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Norwich

My dear Sir

Do me the great favor to accept a petty volume I lately wrote about the Eyes -

It occurred to me, as I was ruminating this afternoon, that you are I are the only surviving pupils, in this city, of our Hospital 30 !!! years ago -

Believe me,

Dear Sowing,

yours truly

Robert Hunt.

Feb 15
1842 -

CURSORY NOTES.

CURSORY NOTES

ON

THE MORBID EYE.

BY

ROBERT HULL,

EXTRA-LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS;
PHYSICIAN TO THE NORFOLK AND NORWICH HOSPITAL;
MEMBER OF THE ROYAL COLLEGE OF SURGEONS;
LATE SURGEON TO THE NORFOLK AND NORWICH OPHTHALMIC INFIRMARY.

Οἶμαι, γὰρ, οἶμαι, ξὺν θεῷ δ' ἰερήσεται,
ταύτης ἀπαλλάξειν σε τῆς ὀφθαλμίας,
βλέψαι ποιήσας.

ARISTOPH. PLUT.

LONDON:

LONGMAN, ORME, BROWN, GREEN, AND LONGMAN.
CHARLES MUSKETT, NORWICH.
1840.

TO

WILLIAM DALRYMPLE, ESQ.

Consulting Surgeon

OF THE

NORFOLK AND NORWICH HOSPITAL.

SIR,

There are reasons, which, I trust, justify my presumption, when I dedicate these notes to you.

With ophthalmic pathology your name has been long conjoined. More than twenty years have elapsed, since your ligature of the carotid artery finally established the practice, adopted by Mr. Travers, for orbital aneurism by anastomosis.

Your son, the assistant-surgeon of the Royal Infirmary in London, maintains the connexion of the name of Dalrymple with ophthalmology. By his scientific work on the anatomy of the eye: by his practice as a surgeon, much consulted on its diseases: by the prospect of suc-

cess, which awaits him in the scene of his unwearied studies.

This tractate, moreover, contains some digressions, from the main object, into the region of professional morals.

To whom could it more correctly be presented than to you, who have ever supported the reputation of our art, by personal example; courtesy, probity, generosity, honor?

Of the series of disciples, whom you have trained for the profession, not one, but is proud of his instructor—not one, but feels the value of your name for his own interest and prosperity.

Quid sciret ille, perpauci advertebant. UBI *didicisset omnes quærebant. Nihil ab* HOC *pravum et perversum proḋuci posse arbitrabantur.*

Such masters are daily becoming more rare. The money-maker; the trickster; the detractor have well nigh supplanted those noble characters. All is pelf.

Εἶϑ' ὅ γ' Ἀπόλλων, ἰατρός γ' ὤν, ἰάσϑω μισϑοφορεῖ δέ.

It is impossible for any member of the healing body not to see that it is undergoing, in common with other masses, a formidable mutation. Look at the contentious, selfish conduct of the stu-

dents; in the lecture-room, the wards, the operating theatre. Hear men of science, of humanity; in years, in weak health; insulted with vociferation, with hisses!

If we carry our observation into the subsequent career of these students, we must still deplore the altered profession of medicine.

In the town, the village; the man of properly fastidious taste will aver, that he is no longer able to practise with his pristine comfort, in consequence of the peculiar and novel character of his opponents. He had always rivals; but the contest was compatible with friendship. An ignoble competition is now abroad! The apothecary is not the only huxter. The physician keeps the market: or openly advertises that he doctors by the week and for the guinea. Free trade and cheap physic are the order of the day. The distinctions of rank; the division of labor, are wilfully violated; the physician practising surgery; the apothecary calling himself surgeon.

The present mania for medical associations will not exalt our profession. For the recordation of cases, of facts, of scientific reasonings; surely there are already media and journals

enough. The general press affords sufficient facilities for every manful claimant of public attention.

I hold that the dignity of true science is insulted by this sort of platform display, no less than by the charlátan tricks of the stage-doctors of former times. But it is the fashion of the day to play harlequin--and these moving medical booths are in harmony with the scientific and theological tomfooleries of the age.

That to this pitiful state of things, in our department of life, you have in nowise contributed; but have steadily opposed the deterioration, however fruitless the struggle, must prove satisfactory to your own mind.

That a comparative retirement, from conflict with the irregular and the coarse, may prolong your life and fortify your health, is the hearty wish of all your friends, and especially of,

Sir,

Your obliged, grateful and devoted Servant,

ROBERT HULL.

PREFACE.

It is usual to prefix some eulogium on the structure of the eye; and to exalt its importance to mankind. And Milton's lamentation for his loss of sight has been quoted by successive oculistic authors.

It is not my intention to tell the reader how important is his eyesight! What care is required for its preservation from injury! What skill for its restoration! Its value has been known in all ages and to every individual—from the great legislator, who demanded "an eye for an eye," to the Spanish proverbialist—

Con el ojo, ni la fé,
No me burlaré.

"Neither with my eye, nor with my faith, will I trifle."

"Other animals display a forehead; in man alone is it the index of sorrow, mirth; mildness, severity.

On its ridge, in man, are placed the eyebrows; moveable both together and alternately; and in these resideth a portion of the mind. With these we deny, we assent. These particularly indicate fastidiousness. Pride is engendered elsewhere; here it is seated. It is born in the heart; hither it arriveth, here it impendeth. In the whole body it findeth no part more elevated, more abrupt, where it might rest a solitary.

Beneath them are the eyes, the most precious portion of the frame, and which, by their use of the

light, distinguish life from death. Not all animals possess these. In man alone the eyes are variously colored: in other animals each genus displayeth its peculiar color. Some horses are wall-eyed; but man displays an endless variety and difference. Large eyes, moderate, little; prominent, which are deemed to be duller: deep-seated, which are counted very sharp-sighted; as also are those, which in their color resemble the eye of the goat. Besides: some eyes perceive distant objects; others none, unless they are near. The vision of some is proportioned to the solar light, seeing nothing in a cloudy day nor after sunset. Some by day are dimmer, by night unusually perceptive.

The gray-eyed—cæsii—see more clearly in the dark. It is narrated of Tiberius Cæsar, and of no other mortal man, that, awaking in the night, by degrees he could distinguish every object, as well as in a clear light; the darkness by degrees again returning. Of the divine Augustus the eyes were glaucous, like the horse's, and of super-human whiteness and size. But his anger was aroused, if they were looked at with curiosity. Those of Claudius Cæsar displayed at their angles a fleshy whiteness, which was occasionally suffused with bloody veins. Those of Caius were particularly staring. Those of Nero, unless connivent, were dim as to perception of near objects.

There were in a show of Prince Caius twenty pairs of gladiators; among these only two combatants, who did not wink at any menace, and were consequently unvanquished. So difficult is it for a man to accomplish this. Incessant nictation is natural to some folks, whom we look on as rather chicken-

hearted. In nobody is the eye of one color alone. The white portion of the eye is common to all men; but the middle color varies. In no part of the frame can one discover greater indications of the mind—in all animals, but preeminently in man—of moderation, clemency, mercy, hatred, love; sorrow, joy.

Their looks, too, are of all sorts; fierce, crabbed, burning, heavy, crosswise, sheepish, submissive, bland. Truly the soul resideth in the eyes. They glow, they are intent, they twinkle. From them those tears of pity. When we kiss them we seem in contact with the soul itself. From them the rivers of tears, which flow down the cheeks. What is this humor, in grief so plentiful, so ready? Where is it at other periods?

With the soul we see, with the soul we perceive: the eyes, like vessels, receive its visible part and transmit it. Thus great cogitation blinds a man, his vision abducted inward. Thus in epilepsy the open eyes see nothing, the soul being darkened. Hares sleep with open eyes, and so sleep many men; which is called by the Greeks *Corybantia*.

Nature hath formed them of membranes numerous and delicate; of external coats, callous, for protection against the cold and the heat: and washed by saline fluids: slippery and moveable, for protection against foreign incursants.

In the middle of their horny structure is placed the pupil as a window, whose narrowness doth not suffer the sight to wander, but keeps it directed to a point, with canal-like precision; with facility it avoids incidental foreign bodies.

Of some the pupil is surrounded with a black circle; of others a brown; of some with a reddish; of others a blue, that the light may be received with a suitable mixture of rays and be, through its tempered reflection, inoffensive. And so perfect is its power as a mirrour, that the pupil, however small, reflects the whole image of a man.

Man alone by the evacuation of a humor—*emisso humore*—is freed from blindness. After twenty years sight hath been restored to many. To some when born it is denied, although there be no disorder of the eyes: from many, likewise, it hath been suddenly withdrawn, without any precedent injury."

Pliny, book xi, chap. 37.

I have translated these few paragraphs from the great Roman naturalist. They may tempt the reader to refer to the original. He will find, in this neglected ancient, much curious, interesting and instructive matter, connected with a voluminous materia medica ophthalmica.

I have shewn, in a subsequent page, that the dilatation of the pupil by artificial means: and for operations on the crystalline lens: was practised in the days of Pliny. And I should be glad to learn what, in the preceding passage, can be meant, except the extraction of the cataract? *Homo solus emisso humore cæcitate liberatur.*

I have touched, in page 38, the subject of medical reform. The practitioners, agitating on this subject,

did especially look, influenced by their political position, to the members of parliament there named.

But, since that page was printed, these very statesmen have incurred the displeasure and even insulting objurgation of the reformers in physic. As "mere mouthing candidates for public praise and professional support"—as advocating the cause of reform, not for the sake of carrying it, but rather to attract notice and notoriety—as breakers of pledges—as dishers up of a hash of profession and cajolery—broken reeds—shameful deceivers of faith.

It is matter of gratulation that these active politicians will not lend their authority to every priggish, pragmatical schemer, who may restlessly aim at change for the mere sake of mutation.

Our present state of the profession, after all its imperfections, works comparatively well. It is adapted to the form of English society, which is modified by our peculiar form of government. They would not benefit the profession, who would give it a republican and levelled form in a kingly state. Nor could they possibly succeed. Commotion, disquietude, discontent would be engendered; but, sooner or later, our profession, like all the others, would find itself socially graduated. The law, arms, the church include in their ambitus the peer and the plain man. And *we* are enabled to supply with adapted practitioners the fastidious monarch with his courtiers: and the wretched tenants of a *dis*-union workhouse. *We* have our medical baronets, the companions of nobles; and the country surgeon, who smokes his soothing pipe with the neighbouring farmers, at the

village club. Your advocates of one faculty would gain nothing by their condensation of departments; for the art or its professors. Neither truth more easily obtained; nor ridicule more securely evaded. Some Juan de Yriarte would still be found to lash the consolidated as he did the tripartite practitioner.

Los enemigos del alma
Son tres, Mundo, Carne, y Diablo:
Los del cuerpó son Doctor,
Cirujano, y Boticario.

The soul, we learn in holy writ,
Three enemies assault—to wit:
The world, the flesh, the devil;
Which work it deadly evil
And its damnation urge on.
The body is in like condition—
Three foes it hath; viz., the physician,
Apothecary, surgeon.

G. Dennis.

The magnates of the profession may encounter scurrilous abuse: and the apothecaries may be *unsettled* by reforming doctrines; but, whilst we are a diversified society, we must have a diversified profession. If the higher practitioners in physic and chirurgery could be lowered; the subalterns would not be elevated to their vacant places.

The division of labor neither can, nor ought to be abolished: and whilst it lasts, nobody can prevent the upper classes from selecting the pure surgeon, the pure physician; Sir Henry Halford; Sir Astley Cooper; in preference to the general practitioner

however respectable—Mr. Rix, of the Barbican; or Mr. Grubb, of Long Acre.

Long enough there has been a war of the general against the pure practitioner; founded on envy, and malice, and discontent; maintained in ignorance: kept alive by the artful. Success would ruin the victors. The money now raised from the public by the general practitioner would be transferred, assuredly, to the druggist. The people at large do not understand paying for any thing except the substantial. Even the minor, mitigated fee, which the reformers would contentedly pocket, would very seldom be given. And the deluded surgeon-apothecaries, instead of dragging the triumphal car of their agitating friends—*lætum pæana canentes*—would curse the day they first heard their names and wish all reformers at the d——.

But little further alteration is required to secure for the poor efficient practice and skill. The Apothecaries' Company have provided for medical acquirements: and if their surgical ordeal be not fiery enough, let it be made sufficient. It seems desirable that the education for general practice should not cost one penny more than it now does. And if the company cannot undertake a masterly surgical examination, they might secure the services of some members of the Surgeons' Council, in Lincoln's Inn Fields. From the company the licence for *general practice* might emanate. The licentiates, under penalty, to style themselves "Surgeon-apothecaries."

Those students, who may pass at the Royal College, to be alone called Surgeons. It would be a pity

to make that compulsory, which to the honorable sentiment has been so long entrusted. Nothing can add more lustre to the College of Surgeons, than the annual voluminous list of students, who covet their diploma as a decoration of merit. Is there a more promising trait in the mind than the love of the distinguished and the proper? or a more pitiful than the resolution to do nothing in life, save what is rigidly enforced by law?

As to the department of pure physic, it was always desirable that the general practitioner, whose education, acquirements and, above all, mature experience had fitted him for the duties and rank of a Physician, should be enabled, if he wished it, to obtain this position.

