Hard chancre of the eyelids and conjunctiva / by David DeBeck.

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CONTRIBUTIONS FROM THE OPHTHALMIC CLINIC
(No. 3.) MEDICAL COLLEGE OF OHIO (July, 1886)

HARD CHANCRE

OF THE

EYELIDS AND CONJUNCTIVA

BY

DAVID DEBECK, M.D

ASSISTANT TO THE CHAIR OF OPHTHALMOLOGY

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HUGHES HIGH SCHOOL
(Cincinnati, O)
1874
MEDICAL COLLEGE OF OHIO
March, 1881

Assistant, Ophthalmic Clinic
1881
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1882–1883
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Assistant to the
CHAIR OF OPHTHALMOLOGY
MEDICAL COLLEGE OF OHIO
1884....

PREFACE.

HONORED COLLEAGUES:

The Constitution of the American Ophthalmological Society, as now amended, requires of candidates for membership that they "*shall have been engaged in the practice of Ophthalmic Surgery for at least five years, shall have given evidence of satisfactory scientific attainments, etc.*"

With older and well known men applying for membership, this latter requirement can readily be ascertained. With younger, unknown men, I would most respectfully suggest that there can be no better way to produce this "evidence," or at least the youthful *promise* of such attainments, than to expect from such younger applicants a specimen fruit of their labor. This may consist of something in the way of original investigation; some point worked up in a monographic way, or the accurate records of some careful clinical work. It is in this sense that I beg permission to lay this modest essay before you, hoping it may prove a letter of introduction to your honorable ranks.

I wish here to express my heartiest gratitude to the various persons who have so very kindly aided me in the proper preparation of this paper. In the first place to those authors who have supplied me with additional details in cases where the original publications were in some way incomplete. These cases are indicated in the "table" by an asterick * being prefixed (as 39 * Wecker, etc.). Again my very warmest thanks are tended to those observers who have been obliging enough to place in my hands unpublished cases of their own for publication in this paper (table B). I can only lay claim to a certain amount of industry in the collection of the material for this paper; but to their kindly courtesy is due the only feature in which this paper can lay any claim to being an addition to our fund of knowledge. To all these I feel under very deep obligations.

CHANCRE OF THE EYELID.

Having had the opportunity of witnessing a case of true hard chancre, or the initial lesion of constitutional syphilis, which appeared upon the eyelid, my attention has been specially directed to this subject.

Finding the references to this subject in any one author, with very few exceptions, exceedingly meagre and unsatisfactory; and yet finding quite a considerable amount of fragmentary material scattered through numerous widely separated, and in many instances not very readily accessible sources; I have thought that it might not prove unprofitable to gather this material together, tabulate it, and draw what conclusions from it seemed warranted. For introduction I may present the case that has come under my observation.

John C. (Aet. 26). First seen at the Clinic in the summer of 1881. He was a healthy, robust young man. On examination he was found to have some catarrhal conjunctivitis on the right side, and some indications of marginal blepharitis on both sides. On pulling down the lower lid of the right eye, a curious ulceration was discovered situated at the junction of the outer and second quarters.

This began at the lid-margin, which it involved to an extent of about 2 mm. and spread on to the tarsal conjunctiva. It was a rather regular oval, 3 mm. × 5 mm., with its long axis at right angles to the lid-margin. Its edges were rather regular and sharp; its floor was covered with some grayish-yellow debris and secretion. Its base was distinctly indurated. The conjunctiva was considerably congested, but the lid was only slightly swollen.

In my youthful inexperience I missed the diagnosis entirely. The young man, although a Clinic patient, was a very intimate personal friend. I knew him to be a young man of unimpeachable honor and morals; married a little over a year to an estimable girl to whom he was devotedly attached; and any idea of syphilitic infection did not

enter my mind. I took notes and made a drawing (Pl. Fig. 1); prescribed for him a salve of the yellow oxide of mercury in vaseline (gr. v. to ℥ ss, very thoroughly rubbed up) and instructed him to come regularly for observation. In a day or two I heard that he had obtained employment which took him out of the city, and I did not see him again.

In the summer of 1884 he called upon me in private (he now being in comfortable circumstances). His blepharitis had continued off and on during the interval. I found him ametropic, and prescribed glasses to correct a compound hypermetropic astigmatism. I found at the site of the old ulcer a white, linear cicatrix, about 3 mm. in length.

I found his family physician to be a young colleague, and a mutual intimate friend (we had all three been school-boys together) and called upon him. I found that about five or six weeks after the first visit above recorded, he had attended this man's wife in confinement. This child is still living, fine and healthy. About one to two weeks after this, he found that this man presented a typical roseola; later buccal and pharyngeal mucous patches developed; there followed general glandular enlargement, etc., in fact most typical secondary symptoms. He remembered the case so well from the impress it had made upon him owing to his utter inability to find any trace of the initial lesion. The man denied most emphatically any opportunity for infection, and he had examined his mucous surfaces most carefully, even using a lens, and failed to find any sign of cicatrix or induration. His conjunctiva he did not think of, for he had been using the salve regularly, and his lids never looked better. This *confrontation of physicians* cleared up the matter. The man took mercury regularly and conscientiously for an entire year, and no symptoms have since appeared. A child born in 1883, however, was weak and puny, had unquestionably congenital syphilis, and died when a few months old. A child born in the fall of 1885 seems perfectly healthy to date.

Inquiring as to possible sources of infection I found that at the time of his first visit, this man, although down in the world, had on his hands an invalid brother with a wife and child, and a young, shiftless brother of his wife's. The only way in his humble quarters to dispose of this crowd for the night was by putting the two women in one bed, and packing the three men in another, (and '81 was a scorching summer too). I found from other perfectly reliable sources that this young brother-in-law, at that time, was suffering from severe, pronounced secondary symptoms. This was the only probable source of inoculation found.

Frequency.—The question of relative frequency is of interest from two standpoints: from the standpoint of the syphilologist it is of interest to determine approximately with what frequency among cases of syphilis the initial lesion occurs at this point; and it is of interest to the ophthalmologist to ascertain with what frequency, among cases of diseases of the eye, the chancre of the lids occurs.

		Chancres.	Extra-Genital.	Cephalic.	Eyelid.
Sturgis.....	Various authors	1646	273	199	4
Mauriac.....	" "	1773		50	2
Jullien.....	" "	1977	126	87	2
Fournier.....	"Etude sur le chancre".....	472	27	18	1
"	"Etude sur le chancre cephalique".....	.....	.....	89	2
Clerc.....	"Traité des Maladies Veneriennes.".....	516	48	26	1
Bassereau....	"Affections de la peau symptomatique de la syphilis".....	373	25	19	0
Martin *et al.*	"Accident primitive de la syphilis constitutionelle".....	164	.....	16	1
Rollet.....	"Traité des Maladies Veneriennes.".....	130	41	13	0
Carrier.....	"Dict. Encyclo. des Sci. Med.".....	130	31	13	0
Bureaux.....	1*ere* Ser. Tome 15.....	126	27	13	0
Ricord.....	.....	700	.....	.....	4
Pusch.	Statistics du Midi.....	2000	.....	26	1

Of course, in such a question, any thing like a percentage can not be established; but speaking approximately, a chancre of the lids might be reasonably expected to occur once in five hundred cases. This is based, of course, almost entirely on French figures; Zeissl among 40,000 cases of syphilis had seen only eight cases of syphilitic ulceration of the lids, and apparently only two of these were the initial lesion. Boeck, of Christiania, among 2,344 cases of syphilis had seen one hard chancre of the eyelid.

The occurrence of the ocular chancre among eye-diseases in general is even less readily determined. Nagel-Michel's "Jahresbericht" can not spare space to tabulate the individual diseases, and I am not in position here to have access

to continuous series of the annual reports of large Ophthalmic Clinics.

Only a few tables are available to me for this purpose.

		Patients.	Chancre Eyelids.
Mooren (Düsseldorf.)	"Fünf Lustren ophthalmologischer Wirksamkeit."*	108,000	0(4?)
Leber.	Personal communication.	50,000	0
Various.	Nagel's "Jahresbericht" 1873.	20,000	0
Bauerlein	Würzburg Clinic, 15 yrs.	20,000	0
Cohn (Breslau.)	Schubert's "Syphilitische Augen-Krankheiten."	20,000	0(2?)
Laskiewicz-Friedensfeld.	Arlt's Clinic, 3 yrs.	17,000	1
Baumeister (Berlin.)	Drewes' "Dissertation," 1881.	10,000	0
Galezowski	Personal communication.	112,000	11
Fieuzal *et al.*	"Bull. de la Clin. Nat. Oph. de l'Hosp. des Quinze-Vingts," 3 yrs. 1882–84...	24,000	8

I had thought that the Royal London Ophthalmic Hospital at Moorfields would furnish good statistics (as regards England). In their ten volumes of reports I can find no case recorded; although during the last thirty years their attendance has gradually increased from 10,000 to 20,000 patients annually. However, Nettleship states: "I have had two cases of well-marked hard chancre on the eye-lid under my own care, and have seen several others at the Moorfields Hospital." (Hill and Cooper's "Syphilis and Local Contagious Disorders," 2nd Edit., London 1881.)

Although, as a rule, medicine can draw no political lines, and the arrangement of cases by States is more indicative of the relative professional and literary activity than of any thing else; still in this inquiry, a political arrangement does show some interesting points. Grouped under a very

*The figures marked with this query are given in the originals as cases of "syphilitic ulceration of the eyelids;" undoubtedly secondary or tertiary.

broad political scheme, these cases are distributed as follow:

France and the South	55
Germany and the North	10
United Kingdom	17
America	12

This table impresses only more clearly what the other tables indicate, *i. e.*, the great preponderance of this accident in France.

We can thus understand the little attention German, English and American authors pay to it; so that Michel (Graefe und Saemisch's "Handbuch der gesammten Augenheilkunde." Bd. 4, p. 417) speaks of it as "sehr selten;" and an observer with the vast clinical experience of Haynes Walton, states explicitly that he has never met with an example ("Treatise on the Diseases of the Eye," 3d Edit. p. 1038). Foerster (Graefe and Saemisch. Bd. 7, p. 185), makes the same statement.

On the other hand we begin to comprehend the, at first, rather startling statements of the French observers.

Wecker. "Nous avons presque chaque année occasion d'en observer un cas." (Traite complet d'ophthalmologie. T. 1, p. 70). . .

Fournier. "Aujourd'hui ils (les chancres extra-genitaux) abondent et surabondent dans les services de Saint Louis." * * * "Dans l'espace d'une seule année, cinq chancres des paupieres," (Annales de dermatologie et de syphiliographie, 1884).

Delapersonne. "Il n'est pas de service special ou on n'ait occasion chaque année d'en observer un ou plusieurs cas," (Archives d'ophthalmologie. I, 1881, p. 500.)

Baudry. "Et il n'y a pas de clinique speciale un peu suivie qui n'enregister annuellement plusieurs cas de cette affection," (Archives d'ophthalmologie. V. 1885, p. 60)

Clerc. "J'ai observé huit cas des chancres indurès du bord libre des paupieres." (Traite pratique des maladies veneriennes, p. 104.)

Etiology.—The most interesting point in this affection is of course the mode of contagion. Auto-inoculation having no place under the present views and contagion from a second party being necessary, this contagion is presented in a curious variety of more or less accidental and fortuitous ways.

The two principal foci of infection are the unclean fingers and the diseased mouth.

The virus may be conveyed by the patient's own finger. In the freedom of the sexual congress, when illicit, the fingers may be brought into contact with the genitalia, and then later on the eyelids, possibly itching, may be thoughtlessly rubbed, and so infected. This is most clearly seen in the old and oft-quoted case of Ricord (3). The patient, an intelligent lawyer, could remember a recent cohabitation where he frankly acknowledged having made "certains attouchements," and also clearly remembered having a sharp itching of the eye, to which he had carried his hand, and rubbed for quite a long time. The case of Gratia (30) is if any thing clearer, for here with the same acknowledgment, the woman herself was afterwards found to be infected, having vulvar patches. Other cases give the same probable contagion; but are not so clearly shown.

The act of kissing is very frequently responsible. This may occur in the ardor of passionate intercourse; as in the case of Richon (44) where his companion was so delighted at the young soldier's gallantry, that she had repeatedly and passionately kissed him upon mouth, cheeks and eyes. Also in the cases of Delapersonne (48) and others.

