount remains to give rise to local irritation."

As to the total amount of mercury and the size of the dose to be given, as a rule, to a syphilitic patient, I am decidedly in favor of moderation. From the time when the curative effect of this drug was estimated by the pints of saliva which ran from the patient's mouth, there has been a steady tendency towards its restricted use. From excessive salivation to mild salivation was one step; from mild salivation to a slight effect of the drug, manifested by tenderness of the gums, was another step. At the present day the majority of authoritative writers recommend the administration of doses as large as the patient can take and barely escape salivation, and from the directions invariably given for the treatment of this undesirable complication, one naturally infers that patients treated according to their method do not always escape. My experience has led me to believe that the best effects of mercury in syphilis can be obtained by doses which fall far short of the danger of producing salivation except, perhaps, in very rare cases, where there exists a peculiar intolerance of the drug. Under the influence of such doses the lesions of early syphilis usually fade away as quickly as when the drug is pushed to the verge of salivation, and that such doses are as conducive to the complete eradication of the disease I firmly believe. Supposing the case to be one of early syphilis, and the protiodide of mercury to be the chosen remedy, I should advise the administration of from three to six centigrams (one-half to one grain) daily. If the eruption is erythematous in character the lesser dose would suffice, but if the symptoms were such as to indicate a severe type of the disease, a double quantity might be advantageously given. Rarely do I find it necessary to exceed this amount, and within this limit there is no necessity for combining opium with the mercurial to prevent gastric irritation. If it were deemed necessary in any case to produce a marked and speedy mercurialization, I should prefer auxiliary treatment by inunction or fumigation to an increase of the dose given by the mouth. The remedy in the above-mentioned dose should be continued until all symptoms of the disease have disappeared. It may now be administered a portion of the

time (from one to three weeks in each month), for a period of about six months, and iron or some simple tonic given in the periods of respite from its use. Should further symptoms of the disease manifest themselves at any time, the mercury should again be given continuously during their existence, and then given in an intermittent manner, as before, for a period of from two to six months, according to the severity of the last symptoms. If in any case the early lesions have passed quickly away, and the patient has been treated on the foregoing plan during the six months following their disappearance, I deem it advisable to stop the administration of mercury. I am willing to admit that such a patient may present late syphilitic manifestations, but I doubt if he would be less liable to suffer from them were he to take large doses of the drug through a period of two or three years.

Although I have no sympathy with those who look upon mercury as an unmitigated evil, and who ascribe to it most of the lesions which follow in the train of syphilitic infection, I must express my decided conviction that most of the patients who are thoroughly treated for syphilis at the present day are forced to take an unnecessary amount of this drug. In the first place, too much is given at a time, under the mistaken notion that by "pushing" the remedy the disease may be overwhelmed and conquered, and in the second place the mercurial dosage is continued in many cases long after there is any advantage in its use.

The treatment of syphilis by inunction is highly praised by several eminent authorities, and is certainly very efficacious. The absorption of the mercury is proven by its speedy effect upon the course of the disease, and by the occurrence of salivation when the frictions are energetic and continued. In the dry forms of eruption its local action is also of great benefit. Compared with the administration of mercury by the mouth, inunction is a somewhat disagreeable plan of treatment, and hence is not to be generally recommended as a substitute. It may, however, be resorted to with advantage in many cases, *e. g.*, when the patient's stomach is so delicate as to be intolerant of the smallest doses of mercury, or when a very speedy effect of the remedy is demanded. The unguentum hydrargyri (U. S. P.) may be employed, or the oleate of mercury, of ten per cent. strength. The latter is a more cleanly preparation, but is more apt to irritate the skin. In prescribing a course of mercurial frictions, the patient—if he expects to do the rubbing himself—must be carefully instructed as to the danger of inducing a dermatitis or an artificial eczema, and the consequent propriety of limiting the friction to certain parts. Two to four grams (ʒ ss—i) of the ointment may be used every night before going to bed, and from twenty minutes to a half hour should be devoted to rubbing it gently but thoroughly into the skin by means of the palms. It is advisable to select portions of the body where the skin is moderately thin, but at the same time to avoid the axillary region and flexure of the joints, where a dermatitis is very apt to be excited. My custom has been to direct the patient to make the frictions the first night upon the arms and sides of the chest. On the second night the abdomen may be rubbed in the same manner; on the third night, the inner surface of the thighs, and on the fourth night, the legs and feet. By this time any irritation of the arms and chest will have probably passed away, and the same frictions may then be repeated in the same order. The skin

should be thoroughly washed with soap and warm water before applying the ointment, and a tight-fitting undergarment worn during the night.