This power, beneficial for the public as well as grateful to himself, the elder practitioner had, until lately, obtained by an easy process and the transmission of money. He needed not to stir from his study fire. The parchment was forwarded, like Lord Brougham's letter to his King, by the General Post. But this originally virtuous process became extensively and much abused. Some Scotch Universities displayed an eminent laxity: so that Dr. Pitcairn offered a wager that he would procure a medical degree even for his horse. Why not? since many a diploma had been furnished to the inferior animal. But, within a very short period, *Reform* has extended itself even to the Northern Scotch Universities: and now their degree is unattainable, except through the regular and academic sessions.

When the Scotch Universities commenced their decorous rigour, the Royal College of Physicians in London manifested a concession, equally magnanimous. They opened their exclusive doors to the experienced practitioner, who had completed the fortieth year of his life. But the candidate must submit to an oral examination. No diploma can be transmitted to his distant domicile. He must appear before his learned judges, and satisfy them, by testimonial and his presence, that he is a gentleman of practical acquirements and competent scholarship. There are issued by the Royal College two forms of License. One for London: one for the Country. But, whoever knows the examinations, and the examiners, will feel secure, that by this wise regulation the public are provided with Physicians, who will not disgrace the learned body, of which they are enrolled members.

It is true, that parchment degrees can still be purchased from some continental Universities. But whether the British public will hereafter allow them an equal weight with the diplomata of their own ancient, English College, is not very doubtful.

"The College constitutes Physicians; and it is the *only* body, except the Universities of Oxford and Cambridge, which can give to any one a legal right to practise as a Physician, in any part of England and Wales."

Thus, then, the English community are furnished with Physicians in a manner far superior to the olden process. They may still rejoice in their academics, youthful and adult. But in lieu of the ridiculous

Doctors, who exchange their mere pecuniary qualification for the hungry professor's parchment, they will now feel confidence in a body of practitioners, whom the lessons of experience and the approbation of the Royal College have qualified for the practice of medicine.

One of the propositions, of which the medical reformers have been delivered, is, that every practiser shall be dubbed a Doctor; drugs to be obtained only of the druggist. No doubt this is an imposing idea: and may suit well enough the independent and the childless. But Mr. Goss, of Piddlehinton, and Mr. Hitchcock, of Lowestoft, will prefer, depend on it, to feed their hungry children from the produce of physic rather than the fumigation of a learned title. Farmer Perkins, and Kemp, the village tailor, understand the propriety of despatching the lad upon the pony to the surgeon's house for the medicine; but they will never agree to the novel plan of paying the surgeon and the druggist also.

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CHAPTER I.

TUNICA ADNATA.

The disorders of the conjunctival membrane present themselves naturally first in order for our notice, and they are more numerous than any other morbid affections of the eye. Nor is this matter for wonder, when we reflect upon its exposed situation and its physiological character. The conjunctive is a mucous membrane, and pre-eminently subjected to atmospheric influences. Like the lining membrane of the nostril, it is very much and often a sufferer from cold and from pernicious winds. This did not escape the father of physic.

Among the times of the year, if the winter be dry and cold, and the spring rainy and subject to southerly winds, it must necessarily fall out, that in summer acute fevers, *opthalmiæ*, and dysenteries happen, especially to women, and men who are of a humid constitution.

But if the winter be southerly, rainy, and warm, and the spring dry and northerly, then happen dysenteries and dry ophthalmiæ; to old folks catarrhs rapidly destructive.—*Hippocrates.*

Inflammations of the conjunctive, excited by atmospherical causes, resemble those produced in the schneiderian membrane. At first mucous secretion is checked or suspended; and the colourless vessels

of the tunic are rendered visible; turgid with blood propelled into their cavities, seemingly to overcome the obstruction of their exhalant extremities. Vis a tergo! Sooner or later this is effected, the mucous secretion is restored, even augmented; and the symptoms are terminated by resolution. Just so in the catarrh of the nostrils. Why should the ophthalmic phenomena be regarded with so much gravity and terror, while the nasal are despised and suffered to take their chance?

The relative importance of the organ of vision will explain it. The patient is naturally frightened by an affection of the eye; and the practitioner, partaking of his terror, sets to work immediately his therapeutic processes; or, from interested motives, makes "a job," where job there should be none. In the majority of conjunctival ophthalmiæ, negative measures are alone demanded; and nature will dissipate the disease. Nature indicates the mitigation or exclusion of the light, as the intolerance of light most plainly proves. If this, however, be carried to a rigorous and continued extreme, another disorder may be generated; a simple photophobia.

CASE.

I was summoned, by a gentleman of rank, into the country, to see his lady, who was imagined to be labouring under a formidable ophthalmia. I found her room as dark as the lowest dungeon of a state prison, and when I admitted rays enough for my own inspection of the organs, which produced an agony of intolerance in them, I found no vascular disorder left. She had kept herself in this miserable plight

many weeks,—her family surgeon having died; and as she had not selected a successor, she had religiously obeyed the usual injunction to exclude the light, until a single ray was torture. The light gradually but determinedly admitted, this lady was requested to join the family at dinner.

CASE.

A young gentlewoman was sent to me, by a surgeon, from a distant town, under precisely similar circumstances. And I had some difficulty in assuring herself and friends that the present symptoms were of their own making. I emancipated her from her headgear, and sent her back with perfect vision.

If the air be cold and cutting to the sensations of the patient, a tempered atmosphere in the darkened room is proper; and then, with an opened state of bowels, a mild diet and simple cleansing with tepid water, the symptoms will not be long in yielding. Why should I describe the vascular appearances in simple conjunctival inflammation? What now can be said, after the classic description of Lawrence, Travers et similium, and the pompous interminable twaddle of ——?

But if the patient be bent upon medical interference, and he finds, as he may without the smallest trouble, a willing co-operative doctor, he may aggravate a simple catarrhal ophthalmia into

ACUTE CONJUNCTIVITIS.

Or, perhaps, a bad constitution on the side of the patient; strumous, prone to inflammation, may convert the mild into severe symptoms. Still if the

conjunctive be alone involved, there is no occasion for those vigorous measures, which some advise and many practise. General blood-letting is rarely required. Leeches may be omitted. I have been connected nearly twenty years with a provincial ophthalmic infirmary, and I have seldom had a necessity to prescribe these blood-suckers. Not that I deprecate their use. Let those apply them who may like; it is enough for me that I have done without them. Applied to the lining of the lower lid, they have seemed to me more worthy of respect. I am quite aware that this contempt of the leech will be much scorned by many persons, who use them lavishly; and that a volume might be written filled with arguments in favour of this medicinal creature. Upon what subject may not argumentation be expended, and books composed? I can appeal to the pupils of the school, to which I have been attached, whether the practice has been less successful, because less bloody, and, to the institution, less expensive.

Purgation is a very successful method of treating this superficial ophthalmia.

In an ophthalmia a supervening looseness is good. So said Hippocrates; and if it be good supervening, it is not the less beneficial superinduced.

Smart purging for the plethoric, the gross and the vigorous. More lenient, if the patient be delicate or scrofulous.

Blisters are much to be commended in many cases; applied to the Nape; or parts not so near as to irritate the direct vessels of the organs; not too distant to derive from them.

What can a blister perform on the arm or the thigh?

When the conjunctival inflammation partakes of a character of

STRUMOUS OPHTHALMIA;

of course, the treatment must have an especial reference to this pitiful diathesis.

If the symptoms be acute, they will, in the strumous subject, bear not so much of active, heroic interference, as in the healthier frame. If they be chronic, they must be encountered by specific measures.

The great miseries and mischiefs of a scrofulous ophthalmy are chiefly witnessed in the children of the poor. In these they are aggravated by external and internal circumstances, from which the more substantial classes are secure. Scanty clothing, insufficient bed clothes; inadequate, deleterious food; all combine to exasperate the disorder in scrofulous paupers. How long and intractable their affections are, the records of an Eye Infirmary demonstrate! How prone to recur again and again! What can mere medical agents effect for these miserable victims? Mercurials or tonics; alteratives or stimulants; what can they do for half-starved, half-naked little wretches? In these days of societies, good, bad, and neutral; wise and puerile; sober and ridiculous; one might be formed for the public medical charities of a town; for the supply of diet and clothing recommended medically by medical men.

If general and local blood-letting be not imperiously demanded in the healthier patients, the scrofulous

victims of ophthalmia conjunctivæ would be rendered worse by this abstraction.

In them, also, purgation must be modified; not sharp; not all at once; but gentle, daily, or half-weekly. Not with saline nor drastic purgatives; but with moderate doses of calomel and rhubarb. The hydrargyrum cum cretâ, succeeded by rhubarb or a little castor oil, is a lenient way of affecting the strumous patient.

All the world knows the magic influence of blisters in scrofulous conjunctivitis. In this form of disorder intolerance is great; the vascularity may be little. The use of the blister seems proportioned more to the intolerance than to the vascularity. The nucha seems the best of all situations for the cantharides: nor should the blister be kept open.

Yet blisters are precarious agents in these subjects of struma. I have known them produce most unsightly, irritating, and injurious disorders of the skin; spreading from the blistered spot over the whole body. They often excite the Porrigo favosa, or other forms of cutaneous mischief.

For the chronicker and subacute forms of strumous ophthalmy, a seton in the nape is a most commendable remedy. But we cannot prescribe this surgical method, until we have tried the more lenient in vain.

In one case I have seen a girl, on whose back a sloughing process was induced by a blister; it extended fearfully, and great danger existed of a fatal ending.

In another case; M. Campling, æt. about twelve years, was a patient for strumous ophthalmia, at the Norwich Infirmary. She was placed on a diet, which

eventually proved to be too low. One day the mother hastily sent for medical aid in her neighbourhood, to the seemingly dying child. When the surgeon reached the room, he found the patient had expired; and the chief solution of the problem was to be found in the seat of the blister; the back was mortified.

The Iodine certainly, in many cases of chronic strumous ophthalmy, has done service—enough to characterize it as a decided constitutional remedy for this symptom, as well as others, of the scrofulous cachexy.

THE SPIRITUS TEREBINTHINÆ,

ridiculed by some, untried by other surgeons, is now and then, and where other remedies have been impotent, certainly useful. What these peculiarities of crasis or of circumstances are, which render it at one time serviceable, at others invalid, I am not prepared to say. Let it be tried!

That the turpentine is a powerful article, the cure of iritis, undoubted and not infrequent, proves; that it should be useful in scrofula, where the glandular and lymphatic systems are the chief seat of disorder, its "searching" character would render probable. Who will deny this searching character? Witness the violet-like odour in the urine of the person, who uses even the smallest portion! or inhales its vapor in a newly painted house.

The vegetable tonics; the mineral, readily suggest themselves as tryable in this form of disordered eye.

Of external methods, next to warm, flannelly clothing, ranks the warm bath systematically, continually, knowingly used. I say knowingly; because in general,

even in families where common sense might be expected to hold sway, such a bungling mess is made of the warm bath, that it does more harm than service. Either the patient is chilled by half-warmed water and slow dressing in a cold room; or, he is boiled into a fever, kept up through the whole night by a heap of blankets sufficient to cover a regiment.

By the enduring, steady use of the warm bath, the skin is brought into healthy action; and the eyes appear to sympathize exceedingly with that important surface.

THE LOCAL TREATMENT

of conjunctivitis, whether this be acute or chronic, simple or strumous, has been narrated in so many works, that it would be puerile to sing again the same ditty. Every body at all conversant with ocular maladies knows now-a-days, that no one article can claim an universal fame. I have mentioned the simple catarrhal ophthalmy, wherein I think the best balneum for the membrane is the atmosphere, if mild;—made mild in the room, if ungenial abroad. What relief is frequently expressed by patients, when disencumbered of their bandages, rags, and collyria! Yet it is impossible to lay down a rule of universal authority. The patient's feelings are the best criterion; who, if he expresses the wish, may have his lotion cold or tepid; or no lotion at all. I think that this licence will apply to the acute form of the ophthalmia; but if it be very desirable to abstract heat, then the Goulard water or simple water may be applied on a saturated rag.

The tepid collyria should be covered with a bit of oiled silk, extending beyond the wetted rag, so as to prevent evaporation; so as to produce, in fact, a local vapor bath. For this form of lotion humanity owes much to Macartney.

Infusion of tobacco is a good sedative remedy, if made weak; otherwise it acts pungently on the skin of the lids.

Infusions of other narcotics may be tried, for the sake of that variety, which is so charming—and a lotion, of which I have made much use, is recommended by its compound action; I mean a little extract of the Belladonna, say ʒss; dissolved in water, say ℔ss. Here we have what we want of humid combined with sedation and the peculiar action of Belladonna on the iris. Why act on the iris in superficial inflammation? Because no harm can arise; and because, if there be iritis, concealed by the conjunctival cloudiness over the cornea, we are doing good; obviating closure. Yet the patient must be well shaded or the dilated pupils will increase the intolerance.

These and similar applications are all adapted to the decidedly acuter forms of disease; not injurious, perhaps, to the major portion of the chronic.

The dissimilar applications are the stimulant; varying in nature; various in strength. Animal, vegetable, mineral; gentle, stronger, even caustic. No rule can be impressed on the student of ophthalmic disorders, whereby he may fearlessly drop his sedative materia, and, recognizing peremptorily the chronic symptoms, recur to stimuli.