This frightful consequence may result from the excessively warm greeting of intimate friends or relatives; thus an innocent person being innocently infected. Thus in the case of Boucheron (34) a young girl of eighteen became so infected from the kiss of a friend who was syphilitic, with buccal mucous patches. This is probable in Wecker's cases (39 and 40) and others. The most striking case of all, however, is that of Gratia (29) where a woman with a chancre of the lid, was brought to the Clinique by her husband, who, upon being examined was

found to have an old chancre at the right labial commissure.

As Diday, Roger, and others have remarked, this danger of acquiring ocular, labial and other chancres is one to which young infants are particularly liable from being so frequently and promiscuously kissed by relatives, nurses, servants and kindly neighbors. This is shown in the case of Solomon (12) where the aunt who was accustomed to fondle and kiss the child, was found to have a papular syphilide and mucous patches on the tonsils. This was also probably the cause in the still sadder case of Despagnet (53) where the infant succumbed to the disease. Baudry refers strongly to this point: "le baiser des servantes et des nourrices, qui ont la détestable habitude d'embrasser sur les yeux, les oreilles, les narines, l'ombilic, parfois même sur les parties génitales, les enfants confiés à leurs soins." Among the cases, no less than ten are in infants or young children.

It may happen, however, in such cases that the nurse girl is the sufferer. This is shown in the case of Snell (59). Here the nurse girl who had a chancre at the left inner canthus slept with, and was accustomed to kiss and fondle a five months old infant that was syphilitic. So in the case of Williams (74), this girl had nursed her sister's child who had congenital syphilis, with a rash and "snuffles" and has since died.

Of the same nature as kissing are the cases where the tongue or saliva is the source of the infectious material. Of this character are the cases where the tongue has been employed to remove foreign bodies from the eye, a dangerous and uncleanly, and unfortunately not very uncommon custom among some classes. This is the case of Szokalski (42) where a man who was syphilitic had sought to remove an eyelash from the eyeball or cul-de-sac of a young boy. This is the mode of contagion in the two cases of Montgomery (82 and 83). In one a housewife had had some pepper puffed into the eye. The servant girl had sought to remove this by sweeping her tongue through the conjunctival cul-de-sacs. This domestic is "said to be badly

diseased." The other was a hostler who had received a small foreign body in the eye; this a "chum" had removed with his tongue. Szokalski refers to this method of removing foreign bodies as common among the lower classes of the North; and Hardy in discussing Snell's case refers to it as common among some of the lower classes of England.

In the two cases reported by Baudry, (78 and 79) the means of infection are the same in each. These were both young children with blepharitis or conjunctivitis. Either as a ready means of cleaning the lids; or more likely as a curative measure under some ignorant or superstitious idea of the stupid laity, the lids were rubbed with the finger or a bit of muslin moistened in saliva. In one case the nurse's sister-in-law who did this was found to have mucous patches of the tongue, palate and fauces, while the parents were sound. In the other case, a boy of four, the mother who did this was found to have mucous patches of the mouth and tongue, and the father was syphilitic, a recent infection. This unclean custom, to say nothing of its danger, seems to be common among the French lower classes. The case of Wecker (41) belongs to the same class.

A curious mode occurred in the case of Denti (62). Here the nurse was holding a young child, who was the subject of syphilis, having a general papular syphilide. The child in throwing its arms aimlessly about, accidentally scratched the nurse in the eye with its finger-nail. The infection was thus brought about, for the insignificant conjunctival abrasion, became the site of a hard chancre. If we are to admit this case we must presume that the child had some buccal lesion, and in sucking its fingers, as babies commonly do, some of the syphilitic virus had lodged under the finger-nail.

In the case of Van Harlingen, (70) a man had received a blow on the eye, in a fight. The lid swelling, it was pricked with the small sharp blade of a penknife, and his drunken companion insisted upon sucking out the blood. This small wound became the site of a large, typical hard chancre. This friend examined showed numerous buccal

and lingual mucous patches. (A rough wood-cut of this chancre, in the original report, I am unable to reproduce). An exactly parallel case is that reported by Meighan (64). A young fellow got a black eye; his girl pricked it and sucked out the blood. He has since learned she has a "skin eruption and a sore mouth." In the case of Campart, (81) a man had had a fight with a fellow-workman who had attempted to bite him in the face. The man was known to have a "sore mouth."

The statement of Baudry: "le *contact direct* des paupieres, soit avec la langue, soit avec les organes génitaux atteints d'ulcérations spécifiques constitue certainement un des modes les plus habituels de transmission chez l'adulte," can be readily granted for the first mentioned means, as we see by the above instances; but no imagination, not Gallic, can form a mental picture of the second as being a frequent mode.

In two of these cases there was a coincident infection from the same intercourse, a hard chancre also existing on the penis. In the case recorded by Zabolotski (77), there occurred a triple infection from one and the same intercourse. A hard chancre was present on the penis, obtained in the ordinary way; and two hard chancres were present upon the upper eyelid, one at the lid margin and another further up near the eyebrow. These were attributed to the woman kissing him upon the eyes during intercourse. Confrontation does not seem to have been obtained, but the pre-auricular and sub-maxillary lymphatics were indurated as well as the inguinal, and there followed a general papular syphilide. In the case of Clerc (19), a "chancre infectant" was present on the penis, and another "chancre infectant" with the typical induration was present on the skin surface of the left lower lid—this one presumably from kissing. Similar double infections, with a similar etiology, have been reported in some rare cases of labial chancres.

Medicine furnishes her quota, and sad to say, a rather large one, to this unhappy contingent. One of the earliest cases, the well-known one of Desmarres, (2) was in a young

physician. While engaged in swabbing or cauterizing the pharynx of a syphilitic, who had pharyngeal mucous patches, the patient had gagged and projected some drops of saliva into the doctor's face and eyes. The case of Fournier (25) is exactly a parallel one, with exactly the same etiology. In the case of Dietlen (24), the physician had been troubled with a simple conjunctivitis, with probably the usual amount of irritation and itching which this produces, and no doubt the customary frequency in wiping away the accumulating secretion. During this attack he remembers having made an examination of a woman with syphilitic condylomata. In the case of Del Monte (57), this was a physician who had never had a primary sore. He had recently had under his care a syphilitic patient, in whom he had cauterized and dressed some syphilitic ulcers of the prepuce. In the case of Sbordone (58), the doctor could not exactly locate the source of his infection; he had under his care several syphilitic patients. Some idea of the ordinary care of this physician may be gathered from the fact that several years previous, while he had under his care a number of gonorrhœal patients, he had contracted a purulent ophthalmia. The case, of which Boucheron (35) mentions a few details, was in a famous surgeon, a professor in the Faculty of Medicine of Paris. This infection was unquestionably professional, and was most probably from the fingers, after examining a syphilitic patient, and thoughtlessly rubbing the eyes before washing the hands. By energetic treatment the secondary symptoms were warded off, but a "syphilis tardive" set in. Among other symptoms he had iritis and choroiditis which persisted for a long time. These various causes acting in a man who was old and feeble, probably hastened his death, which occurred before the date of that report.

Amateur Good-Samaritan medicine furnishes one example. In the case of Meighan (63), the young fellow had not been himself exposed, but had kindly helped two of his young friends, who had venereal sores, with their dressings, etc.

Midwives have been affected. In the case of Campart

(68), the patient was a midwife, who remembered having three weeks before attended the confinement of a woman who had presented a secondary eruption. The case of Desmarres (5) was also a midwife; although she did not remember having recently attended any syphilitic woman.

In two cases the infection has occurred within hospitals. In the case of Moty (46), the patient had conjunctivitis, and had dipped the cloths used to moisten his eyes in some water that had been used by venereal patients. In the case of Hamande (36) the patient was an old man, with old chronic granular conjunctivitis, and no doubt habitually rubbed his eyes as such patients do. He was put to work in the laundry where the wash for the syphilitic wards was done.

Dornig's case (84) was possibly similar. The patient was a wash-woman; but D. doubts whether handling soiled clothes was the means of her infection.

Sleeping with an affected person has possibly been the means of conveying the infection in a few cases. In the case of Mackenzie (6) the young boy infected "had been sleeping for some time in the same bed with a person laboring under primary symptoms." In my own case (86), the probable source of infection was from sleeping with a brother-in-law having pronounced secondary symptoms. Galezowski calls attention to a possible means of infection by sleeping in a bed in which the pillows or bed-clothes have been soiled by discharges from a previous syphilitic occupant. Although this seems a trifle far-fetched, still Ricord recognizes the possibility of such a means of infection ("Traité des Maladies Veneriennes," pp. 97–98).

In the ante-jequirity days, when inoculation with gonorrhœal pus was occasionally employed in cases of trachoma, ophthalmologists were wont to warn against the use of urethral pus, for fear of specific infection from a coincident hidden urethral chancre. I have, however, found no actual case of this occurrence in the literature.

Another possible means is mentioned by Larebière ("Contribution a l'etude des affections syphilitiques des voies lacrymales." These de Paris; 1880). He calls at-

tention to the possible infection by means of lachrymal probes. The fairly large proportion of cases of nasal duct trouble that are of specific origin gives rise to a certain amount of danger of conveying the virus from these cases to other cases of non-specific character by means of the probes employed, (just as it has been conveyed by means of the Eustachian catheter); although L. knows of no actual case, and I find none recorded in the literature.

In studying the question of etiology, it is instructive to note in how many cases it is expressly stated that some pre-existent palpebral or conjunctival disease was present at the time of infection. Cases of Baudry (78 and 79). DeBeck (86), Delapersonne (48), Dietlen (24), Hamande (36), Laskiewicz-Friedensfeld (26), Moty (46), Sattler (94), Wecker? (41); and apparently others.

Site.—The question of the site of these chancres is intimately connected with that of their etiology.

The position of these ulcers in the recorded cases is shown by the following table:

On the cutaneous surfaces of the lids	4
Lower lid margin, inner surface, and cul-de-sac	35
At the inner angle	25
Upper lid, and cul-de-sac	23
Ocular conjunctiva	6

Thus, if we overlook the very rare cases of the two extremes, the skin surface and the ocular conjunctiva, these chancres all have their site on the area included by the lid-borders and inner canthus, the tarsal conjunctiva, and the cul-de-sacs.

The reasons for this are apparent. The delicate covering of the lid-margins, where epidermis passes gradually into mucous surface, with the hair-follicles and glands in front, and the orifices of the Meibomian glands behind, presents a favorable ground for inoculation. Graefe long ago called attention to the possibility that the syphilitic virus insinuated itself into the openings of the Meibomian glands, and there produced the infection. This being the case, the ulcer would open out upon the lid-margin or

upon the tarsal conjunctiva near the margin. The large number occupying this position lends support to this view. The inner canthus with a similar covering; with the tendency for secretion to be washed up and lodge here in the vicinity of the plica and caruncle; with the lachrymal puncta, canaliculi and sac, to catch and possibly retain the virus; and the frequency with which this is the seat of irritation and subjected to rubbing by the finger-point, make this even a more favorable locus. The conjunctiva, with its soft, delicate surface; and the cul-de-sacs, presenting recesses and folds in which virus or secretion may lodge and be retained, offer favorable conditions.

With *equal* exposure, this would offer probably the most vulnerable mucous surface on the body, except possibly the urethræ. Owing to the admirable way in which their anatomical construction protects them from the entrance of foreign matter, is due the fact that this is so rare a seat for the initial lesion, and only an accidental infection can determine its location at this point. To their natural guards against contagion due to their anatomical relations, is added the further guard of the constant flow of tears over the mucous surfaces, which would probably succeed, in many instances, in washing away the virus before infection had occurred.