Mercurial fumigations or medicated vapor baths have had zealous advocates, and in cases where a copious pustular or pustulo-crustaceous eruption is present, or where the respiratory tract is seriously affected, they answer an excellent purpose.

The hypodermic injection of mercurials is a plan of treatment which appears to me to be rarely, if ever, indicated. Having treated no cases in a systematic manner by this method, I cannot deny the efficacy which its advocates have claimed for it, but since it is troublesome, painful and liable to occasion abscesses, I fail to see any good reason why it should be preferred to other methods of treatment, which leave nothing to be desired.

Iodide of potassium is a remedy which is indispensable in the treatment of certain phases of syphilis, but which, like mercury, is very apt to suffer abuse. As to its value and the proper time and manner of giving it, there is considerable difference of opinion among writers. Many believe that it has absolutely no curative effect upon the disease itself, and in this respect, therefore, is not comparable with mercury, but all admit that it has a marked influence in dissipating symptoms of the disease, and hence is a remedial agent of value.

It is a common belief that mercury should be the sole remedy during the stage of efflorescence (secondary syphilis), and that iodide of potassium is only called for in dealing with lesions, particularly those of a gummatous nature, which occur at a later period. In my experience both remedies have proved to be of value at the commencement, as well as later in the course of the disease. In the early stages, according to recent writers, the iodide would seem to play a very unimportant part, and only become indicated when signs of late syphilis begin to be manifest. For my part, I employ it in nearly all cases at the outbreak of constitutional symptoms, and know of no remedy which could take its place. The severe headache, which is often prolonged for several days at the outbreak of the first exanthem, is a symptom which generally annoys the patient by day and disturbs his rest at night. For this some remedy is required which has a far more speedy action than mercury, and the iodide of potassium admirably fulfills the requirement. It may be administered in one or two doses, varying from a half gram to a gram (eight to fifteen grains), and stopped when the symptom for which it was given has yielded. The arthritic pains and stiffness of the joints, which are usually more or less troublesome in all cases of early syphilis, are invariably relieved by the iodide when the ordinary mercurial treatment has no apparent influence over them. The remedy is then one which is indispensable at this stage of the disease, although its prolonged administration at this time is unnecessary, if not harmful.

In late syphilis, when there are gummy tumors or tubercular lesions, evincing a tendency to gummatous degeneration, or extensive ulcerations of the skin or mucous membrane, and particularly when there are lesions of the brain or other viscera, seriously interfering with important functions, the rapid and brilliant effect of the iodide of potassium renders it of inestimable value. It may now be pushed in certain cases to the extreme limit of dosage which the patient is able to tolerate, for experience proves that a very large dose of the

remedy will often fail, when but a slightly larger dose will accomplish the desired result. In some cases from twelve to twenty grams (three to five drachms) may be given daily. The syrup of orange peel constitutes the most palatable excipient, and the dose should be taken, well diluted, shortly after meals.

Iodide of potassium should seldom, if ever, be continued for any length of time. It is far better to give very large doses for a short time than to continue the administration of moderate doses for a long time. If the remedy produces no beneficial effect whatever at the start, its continuance will be almost certain to do harm. The severe and obstinate cases of syphilis which, in the opinion of the physician, demanded immense and prolonged doses, have in some instances proved to be cases of chronic iodism, greatly relieved by a cessation of the remedy. It is not an uncommon, though always a very painful sight, to see in some dark corner of a hospital ward, the emaciated victim of chronic syphilis struggling for life, and vainly swallowing the huge doses of iodide of potassium which are deemed necessary. If the considerable sum of money paid out for this expensive drug could only be expended in giving such a patient a little country air, there might be some chance for recovery!