There seems a neutral and interposed ground of phenomena to be disputed equally by sedatives and stimulants. I have seen the unguentum argenti nitratis of Guthrie applied in states, looking for all the world, acute. Yet it has dissipated the vascularity like magic. Of all the local stimuli I have ever seen, this is the most secure and the most triumphant. I have seen it applied by an intelligent and bold practitioner, with a success which alone would warrant its use, against theory and analogies and the name of caustic.

I have spoken above of conjunctivitis, simple or accompanied by an increase of its natural mucous secretion. But if this secretion become, from intensity or other cause,

PURIFORM,

or purulent, it develops a contagious principle, which may excite similar discharges from the lids and conjunctives of other persons. This I hold to be axiomatic; and that the contagious principle may be, or may not be, gonorrhæal. I hold it that the gonorrhæal or suspected gonorrhæal ophthalmy is indeed more common than equally purulent ophthalmy from simple contagion; I speak of vehement purulence, in the adult eye. This, from simple causes, as far as I can judge, is rare in comparison; whilst less intensities than this, back through every gradation to mere mucous secretion, are common enough. But where commences the development of the contagious principle? Very low in the scale. I have seen whole families infected from mild puriform discharge in a solitary

patient. As a rule of precaution, therefore, I think it well to consider all discharges, save the colourless, as prone to contaminate other eyes. The term "Egyptian ophthalmia" is sonorous and can do no harm; but it is after all questionable, whether that was a peculiar disorder, not the purulent ophthalmy of all countries. Again, the vehemence of its march in Europe, and its obstinate tenacity of certain regiments, and its sudden reappearings, have been asserted to be the result of wilful inoculation in some cases. This is a painful and degrading idea; but it is no charge of mine. But be the Egyptian ophthalmia what it may, common, or gonorrhæal, or indigenous; I may venture to say that, in practice, the question concerning all yellow discharges from the conjunctiva is only as to degree. Great discharge implies great action, only to be treated with proportional energy. I have seen, where there could be no suspicion, not the faintest, of gonorrhæa, as terrible a purulent discharge as the blenorrhæa from direct urethral inoculation. I believe that it is desirable to reject every superfluous idea in pathology as well as other departments of human occupation. That the specific gonorrhæal somewhat is a superfluous postulate; and that we shall go to work therapeutically more accinctos operibus, if we discard it.

Then in the treatment of this awful purulent ophthalmy, what can be suggested more than from Vetch downwards has been prescribed?

Vetch's was a military discipline; and certainly I have never had the hardihood to treat the civilian so uncivilly. I do not, however, take credit for this. Indeed I know scarcely why, when I read and admire

the practice of that scientific physician, I dare not imitate. My only excuse would be drawn from the difference in the character, physical, moral, social, of the patients. The hardy frame, the uncowable soul of the warrior allow more hœmorrhage than the ordinary person; and the official authoritative soldier surgeon may perform, what the civil patient would never undergo. Civilians are always in peril of a charge of malpraxis or manslaughter.

I have nothing to boast of superiority in my treatment of purulent ophthalmy: nothing, at all events, original. But I owe it to Dr. Crampton, who, I believe, first suggested blistering over the closed lids, to proclaim the admirable success of this bold practice, when every other means had failed to arrest suppurative destruction. More than once, when vigorous depletion with the lancet, purgation, mercury, distant blisters had failed, I have saved an eye by the blisters over the lids, including some of the frontal, temporal and malar spaces.

I speak now of purulent ophthalmy both in the adult and the infant, whether it be simple or specific.

Whether this superpalpebral vesication would benefit in an earlier stage than I have applied it, I cannot say. I have only used it as a last resource. But seeing how frightful the devastation produced by fierce purulent ophthalmy is, in the best hands; seeing the confessions of even such a master as Lawrence, it may be justifiable to fly at once to supràpalpebral blisters, without the preliminaries, tried and often found vain, of many bleedings and successive purges. So with the strong solutions of lunar caustic. It is a rule of the schools to introduce them in the supposed

secondary and waning stage of this ophthalmy. But, alas! there is no reason to boast about them; and it might be proper to excite their artificial action, to supersede the morbid, at once, in the adult.

For in the infant, neonato, this is done. Whenever a purulent eye is brought to the Infirmary, at once the solutio lunaris, from two grains in an ounce of water, upwards to ten grains, is injected. And seldom, if ever, is an eye, unless the cornea is already ruptured, lost after the first presentation.

Then, if we take the treatment of the infant as a guide for that of an adult, certainly blisters should be tried somewhere about the head or nape. For however anile the idea may seem, as soon as a blister placed over the greater fontanelle of the infant begins to discharge, the eyelids proportionally cease their secretion of pus.

"Clear your head of that nonsense," said Fox to Napoleon, who was charging Pitt as an abettor of assassination.

Of what nonsense must the student of physic clear his head? How is common sense violated in physic, as well as in law, politics and divinity! Yet no men are so self-complacent as the medical. Think of the exhortation to bring on urethral discharge to supersede the conjunctival! "Both the theory and practice are absurd."

"There is no metastasis in gonorrhæal ophthalmia."—*Morgan.*

Yet there is, in the sense of the word, as commonly applied, a peculiar metastasis from the urethra to the eyes. There is a species of vagabond action in

rheumatic patients, which migrates from the urethra, where it creates gonorrhæa-like discharge, to the eyes, where it produces sclerotitis and iritis; and thence to the great joints, where it affects the synovial membranes.

But the ocular discharge in the gonorrhæal patient is, I suppose, always from contact of purulent matter. Amongst the nasty habits of mankind,—or rather of the nasty portion of mankind,—filthiness I think would justify a division into distinct Linnæan species —one disgusting practice is to wash an inflamed eye with urine. I have known the most fatal purulence produced from this, performed by a patient with urethral discharge. Does he not almost merit his fate for his dirtiness?

Whether or not, in the commencement of the adult's purulent ophthalmy the lunar solutions, or Guthrie's ointment, may be tried; in the second state they must be applied with fearless precision.

How can precision be best obtained for the great concave surfaces of an adult's lids? I suppose by the syringe. In the infantile purulence I have preferred the sweeping out the pus with a large, firmish, camel-hair pencil, saturated with the lunar solution. If the syringe be used, let it be filled with this solution, which congulates the discharge. The pencil can be managed with more effect and adaptation than the syringe. Besides the syringed fluid runs over the child's cheek and clothes; or, it rebounds against the operator, perhaps into his eyes. Purulent ophthalmia has been thus propagated; and I never used the syringe without dread.

Besides, in some cases, where the lids cannot be separated and permit inspection of the globe, there may be ulceration or slough; and we may inject, it is possible, into the chambers.

It is better never to insist on inspection, if the lids are much swelled and reluctant to open. The infantile structures are too delicate to be manipulated roughly; and I have known, more than once, the crystalline lens come forth with a readiness, as afflicting, as it would be grateful to a man intentionally extracting. "I have known"—confession is good for the soul—it happened to myself in the early years of my ophthalmic practice. In the first case I referred the untoward event to maladroit pressure, and that, cautious, I might venture in similar cases. But again, although I was eminently careful, the escape of the lens occurred; and I was convinced that force must never be applied to lids very swoln, where the disorder has had time to attenuate the cornea, and the child is refractory.

And this rule of ne quid nimium must be observed as to frequency of cleansings. Neglect, and redundance of pus, and distention of lid, and pressure on cornea, are bad enough. But over frequent handling the tender textures of an infant's lids may keep up inflammation, may augment the mischief; and I have seen this done.

Let me here make a consolatory remark on the obscurities of cornea produced in infants by purulent inflammation. They clear away at times miraculously. If the lens has not escaped, and the plumpness of globe remains; if the adhesion of iris is partial,

the previous prolapsus small, then there is no saying what clearness may not in time accrue to the opacified cornea.

A child, near six years old, is brought by her mother, quarterly, to the Norwich Infirmary. She is presented for the edification of the pupils. This child was, when first under our observation, the victim of an ophthalmy so intense that her corneæ were universally opaque. The corneæ seemed as white as a sclerotic coat; and I pronounced the prognosis of incurable blindness. Yet the corneæ have become annually clearer; the black speck of procident iris in each eye alone indicating previous malady; and the pupils have moved into their proper centres.

How admirably! how unbelievably by those who have not seen it, does the vis medicatrix carry the pupil opposite to a clear portion of cornea! How she,—let me personify this glorious power,—always aims at this process! How she succeeds with an iris entangled in the cornea; how she never fails, if all is loose, before and behind! What is this mysterious power? There is great room for a work of natural theology, founded on this divine agency; and a skilful author might so handle his subject, that it should not disgust the general reader; but delight and improve him.

If the conjunctive become inflamed during the

VARIOLOUS

eruption, the danger, of course, will be proportioned to the severity—I know not that it is proportionate to the size or number of ophthalmic pustules. I have

never seen a variolous pustule on the conjunctival surface.

I commend to my readers the perusal of a paper in a May number of the Medical Gazette, for this very year, where Mr. Marson, a surgeon of much experience in small pox, intelligent, observing, logical, denies the liability of the cornea and conjunctive to the eruption.

Guersent says, "the variolous affection of the eye is an inflammation without pustule on the cornea."

Yet our modern, as well as elder, opthalmologists never doubted this seat of small pox. Maître-Jan says, in his chapter on Pustules of the conjunctive and the cornea, that "elles sont encore produites par l'humeur qui cause la rougeole et la petite verole."

Rowley speaks of a conjunctivæ pustula acrimoniosa, which is excited by venereal, morbillous, or variolous acrimony.

In the *Ophthalmologia Pathologica*, published at Leipsic, in 1800, the author says, "aut enim in ebullitionis exanthematica periodo unica generatur in conjunctiva penes corneam pustula variolosa; aut terminatis jam longius variolis, arefactis, decisis, in limbo palpebrali consecutiva manifestatur inflammatio, quam metastaticam dixere."

Lawrence mentions "acute external inflammation of the eye, with variolous pustules on the cornea.' But he had not, I suppose, seen them; since he declares: "I have had no opportunities of treating such cases in their active stage." Who would distrust the minute, philosophical observations of this distinguished surgeon, made in person? Who would not

regret, with Mr. Marson, "that our writers on ophthalmic surgery—men of great ability, experience, and observation—should have followed so exactly in the steps of each other, in giving an entirely wrong description of this affection,"—wrong according to Mr. Marson's views? Mackenzie, high authority, talks of the corneal pustule, without reserve; has he seen one? or does the lamentation extend to him and to Mr. Middlemore, who says, that "sometimes the progress of a pustule may be watched throughout its entire course?"

The variolous ophthalmiæ, which have been presented to me at the Infirmary, have been all secondary; and all tending to confirm the views of Mr. Marson, that in the secondary stage itself, not specific pustule, but interstitial abscess has done the mischief. It would indeed be marvellous if, days after the variolous exanthema had waned or departed, a fresh, a local, an ocular pock should be formed! Assume the abscess, secondary and interstitial, and the observations of Lawrence, and the other writers, will be found reconcileable.

Detergent stimuli have mainly been used, and alone required, where the globes have been entire. And the cachectic frames of the poor children have demanded tonics, as bark with rhubarb. Here, also, I have found the Terebinthina useful in removing subacute inflammation, healing the irregular corneal ulcer, and dissipating the intolerance of light, which in some children is most grievous.

It is surprising how much better children bear the turpentine than adults,—how much less they loathe

it,—and how little comparatively it affects their system. Some it partially intoxicates. But this is more common in adults. The turpentine for Iritis was proposed by a philosopher; and for other ocular maladies it has been tried and not found wanting.

But the searching virtues of turpentine have been appreciated in all ages, by all medical materialists, from Dioscorides to Dr. Quincy.

Προάγει πασῶν τῶν Ρητινῶν ἡ Τερμινθίνη—

says the Cilician botanist; and more than a century ago, the English physician lauded the Cyprus Turpentine as pre-eminently astringent in gleets.

Why, since the mucous membrane, which furnishes gleet, obeys the impression of turpentine, should not the conjunctive also be stimulated by this penetrating drug? Some will say the gleet is cured by actual contact of the Terebinthina secerned from the blood by the kidnies, and transmitted per urethram. I think this idea untenable. Because the drug must have circulated before it was secerned: and is more likely to have reached the capillaries from within and changed their action, than diluted with urine and projected rapidly per urethram, to have reached them from their orifices, protected as these are, and sheathed in puriform matters. Mr. Briggs has applied it intra palpebras; but so convinced am I of its great power, that, when opportunity offers, I purpose to give it internally for purulent ophthalmy, in doses as great as the patient can possibly retain. The drawback on its merits is the strangury it is prone to induce. But this strangury is easily relieved by camphor, opium

or mucilages, and I must say that in many cases where this affection has been excited, I have seen most benefit result. I am quite aware how apt the medical practitioner is to call mere sequences by the name of effects; and I should, were I quoting solitary and obscure practice, deem it needful to furnish the details of the cases. But I am enabled to appeal to the successive students at the Norfolk Ophthalmic Infirmary, both in confirmation of my statements as to the Terebinthina; and to most others which I have to make on ophthalmic disorders. The narratives are recorded in the case books; and the inferences I have drawn, have been drawn by all.