Symptoms.—This condition begins usually as a small swelling, tumor, or "pimple;" not painful, but very often the seat of a slight irritation or itching. The summit of this little tumor next presents a small excoriation, which gradually broadens and deepens into the characteristic ulceration. The ulcer is rarely deep, but rather saucer-shaped. (This condition is very well shown in Fig. 1, copied from Wherry, in the "Transactions of the Ophthalmological Society of the United Kingdom, Vol. 2, p. 8, London, 1882; and in our own case, Plate, Fig. 1.) In some cases the ulceration may begin at more points than one, as happens in rare cases on the genitals. In the case of Fournier, reported by Savy (25), the ulceration began as two small erosions, which then fused into one larger

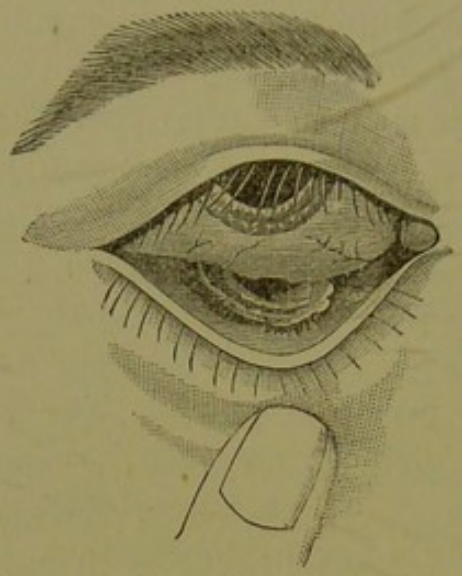

Fig. 1 (after Wherry).

patch. In the case of Sbordone (58) a number of minute points of erosion are noted, apparently all on the same large indurated base, or at least upon two areas of induration.

The edges are not steep or "punched-out," but as a rule are rather sloping or rounded. These edges are usually slightly raised; and may be regular, or irregular and eroded. The edges are, as a rule, firmly indurated. Owing to the constant flow of tears the floor is moister and more eroded than is usually the case with chancres at other points; the dry, scaly, scabby appearance of some chancres being, for this reason, lacking here. The floor is covered with some grayish or dirty yellowish debris. In some cases, as Campart (68), and Hamande (36), this being almost like a pseudo-membrane. In other cases the floor is red and granular, bleeding very easily. Again, in some few cases it is smooth and brawny, in the case of Lubinsky (28) being dry, and covered with a diphtheritic-like membrane.

The base is almost always very distinctly indurated. This is expressly mentioned in about three-fourths of the cases. This induration may be very characteristic, and parchment-like or cartilaginous. It often extends for some distance beyond the area of ulceration.

The ulcer may not remain small and regular; but may spread widely and become very irregular and uneven.

(This is well shown in Fig. 2, from Delapersonne, in "Archives d'Ophthalmologie," Tome 1, p. 505, Paris, 1881; and in the Plate, Figs. 2 and 3, from Cullerier and Bumstead's "Atlas of Venereal Diseases," Pl. 14, Figs. 2 and 3, New York, 1868.)

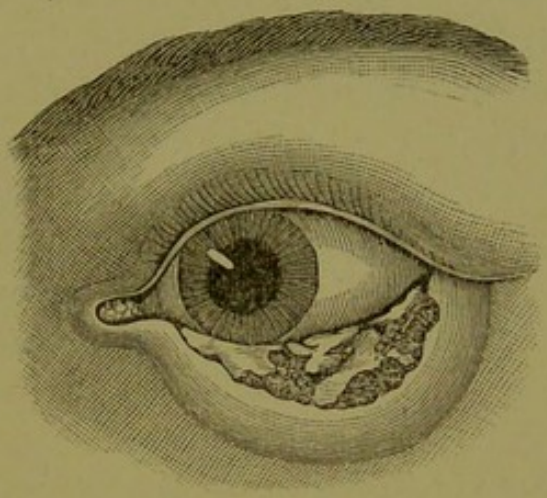

Fig. 2 (after Delapersonne).

The conjunctiva is usually more or less congested, although in some cases this may be but very slight. The bulbar conjunctiva is seldom prominently affected, unless the chancre itself be situated here, or in the cul-de-sac, or the lid ulceration be severe. (See in Clerc's case, Plate, Fig. 4.) Some muco-purulent discharge often exists, although this is rarely abundant.

The lid in some cases is enormously swollen and tense, readily accounted for by the loose tissues of which it is composed, and the ease with which they become infiltrated. In other cases this swelling is slight, or may not even be noticeable.

Epiphora may exist in some cases from the swelling of the lid causing eversion of the punctum; in other cases, where the chancre is situated at the inner canthus, from involvement of the puncta or canaliculi, or even the sac.

Pain is seldom a feature, although some irritation, or gritty sensation is caused by the ulcer and its indurated edges and base, when on the lid margin or the conjunctival surface.

Induration of the neighboring glands is an almost constant symptom. It may be very late in appearing, as in

the case of Boucheron (34), where it first appeared after the indolent ulcer had existed for two months. The glands affected, as a rule, are the pre-auricular and sub-maxillary lymphatic glands of the same side. This is noted in 72 out of the 94 cases.

Histology.—No microscopical examination having been made of a chancre of the lid itself, so far as I can find, we can refer only to analogous investigations (Cornil—"Syphilis." Trans. by Simes and White, Phil. 1882). The descriptions given by Cornil will answer our purpose admirably, owing to the sort of chancre on which he bases them: "The chancres which may best be studied, and those most usually observed, are generally seated upon the skin or near muco-cutaneous junctions—on the vulva, glans, prepuce, lips, tongue, etc.—that is upon a membrane analogous to the skin, covered with thick layers of pavement epithelium, and possessing a papillary chorion. Therefore the type of our description relates to a membrane, cutaneous or mucous, consisting of a papillary layer and an epithelial covering, the latter formed of a rete mucosum, and a superficial epidermic or corneous layer. The pathological alterations of these different layers will be first described, and afterward the lesions of the appendages of the skin, hair, glands, etc." (p. 44).

The lid-border, etc., being a type of such a region, these descriptions (pp. 40–69 and pp. 108–120) will apply most aptly.

Diagnosis.—The diagnosis should not be difficult in typical cases. A sluggish, torpid ulcer of the lid, in a young or middle-aged person, with opportunities for syphilitic infection; where the ulcer and neighboring glands are indurated; where its course is chronic and it fails to respond to ordinary treatment, is almost certainly syphilitic. The induration of the ulcer and neighboring glands are points of very great diagnostic value. One or the other may be absent in individual cases, but it is exceedingly rare to find both absent

in any one case. Ricord's classic "la chasse aux ganglions" is here very important.

A few rare cases of "*soft chancre*" have been reported which are probably authentic Besides the diagnostic differences in the ulcers themselves, no case should be admitted to this category (for cephalic soft sores are exceedingly rare), unless the patient had a soft chancre on the genital mucous surface (and did not have constitutional syphilis), or an absolutely certain confrontation could be made. Even then one should not be satisfied until autoinoculation had produced a soft sore at some other point. With these precautions a differential diagnosis may be made. The appearance or not of secondary symptoms would settle it.

Its resemblance to a "*tertiary ulcer*" is often misleading, owing to the constant moisture giving it a softer, more pultaceous floor, with more debris than is customary in other positions. The tertiary ulcer, a gumma breaking down, has an infiltrated base, but not the characteristic induration. Its edges are sharply cut ("punched out"); its floor is uneven, granular, yellowish-red or with even a greenish tinge, and bathed in pus; the edges are thickened and adjacent tissues hyperaemic, tense and brawny. The neighboring glands are rarely indurated, unless with general glandular engorgement. Only very rarely would no other specific lesions or signs be present, or the history of infection not attainable. Still in certain cases the similarity is very close, and most of the mistakes in the literature are upon this point.

According to some it may be mistaken for a "*hordeolum*" or common stye, when on the lid margin. But this has an acute course, is generally painful, its base and surrounding tissues are swollen and inflamed but not indurated, and it heals rapidly after opening.

Bumstead and others have noted its resemblance to a suppurating *chalazion* or "tarsal tumor." This would present a relatively narrow but deep opening, with soft, depressed edges; a reddish granulating floor, and possibly exuberant granulations, but no induration.

This ulceration when situated at the inner angle has been mistaken for a *suppuration of the tear sac.* This acute suppurating dacryo-cystitis, with abscess of the sac and ulceration would present a long previous history of chronic trouble with the tears; it would discharge tears and pus; its base would not be indurated, and the caruncle and plica would not be involved. The neighboring glands would not be affected. It is possible, however, that the initial lesion might occur within the tear sac itself.

Examples of "*rodent ulcer*" or *epithelioma* occurring on the lid margin have some points of resemblance. But the rodent ulcer occurs late in life and is very chronic. A long-standing ulcer of the lid in an elderly person is nearly certain to be rodent cancer. This ulcer has begun years ago, as a "pimple" or "wart," and has grown very slowly, the ulceration almost keeping pace with the new growth. The ulcer is shallow, the floor red, uneven and granular, with slight secretion, but bleeding easily; or may be covered at points with a thin scab, and undergoing temporary cicatrization. The edges are sinuous, and very hard and nodular. The neighboring glands are not involved.

It may be confounded with *lupus* occurring on the lids. But lupus would be very rarely confined strictly to this site, and may be discovered elsewhere on the cutaneous or mucous surfaces. A lupus ulcer is somewhat inflamed, but not indurated; and the adjacent tissues are infiltrated with little, ill-defined, soft tubercles. The ulcer is very chronic, and spreads widely; during this course the adjoining glands usually become swollen, and may even suppurate.

The rare cases of *tuberculosis* of the conjunctiva, which are always unilateral, and may, so far as physical signs reveal, be purely local, may prove deceptive. Here the lid is very greatly thickened and somewhat reddened, but is soft and elastic. The palpebral and retrotarsal conjunctiva is studded with large, exuberent granulations (these may be snipped off for microscopical examination). The conjunctiva may present, by erosion, one or more uneven, yellowish-red ulcers; but there is also a copious purulent secretion. The neighboring glands are very greatly, and

often acutely, swollen. The cornea, later on, becomes pannous.

In countries where the opportunities exist, it might be confounded with the ulcerating stage of a *leprous tubercle* occurring in the eyelid. Bull and Hansen ("Leprous Diseases of the Eye," Christiana, 1873) describe this as a tuber manifest to touch and sight, which may even attain to the size of a hazel nut, and interfere with the free motion of the lids. The skin over it becomes of a dirty, brownish color, and ulcerates. They always, however, accompany general leprosy.

Probably no one would mistake this for an erysipelas of the lids that had ulcerated at one point. There would be wanting the livid flush, the soft doughy feel, and the heat, pain and tenseness.

Course.—The course is distinctly chronic and indolent. Beginning usually as a little swelling, the surface of which becomes excoriated, it progresses slowly until an ulceration as above described results. In the case of Wecker (38), the ulcerative process was more rapid, the ulcer acquiring in the course of eight days, an extent of one centimeter and a half. Energetic cauterization and the use of the sublimate arrested the process, leaving only a slight notch of the lid. Only Desmarres (2), and one or two others speak of it developing rapidly.

It may remain as an indolent ulcer in this condition for several weeks; not responsive to treatment, or even prove intolerant to or grow worse under ordinary or injudicious treatment.

After several weeks the ulcer undergoes cicatrization and as a rule a small, frequently linear, or tendinous-like cicatrix remains.

The induration is very persistent, and may remain for weeks or even months as a small cartilaginous-like nodule. The neighboring glands likewise remain indurated and indolent for a long while.

Prognosis.—The prognosis is very favorable as far as re-

gards the eye and its adnexa. The healing process as a rule leaving but a slight cicatrix rarely leads to any injurious results. In the case of Galezowski (21), it began as a small induration at the inner angle. This the woman had repeatedly scratched and opened, causing it to bleed. It spread along the lids and into the upper cul-de-sac. Healed leaving a considerable symblepharon between the upper lid and the ball, which was almost entirely relieved by operation. Mackenzie's case (6) healed with a cicatrix causing "considerable eversion," but with what ultimate consequences is not stated. In Dietlen's case (24), the cicatrix slightly shortened the inferior cul-de-sac. From Clerc's plate (Fig. 4), it would seem that considerable of the lid border had been destroyed, but details are not given (20). Other cases, where the ulceration as described seems of considerable extent and severity, are recorded as healing nicely.

The cases in the literature occasionally quoted as examples showing what rapid and destructive inflammation may result from these ulcers, do not really seem to be primary sores, but rather tertiary ulcers.

It would seem that with such a large proportion of the cases with the ulcer occurring at the inner angle, some interference with the proper discharge of the tears would result. This is, however, only expressly mentioned in two cases, those of Richon (44), and Claeys (65).