The unpleasant result of giving mercury in large doses, viz., salivation, may be readily avoided, since the beneficial effects of the drug may be attained by use of small doses. But as the beneficial effects of the iodide depend often upon large doses, we must be prepared to recognize the toxic effects, which are frequently unavoidable. Patients vary greatly in their susceptibility to the action of the drug. Some complain of an acute coryza after one or two small doses. In connection with this iodic coryza there may be severe frontal headache, with general malaise and extreme nervous irritability. An erythematous or papulo-pustular eruption may appear upon the face, purpura on the legs, or hydroa on the face and forearms.

A combination of mercury and iodide of potassium is very commonly prescribed in the later stages of syphilis, and is known as "the mixed treatment." Although I hold it to be a good general rule to give remedies singly rather than in combination, in order that the proper effect of each may be judged, I must admit that in this case the combination seems to produce an effect which is not so readily obtained by the use of the drugs separately. The red iodide is the mercurial usually selected, as corrosive sublimate is decomposed when combined with the iodide of potassium. As a small quantity of carbonate of ammonia is generally supposed to increase the efficacy of the iodide, and as a bitter is rarely superfluous in cases demanding the mixed treatment, the following formula will prove serviceable, and be easily remembered on account of its decimal character:

		Grams (or drachms).
℞	Hydrargyri iodidi rubri, ...	.10
	Ammonii carbonatis, ...	1.
	Potassii iodidi, ...	10.
	Tinct. gentianæ comp., ...	ad. 100.
M.	Dose—a teaspoonful in water after meals.	

CHAPTER XXI.

Local Treatment.

Effect of Mercury due to Contact with Syphilitic Infiltrations.—Local Stimulation.—Varying Susceptibility to Irritation.—Moist Ano-genital lesions.—Squamous lesions of Palms and Soles.—Ulcers.—Onychia.

The local treatment of syphilitic eruptions is quite simple, since it consists chiefly in the application of mercury in some form which renders it capable of being readily absorbed. Formerly all local treatment of the cutaneous lesions of syphilis was proscribed, inasmuch as the eruption was considered to be a proof that the disease was being driven out of the system by means of internal remedies. Even at the present day some physicians share with ignorant patients, the absurd belief that copious and recurrent eruptions, whether syphilitic or not, constitute a natural outlet for a hypothetical virus or humor.

As the curative effect of mercury when given internally is undoubtedly due to the fact of its particles being brought into contact with the syphilitic infiltration through their circulation in the blood, the application of the remedy immediately to the surface of the cutaneous lesions would naturally be expected to produce the beneficial effect which clinical observation verifies. Indeed, when we consider how rapidly the drug is absorbed into the system by means of the inunction treatment, its local application must be regarded as nothing more nor less than its administration *per cutem*.

The cutaneous lesions of early syphilis, with the exception of the chancre and the moist papules of the ano-genital region, require but little local treatment. The lesions of late syphilis, on the other hand, call for local as well as general treatment in nearly every case.

In the erythematous syphilide the eruption is so fleeting that there is scarcely any occasion for local measures, and since the lesions are in great degree hyperæmic it is doubtful whether these would prove of any benefit. To the accompanying glandular engorgement, however, the physician's attention is often called. Ordinarily the glands are slightly swollen, indurated and painless, but in certain cases they are liable to become inflamed, especially in the neighborhood of the initial lesion, and to give rise to considerable discomfort. The application of belladonna ointment I have frequently found to be of service in such cases. For the minute papulo-pustules of the scalp, which are apt to be associated with the erythematous as well as with the other early syphilides, the ointment of ammoniated mercury may be prescribed, if they are sufficiently annoying to the patient to require treatment.

In the various forms of the papular syphilide we find lesions which are the result of cellular infiltration, and often quite persistent. Their resolution may be materially hastened by local treatment. Since the ordinary dry eruption is productive of no particular discomfort to the patient, and is certain to disappear entirely in the course of a few months at the farthest, there is no occasion for local applications, save upon certain uncovered portions of the body, such as the face and hands. When the eruption is quite marked upon the forehead or upon the palms, the patient is naturally annoyed by this advertisement of his misfortune, and is extremely anxious to dispel it from these localities, no matter how long it may linger upon his body. Judicious local treatment, consisting mainly in bathing and inunctions, now becomes indispensable. As absorption of mercury by the skin depends in great measure upon the activity of the cutaneous circulation, a fair amount of exercise in the open air must be insisted upon, and frequent Turkish baths may be prescribed to advantage. Between the ointments of calomel, white precipitate, or turpeth mineral and the oleate of mercury, there is no great choice. Either may be advantageously employed. It is important to remember, however, that all skins are not affected by local irritation in the same degree, and that while the oleate of mercury of five or ten per cent. strength may excite a dermatitis in certain cases, a twenty per cent. application may be made in other cases with a most happy effect. The object of local treatment should be the stimulation of the affected skin to as great a degree as possible without the production of undue irritation.