A conjunctive membrane, attacked by *Erysipelas*, I do not remember to have seen. Nor can I tell how, unless the palpebral integuments are erysipelatous, one could swear to such a diagnosis. I have often witnessed—who has not?—a pallid inflammation, with a bastard sort of chemosis, and a subconjunctival serous effusion, in weak, senile persons, especially women. It has always yielded readily to a purge or two; and perhaps a blister to the nape has been also ordered.

The *Chemosis*, in acute and agonizing ophthalmiæ, is a very formidable symptom, and an index of their severity. But it assumes almost the form of œdema, in the more protracted and milder cases. It is a sign of enfeebled rather than energetic action. It does not require chirurgical treatment, by puncture or excision. Take such a *case* as this following from the books—

Elizabeth Bloom is admitted, May 30, for "Passive

Serous Chemosis." Zinc wash is prescribed. Internally, the Pilula Ferri cum Aloë. On the third of June, "she is much better;" and the next report is, "cured."

Case.—Wm. Carver, aged 32, of lax fibre, has right conjunctivitis with palpebral œdema. He is to take the bark. Two days after, April 12, 1830, there is less vascularity, but considerable serous Chemosis. On the 14th there is considerable purulent discharge from both eyes, but not much pain. The bark is dropped, and venesectio with blistering speedily completes his cure. Here was a chemosis so doubtful, that it required the experience of remedies to prove that it was more active than passive.

To instruments recourse is had too often and without need. Nay! I cannot even in acuter cases recall a single instance, where abscission of a bit of the chemotic membrane did any service; but many, where it seemed irritating and pernicious. The chemosis is an effect: and is curable through the inflammation by which it was engendered. But never, even when it rolls out through the dissevered palpebræ, does it act, in my opinion, as a foreign body. Its surface is too lubricous to exasperate the lids or their edges; and its overlapping of cornea tends rather to soothe, by veiling the retina from light. It gives an exit, also, to tears and mucus, against the retention of which oculists have protested so much. Why they have peculiarly dreaded the secretions, I cannot tell; I cannot understand that the pus poured over the cornea can corrode or even irritate,—it is bland. Perhaps it does no further harm than preventing the contact of local remedies with the seat of morbid

action. Yet in the letter of an intelligent oculist, now before me, I read this paragraph:—"Does extreme chemosis act harmfully in retaining, as in a cup, the morbid secretion of the conjunctiva upon the cornea? It may be unphilosophical to impute acrimony, yet it has seemed to me very important to prevent the accumulation in ophthalmia neonatorum." —Firth.

Notwithstanding; although Chemosis be at first an effect, it becomes, or may become, in time a cause of farther evil. It may mortify the cornea. It may prohibit access to the cornea of a needful proportion of nutrient fluid. In such imminence of danger, Mr. Tyrrell, in the *Medico-Chirurgical Transactions*, enforces the utility of radiating incisions into the chemotic membrane. Of these I cannot speak from individual experience; of the circular section I can and have. The reader will find Mr. Tyrrell's paper in the 21st volume of those Transactions: last not least. I will not copy his instructions, but press the perusal of his essay. It gave rise to an erudite article in the *Medical Gazette*, written by Mr. Wharton Jones, who disputes the anatomy and rationale of the Tyrrellian process. He denies that the cornea is nourished through its investing membranes, the conjunctiva, mainly; and the aqueous capsule, less—and of course he deprecates a plan which assumes that the conjunctiva is the origin directly or indirectly of the sloughing.

Mr. Tyrrell replies to his opponent in the same Gazette, but fails to put him hors de combat. He discharges a second missile against Mr. Tyrrell:—

and the spectators must judge who is victor. For in the literary, as well as in the martial arena, the performers cannot always tell who is master. I heard a field officer, whose regiment contributed to the victory of Talavera, say that a friend came up to him on the evening of that decisive day, to ask which had won? "I cannot tell." If some cannot testify when they are conquerors, others, perhaps, cannot know if they are thrashed.

The arguments drawn from the morbid performances are very plausible; and it is impossible to see a corneal ulcer filling up by the pencil of conjunctival vessels, without concluding that the adnata is considerably, at all events, the nutrix corneæ. Then, again, the cases recorded are matters of fact, sufficient to recommend a trial of the radiating cuts. Sufficient to propose a division of "the chemosed conjunctiva freely, from the margin of the cornea towards the orbit, once or twice in each space between the attachments of the Recti muscles; making in all six or seven incisions, effected by the knife used in extraction; the point inserted just over the junction of cornea and sclerotic, and passed outwards; the back of the knife being kept close to the sclerotic; each incision radiating from the cornea."

When a soberminded English gentleman declares —"I have had numerous opportunities of testing the advantage of dividing the chemosis in a similar manner, and found it successful beyond expectation; it prevents the necessity of severe general depletion,"— I prefer to act or to suffer under his directions, rather than submit to the moyen heroïque of *Mr. Sanson* of

France. "What do you think of excising the whole of the ocular chemosis, and everting the lids and destroying the whole palpebral conjunctiva with lunar caustic? And if the lids be too much swollen to admit of exposing the eye—dividing the palpebral fissure, until you can—like splitting up a phymosis? He thinks the pus dissolves the cornea."

CHAPTER II.

TUNICA SCLEROTICA.

Inflammation of the tunica albuginea presents itself next, in order of layers or coats, for our consideration. As the superficial conjunctiva, being a mucous tunic, suffers under the disorders of mucous membranes; so the albuginea, being fibrous, shares in the maladies of the fibrous structures. Hence rheumatism affects this coat in preference. I say in preference; for, really, I seldom see the conjunctiva *entirely* and alone injected; nor the sclerotic without a conjunctival blush.

Is it wonderful that isolated textures should not be inflamed solitarily, when one considers that the arteries, which supply them, supply others? Let the reader consult Mr. John Dalrymple's work on the anatomy of the eye; and trace the "branches of the ophthalmic artery," in the first, second, and third divisions of its course. And then, instead of surprize that inflammation should not run in textural layers, he will be more apt to wonder that every case of ophthalmia is not one of ophthalmitis universalis. Of Mr. Dalrymple's work it is hard to speak too eulogistically. He, who expects therein only the dry anatomy, will be pleasantly deceived. He will find a perusal to be

Πόνον ἡδὺν κάματον τ' εὐκάματον.

There is an under impress of enlightened pathology, which alone would repay the reader, if nerves and arteries were pretermitted, It resembles the Palimpsests. Maius sponged away a sober, matter-of-fact father; and found beneath the charming philosophy of Cicero.

Is there about

RHEUMATIC SCLEROTITIS

any peculiarity, which, general rheumatism absent and the crasis of the patient unknown, distinguishes it from simple?

The Germans have divided symptoms into two kinds; subjective, of which the patient is conscious: and objective, which the practitioner perceives. Is there aught of objective symptom which can decide our diagnosis? I cannot say positively. Mackenzie gives but one species to the genus sclerotitis, the rheumatic—"Rheumatic ophthalmia"—as if there were no simple inflammation of the albuginea. That the fasciculi of vessels advance sometimes a little over the cornea; of a bright red color; larger and more turgid than in iritis; the conjunctivitis slight, never such as to mask the radiated inflammation.

There is, in general, no tendency to chemosis.

But there is haziness of the cornea and pupil, slight contraction of the latter and sluggishness of iris. The pupil is seen at once to be less than that of the sound eye. The iris becomes slightly discolored; greenish, if naturally blue; and the iritis may go on to effusion within the pupil. However, severe iritis rarely attends.—MACKENZIE.

According to a most accurate natural philosopher, the redness of the inflamed sclerotic is a rose or pink tint, being seen through the conjunctiva, and such is the color of the red zone, which surrounds the cornea in the early period. The redness is uniformly diffused, as if the sclerotica had been tinged by coloring substance. When inflammation is considerable, a dense arrangement of vessels may be seen, occupying the whole sclerotic; a vascular plexus, of which we see nothing in the natural state. In inflammation of the conjunctiva, the vessels, of a bright scarlet, lie naked on the surface. When inflammation, not violent, is seated in the conjunctiva *and* sclerotica, we observe the difference in situation and tint, between the two orders of vessels, and in their course. The sclerotical run in straight lines, the conjunctival are irregular and tortuous.—LAWRENCE.

Wherefore the subjective symptoms, known only to the patient, must, I think, be the true criteria of rheumatic sclerotitis.

It varies in intensity. We are too apt to talk of acute and chronic, whilst there is every gradation from agony to most tolerable pain. The mischief, to be dreaded here, is the extension of disorder to the subjacent or anterior textures. To the choroid and retina—or the iris or the cornea. It is stated by authors that, in rheumatic sclerotitis intolerance of light is not a prominent symptom. It certainly does not equal the intolerance of a scrofulous ophthalmia; but in some cases it is a marked symptom, a very marked. Sir Walter Raleigh might well complain of the difficulty of getting at exact facts.

The discrepance of professed ophthalmologists, in their description of appearances and subjective symptoms, in the same disorders, is striking. It is not worth while to quote these disagreements; they prove the great, the infinite variety of symptoms. But Mr. Cooper, in his compendious article on ophthalmia, has brought together those discrepancies by quoting almost every readable author.

If there were not intolerance of light, why should the pupil *contract*, and this previously to any iritis?

But the pain of the sclerotitis, simple or rheumatic, is very marked, and, when in excess, perhaps affords a diagnosis. Think of the pains in general rheumatism. They are chiefly excited during motion or attempts at motion. So I take it that the predominant pain in this ophthalmia is produced by the restless rolling of the organ of vision, even thus indicating a rheumatic character. Why should the pupil be diminished, *before* iritis occurs, but to prevent that muscular movement, which light, impinging on the retina, indirectly produces in the iris and in the motor muscles of the globe? All this motion, if rheumatism *be* the disorder, is effected with pain! And to prevent this mischief the iris is contracted, apparently by the ever watchful vis medicatrix. Yet if the iris possesses an irritability to light, independent of the retina, the contraction of the pupil may, as an intelligent friend remarks, result from extension of the exalted sensibility of the sclerotic to the iris.

We talk of painful impressions on the retina, as if the retina were a nerve of ordinary sensation. All, I take it, that the optical expansion shares in the pro-

duction of pain, is that a lively light induces certain motions of the iris and motor muscles; and increased vascular action in parts already irritated or inflamed. The pain, I presume, is felt through the ramuscules of the ophthalmic branch of the fifth nerve; whence the sensibility of the interior of the eye is derived.

"From the numerous intercommunications of the ciliary nerves with the third and fifth and occasionally with the sixth nerve, both the voluntary muscular actions of the iris, and *the sensation of its general texture*, are derived."—DALRYMPLE.

The augmentation of pain at night is a symptom of the rheumatic sclerotitis. Not, however, diagnostic; since the syphilitic internal ophthalmy is very distinguished for this. It is usual to say the venereal iritis is attended by pain, as if the pain were in the iris. I believe in both cases the pain occupies the same structures; the sclerotic coat and the tendinous expansions in and around the orbit, which are supplied with ramuscules of the fifth nerve. I have no reason to think that acute pain ever is felt in the iris in situ. Uninflamed it is eminently insensitive. The operations for artificial pupil satisfactorily demonstrate this fact. Inflamed it may be, days, weeks, in certain insidious instances; and yet the patient has to learn the term inflammation, when his physician first announces that he is undergoing the process.

In enduring, exhausting cases of sclerotitis, whether the iris be implicated or not, but more especially if it be; I have found the most powerful aid from the antimonial eruption brought out on the parietal surface of the head, on the side of the inflamed eye.

The head must be well shaved; and, if an antimonial plaster be used, it should not be brought too near the lids, which are apt to become swoln and œdematous.

Much good cannot be effected here through local remedies to the eye itself. The belladonna wash, tepid, I constantly apply for the sake of the iris. But the cure of this deeper inflammation must be essayed through the constitution. With calomel and opium, or turpentine. Bloodletting here is a disputed affair—Mackenzie deeming it indispensable, at all events most proper—Wardrop dissuading from it in some cases, recommending never. He thinks "the little relief afforded in this disease by bleeding, is one of its diagnostic characters."

I know not if most votes are to carry the day, but, not originally hostile to bloodletting and employing it in the Norwich Infirmary, like most ophthalmic surgeons, I have on the whole abated in confidence of its propriety; of its necessity, doubtless. For such a case as the next, for instance, venesection is not required. Henry Wells, aged 29, applies at the infirmary for a *rheumatic inflammation of the sclerotica*, with muddy cornea, which had existed a fortnight. He is to take a calomel and opium pill thrice daily; and to have the antimonial cerate on his scalp—using whitewash. He is reported "convalescent" at the next entry, a very few days afterwards.

What I have said on general bloodletting, I repeat on local, as cupping. The entries in the books, of ten years past, demonstrate the great infrequency of this treatment in sclerotic affections. I have learnt

that it is not to be deemed the rule, but the exception. Cupping is no trifle to bear. Would any man like, if he can avoid it, to have the process performed on his own temple? And yet the universality almost, with which it was once practised at the great London Infirmary, the provincial institutions imitating, would induce a belief of its indispensability.

Case.—George Kidd, aged 20, was made a patient of the Norwich Eye Infirmary for *Chronic sclerotitis.* For years he had been the subject of inflammatory disorders of the eye. A seton was placed on the nucha; he was put on a course of the iodine; he improved directly; and was discharged cured on the 14th of February. The only approach to severity of treatment here, was the application of the seton; which in numerous similar cases I have found very potent, without the bloodlettings and scarifications so universally *prescribed* in books.