The question might arise whether the occurrence of the primary lesion at this point, renders the eye later any more prone to the numerous secondary or tertiary ocular affections with which we meet. The evidence is not strongly conclusive. In 70 cases, among those here recorded, the secondary symptoms were observed. In two cases, that of Sturgis (22), and that of Gratia (29), the ulcer itself changed into, or became the site of, a mucous patch. In the case of Bull (27), the occurrence of iritis is noted among the secondary symptoms. In the case of Mastin (37), an iritis is also noted among the secondary symptoms; but while the chancre was in the right eye, the iritis occurs in the left. In the case of Gratia (29) the secondary symptoms were al-

ready beginning, early and severe. Here an iritis was commencing in each eye. In the notes of one case kindly sent me by Prof. Galezowski, an iritis is mentioned among the secondary symptoms. The case of Fournier, described by Savy (25), can not properly be regarded in this connection. An iritis occurred early during the ulceration, but seems only an extension of the inflammation due to continuity of tissues; the cornea became infiltrated and hazy, and the iritis resulted. In but a single case, although quite a number seem to have been kept under observation for considerable periods, is there noted any of the later syphilitic lesions of the eye. This is the case of Boucheron (35), where, in a surgeon, prompt treatment seemed to ward off the secondary symptoms, but a "syphilis tardive" set in, with chronic iritis and choroiditis.

The proportion of cases of syphilis in which iritis occurs is according to Sigmund 1 %; Hebra 1–4 %; Fournier 3–4 %; Boeck 5 %; Ole Bull 6 %; Hock 4–5 %, etc.; so that even if we include all our cases the percentage will simply be high, without warranting any special conclusions.

Treatment.—A large number of plans of treatment have been carried out, although it seems to be generally admitted as almost certainly settled that all treatment of the hard chancre is practically *nil*. The ulcer has been cauterized to limit its spread locally and thus prevent further damage or destruction; although it is by no means certain that cauterization does not make the hard chancre occasionally more active, and prone to spread locally. Delapersonne ("Archives d'Ophthalmologie," I, 1881 p. 504), positively prohibits cauterization.

Iodoform has been used, either dusted on as a powder, or applied in the form of a salve. Astringent washes have, of course, been used. Glycerine has been applied. Oxide of zinc salve and the lead salve have been employed. Salicylic acid in solution and Boracic acid either in solution or dusted on as powder have been used.

The changes have, of course, been rung on mercury. It has been employed locally, dusted on as calomel, or the

"black wash" has been applied. Citrine ointment, the red salve and the yellow salve have been used. Constitutionally it has been used in the way of inunctions; calomel, the sublimate, the proto-iodide, etc., have been given internally, and the albuminate has been injected.

My experience with, to be sure, but a single case, but more particularly my experience with four other syphilitic ulcers (secondary or tertiary), of the lids or conjunctiva, has led me to regard as the very best local application the salve of the yellow oxide of mercury (gr. V — ℥ ss of vaseline, very thoroughly rubbed up). This really seems to have some directly beneficial local influence.

Bibliography.

The bulk of the bibliographical material employed in the preparation of this paper, consists, of course, in the various reports of individual cases, and is included in the column in the Table of Cases headed "Publication." The only important paper not there quoted, is:

Mittasch.—"Die syphilitischen Erkrankungen der Augenlider." 8vo. pp. 42. Inaugural Dissertation, Würzburg, 1883).

The following references are given for the sake of completeness. They consist of references in which the titles are either not clear, or may even prove misleading; of cases in which the diagnosis was doubtful, but with the weight of evidence against their being cases of hard chancre; or of cases not belonging under this head, but which have been quoted by authors in this connection:

Calhoun.—"Syphilitic Ulceration of the Eyelid (Conjunctiva) in the Infant. *Southern Medical Record*, *XII*, p. 207. Atlanta, 1882.

Hereditary syphilis.

Carreras y Arago.—"Ulcera sifilitica en el angulo interno de los parpados." *Revista de Medicina y Cirurgica.* Madrid, 1878.

This was an ulcerating tubercular syphilide.

CLOSA.—"Chancro sifilitico del borde libre del parpado." *La Oftalmologia practica*, T. 1. Madrid, 1882.

Ulcer tertiary. Had a coppery colored syphilide, and a cicatrix in the sulcus back of the glans penis.

DEVAL.—"Affections veneriennes de l'œil." *Gazette Medicale*, 1848.

Tertiary.

DIETLEN.—"Ulcus syphiliticum des unteren Lides" in "*Casuistische Beiträge für Syphilidologie des Auges.*" Inaugural Dissertation. Erlangen, 1876.

This case was "ein indurirtes syphilitisches Geschwür" in a man of 58. An ulcer, nearly an inch long, at the inner angle, and upon the lower lid. No other syphilitic symptom; but he had an ozœna, and probing the ulcer revealed the bone deprived of its periosteum.

Little doubt of this being tertiary.

DOLHOFF.—"Syphilitische Entartung des Augenlides." *Medizinische Zeitung*. Berlin, 1838.

Gummatous ulcerations.

EVANS.—"Syphilitic Ulceration of the Upper Eyelid. *Medical Times and Gazette*, 1847.

Tertiary.

GRATIA.—"Du chancre oculaire." *Presse Medicale Belge*, p. 282. 1878.

Case of a servant girl, aged 24, with "multiple chancres." One on the lid, one on the lip, and others on other parts of the body. Case certainly not primary; appear more properly to have been tertiary (gummatous) ulcers.

HOCK.—"Die syphilitischen Augenkrankheiten." *Wiener Klinik*, p. 65, Vol. II., 1876. Separate reprint, Wien., 1876.

This case, a girl of 19, under treatment in the Skin Clinic for "scrofulosis," was sent over to H. for treatment of a conjunctivitis. H. found an atrophic ball on the left side, and on the right a severe conjunctivitis, with an old leucoma adherens in the lower quadrant. Along the lower lid margin were several small ulcerations. These were round; the size of hemp-seed, with deeply excavated floors, and steep, indurated margins. These characteristics, and the absence of any specific lesions, led to the diagnosis of initial lesion. Very soon, how-

ever, an iritis developed, and there appeared two gummata at the pupillary margin. This too early advent of a later lesion led H. to the conclusion that probably the ozœna, enlarged crevical glands, and other "scrofulous" symptoms were syphilitic, and, consequently, that these ulcerations were gummatous.

LAROYENNE.—*Gazette Medicale de Lyon*, 1865.

Tertiary ulcer.

LAWRENCE.—"Treatise on the Diseases of the Eye." London, 1844. "Treatise on the Venereal Diseases of the Eye." London, 1830.

Much quoted. Quite a number of cases are reported in these two works, but all seem to be secondary or tertiary lesions.

MACKENZIE.—"Practical Treatise on the Diseases of the Eye." 4th edit., Amer. reprint, p. 162. Phil., 1855.

This case is quoted by M. as follows: "In one case which I treated, I was lead to suspect that the disease had been directly conveyed in some such way to the eye, for, besides a deep ulcerated notch in the edge of the lower eyelid, there was a chancre on the conjunctiva oculi, close to the margin of the cornea. The pupil of the affected eye was small, and somewhat dragged towards the ulcer, but there was no iritis. The case did well under the use of mercury."

There seems hardly evidence enough to prove this a case of initial lesion. Most probably both ulcers were secondary or tertiary.

MANZ.—Nagel's "*Jahresbericht*," p. 231. 1872.

Mentions a case of a woman having no other sign of syphilis, with an obstinate ulcer at the outer canthus of the right eye. Cauterized and healed. She some weeks later showed a mucous patch on the palate, and the lid again ulcerated. M. himself seems to regard it as a secondary or tertiary ulceration.

MAUTHNER.—"Die syphilitischen Erkrankungen des Auges" in Zeissl's "Lehrbuch der Syphilis," II Theil. Erlangen, 1872.

This case, a girl of 19, presented on the conjunctiva of the lower lid, a small, excavated ulcer, with irregular edges; lying on a flat, cartilaginous-like base the size of a bean. M. made the diagnosis of a hard chancre of the conjunctiva. The tumor was extirpated. Examined by Biesiadecki, without any knowledge of M.'s diagnosis, he declared it to be "granulation-tissue." The tumor returned. During the second extirpation, the eyeball was accidently injured, was lost by traumatic choroiditis, and later had to be enucleated on account of

threatening sympathetic inflammation. The eyeball was free from any neoplasm, the tumor did not again return, neither did any secondary symptoms appear. This was probably a granuloma of the conjunctiva.

PFLUEGER.—"Ulcus induratum der Lidränder." Zehender's *Klinische Monatsblätter für Augenheilkunde*," p. 160, Bd. XIV, 1876.

This case, an old man of 72 who had intimate relations with a neighboring woman who was ascertained to be syphilitic (?), presented a large, broad, indurated ulcer occupying the margins of the entire lower lid and the inner and outer thirds of the upper lid, left eye. Its border sharply defined, and its floor covered with an abundant, dirty-white viscid secretion. Lids enormously swollen. A small, indurated ulcer soon after appeared on the cheek, presumably from inoculation. These ulcers healed under cauterization and mecurials; and no secondary symptoms had appeared after six months. If this ulcer was primary the fact of auto-inoculation, and the absence of any secondary syphilitic symptoms, would put it among the rare cases of soft chancres of this region. Most probably both ulcers were tertiary, and the earlier syphilitic infection had not been ascertained.

SAMELSON.—"Syphilitic Ulceration of the Eyelids," *British Medical Journal*, p. 35, Jan. 1870.

An ulcer of the lower lid, with primary lesion two years previous. Tertiary probably.

VINCENTIIS.—Sull cancro della palpebra. *Atti dell' Assoc. Ital. Ottalm.*, p. 65, 1879.

Even this author has been quoted, although it would not seem to require a very vast amount of linguistic acquirements to ascertain that "cancro" means "cancer" and not "chancre."

WILLIAMS.—"Syphilitic Ulceration of the Lids. *St. Louis Medical and Surgical Journal*, 1884.

Tertiary.

WINDSOR.—"Syphilitic Ulcers of the Conjunctiva of the Eyelids." *British Medical Journal*, p. 283, 1865.

Secondary ulcers. Small ulcers on the conjunctiva, spreading to the lid margin, and giving the appearance of a blepharitis ciliaris ulcerosa.

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
1	Mackenzie. (Glasgow.)	"Practical Treatise on Diseases of the Eye." (Boston), 1833. p. 126.	F.	.....	"Girl of the town."
2	Desmarres. (Paris.)	"Traité théorique et pratique des Maladies des Yeux." Paris, 1847. p. 156.	M.	.....	This was a young physician. While engaged in cauterizing the pharynx of a syphilitic, the patient had gagged and projected some saliva in the doctor's face.
3	Ricord. (Paris.)	"Annales d'Oculistique." T. 24. 1850. p. 233.	M.	(Ad.)	Patient, an intelligent lawyer, could remember distinctly having slept with a woman, fingered her genitalia, and his eye itching, having rubbed it for some time.
4	Desmarres. (Paris.)	"Traité." 2d Edit. Vol. 2. Paris, 1854. p. 213.	F. (Mar.)	34	Not ascertained.
5	Desmarres.	do. p. 215.	F. (Mar.)	30	A midwife. Infection not clear; did not remember having recently attended any woman who was infected.
6	Mackenzie. (Glasgow.)	"Practical Treatise on the Diseases of the Eye." 4th English Edit. Amer. Edit. by Hewson. Phila., 1855. p. 161.	M.	7	"Had been sleeping for some time in the same bed with a person laboring under primary symptoms."
7	Critchett. (London.)	"Medical Times and Gazette," Sept. 1857. p. 272.	M.	25	Not ascertained. Genitals sound.
8	Fournier. (Paris.)	"Etude sur le Chancre cephalique." (L'Union Medicale. Tome XII. 1858. p. 98.)	M.	30	Not given. No previous infection.
9	Fournier.	do. p. 99.	F.	18	Not given. Patient a prostitute.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
"On the edge of the lower lid."	"A primary sore."	.....	.....	.....
Eyelid.	A deep ulceration developing very rapidly.	..... (No other trace of syphilis)?	.....	.....
Lower lid, at the inner angle.	A tumor, indurated, resistant and elastic. Its surface red and granular, and undergoing cicatrization.	Pre-auricular, and sub-maxillary glands swollen.	Roseola, swollen glands, etc.	.....
Inner extremity of upper lid, and inner angle, left eye. Caruncle and neighboring parts swollen and inflamed.	Characteristic aspect. An ulcer 10mm. in extent, on a swollen base; its edges sharply cut; its floor yellowish gray. Inflammatory symptoms acute.	Pre-auricular and sub-maxillary glands enlarged.	Papular syphilide.	Anti-specific. — Healed.
In the lower cul-de-sac, left eye.	An oval tumor about the size of a pea; on its summit an ulcer with steep, ragged edges, and secreting a little pus. Conjunctiva injected; with slight discharge. (Diagnosis confirmed by Ricord.)	Pre-auricular gland swollen to the size of a large filbert.	Not known.	Ulcer cauterized with nit. silver. Ten leaches to the swollen gland.
"Great part of the right lower lid." At the inner angle.	"Foul sore." Had been mistaken by a practioner for a fistula of the lachrymal sac, and probed. Increased under ordinary mild treatment.	.....	"Foul ulcer on the velum."	Calomel and opium. — "Speedily contracted and healed with considerable eversion."
Left, lower lid; occupying its central half, and causing eversion, and loss of cilia.	Ulcer larger than a sixpence. Floor with unhealthy, tawny-grey secretion. Base large, circumscribed, and of cartilaginous-like induration. Muco-purulent discharge.	Pre-auricular glands swollen.	"Sore throat."	Mercury. — Healed and induration disappeared
Upper lid.	"Chancre indurè."	Pre-auricular gland swollen.	Roseola, mucous patches, etc.	.....
Upper lid.	"Chancre indurè."	.....	Roseola, mucous patches, etc.	.....