For the moist papular lesions of the ano-genital region, cleanliness is the best local treatment. It is both prophylactic and curative. If a papular eruption is copious in this region, the anus should be washed with soap and water after each movement of the bowels, and the genito-crural folds should be frequently powdered with lycopodium, especially in warm weather. This will lessen the tendency to the development of large mucous papules and condylomata. When these are present, the best plan of treatment is to bathe them thoroughly with a weak solution of chlorinated soda or permanganate of potassium, and after they are carefully dried, to powder them freely with calomel. Large condylomata may be cauterized daily with the acid nitrate of mercury.

The tubercular syphilide in its non-ulcerative form usually yields readily to internal medication. When the tubercles manifest a tendency to soften and ulcerate the best plan of treatment is to apply a piece of adhesive mercurial plaster cut to fit the size of the patch. On the covered portions of the body this may be allowed to remain undisturbed for several days, but on the face the patient naturally prefers to wear it only at night.

The squamous syphilide occurring on the palms and soles is frequently a very obstinate eruption, on account of the natural thickness and dryness of the epidermis, and its liability to crack and to produce painful fissures. No cutaneous manifestation of syphilis demands more careful and persistent local treatment. In cases in which an eczematous tendency exists, the eruption may become modified in appearance to such an extent as to render the diagnosis extremely difficult. In these cases we have to deal with a superadded eczema, an eczematous syphilide, so to speak. A beneficial plan of treatment is to immerse the palms or

soles in water, as hot as can be borne, to which corrosive sublimate has been added in the strength of a gram to the liter (a half grain to the ounce). Merely enough of the solution is required to cover the bottom of a basin or foot-bath, and the affected skin may be allowed to soak from fifteen to twenty minutes before going to bed. A twenty per cent. oleate of mercury may then be rubbed upon the scaly patches, or pieces of adhesive mercurial plaster applied, and covered with gloves or tight-fitting socks.

In case of late pustulo-crustaceous lesions it is sometimes desirable to leave the crust as a natural covering to the underlying raw surface, the healing of which may be hastened by judicious internal treatment. When, however, the crusts become rubbed or scratched off, the raw surface exposed requires careful attention. A simple plan of treatment is the application of little pledgets of absorbent cotton, which, becoming saturated by the purulent discharge, dry into artificial crusts, beneath which the healing usually progresses favorably. If there is much pus concealed beneath the crusts, as is frequently the case, these should be removed without delay by means of a poultice, applied for a few hours, or over night. The ulcerated surface should then be carefully cleansed, and protected by a piece of adhesive mercurial plaster.

When deep syphilitic ulceration is present, no local remedy, in my experience, is superior to iodoform. This will almost invariably cleanse the ulcer, and check its tendency to spread. At the same time it will tend to lessen the discharge and to promote the process of healthy granulation. Before its application, the floor of the ulcer should be carefully dried by repeatedly pressing upon it small wads of absorbent cotton. The iodoform may now be applied, either as a powder or preferably in the form of a saturated ethereal solution. The ulcer should then be packed with the cotton, and, if seated on the extremities, covered with a roller bandage. The application of iodoform may be made once every day, or oftener, if it is convenient. The ethereal solution generally causes a little sharp pain for a few moments after it is applied, but this is quickly followed by a sensation of decided relief, especially when the ulcer itself has been painful. If serious objection is made by the patient to the odor of the iodoform, which, by the way, cannot be wholly disguised, a lotion containing one per cent. of corrosive sublimate and three per cent. of carbolic acid may be advantageously employed. In case of foul syphilitic ulceration occurring upon the legs, this is especially applicable. Weak solutions of iodine, nitrate of silver and various astringents have been recommended, but their effect is not remarkable. The application of the solid stick of nitrate of silver to the indolent granulations which sometimes spring up around the margin of a healing ulcer, is such a common procedure that its mere mention seems almost superfluous.