Case.—1828, December 20. Benjamin Parker, aged 7 years, presented himself with *subacute sclerotitis* at the infirmary. It was of two weeks' duration. He was treated with a teaspoonful of bark and rhubarb thrice daily; with the whitewash locally; and the next entry is "cured."

Case.—Jonathan Harrison, *not* 2 years old, was admitted September 19 for *sclerotitis,* with subacute iritis; irregular pupil. The warm bath, a blister, a grain of calomel twice daily, were prescribed. On the fifth day this was reduced one grain; on the 27th of the month the right eye was pronounced cured; on the 10th of October, the child was discharged in good health.

The calomel and opium have maintained their reputation undiminished. With these alone I believe the vast majority of sclerotic inflammations would be removed. With the practice, so much praised by Mackenzie and others, of applying opiates locally, I am not personally conversant. Against the plan, recommended by the Germans, of using opium moistened with *spittle*, I feel an Anglican repugnance.

Have the specific antirheumatics, as colchicum, any influence? In some cases decided, as if magical.

But these variations in the methodus medendi, if the symptoms be mild and slow, the good sense and discrimination of my reader, if I have a reader, will indicate. All I wish to impress as *essential*, is the care to be taken of the softer internal tunics. These are the endangered structures; demanding, if the symptoms be acute and menacing, the rapid introduction of mercury, whatever adjective name you apply to the sclerotitis.

Even the turpentine, much as I value it, I should postpone in vehement peril of iris or of retina. The belladonna locally must never be forgotten. Nor do I depreciate the colchicum, nor its marked effect upon the pulse; an effect, which we should be insane to produce with the lancet. Who has seen venesection tried largely in cases of acute rheumatism, without perceiving that this lingering malady lingered the more?

There is a chronic kind of ophthalmy, which occasionally presents itself in the rheumatic subject; which resembles congestion rather than inflammation. It comes on during that constitutional disorder, call-

ed, I know not how properly, rheumatic gout. There is bloodshot eye, the conjunctive and albuginea being both injected. There is the arthritic blue annulus. The cornea is clear and the iris untouched. But the eye can never be used much; is never quite easy; bears light with repugnance and always looks worse than it really is. The affection yields to nothing, general or local; and seems as intractable as that relentless malady, of which it is a scion, which, having selected its victim, never leaves him; but for months, nay years, goes on grinding, distorting one joint after another; elbow, wrist, fingers; knee, ancle, toes; until the patient seems about to undergo a metamorphosis from symmetry of form to the irregular nodosities of the vegetable world.

. . . . Ubi sint digiti? pes ubi? ramos
In parvos digiti—
Robora sunt humeri; porrectaque brachia veros
Esse putes ramos.

Is this particular ophthalmy stubborn, because, for the miserable victims of rheumatic gout, it is impossible to use active treatment, especially the general depletions? Of this ophthalmy I think Mr. Lawrence narrates two cases. The symptoms were confined to the sclerotica, "the conjunctiva, cornea and iris not being at all involved." I have recently treated the case of a lady, whose ocular symptoms so precisely resemble those, which Mr. Lawrence witnessed, that I prefer to quote his narrative.

A gentleman laboured under severe rheumatic affection of one foot and knee, and one hand; pains

in the back; great constitutional excitement—rheumatic gout. Active antiphlogistic treatment, colchicum and other means removed the affection. After a short interval, he felt the light troublesome, the whole sclerotica had a livid red, and mottled appearance, dull, almost dirty. The sclerotic vessels were partially distended; there was a distinct white rim round the cornea. Vision was perfect; no pain, so long as the eye remained at rest.

The above described condition of the sclerotica lasted three or four months. The affection was confined to its original seat; and at last disappeared, leaving the eyes with powers unimpaired. Cupping, leeches, blistering, were employed, with regulated diet, occasional aperients. Plummer's pill was taken daily about three months. Bark without any advantage. —Lawrence.

The lady, to whose case I have alluded, is never free from the rheumatic gout, which has abolished the use of her legs, and terribly debilitated her arms; so that, as the ophthalmia was synchronous with rheumatic gout, no doubt can reasonably be entertained of the real nature of the disorder; the ophthalmic phenomena were exactly as in Mr. Lawrence's case; and may very etymologically be styled those of

ARTHRO-RHEUMATIC SCLEROTITIS.

Yet in this case the adnata was much congested as well as the sclerotica. Active antiphlogistic treatment was not, from prudence, attempted; colchicum failed; no local application succeeded; and this intractable, obstinate ophthalmy subsided, after three

or four months, without an appreciable cause of cure, without any mischief to vision.

Mr. Lawrence mentions another *case*, which has lasted nearly a year; the disease confined to the sclerotica, with greater redness than in his preceding instance; without change in cornea and vision. The symptoms have nearly disappeared and then come again. Quinine, colchicum, sarsa, have been tried with doubtful benefit. More advantage has resulted from cupping on the temple; tartar-emetic on the nape; Plummer's pill with aperients; country air, with free exposure to it in exercise.

It is very pleasing to contemplate the stationary character of this ophthalmy—and to console the patient with an assurance that the deeper structures are secure—that blindness is not to be added to lameness.

I will not terminate my remarks on sclerotitis, without adverting to the wonderful recoveries, from even the worst degree, occasionally witnessed. A scrofulous, dirty, blackguard boy was for months an in-door and out-door patient of our infirmary, for a most pertinacious affection of the hard tunics. The corneæ became universally and fearfully clouded, and the globes conoidal. The hydrargyrus pushed up to the poisonous, erethismic degree did scarcely any service. Then I tried the terebinthina, which for a time did good and then became inert. But with repeated alternations of mercury and turpentine, this lad regained his sight, although all who saw him prophesied the impossibility. The corneæ got rid of their general cloudiness and the particular deposits, which seem-

ed to exist in their substance and in their lining membrane. The red zones and universal vascularity cleared away from the whites of each organ: and the patient recovered a vision perfectly adapted to his profession, which was that of a pickpocket.

The forms of the eyes remained conoidal; and this effect I believe is usual. In these cases we see the cause which produces occasionally the

CONICAL CORNEA.

Yet such a cornea, thus conified, is not so acutely pointed as when the alteration is produced without inflammatory action through some unknown agency. This conicity of a transparent cornea, with the other humours equally pellucid, and the membranes all sound, is not, I believe, a configuration known to the ancients. Yet it is the cause of the completest myopia; and it is very striking to the eye of the beholder. That is, it is usually observed and instantly, through the peculiar and intense reflection of spectral rays from some portion of the cone. This gives a brilliant and interesting look, especially if the wearer be a handsome woman; so interesting that, had Homer been aware of the peculiarity, we should, doubtless, have heard of the κῶνωπις beauty. The medical lover, at all events, should cease to consider as preeminent the "gallipot nose and *saucer* eyes."

If the vivid reflection of rays be not apparent, the surgeon may not detect the cause of the dimness of vision. I have known one of our great practitioners prescribe at random for a lady; who was obliged, as

she was leaving the presence, to inform him that her disorder was conical cornea.

It is the most difficult thing in the world to procure a glass that will aid this singular conformation; if you range in your trials from Dolland to Dixie.

In as bad a case, as I ever saw, I have known most benefit received through an instrument made by a Mr. Abraham, an optician, in Bartlett street, Bath. It is formed of two lenses, with an adjustment. The farthest and large lens is convex. The lens near the eye is smaller and doubly concave.

Nothing can be done to stop that conific process, which goes on insidiously, without inflammation: yet many a patient has been inveigled along in fallacious hope by the crafty practitioner; who, if he fails to repress the conicity of his patient, squares his own accounts by their flat credulity and their round sovereigns—quadrata rotundis.

In these days of lectures and professorships, whether it would not answer to set up a course of instructions to the medical student, on the practice of professional morality? Certainly the plan for which so many medical wiseacres are contending, of one faculty, will not purify our profession. As it is, there is a system of checks, the physician on the surgeon, the surgeon on the apothecary. But if every man is to be every thing—

Obstetrix, medicus, chirurgus, pharmacopola—

we shall approach blessedly near to a standard of moral mediocrity; as of professional equality. All working away in one murky low atmosphere.

As it is, the pure physician, the pure surgeon form a class of individuals, whose very mode of remuneration forms a guarantee against little piddling practice. The shilling driblets of the apothecary must naturally tend *μινύθειν* the man; I only say tend. In this department also of our profession the trickery of trade is most easily conducted. Colored water may form a cheap form of medicine; and into the sanctum of the shop no critical questioner is able to intrude. But it never will be! Messrs. Warburton and Wakley, and all the reforming prigs from St. Neot's to Newcastle, will fail to fuse the profession until they have succeeded in levelling the empire. To me this attempt to improve us appears only as a specimen of the democratic mania of the day. Almost all its patrons are political pseudo-liberals. The soberminded, the learned, the dignified members of the profession, almost to a man, are hostile to this reckless aim at alteration.

The attempt to disuse the Latin language in prescriptions, publications and pharmacopœiæ, is only a mode of assault on the *το αρίστον*. Should it succeed, the results will be, what its advocates desire, the introduction of practitioners who have not received a classic education. Follows the abolition of those generous sentiments, which, hitherto, whilst we have been a comparatively learned, have made us on the whole a respectable body. The ancient literature, the Greek and Latin, has ever ennobled the mind; and if we surrender this, we shall step down from our present elevation as a class of society. Manes of

Buchanan! The college of Scotch physicians have published their pharmacopœia in English!

The subdivision of labor can alone produce perfection in our art. Then let this great principle never be violated but through necessity. In the provinces there must be general practitioners—let them consist of the present class of men. An attempt is occasionally made to perform general practice by the professor of the physician's degree; midwifery, or surgery, or both; even pharmacy. This should be most strenuously resisted; since it will deprive us of the benefits of the pure physician, whose undistracted energies ought to be employed in medicine. Something might be said about the manifest unfairness of the physician bringing the title of doctor, the "handle to his name," to bear against rival practitioners.

This, however, is a secondary consideration. If the spirit of the tradesman animate the innovator, let not the objections be founded on this, so much as on the division of labor. The surgeon, not the physician, should be the general practitioner. Certainly, where the surgeon can act the "pure," so much the better for art. This he may do in the great towns; but in the lesser, and in villages, the practice must be general; and the surgeon, as hitherto, is the adapted person.

It is vain to think that the apothecaries can become in this empire an isolated class. They are ashamed of their very name. To a man, they call themselves surgeons, even when not members of the Royal College. Since, therefore, the apothecaries will be, really

or nominally, surgeons; and since surgeons must be, in most quarters, apothecaries, let us adhere to the old institutions; stare super vias antiquas; strenuously maintaining the office and character of the ancient physicians of these realms. Men, not abstracted through hurrying calls; and protracted, useless attendances; and anxious operations; from the calm, leisurely investigation of latent causes; from the perusal of books, modern and ancient; from scientific experiments. Men, bearing the same relation to the rest of the profession, as to the general practitioner of law bears the counsellor. Nay! even among counsellors the subdivision of labor finds play enough. Some excelling in one legal study; some another. So with the physicians, as all history and observation demonstrate; our art, as a whole, having been improved by the special lucubrations of individuals, various, opposite; chymical, physiological; metaphysical, mechanic. If we are all merged into one common, general practice, we shall retrograde into ignorance and barbarism. Yet such is the aim and theory and palaver of the day—Venienti occurrite!

The attempts to abolish the class of British apothecaries, practitioners who dispense their own prescriptions, must, in the nature of things, fail. In the hamlets, villages, towns and lesser cities, they must exist. How can these gentlemen confide in the purity and efficacy of the drugs, provided by little, hugger-mugger druggists; men without capital, without profound acquaintance with the medical materia? They cannot: and they will not. Responsible for the

safety of their patients, they ought not to commit it to the chances, offered in the drug shop, of inert or poisonous articles.

In many, in most small towns; in all villages, there is no shop for chymicals; and the apothecary must supply them. Then to these practitioners naturally, as well as historically it has, falls the midwifery, the surgery of their respective districts. Departments of art, including much that is external and mechanical; and therefore more accessible and practicable for men, who have other studies and work beside. Wherever there is an arena for the pure surgeon, it is mighty desirable to place him. Where there is not, the surgery should fall to the dispenser. Otherwise, if the physician claims it, there will be no pure practitioner at all; for, depend on it, the physician will evade the midwifery. I speak of the provinces. The public, in consequence, will be great losers. They will not obtain surgery a bit the superior; and they will lose the advantage of pure, undivided medicine; the most difficult, the most important art; alone conversant with the latent mysteries of deep-seated disorder. The public will terribly suffer, if general practise become universal, and all purity and subdivision be abolished. But if there must and shall be the pure practitioner, it is infinitely better that he should be the physician, who wants all his undivided energies, than the surgeon, who has some to spare. Whether they have so much to spare, as many of these gentlemen in the country expend, is another question. Whether they ought to be farmers, as

many; and horsedealers, as many more, is another matter.