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
10	Stellwag. (Vienna.)	"Die Ophthalmologie vom naturwissenschaftlichen Standpunkte." Bd. II. Erlangen, 1858. p. 954.	.....	.....	"By direct conveyance of the virus," probably by the fingers.
11	Robert, M. (Marseilles.)	"Nouveau Traité des Maladies Veneriennes." Paris, 1861. p. 321.	.....	.....	.....
12	Solomon. (Birmingham.)	"British Medical Journal." Vol. 1. 1863. p. 236.	.....	8 mos.	An aunt had frequently fondled and kissed the child. She was found to have a general papular syphilide, and mucous patches on the tonsils. Parents healthy.
13	Nodet. (Prof. Rollet.)	Martin. "De l'accident primitif de la syphilis constitutionelle." These de Paris, 1863.	.....	.....	.....
14	Lawson. (London.)	London "Lancet." Vol. 1. 1865. p. 478.	.....	22 mos.	Not known.
15	Rollet. (Paris.)	"Traité des Maladies Vénériennes." Paris, 1865.	M.	Youth.	.....
16	Rollet. (Paris.)	do.	F.	Infant.	.....
17	Cullerier. (Paris.)	"Precis Iconographique des Maladies Vénériennes." Paris, 1866. Plate 41, Fig. 2. "Atlas of Venereal Diseases." Trans. by Dr. F. J. Bumstead. 4to. New York, 1868. Plate 14, Fig. 2.	.....	.....	.....
18	Cullerier.	do. Plate 41, Fig. 3. " 14. " 3.	.....	.....	.....
19	Clerc. (Paris.)	"Traité pratique des Maladies Veneriennes." Paris, 1866. p. 103.	M.	Young.	Had "chancre infectant" on the penis.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
At the inner angle, upon the plica and caruncle, and along the free margin of the lids some short distance.	Deep ulcer, which completely destroyed the caruncle. It began on the plica.	.....	.....	.....
At the external commissure of the eye.	R. calls this a "soft chancre." He is a "unicist" and obscure. As he groups this sore with fourteen other cephalic sores it was almost certainly an initial lesion.	.....	Syphilis.	.....
At the inner extremity of the lower lid, on the lid margin. Appeared two weeks previous.	A small, unhealthy ulcer, with an indurated base. Became worse under local treatment.	.....	Papular syphilide. Ulcer of the labium. Mucous patch at the angle of the mouth. The mother got a chancre of the nipple.	Mercury.
At the inner angle of the right eye.	"Chancre infectant."	.....	.....	.....
Upper eyelid of the left eye, including the inner half of the lid, and involving the margin. Began five weeks before as a "pimple" near the margin at this site.	Large, oval ulcer, half inch in length. Quarter inch in depth, with glazed surface, and indurated edges. Lid margin shows a sharp notch. Lid swollen, and muco-purulent discharge.	Post-auricular gland swollen.	A general roseola.	Hyd. cum crete. Local, citrine ointment. —— Healed very promptly.
At the internal angle of the lids.	"Chancre induré."	.....	.....	.....
At the external angle of the lids.	"Chancre induré."	.....	.....	.....
Occupying the lid border of the outer two-thirds of the upper lid, right eye. Involves the outer angle. Spreads 5 mm. wide on the skin surface.	An indurated ulcer, with irregular edges, and uneven floor covered with yellowish debris. Conjunctivitis. (Plate, Fig. 2.)	.....	.....	.....
Entire length of the lower lid, right eye. Involves the lid border and spreads 5-6mm wide on the skin surface.	Large indurated ulcer. Edge jagged. Floor irregular, red and angular, with spots of grayish debris. Conjunctivitis. (Plate, Fig. 3.)	.....	.....	.....
On the cutaneous surface of the left lower eyelid in the fold at the base of the lid, between the lid and cheek.	"Chancre infectant," with the typical induration.	.....	.....	.....

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
20	Clerc.	"Traité pratique des Maladies Venerienes." Paris, 1866. Plate 2, Fig. 1.	.....	.....	.....
21	Galezowski. (Paris.)	"Journal d'Ophthalmologie." T. 1. 1872. p. 308.	F.	30 (Unm.)	Not noted.
22	Sturgis. (New York.)	Amer. Jour. Med. Sci." Jan. 1873. p. 102.	M.	22mos.	Not ascertained. Father, mother, and sister examined, but found healthy.
23	Boeck. (Christiania.)	"Undersögelser angaende Syphilis, etc." Christiania, 1875. Hock "Die Syphilitischen Augenkrankheiten." Wien, 1876.	.....	.....	.....
24	Dietlen. (Prof. Michel)	"Casuistische Beiträge für Syphilidologie des Auges." Inaugural Dissertation. Erlangen, 1876. p. 4. (Beilageheft Zehender's Monatsblätter.)	M.	40	Physician. Had conjunctivitis simplex about 4 weeks previous. During this made an examination of a woman with syphilitic condylomata.
25	Fournier. (Paris.)	Savy (C.) "Contribution a l'étude des éruptions de la conjonctive." 4to. Thèse de Paris, 1876. p. 63.	M.	Adult.	This was a physician. While engaged in cauterizing the throat of a syphilitic, the patient coughed and threw a drop of saliva in the doctor's eye.
26	Laskiewicz-Friedensfeld. (Vienna.)	"Przeglad Lekarski." 1877. Ref. in "Jahresbericht über die Leistungen und Fortschritte im Gebiete der Ophthalmologie." 1877. p. 214.	M.	36	Not given. Patient had chronic blepharitis.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
Along the entire free border of the right lower lid. Had existed for two months and a half.	Is now undergoing cicatrization. Cilia entirely absent. The lid-margin in its outer half partially destroyed. Lid swollen and indurated, especially at the inner half. Conjunctiva injected. (Plate, Fig. 4.)	.....	Roseola now present.	.....
Began as a small tumor at the inner angle, left eye. Spread along the border, upper lid, and upon the conjunctival surface into the upper cul-de-sac, inner portion.	A large ulcer. Its base indurated, forming a tumor as large as a hazel-nut. Upper lid swollen, drooping, and not evertable. Caruncle red and swollen. (Diagnosis confirmed by Clerc.)	Sub-maxillary and cervical glands swollen.	Secondary symptoms.	Mercury. Healed with symblepharon between the upper lid at the inner portion, and the globe. This relieved by operation.
Right lower lid, involving outer angle, and presenting on the conjunctival surface.	Reddish, granular ulcer; distinctly indurated during the later stages, when changing to a mucous patch. Lid red and swollen.	Not noted.	Secondary; roseola, mucous patches, etc.	Anti-specific. (A sister, 6 years old, became infected with a hard chancre of the left *cheek*.)
Lower lid.	A primary "ulcus specificum."	.....	Constitutional syphilis.	....
Lower cul-de-sac, to the outer half; upon the tarsal and partly on the ocular conjunctiva. Left eye.	First apparently a beginning phlyctenular process; later a dirty-white discoloration (?) at this point. Marked induration. Lid swollen and tense. (No distinct ulceration noted!)	Pre-auricular, submaxillary, and cervical glands swollen.	Roseola and pharyngitis.	Inunctions and iodide. Healed with a linear cicatrix, 8 mm. long, near the middle of the cul-de-sac, slightly shortening it.
In the lower cul-de-sac, partly upon the palpebral, and partly upon the ocular conjunctiva. Right eye.	Small, superficial ulceration, which, healing, left a most typical parchment induration, the size of an almond. Conjunctivitis, etc.	Pre-auricular glands swollen.	Secondary.	.....
Left lower lid, on the lid border near the outer commissure.	A shallow, irregular ulcer, 7 mm. in diameter. Floor grayish red. Edges raised and slightly indurated. Lid swollen, but not painful.	Sub-maxillary gland hard and indolent.	Papular syphilide, mucous patches in pharynx and on the glans penis.	Inunctions, and mercurial salve on the lid. Healed.

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
27	Bull. (New York.)	"American Journal of the Medical Sciences." Oct., 1878. p. 405.	M.	29	Not known.
28	Lubinsky. (Cronstadt.)	Zehender's "Klinische Monatsblätter für Augenheilkunde." 1878. p. 166.	M.	30	Not ascertained. Patient a sailor. Genitals intact.
29	Gratia. (Prof. Thiry). (Brussels.)	"La Presse Medicale Belge." XXX. 1878. p. 259.	F.	56	Her husband was found to have a chancre at the right labial commissure. Infection by kissing. Genitals sound.
30	Gratia.	do.	M.	23	Could recall a cohabitation where, having fingered the genitalia, it was probable that he had later rubbed his eyes. This woman is since known to be infected.
31	Bumstead. (New York.)	"Pathology and Treatment of Venereal Diseases." 4th Edit., edited by Dr, R. W. Taylor. 8vo. New York, 1879. p. 446.	M.	Ad. (Mar.)	Could not be ascertained. Genital organs sound.
32	do.	do. p. 695.	.....	.....	....
33	do.	do. (Possibly either 32 or 33 may be the same as 31.)	.....	.....	....
34	Boucheron. (Paris.)	"L'Union Medicale." No. 6, Vol. 27. 1879. p. 529.	F.	18	Patient was a virgin! Some days previously had been kissed on the eyes by a person who was unquestionably syphilitic.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
Deep in the cul-de-sac of the lower lid, about a quarter of an inch from the outer canthus. Extended upward onto the ocular conjunctiva.	Ulcer oval, about half an inch long. Base was larger and indurated; floor with a grayish, pultaceous surface. Conjunctiva thick and congested; with some muco-purulent discharge. Lid swollen and painful.	Pre-auricular gland swollen and tender. Later, parotid and submaxillary glands enlarged.	Nine weeks later, roseola, mucous patches, etc. Later, iritis.	Anti-syphilitic. — Healed in three weeks. Swollen glands subsided.
Left upper lid, near the outer angle. Spread inwards.	A small, oval ulcer, only slightly elevated, and not sharply defined from the surrounding tissues. Covered with a dry, diphtheritic-like exudation. Spread along the lid-margin, until it covered two-thirds. Became indurated, after healing.	Pre-auricular glands became swollen.	Roseola, swollen glands, fever, etc., followed.	General. Local: sublimate and glycerine. — Healed with a flat cicatrix, after four weeks.
Left, upper lid near the middle. Had existed over three weeks.	Small ulcer undergoing cicatrization. Base indurated. This small ulcer later became the site of a mucous patch.	Pre-auricular gland swollen. No inguinal induration.	Secondary symptoms already beginning. Roseola, mucous patches, iritis, etc.	Mercurial — Healed.
Left, upper lid at the inner angle, and involving the caruncle and lachrymal canals. Finally involved the entire border of the upper lid.	A deep, severe ulcer. Skin and mucous membrane of the lid margin destroyed. Its edge is ragged; its floor secretes a greyish, foul secretion. Ulcer became indurated. Lid at inner angle, and caruncle, firmly indurated. Conjunctiva chemotic.	Pre-auricular, submaxillary and cervical glands became swollen.	Severe secondary symptoms.	Cauterized. — Healed.
"Concealed beneath the upper eyelid, showing no signs of its presence externally, even upon the free margin of the lid."	"A superficial excoriation which bore a striking resemblance to a chancrous erosion."	Pre-auricular gland indurated.	"Secondary symptoms after the usual period of incubation."	Expectant.
"On the inner surface of the lid."	"Simulated exactly a tarsal tumor with a small opening."	Pre-auricular and submaxillary glands swollen.	Secondary symptoms.	.....
do.	do.	do.	Secondary and tertiary symptoms.	.....
Ulcer on the plica semilunaris of the left eye.	An indolent ulcer with the edges and base indurated.	Pre-auricular gland swollen and hard, two months later.	Roseola, etc., two months later.	.....