Onychia is a phase of cutaneous syphilis which is scarcely amenable to internal medication. In its early stage it may be successfully treated by painting the affected skin with a five per cent. solution of nitrate of silver. When a deep and painful ulceration is present, I prefer the application of iodoform, either in fine powder, ethereal solution, or in combination with balsam of Peru, two parts of the former to eight of the latter.

CHAPTER XXII.

Hereditary Syphilis.

Characteristic Features.—Appearance of Syphilitic Infant.—Eruptions.—Syphilitic teeth.—Preventive treatment.—Curative treatment.

Thus far in this work only the acquired form of syphilis has been considered, and our space will now admit but a mere mention of the features of the hereditary form. Transmitted from one or both parents, the disease usually manifests itself at or shortly after birth. About one-third of its victims are born dead, and many more die within the first six months. If the disease is not manifested at birth, it usually appears during the first three months, although in rare instances the first manifestations are delayed for a year or more. Subsequent lesions may develop at any time, before or even after the period of puberty.

Hereditary syphilis differs from the acquired form of disease in having no initial lesion, and little or no regularity in the evolution of its symptoms. Like the malignant and precocious form of syphilis sometimes met with in the adult, it presents a co-existence of cutaneous eruptions and gummy deposits in the viscera. In addition to the lesions, which are unmistakably of syphilitic character, we find in all cases of hereditary disease many indications of mal-nutrition and other morbid symptoms, which are in no respect peculiar to this malady. The infant inheriting syphilis often presents a general appearance which is very characteristic. The skin, instead of being ordinarily soft, white and plump, is dry, wrinkled, and of a dirty, sallow hue. The features are pinched, and senile in expression. The nasal and respiratory passages are partially obstructed by a catarrhal condition (the "snuffles,") and there is often difficulty in breathing and nursing. The voice is weak and husky, and the child cries in a peculiarly pitiful manner. A well-marked erythematous or large papular eruption may be present at birth, or develop soon after, but in most cases we find only scattered papules, or slightly infiltrated patches about the anus and corners of the mouth. Sometimes there are characteristic mucous patches present, and upon the palms and soles it is not uncommon to find a bullous eruption, or its red papular base.

If the child does not rapidly sink into a condition of profound marasmus, of which death is the inevitable sequel, a condition of fair health may in time be established, especially if judicious treatment is carried on. But later symptoms of the disease are likely to follow in most cases. Dactylitis (see Plate XLVIII.) or other bone lesions may develop at any time, and when the permanent teeth appear, a very characteristic deformity is frequently observed (see Plate XLV.).

The treatment of hereditary syphilis should be prophylactic to as great an extent as possible. The marriage of syphilitic patients is to be absolutely forbidden in all cases in which the physician believes that a transmission of the disease is liable to occur. If marriage has taken place the syphilitic parent must be placed under active mercurial treatment, and advised to avoid for the time being, the procreation of offspring. If the wife becomes pregnant, she should be placed immediately under treatment, whether she presents signs of having been infected or not. On account of the gastric irritability associated with pregnancy, mercurial inunction is usually preferable to internal medication in such a case.

If, without or contrary to the advice of the physician, marriage, pregnancy and the birth of a syphilitic child have taken place, active curative treatment is demanded. In adult life a strong constitution may withstand the attack of syphilis, unaided by treatment, but in infancy the life of the little patient is practically in the hands of the physician. It may be questioned whether hereditary syphilis is any more severe than the acquired disease, occurring, as it may do, in infancy. Diday states that nurses and others, who contract the disease from infants, suffer in an unusual degree, and transmit the disease more readily to others.