These horsedealing practitioners, if they adorn their own purses, add not much of dignity to their profession. And I am quite certain that it is impossible for a medical man, any more than other persons, to involve himself in this traffic, without danger to that highminded, delicate sense of the honorable, which the disciples of Hippocrates ought to cultivate.

As to the evils of promiscuous practice, be mine true reasoning or not, at all events and at present, we have our different departments, marked out by the most ancient usage.

For myself, I deprecate the alteration; above all things the meddling legislation, which is the order of the day. We, the medical profession, partake of the social character of these realms, which are not yet a republic. Public opinion is the great cement of our complicated relations. Public opinion, in the higher sense of the word, still favors our present medical regulations; still abhors the irregular practitioner in physic, as well as in divinity and law. Legislation, however necessary, up to a certain point, for all three, should never supersede totally the influence of public opinion.

In our own profession, at any rate, I would let the irregular practitioner wander to the end of his tether —I would only serve him, as the members of the bar treat a delinquent from their regulations and order— I would simply "rump" him. No laws can inspire a sense of the τὸ καλὸν—no laws can reform the irregu-

lar practitioner, if money be his object. Fame, even health itself, are nothing compared with gold.

Decernat quæcunque volet de corpore nostro
Isis, et irato feriat mea lumina sistro :
Dummodo vel cœcus teneam, quos abnego, nummos.
Et phthisis, et vomicæ putres, et dimidium crus
Sunt tanti? pauper locupletem optare podagram
Nec dubitet Ladas—
—quid enim velocis gloria plantæ
Præstet ?

CHAPTER III.

IRIS.

INFLAMMATION OF THE IRIS,

IRITIS,

is a disorder, which proves the superiority of modern and minute pathology. Of that theory, which refers inflammation to the capillary, at least the minor, vessels. Iritis is inflammatory, for it is cured by antiphlogistics; and it effuses lymph; yet it may be wanting of those phenomena, which have been deemed characteristic of inflammation. It may destroy vision, without pain or heat, swelling or redness. I speak practically.

Of subjective symptoms there may be none, saving dimness, increasing to a loss of vision. What, then, are the objective? Change of color; extension of surface; narrowing of pupil; closure. The ancients had no idea of this minute pathology; and it seems one of the very few specimens, which the moderns can appropriate. In proportion as we read back from the present era, we shall be disposed to venerate the past, and not overlaud the present.

A living master was wont to boast that he was not a reading man. He observed for himself. So let him! He is an original philosopher, justified, *perhaps*, in starting a new series of observations. But

the mass are not original; manifest no mighty love of science; can never benefit mankind in their rapid transition through this brief, tumultuous life; unless they peruse and act upon the records of the past. What is the use of literature, if every student is to set up for himself as a philosopher?

Nay, how inconsistent is the worthy baronet himself? since his own publications were meant to be records—and since they *will be* records. Long may himself enjoy this vital air! His books will hereafter be classed among the treasured lore of the ancients; much as he may contemn, himself, the ancient lore.

Certainly a great object obtained by reading, is the avoidance of literary repetition. Perhaps the escape from ridicule. How ludicrous the situation of an author claiming for himself the merits of original discovery or opinion, when the world has known all of it before! Yet who can hope to avoid the charge of superfluous repetition after, for example, the precise narrations of ophthalmic disorder, by such an author as Mackenzie?

SIMPLE IRITIS,

marked and describable enough, when visible, sometimes eludes us, through opacity of the anterior tunics or humor. Otherwise, the altered coloration, from blue to green; from brown to red, is known to the freshest student. What is the philosophy of this change of colors? The blue of an iris, commixed with the yellow of pus or lymph, is supposed to generate the green iritis. The brown of an iris becomes intenser, becomes red through the afflux of blood.

Iritis is essentially formidable, although generally we make "no due allowance for the tendency which all parts have to resume a healthy action, if left in quiet." —HOLLAND.

The part seized with iritis, I believe, we should never leave in quiet; but detect and attack the inflammation as soon as we can.

RHEUMATIC IRITIS.

If we remember the doctrine of textural pathology, we shall not wonder that iritis is not always simple. The iris is a most active muscle, enveloped in a serous sheath. Hence its frequent implication in rheumatic and siphyloid disorders. Mackenzie believes the iris may be seized with rheumatism, in an individual who has never suffered in any other part. How *such* a rheumatic iris would look, in distinction from one infected with siphylis, or simply inflamed, I cannot pretend to define. The subjective symptoms would determine the doubt. If the patient endured the "circumorbital nocturnal pain, similar to what is met with in rheumatic sclerotitis," then we might securely denominate the affection rheumatic.

A melancholy feature in this disorder is the liability to repetition. "Some people of confirmed rheumatic habits suffer exceedingly from one or more attacks of this disease every year, each succeeding attack leaving the eye in a worse state, till at length vision is destroyed."

In the treatment of this malady, I have not adopted the repeated venesection and liberal sanguisuction ordered by our authority of Glasgow. Perhaps the

feebler frames of the Southrons would not allow the heroic depletions, which benefit the hardier sons and daughters of the north. Here, as in all iritides, the calomel and opium are our great resource. These seldom fail, whatever the influence of other agents. The turpentine is proved to be a most efficacious material. I have not tried for rheumatic iritis a remedy which, in these parts, is gaining confidence as antirheumatic,—the *artichoke*.

Mr. Copeman, an intelligent and zealous practitioner at Coltishall, has lately recalled this vegetable to the attention of the medical world. It has been tried in the Norwich Hospital, I am told, with benefit in general rheumatism; and I have in private practice, and to some extent, used it with much satisfaction.

I shall be pardoned for a short digression on its general merits. In some cases it fails altogether; in some it charms away distressing pains, which have defied numerous other remedies, and rendered life wretched. What those peculiar circumstances are, which give it this apparent character of caprice, I cannot say. The hot and cold forms of rheumatism are equally influenced by it. A dram of a tincture is administered thrice daily, with ten grains of an extractum cynaræ.

I spoke before of an erratic rheumatism, which moved from the urethra to the eye or the joints. In the case of a titled gentleman, the ocular structure seized was the iris. From the urethra flowed most copiously puriform discharge—although there was no possibility of a venereal taint. And repeated attacks

had seriously endangered the vision; when his complaint received a triumphant check from medicated vapour baths. These he procured from an empirical person, whose name I will not mention.

SIPHYLITIC IRITIS,

or iritis arising in a frame tainted with the venereal poison, illustrates admirably the power, perfect and nearly universal, of the hydrargyrus. In some cases there is no difficulty to diagnize the malady. The skin or the throat or the periosteum is cotemporarily diseased; blotchy, or ulcerous, or nocturnally pained. In such cases *generally* we find those symptoms which Beer is said to have considered diagnostic; to wit; displacement of the pupil upward and noseward; "and condylomata sprouting from the iris." But this displacement Mackenzie has seen in chronic rheumatic iritis, and in choroiditis. And certainly all our students must have seen, at the Eye Infirmary, inflammation undoubtedly specific, without the condylomata, without the displacement. This Dr. Mackenzie attributes to choroiditis, with pressure on the ciliary nerves.

The condylomata are brown tubercules on the surface or edge of the iris; they are not the same as the abscesses which form on the same sites and, occasionally bursting, form hypopyon. So it is said. But remembering no instance, wherein the therapeutic plan has failed, and the disorders have pursued their unchecked natural course, I cannot personally testify.

This discoloration in venereal iritis is more vivid than in others. More green, if blue be the natural;

more red, if brown be the ordinary color. In this iritis two characters are discernible. It may be acute, or it may be very insidious; almost latent, as far as the patient is concerned. In the treatment of this iritis I have been guided, as to vigor, by the acuteness of symptoms. The depletions are less demanded here than in other iritides.

The hydrargyrus is the great resource; and in most instances its magical sway is very early and rapidly evinced. The ordinary doses of calomel and opium tell in a day or two; and when once they begin their action, the clearing of the pupil; its dilatation through the belladonna; the restoration of primitive color; the subsidence of tubercles are cheering to the practitioner.

But some cases, on the other hand, are vexatiously intractable. Such is the case of admixture of scrofula with the siphylis.

Case.—From this combination resulted the symptoms in Mr. J— G—, a scrofulous lad, under 20 years. That his iritis was venereal I could not doubt; from the history of the infection, the primary sores, the ill-conducted treatment, and the siphylitic physiognomy of the patient. That indescribable look, which assures us the frame is influenced by a slow poison. This lad was scrofulosorum scrofulosissimus; I knew his crasis well. But as the symptoms were acute and the turpentine had not obtained a wide credence, I trusted to the hydrargyrus; yet the more he took, the less he improved. The calomel and opium, with inunctions, had salivated him terribly; and a pitiable, awful, mercurial erethism was set up. But the iritis

was becoming daily more fearful in the various sequelæ, when I tried the newly lauded remedy,—turpentine. By this the march of the symptoms was arrested; and ultimately a perfect cure, with no apparent sequelæ of the iritis, was obtained. Here was an individual, in whom, I venture to say, blindness was unavoidable, if the terebinthina had not been then discovered, as an antiritic.

Since that case, which occurred in 1829, I have tried the same remedy in other venereal cases. But these have not been aggravated cases. And that in these the iritis was specific was inferred from the history more than from the objective signs. From these cases the result, as far as my personal judgment goes, is that a minority is curable without the hydrargyrus. The major number seems to have demanded mercury. Where there is clearly an universally infected frame; so proved by eruptions, or periosteal symptoms, I should counsel the immediate appeal to the mineral. Where there is simply iritis; and the diagnosis is mainly founded on the history of the case; I should try whether the vegetable remedy would alone overcome the disorder. It seems likely that, although the minute pathology of the eye was unknown to the ancients, the venereal iritis, as one of many sequelæ, may have been removed by its use. The terebinthina was considered an antisiphylitic. "There is such plenty of it in that fir, which comes to us from Norway for building, that we see it frequently ooze out of the boards it is cut into; which makes their chips or shavings deservedly in esteem with some, against old venereal remains."—Quincy.

I am quite sure, from many cases, that an alternation of the turpentine with mercury is useful in some iritides. Symptoms, which rebelled against the turpentine, yielded subsequently, if mercury was, pro tempore, interposed. And, vice versâ, disorders which were proof against the hydrargyrus, have been disposed for its benefaction by the temporary use of the terebinthina. Take such a case as this:—

Case.—Richard Colby, aged 26, presents himself on the 11th of September, 1830. His pupils are fixed and irregular; and the left is nearly closed from iritis. The sclerotic is vascular. A dram of turpentine thrice daily is prescribed. On the 2nd of October, three weeks having elapsed, the terebinthina is found to have done its utmost: and now he is ordered calomel and opium, in Guthrie's form, twice daily. In a week he is discharged "cured." Take another

Case.—William Walker displays intense iritis, September 18, for which the turpentine is ordered. On the 25th, the iritis undiminished, the calomel-opiate pill is given thrice daily; but still, on the 2nd of October, as no great improvement is observed, I recurred to the turpentine, with such benefit, that the next report is "improving."

How curious is the history of the success of individual articles of the materia medica! That, which is lauded to the heavens by one man, being pronounced as inert by another.

I am just told by a gentleman of considerable practice in this county; a judicious observer; that he has never found the terebinthina of service in iritis.

I can easily conceive that a scoundrel, who desires to make a fortune by the credulity of an abused multitude, may start an article as a panacea, when he knows it is not. Extraordinary lying; fraudulent narratives; omnivagous puffs are the means which he adopts.

But that there should be varying, even opposed belief as to the virtues of a particular medicine; when both observers are honest persons, with common sense; faculties of investigation, and even a desire to agree; is marvellous! What is the cause?

The effects of the terebinthina I cannot reduce to any classification. Children certainly bear it best; even occasionally in doses, from which the stomach of the adult revolts. It is an intolerable drug by some fullgrown patients. Even if they retain it on their stomach, without cascading, it plays the very deuce with their nervous feelings. Some it intoxicates; some it horrifies; some it seems pro tempore to poison; others for a time to drive half mad! Then again comes strangury!

I have not found the turpentine in an almond emulsion relished by my patients; they prefer the simple spirit, floating on water or weak hollands and water, or diluted gin. The little of these, taken at each dose, I have not fancied hurtful; if hurtful, counterbalanced by the medicine. The object at which I aim is the ingestion into the capillary system of as much terebinthina as it will receive—the impregnation of the capillaries. And the rapidity, with which this is to be effected, regulates the dose and the repe-

titions. In slow cases, Mr. Carmichael's ordinary dose, ʒj thrice daily, suffices; otherwise ʒj every few hours; or ʒij may be most efficacious.

However, some persons cannot, some will not swallow this purified oil; and I have never tried the bulky formula of turpentine in pills. Some patients, again, young and old, rich and poor, manifest no loathing of this vegetable oil; but swallow it with an apathy, which, if their stomachs were rational, would procure for them high rank among the stoics.

But this drug is beneficial not only in ophthalmic disorders, but quibusdam aliis. Is it outrageous to mention some of them here?

This drug I have found very beneficial in the case of *ascarides*. It should then be used as an enema. There is a formula for an enema in the last edition of the *London Pharmacopœia*.

And in this disorder the utility of the turpentine depends, probably, not on its local action alone. True: it dislodges the worms from the rectum bowel, or it kills them outright. But, besides these modes, it may enter partially by absorption into the frame, and put the abdominal secernents upon the qui vive. This is rendered eminently probable, because mercury and the other medicines, which act on the liver and remaining chylopoietic glands, are admirable anthelmintics.