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
35	Boucheron.	"L'Union Medicale." No. 6, Vol. 27. 1879. p. 533.	M.	Old.	Patient a famous surgeon. Professor in the Faculty of Paris. Professional infection! Probably by the fingers, after examining a patient.
36	Hamande.	"Archives Medicales Belge." XV. 1879. p. 194.	M.	Old.	Had granular conjunctivitis. Was employed in the laundry where the wash for the syphilitic wards was done.
37	Mastin. (Mobile.)	Gaillard's "Medical Journal." Vol. 30. July, 1880. p. 14.	M.	Ad. (Unm.)	Stevedore leading an irregular life. Recent suspicious connection.
38	Wecker. (Paris.)	"Traité complet d'Ophthalmologie," par De Wecker et Landolt. Vol. 1. Paris, 1880. p. 69.	F.	Adult.	Not exactly ascertained. (An intimate female friend was syphilitic.)
39*	Wecker.	do. pp. 409–410. (Observed in 1865.)	F.	30	Kissing on the lids.
40*	do.	do. (Observed in 1873.)	F.	23	Kissing on the lids.
41*	do.	do. (Observed in 1878.)	F.	6	Cleaning the eyelids with the spittle of the mother
42	Szokalski. (Warsaw.)	"Pam. Tow. Lekar." 1880. p. 917. Hirschberg's "Centralblatt." Bd. 4. 1880. p. 380.	M.	(Boy.)	Had an eyelash in the conjunctival sac; a man who was syphilitic sought to remove this with his tongue.
43	Watson. (London.)	"British Medical Journal." Vol. 1. 1881. p. 721.	M.	26	No history of inoculation could be obtained.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
At the inner angle, involving the plica semi-lunaris.	"Chancre indurè."	.....	"Syphilis tardive."	....
On the left, lower lid, at the center of the lid margin.	An ulcer, which became indurated. From size of a pea grew to 1 cm. in diam. Edges raised and sharp. Floor with grey secretion. Conjunctiva congested. Lid swollen.	Pre-auricular and sub-maxillary glands swollen.	Secondary symptoms, after six weeks.	Mercury. — Healed.
Inner surface of right upper lid near the center, and two lines removed from the margin.	Circular, indolent ulcer, size of a grain of wheat. With greyish floor showing granulations, sharp-cut edges, and an indurated base. Slight muco-purulent discharge. Lid swollen and indurated. Not painful.	Pre- and post-auricular glands swollen. Some general glandular enlargement.	Ten weeks later, general papulo-erythematous eruption. Later, iritis, left eye.	Local: astringent collyrium, and mitigated stick. General: anti-specifics. — Healed with small, indurated cicatrix.
Lower eyelid of the left eye.	An ulcer 15 mm. in extent, developing in eight days. (The diagnosis was confirmed by Ricord.)	Sub-maxillary glands swollen.	....	Cauterized with nitrate of silver. Sublimate internally. — Healed with slight notch.
On the conjunctiva of the left eye; a half centimetre below and external to the margin of the cornea.	Chancre induré ("soft chancre"—W.) Resembled a large ulcerating pustule, with a pultaceous floor. Surrounding tissues livid; and the ulcer of long duration.	Pre-auricular gland swollen.	.....	Ointment of mercury. — Cicatrized in three weeks.
On the conjunctiva of the left eye, external to the cornea.	do. ("Indurated ulcer"—W.)	Pre-auricular and occipital glands swollen.	Unknown.	.....
On the inferior and external part of the conjunctiva of the right eye.	do. ("Soft chancre"—W.)	Pre-auricular glands swollen.	Unknown.	Calomel.
"Tarsal conjunctiva of the lower eyelid."	"Ulcus Syphiliticum."	.....	"Syphilitic ulcer on the tongue."	Mercury. Local: sol'n of salicylic acid. — Healed rapidly.
Left, lower eyelid. Began as a mere abrasion, several weeks before.	Characteristic ulcer size of a sixpence. Greyish surface, and hard, round, prominent edges. Base with a cartilage-like feel.	Pre-auricular glands swollen.	.....	Mercurial. — Healed in three weeks.

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
44	Richon. (Belfort.)	"Gazette des Hopitaux." 1881. p. 620.	M.	22	Patient a soldier. Remembered, five weeks previous, having been with an unknown woman, who had repeatedly kissed him upon the eyes.
45	Nettleship. (London.)	Hill & Cooper. "Syphilis and Local Contagious Disorders." 2d ed. London, 1881.	F.	3	Not given.
46	Moty. (Saida.)	"Gazette des Hopitaux." 1881. p. 1026.	M.	(Ad.)	Patient had had conjunctivitis. Had dipped the cloths used to moisten and clean his eyes into a vessel of water that had been used by venereal patients.
47	Delapersonne. (Paris.) (Prof. Fournier.)	"Archives d'Ophtalmologie." T. 1. 1881. pp. 499-504.	M.	28	Not noted.
48	do. (Prof. Panas.)	do. p. 504.	M.	38	Connection six weeks previously. The woman examined showed buccal and genital mucous patches. The patient has had blepharitis for many years.
49	do.	do. p. 505.	F.	23	Not noted. (Girl from the "Latin Quarter.")
50	Horteloup. (Paris.)	A wax model in his collection at the Hospital Midi. (Delapersonne. "Arch. d'Oph. T. 1, p. 501. 1881.)	.....	.....	.....
51	Fonseca. (Lisbon.)	"Archivo Ophthalmotherapico de Lisboa." Anno II. Lisbon, 1881. p. 60.	F.	Ad.	Not given.
52	Despagnet. (Paris.)	"Recueil d'Ophtalmologie." 1881. p. 521.	M.	41	Not given. Suspicious intercourse 15 days previous.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
Lower eyelid, right eye, at the inner angle. Ulcer occupies the lachrymal region and spreads onto the inner surface of the lid.	Ulcer grayish and superficial, on a red, swollen, and indurated base. Conjunctiva red and chemotic with mucopurulent discharge.	Pre-auricular and submaxillary glands indurated.	Early (one month later), and very severe secondary symptoms.	Mercurial and tonic. —— Healed with an elongated cicatrix, obliterating the inferior punctum.
Left lower lid in the cul-de-sac. Present about a month.	Large, pale, abruptly defined patch of thickening; surface nearly smooth. Base large, with gristly feel. Lid not easily everted. (no distinct ulcer noted.)	Pre-auricular and submaxillary glands swollen.	A week later, roseola.	.....
Near the inner angle, upon the left upper lid, occupying the lachrymal region.	Superficial ulcer on an indurated base. Ulcer about 4 mm. in extent, with grayish floor. Conjunctiva inflamed, with mucopurulent discharge.	A firm, elastic tumor, painful to the touch, the size of a hazel-nut, appeared on the left temple.	Secondary symptoms began one month later, and proved severe.	Mercury. —— Healed.
At the inner angle, extending more upon the upper lid than the lower; and involving the caruncle.	Indurated ulcer. Upper lid indurated and swollen. Diagnosis confirmed by Fournier.	Pre-auricular and submaxillary glands enlarged.	Secondary symptoms two months later.	Healed. Induration remained for some time.
Lower lid, left eye. Began at the center and spread along the entire lid from the outer angle to the lachrymal punctum.	Lid border is much destroyed. Ulcer extends 15 mm. upon outer surface. Floor is red and granular. Induration is very marked. Lid everted, epiphora. (Fig. 2, p. 19.)	Sub-maxillary glands swollen.	Roseola, etc.	"Mixed." Local: calomel.
Began at outer angle, right eye, and spread along nearly the entire lower lid; confined to the lid-margin.	Induration pretty well marked. No congestion or swelling.	Pre-auricular glands swollen.	Secondary; roseola, mucous patches, etc.	"Mixed." —— Healed, with some induration left for some time.
About one centimetre from the inner angle.	Resembling a fistula of the lachrymal sac.	.....	.....	.....
At the middle part of the lower eyelid at the free border.	A small ulcer. Indurated. The lid border madarotic. Conjunctiva injected.	Pre-auricular and submaxillary glands swollen.	A papular eruption.	Pagenstecher salve. "Mixed" treatment. —— Healed.
At outer angle of the right eye. Extending along the free border of both lids, and involving both the skin and mucous surface.	Ulcer deep and irregular. Edges ragged, steep, and indurated. Floor with a grayish secretion, and bleeding readily. Lids swollen.	Pre-auricular gland swollen.	Soon after, roseola, mucous patches, alopecia, etc.	Injections of albuminate of mercury. —— Soon healed.

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
53	Despagnet.	"Receuil d'Ophtalmologie." 1881. p. 522.	M.	13 mos.	Probably from kissing on the lids by a person with buccal patches.
54	Wherry. (Cambridge.)	"Trans. of the Ophthalmological Society of the United Kingdom. Vol. 2. 1882. p. 8.	M.	23	Could not be learned. Patient was a shepherd.
55	Wiethe. (Vienna.)	"Allgemeine Wiener Medicinische Zeitung." No. 23. 1882.	F.	18	Unknown.
56	Streatfield. (London.)	"British Medical Journal." Sept. 30, 1882. p. 634.	M.	22 (Unm.)	Not ascertained.
57	Del Monte. (Naples.)	"Il Movimento Medico-chirurgico." XIV. Naples, 1882. p. 155.	M.	34	A physician. Had never had a primary sore. Had recently had under treatment a patient with syphilitic ulcers of the prepuce; these he had cauterized.
58	Sbordone. (Prof. Del Monte.)	do. p. 157.	M.	35	A physician. Not given. Had under treatment syphilitic patients.
59	Snell. (Sheffield.)	"Trans. of Ophthalmological Society of the United Kingdom." Vol. 3. 1883. p. 4.	F.	21	Patient a nurse-girl. Had charge of a syphilitic baby five months old. Slept with this infant, and was accustomed to fondle and kiss it.
60	Fieuzal. (Paris.)	"Bulletin de la Clinique Nationale Ophtalmologique des Quinze-Vingts. T. 1. Paris, 1883. p. 158.	M.	26	Not known.
61	Adams, J. E. (London.)	"Trans. of the Ophthalmological Society of the United Kingdom." Vol. 3. 1883. p. 4.	.....	.....	No history of contagion could be obtained.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Spmptoms.	Treatment and Result.
Right lower lid, at the inner half. Upon the free margin, extending a trifle more upon the conjunctiva than upon the skin.	"Tres beau chancre." Edges raised and steep; floor yellowish, covered with minute granulations, bleeding easily.	.....	Secondary symptoms.	Child died.
Right lower lid, on the conjuctival surface, a little to the outer side of the center, 6 mm. from the lid margin. In the cul-de-sac.	Ulcer with an indurated base. Extensive chemosis. Ulceration about 6 x 10 mm. in extent. (Fig. 1, p. 18.)	Pre-auricular and submaxillary glands large and hard.	Secondary symptoms about five weeks later.	Inunctions and black wash. — Healed nicely.
Right lower lid. Beginning at the outer commissure, and spreading forward. Ulcer 15 mm. long, 5 mm. wide, and 4 mm. deep.	A deep, gaping ulcer, with an irregular, secreting floor, sharp edges, and an indurated base. Lid greatly swollen, red, and everted.	Sub-maxillary cervical and other glands swollen.	Short time later, typical constitutional symptoms.	Mercury. — Healed and induration disappeared.
Inner angle, left eye, extending along the lid-margins as far as each lachrymal punctum. Upon the skin surface.	Small, brawny sore. Surface smooth, with a very little mucopurulent discharge. Base indurated. Surrounding parts œdematous.	Pre-auricular and submaxillary glands swollen and tender.	Roseola, mucous patches, etc., began five weeks later.	Mercurial inunctions. — Healed, with no ill results.
At the margin of the lower lid. Spread into the cul-de-sac and upon the ocular conjunctiva.	Ulcer became indurated. Conjunctiva chemotic, with some discharge.	Sub-maxillary and cervical glands swollen.	Papular eruption.	Anti-specific.
Left eye, on the ocular conjunctiva, inward and upward, and in the cul-de-sac.	Several points of ulceration, the size of a head of a pin. Induration marked over this area. Secretion yellowish.	Pre-auricular gland swollen.	.....	.....
Left inner canthus, involving the integument and both eyelids as far as the puncta. Caruncle and neighboring conjunctiva involved.	Ulcer size of a shilling. Floor grayish, with a scanty discharge. Edges sharp, raised and indurated. — First appeared as a "pimple," six weeks previously.	Pre-auricular and submaxillary glands indurated.	Roseola, mucous patches, alopecia, etc.	Mercurial. — Healed with slight scar, and puncta not interfered with.
Right upper lid, at the inner angle, covering the lachrymal punctum.	Ulcer about 4 mm. in extent, with steep, sharply-cut edges. Lid swollen,	Pre-auricular gland swollen, and chain of lymph channels running to it from the lid visible.	Roseola and mucous patches.	Idoform inunctions. — Healed with slight trace.
Inner surface of the upper lid.	Resembled a chalazion, but puncture gave no pus. An indurated base, with a flattened ulcerated surface about 12–14 mm. in diameter.	Glands swollen.	.....	.....