The curative treatment of infantile syphilis is not unlike that required in case of adults. The external use of mercury, however, is preferable to its internal administration. A ten per cent. oleate of mercury may be rubbed successively upon different portions of skin as recommended in speaking of the inunction of adults, or a flannel band may be smeared with mercurial ointment, and worn around the body. The skin may be washed with soap and water daily, unless a dermatitis is evoked by the mercury, in which case it is better to powder the affected skin and anoint the extremities. No harm is apt to result from the free use of mercury in this manner, as salivation is of rare occurrence in an infant. The amount used may be gradually lessened, as an improvement in the infant's condition is noted. A more cleanly, though a less efficient plan of treatment is, to give the infant a prolonged tepid bath each day, to which a gram or two (fifteen to thirty grains) of corrosive sublimate has been added. If internal treatment is deemed necessary in any case, I should recommend about five centigrams (one grain) of a milk sugar trituration of calomel (one part in ten) to be given three or four times daily. Keyes speaks very highly of a solution of corrosive sublimate (a half grain dissolved in six ounces of water) as a means of producing a rapid effect of mercury upon a child. A teaspoonful of this tasteless solution may be given hourly for the first day, and later at longer intervals.

The mercurial treatment of syphilitic infants should be kept up for some time after all lesions have disappeared, and close attention paid to their hygienic surroundings. When relapses of the disease occur, treatment of the disease must be renewed, and now the best results may frequently be obtained by administering from three to ten drops of the combination of mercury and iodide of potassium given on page 99. This mixed treatment is especially of service in dealing with the gummata and osseous lesions of hereditary disease.

FORMULARY.

[NOTE.—The use of a decimal system in weights and measures is as convenient, and therefore as necessary, as a decimal currency. In this country the metric system must eventually prevail, not because it is different from the one now in use, but because it is decimal. In the following prescriptions, each consisting of one hundred parts, the percentage of each ingredient is apparent at a glance, whether grams or drachms be understood. The liquids prescribed should be measured by fluid drachms or fluigrams (cubic centimeters), in order to obviate the variation in bulk which would result from the use of parts by weight.]

1. *Van Swieten's solution.*

℞ Hydrarg. chlorid. corrosiv., . .10
Aquæ, ... 90.
Alcoholis, ... ad. 100.
M. Dose: A tablespoonful in water.

2. *Syrup of Gibert.*

℞ Hydrarg. iodidi rubri, . . .04
Potassii iodidi, . . . 2.
Aquæ, ... 2.
Filter through paper and add
Syrup, ... ad. 100.

3.

℞ Hydrarg. iodidi rubri, . . .05
Potassii iodidi, . . . 8.
Ammonii iodidi, . . . 2.
Syrup. aurantii cort., . . 60.
Tinct. aurantii cort., . . 4.
Aquæ destillatæ, . . . ad. 100.
M. S. Teaspoonful well diluted in water after each meal. (KEYES.)

4. *For strumous cases.*

℞ Hydrarg. chlorid. corrosiv., . .06
Etheris sulphurici, . . . 2.
Dissolve and add
Olei morrhuæ, . . . ad. 100.
M. Dose: A dessertspoonful. (BUMSTEAD.)

5.

℞ Ferri citratis, ...40
Potassii iodidi, . . . 2.50
Aquæ destillatæ, . . . ad. 100.
M. A teaspoonful in a glass of water morning and night. To be given during the existence of the chancre. (DIDAY.)

6.

℞ Potassii iodidi, . . . 10.
Syrupi aurantii corticis, . . ad. 100.
M. Dose: From a half-teaspoonful by gradual increase to a tablespoonful.

7.

℞ Potassii iodidi, . . . 3.
Ammon. chlorid., . . . 3.
Tinct. cinchonæ co., . . ad. 100.
M. Tablespoonful three times a day.
(BUMSTEAD and TAYLOR.)

8. *A substitute for iodide of potassium.*

℞ Tinct. iodinii, ... 10.
Syrupi fusci, ... ad. 100.
M. One teaspoonful, well diluted with water, three times daily, after eating.
(STURGIS.)

9. *Modified Zittmann's decoction.*

℞ Hydrarg. chlorid. corrosiv., . .02
Aluminis, ...80
Extract. sarsaparillæ fld., . . 24.
Glycerinæ, ... 14.
Syr. sennæ, ... 18.
Spirit. anisi, ... 1.60
Extract. glycyrrhizæ, . . 1.60
Aquæ fœniculi, . . . ad. 100.
M. Tablespoonful at a dose. (KEYES.)

10. *Liquor auri reducti.*

℞ Auri chloridi, ...01
Phosphori, ...005
Alcohol. absolut., . . . 5.
Aquæ destillat., . . . ad. 100.
M. Dissolve the chloride of gold in the water, and then add the phosphorus previously dissolved in the alcohol. (PIFFARD.)