The lumbago, again, is a disease which acknowledges the influential sway of the turpentine.

A gentleman, who was subject to sharp assaults of this paralysing, rheumatic-like disorder, tried in vain the usual course of proceeding. Purgation, external

calorifics, acupuncture were inefficient. At length he tried an enema terebinthinæ, retained in the bowel to the last possible moment. This acted as a charm; and he rose from his evacuation free, straight; and able

—erectos ad sidera tollere vultus.

In a short time the pain returning was again dispelled by a second glyster; and a third completed the cure. He has since found a solitary enema repel the attack; and has now ceased to fear his rheumatic enemy.

The trials, made with this article in the treatment of *peritonitis*, have long been known and appreciated by the medical public. Although that affection, especially when *puerperal*, continues to terrify and triumph over, too often, the practitioner; yet the cases, recorded of success, are numerous enough to prove that the turpentine is a most potent and penetrant remedy.

Then if we think upon the six-dram doses, which were given to the peritonitic women, in the puerperal fever of Dublin; we shall, with more resolution, with less pity, insist on it that the ophthalmic sufferer swallow the drops or the dram without a murmur.

GOUTY IRITIS

is, in this provincial region, very rare. Whilst, of the ophthalmic textures, the iris is said to be the membrane, which gout eminently selects; some persons, in spite of what has been written from Mackenzie to Morgan, deny the existence of gout in the eye. They term it a fabulous nosology. Incredulous

men, irreverent of authority! how can you discredit the reality of a disorder thus familiarly discussed by the last named writer?

"Generally it appears to arise from metastasis. For we most frequently find that the affection of the iris is most severe during the absence of the disorder in other parts, and very frequently an attack of gout or rheumatism, in the extremities, will immediately suspend inflammatory action in the iris. In some cases, a general developement of rheumatic or gouty affection will accompany the disease."

In this paragraph the same phenomena are attributed equally to gout and rheumatism: a statement alien from the narratives of other authors. If there be any specific gouty iritis; which I do not one moment deny—it is enough distinct from the ordinary rheumatic. Take Mr. Morgan's own picture.

"The appearance of the zone—not a bright pink, nor a cinnamon brown, but a dull, dirty, dusty red. The *form* of the zone is also peculiar; in arthritic iritis a space is left between the cornea and the red zone. This space is of the natural color of the sclerotic, a whitish and extremely narrow ring," often partially observed, especially towards the angles of the eye.

Now I am indisposed to allow that this painting, if it represents the gouty, resembles also the rheumatic iritis. Of the gouty iritis it has been remarked by the Germans, "that the color of the zone is more dull, sometimes even livid, and that the vessels occasionally exhibit a kind of varicous enlargement. After a violent attack, the eye recovers, and vision is com-

pletely restored, the iris being connected to the capsule by white adhesions."—LAWRENCE.

Subjective symptoms. "The pain commences in the orbit and not in the globe; this is not the case in common or syphilitic (iritis;) the motions of the globe are *not* attended with pain; an uneasy sensation is *soon* felt in the globe, but lancinating pain *not*. The pain is referred to surrounding parts, always severe, of a rheumatic kind."—MORGAN.

There is not always intolerance of light, and absence of *darting* pain, on exposure to light, is distinctly asserted by the same author. Now if this be a just delineation of the gouty iritis, I think the reader will agree with me, that it would not exactly apply to the rheumatic affection.

The dusty red color of the zone of vessels, or their lividity; the narrow whitish ring, betwixt the zone and the cornea; the comparatively painless state of the globe; the absence of severe photophobia—supposing this a correct statement—would afford a diagnosis from rheumatism.

Next to the iris, the gout is said to display a partiality towards *the vitreous humor*.

Ophthalmiæ vel ab initio merè arthriticæ duplex exitus deprehenditur, quoad partem oculi plus minusve affectam. Etenim modo *corpus vitreum* modo iris magis effectum morbi persentit. Aut iris vel sola vel cum humore vitreo aut solus humor vitreus sub morbi decursu immutatur.—BENEDICT.

It certainly is of much practical import that we should form a proper diagnosis of the iritis purely gouty. The character of the pain and the biography

of the sufferer may assist us, when the appearances in the eye are conducive to doubt. The accurate details of the book are not always confirmed by the reality. I have known the other symptoms, said to characterize gouty ophthalmia, without the white rim encircling the cornea; and with an eminent injection of the conjunctival tunic. This conjunctivitis might help towards a diagnosis from pure rheumatic iritis, but that even here, in the catarrho-rheumatic form, the adnata is involved. But valeat quantum! for this outer coat is a prominent sufferer in arthritic disorder. Mackenzie says it "is loaded with enlarged vessels;" and Benedict describes its condition thus:

"Doloribus subortis etiam paullo post adparet rubedo ipsius bulbi. Sclerotica leviter tantum tincta est, conjunctiva *multo magis* rubet, ob vasa numerosa non solum sanguine tincta verum etiam varicosa. Sub initio morbi hæcce laxitas vasorum minùs apparet, verum magis magisque augetur."

Laxity is considered by Benedict to form the peculiar character of the ophthalmic fibres and vessels, in the arthritic disorder. Indeed we all agree to contemplate the gout as more or less asthenic. With the rheumatic crasis tone and action seem much more compatible. Gout is the demon of the luxurious; of disordered abdominal viscera; of the predisposed by hereditary taint. Rheumatism assaults the vigorous, the juvenile, the hale.

Yet who shall define where sthenos ends and asthenia commences? Where rheumatism merges into the debility of gout? To institute a treatment founded on nomenclature is an absurd and perilous proceed-

ing. Our diagnosis, when no systematic gout is evident; when we argue from the eye alone; may be dubious. A doubt which would cease if the other parts are attacked. Take a case from Musgrave. "Novi Arthritidis calidæ materiam oculi *tunicam adnatam* invadentem, ophthalmiam inferre; quæ cum, paulo post, articulos inviseret, iisque paroxysmum aptum et laudabilem excitaret; eodemque tempore finem inflammationi poneret; eam omnino *Arthriticam* esse manifestavit."

Here Musgrave makes no mention of any tunic except the conjunctive.

To this author also occurred a case of *gouty blepharophthalmia.*

"Novi arthritida palpebram in vetulo quodam superiorem, mensem et eo amplius, excruciantem; quæ cum omagram habuit adjunctam, et podagram e vestigio sequentem, ingenium et morem suum abundè declaravit."

Beside the above mentioned forms of arthritis, in which existed no profluvia, an

OPHTHALMIA PURIFORMIS ARTHRITICA

is mentióned by the German authors. The description by Dr. Benedict, the Saxon physician, is lively and in detail. He calls it an ophthalmo-blenorrhea; —manifesting a most vehement inflammation of the lids, conjunctiva, cornea; with a marked secretion of purulent mucus; with ulcers perforating the cornea, producing prolapse of the iris, profluvium of the lens; staphylomata, cicatrices, blindness. It always arises from a suppression of gout; verbi gratiâ, gout in the

foot oppressed through the use of the cold bath; or of astringent, saturnine lotions; or from an ulcer of the foot healed too hastily.

A few hours after the suppression of the gout, an itching attacks the edges of the lids, a pallid redness the eye. A swelling at first confined to the edges of the lids next occupies the whole of the palpebræ; the itching is converted into burning, lancinating pain, which seizes the globe. The conjunctival blush becomes an intense redness. There is a very smart flow of tears. Vesicles filled with an acrid and yellowish ichor arise on the margin and inner surface of the lids; and the neighbouring parts are inflamed by the corrosive contents of these vesicles, if ruptured. The greatest pain, with paroxysms still more violent, spreads from the eye to the face, the head, the occiput. Thus endeth the first stadium.

Then comes the purulent mucus from the conjunctiva of the lids, of the globe. Then ulcers secreting pus on the margin of the cornea, next towards its centre. Sometimes hypopyon is visible; but rarely this, since the inflammation usually fastens on the external parts.

In the worst cases, either the ulcers from without penetrate the cornea, producing racemose staphyloma; or total staphyloma; or cicatrices. Or the puriform secretion goes on within the globe; the cornea bursts; the globe suppurates, is deformed, shrinks away. The prognosis is very doubtful; the cure twofold. First; restoration, by sinapisms and similar stimuli, of the gouty action to the abandoned parts. Secondly; the ocular disorder is to be treated by the rules of

art. The other gouty ophthalmiæ will not allow fluid applications nor ointments. But here the practitioner may beneficially syringe into the eye the "aqua ophthalmica," prepared with laudanum and mucilage; laudanum may be dropped within the lids; the bags of aromatic herbs applied.

The general treatment of the case seems very tender, almost inert. Even for the pulsus plenus et durior, at the commencement of the ophthalmy, the mucus secretion not begun, Benedict orders not antiphlogistica fortiora, but some mucilaginous decoction with vinegar, or a little spiritus vitrioli, with abstinence from all other irritants.

In the subsequent stage, when the puriform secretion has begun, he recommends a strengthening diet, vires reficientem; or some aromatic or bitter infusion, with a little of the liquor anodynus; the local remedies to complete the cure.

BLEPHAROPHTHALMIA ARTHRITICA,

a gouty inflammation of the lids, is mentioned by the same physician, as sometimes occurring in elderly arthritics. Pallid redness of the edge and lining membrane of the lid; the conjunctive of the globe relaxed, vascular, with incipient pterygium; no glaucoma; are the objective symptoms. The vision is perfect, and the patient complains of a slight sensation of heat; enduring some months. Here we must abstain from fluid remedies, and use alone the sacculos discutientes.

Musgrave's cases of conjunctival and palpebral gout were, I presume, similar to those blepharophth-

almic; since, nor the graver internal mischief, nor the external profluvia were mentioned by that learned practitioner. He prescribes only stimulant sudorifics generally, and locally what follows. "Stir up the white of an egg; dilute it with rose water and add some grains of camphor. Let a few drops be put into the eye every morn; and let linen soaked in it be placed on the lid twice or thrice daily. Lapis calaminaris or prepared tutia may with effect be superadded."

From what has been above narrated and quoted the English student may, I think, infer that however rare arthritic ophthalmia may be in these islands, he should be prepared by study for the few cases which may be presented to his observation. "In this country gout is a disease very rarely met, except among the opulent and luxurious; while in the wine countries, and especially in Austria, where wine is the beverage of all ranks, gout, especially irregular gout, is common even among the poorest of the people."—MACKENZIE.

The cases, which I have suspected to be ocular-arthritic, are contemptibly few. The inhabitants of this county and city are very free from gout, which is the more surprizing, when we remember the calculous disorders, which infest them. "Gout and stone," in vulgar speech, have ever gone together as cousingermans, and have evinced their affinity in families. I have known the grandfather have the stone; the son the arthritic disorder; his child again manifest the arthritis, with calculous symptoms; *progeniem vitiosiorem.*

I would exhort the English surgeon, ignorant of arthritic ophthalmia, to whose *oculis fidelibus* it hath not been *subjecta*; when he meets a case of iritis or hyaloiditis, answering to those described by authors, yet unattended by general arthritic symptoms; to respect only the gravity of the ocular symptoms, and abject the cumbersome idea of gout. He will err, if at all, on the safer side. Let him attack the iritis; the hyaloiditis threatening glaucoma; the purulent ophthalmia, to which the Germans testify, with apportioned vigor. Because, if they be treated with tenderness, when they are not really arthritic, they may end in destruction of sight.

Case.—Mr. B., a little potbellied publican and sinner, complained to me of an external ophthalmia on the 20th of June, 1827. The sclerotica likewise was exceedingly implicated, and the subjective symptoms were very smart. A blister to the nape and an ordinary collyrium were prescribed. On the 24th the pains had increased, and I ordered him the calomel and opium. On the succeeding day the pupil became contracted, and I dreaded the advent of iritis. The pains likewise still increased in spite of mercurial and antimonial frictions, and being nocturnal gave a peculiarity to the case. They were augmented from the heat of the bed; and arrived, on the night of the 29th, when I was roused up by him, to an agony threatening madness. On the succeeding morning, an intelligent surgeon, whose inspection I requested, unhesitatingly pronounced the case arthritic. There was, however, no arthritic circle; and the subjective

symptoms were the main diagnostics. Dover's powder was given; and in a day or two, the symptoms giving way, the eyes were left as sound and sly-looking as before. If it had existed, the iritis left no "white adhesions;" and the whole of the symptoms vanished with a rapidity truly arthritic.

In the case I have just narrated, from the symptoms and their evanescence, without sequelæ, under the use of Dover's powder, I judge the disorder to have been arthritic, assaulting chiefly the denser tunic and structures, not extending farther than the iris. In another *case*, Mrs. B., a lady aged 70, was not suspected to possess a rheumatic nor gouty constitution. Her brother, however, is lamed through ischiatica; and her daughter is a living martyr to rheumatic gout —the reader knows to what disorder this composite name is given.