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
62	Denti.	"Annali di Ottalmologia" XII, 1883, p. 567.	F.	36	While holding a very young child, the infant had scratched her in the eye with its finger-nail, producing a very slight wound. The child was found to have a general papular syphilide.
63	Meighan. (Glasgow.)	"Glasgow Medical Journal." Sept., 1883. p. 211.	M.	20	Had not been exposed. Two of his young friends had venereal sores, and he had helped them with the dressings.
64	Meighan.	do. p. 212.	M.	24	Had a fight, and got a black eye. His girl pricked the swollen lid and sucked out the blood. She had "skin eruption and a sore mouth."
65	Claeys. (Gand.)	"Annales de la Soc. de Medecine de Gand." T. 61. 1883. p. 206.	M.	30	Not certain. Married and has children. Is a saloon waiter, in a locality patronized by concert-girls. C. is of opinion the infection was by the fingers.
66	Benson. (Dublin.)	"Transactions of the Academy of Medicine of Ireland." Vol. 1. 1883. p. 367.	M.	20	Probably from an infecting kiss.
67	Campart. (Paris.)	Bulletin de la Clinique Nationale Ophtalmologique de l'Hospice des Quinze-Vingts. T. 2. 1884. p. 87.	M.	22	Not given.
68	Campart.	do. p. 88.	F.	29 (Mar.)	Patient a mid-wife. Three weeks previous had attended a woman in labor, who had a secondary eruption.
69	Campart.	do. p. 89.	F.	33 (Mar.)	Not ascertained. The ulcer had first appeared as a pimple, which itching, she had repeatedly scratched.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring glands.	Subsequent Symptoms.	Treatment and Result.
In the lower cul-de-sac of the left eye.	The slight abrasion changed into an ulcer with steep edges; grayish, pultaceous floor, and indurated base.	Pre-auricular and submaxillary glands indurated.	Soon after, roseola, mucous patches, etc., appeared.	Anti-syphilitics. —— Healed with a tendinous-like scar.
Left upper lid; from the middle spreads over the inner half, extends round the inner canthus, coming to the lower lid. On the skin surface, spreads round the tarsal border, and invades the conjunctiva.	Edge smooth and but slightly raised. Slight discharge. Base and surrounding parts cartilaginous. Floor red (had been poulticed). Lid swollen and painful. Began eight weeks before.	Pre-auricular and submaxillary glands much swollen and tender.	Secondary just beginning. Roseola, mucous patches.	Arg. Nit. and Zinc. Ozid. locally. Mercury. —— Healed.
Right lower lid, occupying the whole surface of its outer third. Present over two months.	Large ulcer, with livid surface. Edge not much elevated. Base indurated. Lid swollen and hard.	Pre-auricular and submaxillary glands swollen and painful.	Secondary already appearing. Roseola, mucous patches, etc.	Lead lotion. Mercury. —— Healed.
Right lower lid at the inner part. Spreading onto the conjunctiva and involving the plica and caruncle. The canaliculus destroyed.	Ulcer deep. Edges round, steep, and indurated. Floor foul and pultaceous. Conjunctiva inflamed. Lid swollen and hard at the inner half.	Pre-auricular and submaxillary glands swollen.	Two weeks later, roseola; and a month after, mucous patches, etc.	Pills of Proto-iodide. —— Healed, with epiphora.
Left upper lid, at the inner side, along the free border, encroaching on both skin and mucous surface.	An excoriation on a swollen indurated base. Serous secretion. Not painful. Lid swollen and red.	Pre-auricular and submaxillary glands enlarged.	.....	.....
Left upper lid at the middle of the free border. Appeared six weeks previous as a small pimple.	Ulcer 5 mm. in diameter and 2 mm. in depth. Edges steep, sharply cut. Floor granular, red, with a viscid secretion. Base with cartilaginous induration.	Pre-auricular, submaxillary, and cervical glands swollen.	Roseola, mucous patches, etc.	Mercury. —— Healed with slight scar.
At the inner angle, right eye. Began as a pimple.	Ulcer 8–10 mm. in extent. Edges sharply cut. Floor gray, covered with false membrane easily removed, leaving a surface bleeding readily. Base indurated.	Pre-auricular gland swollen ten days later.	Roseola, etc.	Mercury. —— Healed completely.
On the right upper lid, at the inner angle.	A small ulcer on a large indurated base. Ulcer 5 mm. deep, with steep edges. Lid swollen.	Pre-auricular and submaxillary glands hard and painful.	Roseola, mucous patches etc., one month later.	Mercury. —— Healed with slight scar.

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
70	Van Harlingen. (Phila.)	"The Policlinic." Vol. 2. Phila., 1884. p. 69.	M.	26	Received a blow during a fight. Lid swelling, it was punctured with the small, sharp blade of a pen-knife. His drunken companion sucked this wound. This friend on examination was found to have numerous buccal and lingual mucous patches.
71	Brincken. (Angeln.)	Zehender's "Monatsblätter für Augenheilkunde. 1884. p. 371.	M.	32	Not ascertained.
72	Demets. (Gand.)	"Annales de la Sociéte de médecine de Gand." T. 62. 1884. p. 147.	M.	26	Not ascertained.
73	Demets. (Gand.)	do. p. 152.	M.	58	Not ascertained. Married, and father of a family.
74	Williams. (Liverpool.	"Liverpool Medico-Chirurgical Journal." Vol. 4. 1884. p. 195.	F.	18	Had nursed her sister's child. The child had congenital syphilis: with a rash and the 'snuffles," and has since died.
75	St. Martin. (Paris.)	"Bulletin de la Clinique Nationale Ophtalmologique des Quinze-Vingts. Tome 2 Paris, 1884. p. 33.	.....	.....	.....
76	St. Martin.	do.	.....	.....	.....
77	Zabolotski. (Moscow.)	"Med. Obosrenie" No. 5. 1884. "Revue generale d'Ophtalmologie." 1884. p. 325.	M.	33	Chancres of the eyelid, infection from kissing. Chancre on the penis, the ordinary infection from cohabitation. Coincident infection, only one intercourse having occurred.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
On the skin surface of the left lower lid, at the middle, 2–3 mm. from the lid margin.	Oblong, one-half by one-third inch in size. Floor granular, red, and with scanty serous secretion. A large indurated elevated base, size of a quarter.	Pre-auricular and submaxillary glands swollen.	A general papular syphilide a few weeks later.	Anti-specific. —— Healed.
Left upper lid, on the inner surface, nasal half, about 2 mm. from the lid border.	Large, superficial, nearly round ulcer, about 1 cm. in diameter. Its base indurated; its floor grayish, with slight discharge. Lid swollen, and conjunctiva injected.	Sub-maxillary glands swollen.	Mucous patches, etc., ten weeks later.	Iodoform. Mercury. —— Healed. Induration remained for a long time.
Left upper lid, on conjunctival surface, near the middle. Had existed 2 to 3 weeks.	Ulcer round, 5–6 mm. in diameter. Floor eaten-out, foul, with dirty-white, pultaceous secretion. Edges sharp and punched-out. Edges and base indurated. Lid swollen. No conjunctivitis.	Pre-auricular and submaxillary glands swollen and hard.	A week later, roseola, etc.	Iodoform locally. Mercury. —— Healed with white scar.
Left upper lid, near the middle; on the conjunctival surface reaching from the middle to the upper edge of the tarsal plate.	A characteristic ulcer on an indurated base. Lid swollen. Had existed 3 weeks.	Pre-auricular gland swollen.	A month later, roseola.	Iodoform locally. Mercury.
On the ocular conjunctiva, half way between the inner canthus and the edge of the cornea.	An erosion about one-fourth inch long; covered with yellowish debris. Base hard and adherent. The neighboring conjunctiva chemotic.	Pre-auricular, submaxillary, and cervical glands swollen.	Alopecia.	.....
Left upper lid.	.....	Pre-auricular gland swollen.	.....	.....
do.	.....	do.	.....	.....
Right upper lid. Ulcer 3 cm. long along the margin; another 2 cm. x 1 cm. on the cutaneous surface of the lid near the eyebrow.	Ulcer began like a stye one month before. Lid greatly swollen and livid. Ulcers indurated and charcteristic. Not painful.	Pre-auricular, submaxillary, & inguinal glands swollen, indurated, but not painful.	A general papular syphilide.	.....