11. *For hypodermic injection.*

℞ Hydrarg. chlorid. corrosiv., . 8.
Glycerinæ, ... 12.
Aquæ destill., ... ad. 100.
M. Use twelve drops for each injection.
(BUMSTEAD and TAYLOR.)

12. *For inunction.*

℞ Hydrarg. oleatis (20 per cent.), . 50.
Cerati, ... ad. 100.
M. (Bumstead and Taylor.)

13. *Powder for chancres.*

℞ Hydrarg. chlorid. mit., . . 30.
Pulv. iodoformi, . . . ad. 100.
M. (Sturgis.)

14. *Lotion for chancre.*

℞ Chloral. hydrat., . . . 25.
Aquæ destillat., . . . ad. 100.
M. Cover the lesion with moistened lint and renew three or four times daily. (Paoli.)

15. *For local treatment.*

℞ Hydrarg. sulph. flav., . . 10.
Unguent., ... ad. 100.
M. Apply two or three times daily. (Diday.)

16. *For lesions of the nostrils.*

℞ Hydrarg. chlorid. mitis., . . 50.
Lycopodii, ... ad. 100.
M. To be used as snuff three times daily.
(Diday.)

17. *To remove coppery pigmentation.*

℞ Hydrarg. chloridi corrosivi, . .20
Ammonii chloridii, ...50
Aquæ cologniensis, . . . 12.
Aquæ, ... ad. 100.
M. To be freely sponged on the parts, or applied by a saturated piece of lint.
(Bumstead and Taylor.)

18. *For oral lesions.*

℞ Hydrarg. chlorid. corrosiv., . 1.
Alcohol, ... ad. 100.
M. To be painted over the affected surfaces with a soft brush daily, either full strength or diluted. (Keyes.)

19. *For oral lesions.*

℞ Hydrarg. chlorid. corrosiv., . 5.
Alcoholis, ... 10.
Aquæ destillatæ, . . . ad. 100.
M. Touch the affected spots with a moistened brush three days in succession. (Diday.)

20. *For syphilitic ulceration of the throat.*

℞ Hydrarg. chlorid. corros., . . .15
Acidi muriatici diluti, . . .60
Glycerinæ, ... 6.
Aquæ, ... ad. 100.
M. Use as a gargle. (Hill.)

21. *For inflamed palmar patches.*

℞ Emplast. plumbi, . . . 70.
Ungt. hydrarg., . . . 20.
Olei cadini, ... ad. 100.
M. Spread on strips of linen.
(Bumstead and Taylor.)

22. *For chronic palmar and plantar lesions.*

℞ Ungt. hydrarg., . . . 20.
Olei cadini, ... 10.
Ungt. petrolei, . . . 70.
M. Apply after removal of the scales.
(Bumstead and Taylor.)

23. *For onychia and ulcers.*

℞ Iodoformi, ... 10.
Etheris sulphurici, . . . ad. 100.
M. Apply by means of a dropper.

24.

℞ Iodoformi, ... 20.
Bals. Peru, ... ad. 100.
M.

25.

℞ Cupri sulphatis, . . . 20.
Aquæ destillat., . . . ad. 100.
M. For cauterizing simple, freely suppurating and gummatous ulcers, diphtheritic wounds and suspicious abrasions.
(Sigmund.)

26. *For syphilitic ulcers.*

℞ Hydrarg. chlorid. corros., . 1.
Acid. carbolic, . . . 3.
Aquæ, ... ad. 100.
M. Pack with cotton immersed in the lotion, and reapply daily.

27. *For serpiginous ulcerations.*

℞ Unguent. hydrarg. nitratis, . 20.
Bals. Peruvian, . . . 5.
Ungt. petrolei, . . . ad. 100.
M. (Bumstead and Taylor.)

28. *For unhealthy ulcers.*

℞ Iodoformi, ... 70.
Mucilag. acaciæ, . . . 14.
Olei menth. pip. . . . 1.
Glycerinæ, ... ad. 15.
M. This forms a paste in which the odor of the iodoform is very nearly concealed.
(Bronson.)

29. *Caustic collodion.*

℞ Hydrarg. chlorid. corros., . . 12.
Collodii flexil., . . . ad. 100.
M. Apply with camel's hair brush. (Make.)