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
78	Baudry. (Lille.)	"Archives d'Ophtalmologie." 5th vol. No. 1. Jan.-Feb., 1885. p. 55.	F.	25 mos.	The child had had a conjunctivitis. The nurse's sister-in-law, 22 years old, had rubbed the eyelids with her finger moistened in saliva. Examined she showed mucous patches on the tongue, palate, and fauces; alopecia and enlarged glands. Parents healthy.
79	Baudry.	do. p. 58.	M.	4	Child has blepharitis. Mother had often rubbed the eyelids with her finger, or a cloth moistened in saliva. Examined she showed mucous patches of the mouth and tongue. Father syphilitic.
80	Campart. (Paris.)	"Bull. de la Clinique Nat. Ophtal. de l'Hospice des Quinze-Vingts." 3rd Vol. No. 1. Jan.-Mar, 1885. p. 48.	M.	20	Not ascertained. (Intercourse one month previous.)
81	Campart.	do. p. 49.	M.	38	Patient stated that he had been bitten by a comrade who had some disease of the mouth.
82*	Montgomery. (Chicago.)	Trans. Illinois State Med. Soc. 1885	F.	45	The patient had spilled pepper into her eye. The servant girl had tried to remove this by using her tongue, sweeping it over the conjunctival surfaces. The domestic is said to be "badly diseased."
83*	do.	do.	M.	40	Patient an hostler. Had small foreign body in the eye, and a "chum" removed it with his tongue. Condition of this friend not known.
84	Dornig. (Laibach.)	"Wiener Medizinische Wochenschrift." 1885. p. 330.	F.	27	Not ascertained. Patient was a washwoman. A small pimple began at this site, which she frequently scratched.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
Right lower lid at the inner fourth. The ulcer 7-8 mm. in extent, spreading 2 mm. upon the external skin. Cilia absent.	The floor is nodular and red. Base indurated, extending a little beyond the limits of ulceration. Conjunctiva injected, with an abundant muco-purulent secretion. Epiphora, from ulceration of the lachrymal punctum. Lid swollen to twice its volume, and red.	Pre-auricular and submaxillary glands greatly swollen.	Roseola; mucous patches on the tongue and tonsils. Cervical glands enlarged.	Local: calomel and borate of soda. General: bichloride, and syrup of iodide of iron. —— Healed with well-marked cicatrix.
Left upper lid, occupying the lachrymal portion of the lid margin, and involving the inner angle. Lower lid intact.	Ulcer bathed in pus and in the tears. Lid quite oedematous and somewhat ever ed. Conjunctiva with marked chemosis at the inner angle. Acute catarrhal conjunctivitis.	Pre-auricular, submaxillary, and cervical glands enlarged.	Not given.	Local: iodoform powder. General: inunctions.
Left lower lid at the inner angle.	Ulcer 5 mm. in diameter, on a large, indurated base. The edges thick and swollen, making the ulcer appear quite deep. Base grayish, with a sanious discharge.	A pre-auricular gland slightly, and the submaxillary gland very greatly, enlarged.	Secondary: roseola, mucous patches on the palate, fauces, and lips, etc.	Local: iodoform salve. General: inunctions. —— Healed.
Left lower lid at the inner angle.	A small patch, 5 mm. in diameter, resting on a base much more extended and strongly indurated.	Pre-auricular glands enlarged and very painful. —— Insomnia and headache.	Roseola; mucous patches in the mouth; syphilde the size of a filbert at the angle of the jaw.	Inunctions. —— Healed.
Left upper lid at junction of the inner with the middle third. At the margin and extending onto the conjunctival surface.	Characteristic sore (appeared two weeks later.) Ulcer is indurated and slightly eroded. Caruncle and plica thickened and red. Pricking pain.	Glands *not* enlarged.	Case not again seen.	Anti-specific ("mixed") treatment internally. Local: solution of boric acid, and yellow oxide of mercury salve.
Same as above. Left upper lid at the middle. From the margin onto the conjunctiva.	Ulcer indurated and with abrupt margins. Appeared three weeks after. Lid and caruncle much swollen.	Pre-auricu-glands enlarged.	Secondary developed; but improved rapidly under treatment.	As above.
On the cutaneous surface of the right lower lid, along nearly its entire length, separated from the margin by a strip 2 mm. wide, of intact skin. At the outer canthus it encroaches at one small point upon the lid margin.	A large, shallow ulcer, with uneven, infiltrated edges; floor reddish, granular, and secreting a little pus and an abundant viscid fibrinous secretion. Base of a cartilage-like induration. Lid swollen. Cilia wanting.	Sub-maxillary gland swollen.	Ten weeks later, roseola, mucous patches on the genitals, alopecia, etc.	Mercury. —— Healed and induration slowly disappeared.

No.	Author.	Publication.	Sex.	Age.	Mode of Infection.
85	Baudon. (Nice.)	"Recueil d'Ophtalmologie." Nov., 1885. p. 673.	F.	24	Not known.

TABLE B.

No.	Observer.	Observed.	Sex.	Age.	Mode of Infection.
86	De Beck.	1881–86.	M.	26	Possibly from sleeping with a brother-in-law having severe secondary symptoms.
87	Dr. S. C. Ayres. (Cincinnati.)	1878.]	F.	32 (Mar.)	Admitted being kissed on the eyelid by a friend. Examination showed no other venereal sore.
88	Prof. Galezowski. (Paris.)	1882.	M.	35	Contamination by the fingers.
89	do.	1882.	M.	39	Contamination with the tongue.
90	do.	1885.	M.	43	Contamination by the fingers.
91	do.	1886.	M.	31	Contamination with the tongue.
92	Mr. Henry E. Juler. (London.)	.....	F.	Young.	No other venereal sore about the body.
93	do.	.....	F.	Girl.	No other sore.
94	Dr. Root. Sattler. (Cincinnati.)	1880.	F.	25	Kissed on the lids by a male friend. He was found to have mucous patches. She had chronic blepharitis.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
In the upper cul-de-sac, near the equator, and extending almost to the cornea.	Large ulcer covered with grayish exudation. Base indurated; and this induration extends all around the cornea. Cornea clear.	Pre-auricular and submaxillary glands hard and painful.	Mucous patches two months later.	Proto-iodide. Calomel locally. —— Healed.

UNPUBLISHED CASES.

Site of Ulcer.	Character of Ulcer.	Condition of Neighboring Glands.	Subsequent Symptoms.	Treatment and Result.
Lower eyelid, right eye. At the outer third; from the margin spreading onto the conjunctiva. Had chronic blepharitis.	Oval, shallow ulcer, 3 x 5 mm. Edges sharp and regular; floor with yellowish debris; base indurated. Conjunctiva injected. Lid only slightly swollen.	.....	Roseola, mucous patches, glandular engorgement, etc.	Salve of the yellow oxide of mercury. —— Healed with a small linear scar.
Left lower lid at the inner half. On the margin, but spreading more upon the conjunctiva than upon the skin.	A characteristic indurated sore about 5 mm. in diameter.	Pre-auricular glands swollen.	Secondary and tertiary. Later, aphasia and hemiplegia (cerebral gumma).	Mercury and iodide.
Right eye, on the lid border near the inner angle, spreading onto the conjunctiva.	Ulcer with thick and indurated edges. Conjunctiva injected.	Pre-auricular and submaxillary glands swollen.	.....	Mercurial. —— Healed.
Ulcer on the conjunctival surface near the lid border.	.....	Pre-auricular and submaxillary glands engorged.	Roseola, etc. Iritis.	Mercurial. —— Healed.
On the margin of the upper lid, at the inner canthus.	.....	Pre-auricular and submaxillary glands greatly swollen.	Roseola.	Mercurial. —— Healed.
Conjunctival surface of the left upper lid.	Large ulcer about 15 mm. in diameter projecting like a fungus. Edges and base indurated.	Pre-auricular and submaxillary glands swollen.	Roseola.	Inunctions. —— Healed.
Right upper eyelid, on the conjunctival surface.	Indurated ulcer. Lid intensely swollen as from beginning purulent ophthalmia. Painful and difficult to evert.	Pre-auricular gland swollen.	Secondary: Roseola, Sore-throat, etc.	.....
About same as above.	Indurated ulcer. Lid swollen, etc.	Pre-auricular gland swollen.	Secondary.	.....
Left lower lid on the conjunctival surface near the margin.	Small indurated sore. Later increased much in size.	Pre-auricular and post-auricular glands swollen.	Secondary.	Mercury. —— Healed with cicatrix.

Notes.—Prof. Leber, of Göttingen, writes me that he had seen cases of chancre of the lids and conjunctiva during his earlier years, of which, however, he unfortunately now possesses no notes. Since he has been at Göttingen he has seen no case.

Prof. Nagel, of Tübingen, writes that he has seen several cases of specific ulcers of the lids and conjunctiva, but has no available notes.

Prof. Knapp writes me that he has seen "several cases of chancre of the eyelids in a material of over 100,000 recorded eye cases;" but is unable, at present, to hunt up these records.

Dr. C. E. Fitzgerald, of Dublin, writes that he saw a case of chancre of the eyelid in a young woman at the Hospital St. Louis in the Clinique of Dr. Lallier while in Paris in 1868. Also that Dr. Swanzy and he have seen two cases in the Dublin Eye Infirmary.

Prof. Noyes writes that he has seen cases, but has no available notes.

Dr. J. F. Streatfield, of London, writes that he had seen "two or three other cases" besides the one he reports (56), but regretted that he had no written notes.

EXPLANATION OF PLATE.

Fig. 1. My own case (pp. 5–6; No. 86).
Type of the small, shallow chancre.

Fig. 2. Cullerier's case (No. 17).

Fig. 3. Cullerier's case (No. 18).
Types of the large, irregular, eroding chancres.

Fig. 4. Clerc's case (No. 20).
Stage of cicatrization—after two and a half months.
Some scattering papular spots already present.

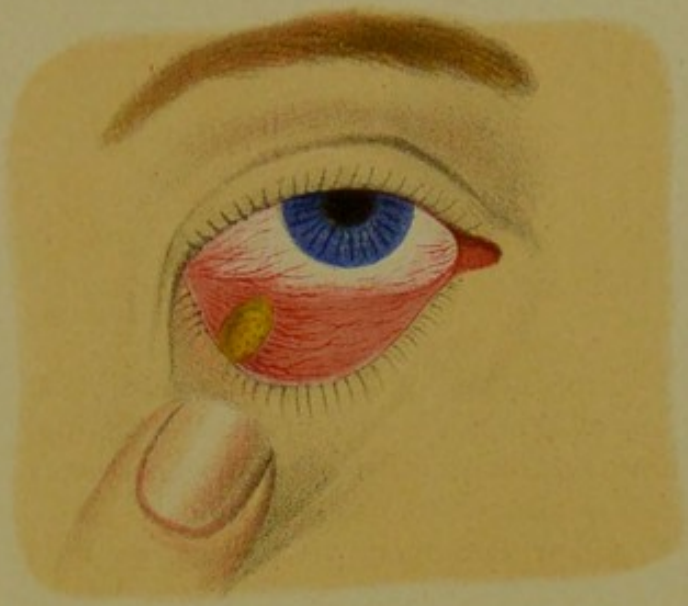

Fig.1.

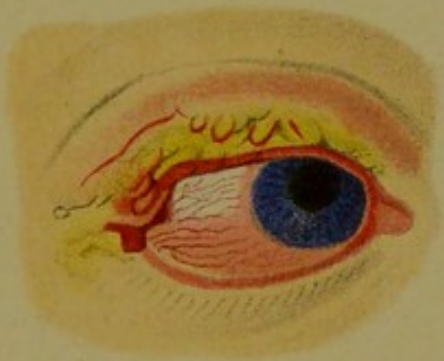

Fig.2.

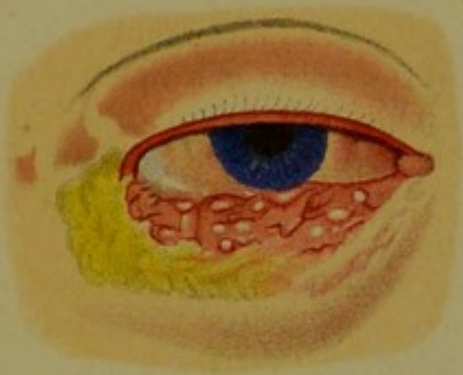

Fig.3.

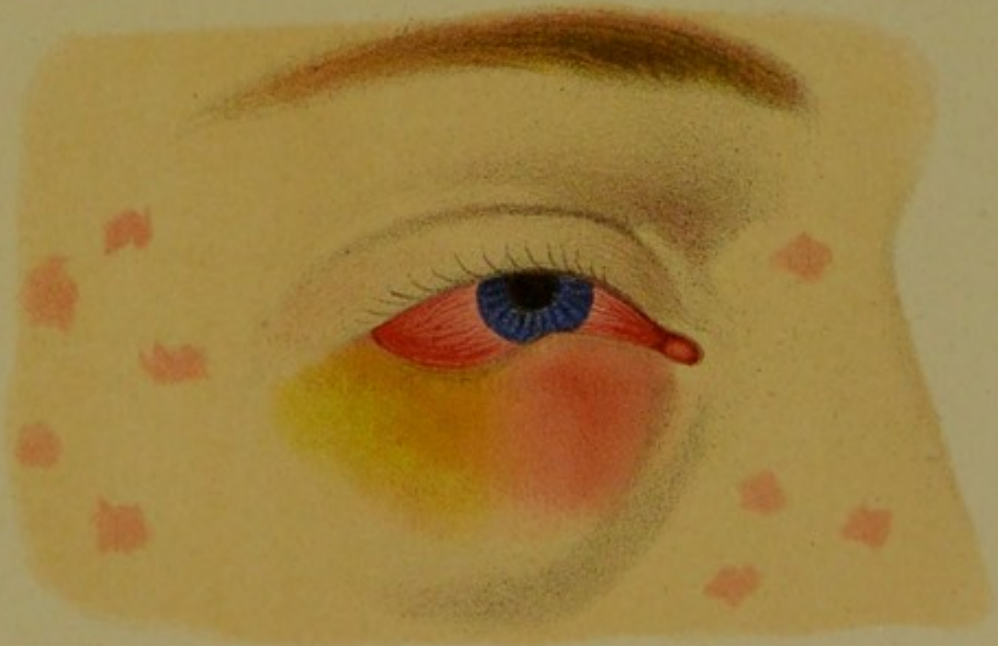

Fig.4.