This lady saw, during a few successive weeks, a colored halo surrounding the flame of the candle; but nothing else of deviation from the natural. March 11, 1831, at 4 A.M., this lady was attacked with agonizing circumorbital pain and vomiting. Great external ophthalmia with iritis supervened; the pupils became very contracted; and in less then two days the sight was lost. She had, interim, been cupped; and mercury had been administered as vigorously as safety permitted. Yet it turned out, that no adhesions formed betwixt the iris and crystalline capsule; for as soon as the blindness was complete, dilatation of the pupils began. And this proceeded, until they became very patulous, elliptical, horizontal. And through them was seen that peculiar seagreen refrac-

tion of light, to which has been affixed the term *glaucoma*. From this period the eyes became slowly atrophic. The right eye is almost annihilated; and the left is only a little bigger fragment. The pain has not totally ceased, after a lapse of eight years; but it has gradually diminished from that atrocious character which it possessed at first; its great intensity subsiding together with the sight.

I believe this case to have been arthritic. The objective symptoms were partially present; the pain was of the described kind and agonizing; the ultimate march of the symptoms was very rapid; and the sequel was glaucoma and atrophia bulbi. But if this be termed a case of chronic, becoming acute, glaucoma, even the acute glaucoma, according to the German schools, is arthritic.

I have said that my own experience of gouty ophthalmia was contemptible. But surely a disorder, so familiarly discussed by the continentals, and so frankly received by our best writers, deserves some notice, however slight it may be. Nor should the infrequency of this specific inflammation in English eyes divert from the perusal of the German oculistic works an English student. Their narrations are graphic enough; pleasant to read, and entertaining—a territory,

Per quod vel piger ambulat viator.

If the English writers have not personally witnessed the gouty eyes, as pictured by the German artists, they ought to have had the candor to say that their descriptions were secondhand. But if they have beheld

these grievous cases; and in such numbers as might be inferred from the dogmatic style of their prescriptions; then am I a fortunate and unfortunate oculist. Unfortunate to have missed these interesting studies; yet blessed in inhabiting a region so salubrious and nonarthritic.

TRAUMATIC IRITIS,

so far as I know, must undergo the same treatment—for it displays the same phenomena—as simple, if it be excited in an uncomplicated case—as complex, if it be produced in an unhealthy subject. Hence the unsuccess of operations for capsular cataract or artificial pupil, in those who are prone to rheumatic or gouty inflammation of the eye. I have been tempted, by the sensibility to light of the optic nerve, to operate in such cases; but I have never succeeded; the same specific inflammation, which blinded originally, being reproduced by the knife. In healthy subjects it is marvellous what shocks the iris will undergo without resentment. It may be detached by a blow from less, or more, or *most*, of its ciliary adhesion, and remain passive and flaccid in the chambers. It may be cut by accident, or by surgical design, nearly slap across; and not inflame. But it abhors punctures and entanglements; strangulations in orifices of the denser coats. And it will not bear to be pressed on by foreign bodies; nor by natural structures made foreign by displacement. The traumatic iritis produced by accidental cuts, which always involve the outer tunic, if actively treated, may be most successfully treated.

The worst of it is, that those cuts are seldom clean, and seldom stop short at the iris. Hence internal ophthalmies—as of choroid, retina or vitreous body—are engendered; difficult, impossible to be vanquished. But where there is no proof of interior inflammation, nay! no suspicion; where there is plenty of dark pupil, or pupils made by the injury; frequently we find the vision flown. Gutta serena! What is the philosophy of this damage? I have never yet seen any account which has set me at rest about it; nor do I pretend a solution; not sharing in the self-complacent boast—

μόνοι γὰρ εὖ φρονουμεν, οἱ δ' ἄλλοι κακῶς.

Injury, they say, is inflicted on the fifth nerve through some of its ramusculi: but how, I should be glad to learn, can this affect the optic nerve, which runs without anastomosis, to its cup-like expansion? I do not mean to deny that the contusion of the ramuscules of the fifth nerve may be the origin of the evil—but I do say that, if it be so, we are not one whit the wiser, as to the pathology of the morbid process. The injury, received by the fifth nerve, must be transmitted to the brain, and there produce the blinding influence; or it must be reflected on the optic nerve, after having made a transit through the cerebral structure. But if, which is the assumption, no organic lesion is ascertainable, what is this local, mysterious paralysis of the visual nerve? These cases have, by all authors, been deemed grave and helpless; and the experience of the Norwich Infirmary accords.

There is great room for a work on the traumatic ophthalmiæ; will some wise, observant, experienced oculist benefit the world by such a wanted production? These ophthalmiæ, after surgical operations, range from the rapid, terrific, intractable suppurations of the globe down to the most chronic, most insidious of congestions.

In these traumatic ophthalmiæ, in which the iris is the most evident sufferer, I have found the turpentine maintain the good character which it had earned in spontaneous and simple iritis; in rheumatic iritis; in strumous; in siphyloid. This has been witnessed by the pupils at the Infirmary, after operations for cataract; for artificial pupil; repeatedly. In the traumatic iritis, as in other iritides, the change of color is an invariable, irrefragable evidence of the mischief. And of all the colors of the iris the Saxon blue is the most testificant.

Cærula quis stupuit Germani lumina?

The intensity of the blue and the vivacity of the inflammation conspire to produce a proportional depth of green color.

That the turpentine does subdue the traumatic iritis, is a fact; and this fact is most pleasing. Since in some cases where the debility, produced by the low diet of an ophthalmic infirmary, conspiring with the mercurial prostration, might threaten serious consequences, we have nothing to dread from the vegetable remedy.

I have been forced into a conviction that the diet is sometimes, not unfrequently, too poor for the pa-

tients about to undergo the surgical operations. I can remember more than one case, where the sufferer was brought into great peril of life, through this debilitation, aided by the poisonous influence of mercury, which was deemed essential. One case of iritis ended in death. The operations, certainly, here had no share in the mischief; since none had been required: and I speak only from memory, having not the records at hand.

The victim was a poor, elderly, cachectic, emaciated tailor. By some oversight, the mercury given for his iritides, was pushed to a fatal termination. Nor do I plead, in palliation of the mischief, the *personality* of the patient; and that, after all, another man would have borne *nine* times as much.

The dread of the traumatic ophthalmiæ does not carry the officers of the Moorfield's Institution to a Sangrado-like preliminary treatment.

"In regard to preparation, if the patient is in good health, I do not know that it is necessary to do more than see that the bowels are gently open; we never bleed or reduce them previously, unless they be very full or plethoric."—JOHN DALRYMPLE.

Whilst the iris endures incisions with great impunity; whilst it resents punctures and strangulations; it also most surely assumes the inflammatory process, if it be pressed on by a lens partially luxated and bulging against its back.

The prevention of this particular inconvenience I have considered the primary object for the surgeon, about to lacerate the cataractous capsule, or disturb the texture of the lens. This is the conviction in

my mind from the operations of twenty years; that, if you have a healthy subject, and can prevent subluxation of the lens, you may almost always, at one or more lacerations, effect the absorption of the cataract securely and successfully. Depression I have seldom tried; and against this mode of operation years ago John Bell entered his sharp protest; as essentially involving luxation of the whole vitreous body; rolling it round and ruffling up the retina. Depression now seems universally abandoned; doubtless not without reason, since, except in some rare cases, which bore the violence with apathy, destructive inflammations resulted from depression.

Extraction is in certain cases the properest operation. With this, adroitly performed, the structures least nervous, the cornea and lenticular capsule, alone are touched with an instrument; bulging of the lens cannot occur, where lens there is none; and the flaccidity of the bulb, produced by partial emptiness, is very favourable, should inflammation arise.

The upper section of the cornea has been most successful with me, whichever the eye; the patient recumbent; the operator standing behind, using his right hand for the right eye; for the left organ his left hand. Perhaps the difficulties of extraction have been designedly exaggerated, that the process may be confined to a few ophthalmiaters. Perhaps they have been timorously augmented: and Mr. Guthrie demands our thanks for his attempt to vanquish either error. These are not days in which a professional man, however adroit his hand and heavy his purse, can escape the mortifying idea that he is

despised by his "order," in exact proportion as he is mysterious and secret. The noble-minded artist for two reasons covets the presence of spectators of his operations; first, to avoid "the appearance of evil," lest he be suspected of mercenary empiricism. Secondly, that he may instruct others for the benefit of mankind.

"Barhrdtius sine dubio in eo taxandus videtur, quod ea omnia memoratu digna, quæ experientia duce cognoverat, clandestinæ sapientiæ instar sibi retinebat, nec cum aliis uberiorem artis suæ cognitionem communicabat, paucissimis discipulorum exceptis quos principis sui jussu instituere cogebatur."

Beneficially may be adopted the plan of administering an opiate after operations for cataract and artificial pupil. The inevitable shock, even of the adroitest operation, must demand repose and sedation; irritation precedes inflammatory action; and by deadening the irritability we add a chance of escape. Nor, if the surgical instrument inflict but little pain, can the mind of the patient, however heroical, be kept quiet and unpernicious. Say what we will, no man can undergo an operation on his eye, without some previous nervous apprehension, or some commotion at the time. There is an universal opinion that the eye is the most sensitive of structures. "Tender as the apple of my eye." The very word seems to have an etymology founded on sensation—τὸ ἁπαλὸν, the tender part.

The longer one lives a professional existence, the more one finds reason to consider attention to the morale of the patient of importance not secondary. Why should this be overlooked in the circumstances of

an operation? If that mighty influence displays itself on healthy structures and in untouched frames; why should it not, with redoubled efficacy, affect the debilitated body and the breach of surface? But it does. The army-surgeon tells us of the variation produced in wounds and ulcers by hope and fear!

Although there prevails so universal an opinion on the subject of the tenderness of the eye, it is most certainly, uninflamed, able to undergo the surgical proceedings for cataract without sensation.

A child, six months old, was brought to the Infirmary with congenital cataracts, the lentes being the seat of the disorder; the capsules free. The child was very reluctant and vociferous; and as there was no prospect of his ceasing to cry, I introduced the needle through the sclerotic coat and lacerated a single lens. Whilst thus freely the needle was playing in the eye, the child fell asleep, soundly asleep, and so was completed the manipulation. Some time after I operated on the other eye, when, to the admiration again of the spectators and pupils, the same events occurred: again the infant fell soundly asleep, whilst the breaking up of the opacified lens was effected.

The conviction is irresistible that this operation is perfectly painless; yet, assuredly, not one of the spectators of this undoubted phenomenon could undergo a similar, without some misgiving of which an opiate might correct the mischief. Yet there are cases, in which we must vigorously abstain from an opiate after operation. In the year 1837 I extracted the lentes from the eyes of a poor woman, brought to

the Infirmary from the town of Loddon. There was every thing favourable in the way in which the cataracts were removed; but, on the subsequent visit, it was found that the woman had been seized with vomiting, so violent as to dislodge the vitreous body in one eye. The contents of this globe were thrust against the cornea with much force; part of them were impacted within the corneal incision; the flap was kept gaping and fretting, and this eye was lost. In the other the cure was most complete, as if the expulsive influence of the vomiting had been concentrated on a single organ. Now the history of this vomiting was that of idiosyncrasy. This poor woman was always thus affected by opiates; and yet, although she knew this, and heard given orders for the anodyne, she had not sense or spirit enough to mention the peculiarity. The mode of operation may be determined, also, by circumstances not obvious and instant; such as occasional, uncertain cough. A sort of news, which the nurse now and then has imparted, when the patient, about to be treated, has not revealed it. Who would extract in the case of a patient prone to irregular cough? unless he coveted the reputation of the clumsy oculist, who blinded his patients in the days of Martial.

> Hoplomachus nunc es, fueras ophthalmicus ante:
> Fecisti medicus, quod facis hoplomachus.

CHAPTER IV.

TUNICA CHOROIDES.

CHOROIDITIS.

An inflamed choroid, per se, cannot easily be detected. "In an early stage, choroiditis is one of the least striking of the ophthalmiæ." Dr. Mackenzie's narration is worthy perusal, and a look out for the phenomena he describes should be well kept. *It is said* that from the pressure or serous exudation of the inflamed choroid, the exterior tunics become extenuated, so that the choroid shews its dark color through the sclerotica, which appears blue or purplish. This takes place in many cases at a very early period; sometimes is merely perceptible; in other instances there is a deep blue. After a time the part protrudes; generally near the cornea, more frequently above or to the temporal side. The tumor may enlarge to the size of half a filbert, with varicose vessels running over it, and several tumors may surround the cornea —*sclerotic staphyloma.*

The distention, which the choroid and sclerotica suffer, is not owing entirely to thickening of the former or to varicose distention, but often to an effusion of watery fluid between the choroid and retina. This Dr. Mackenzie has frequently had occasion to evacuate with a needle.

The arteries, visible on the sclerotica in health, are much enlarged and ramify over the distended portion. Frequently a patch of redness, near the cornea, is fed by these arteries greatly dilated. There is scarcely even general redness or much inflammation of conjunctiva. It is either sclerotic or an enlargement of the visible arteries, derived from the recti muscles.

The iris is not affected with inflammation, but always narrowed toward the portion of the choroid affected; in many instances the pupil is observed directly behind the edge of the cornea upwards, and upwards and outwards most frequently. It occasionally continues small and moveable, in other cases immoveable, but not dilated; in very severe cases greatly enlarged, the iris having disappeared at that part towards which the displacement of the pupil happened. The displacement is owing probably to affection of the ciliary or iridal nerves. The pupil does not return to its place, although the choroiditis is subdued.

Opacity of the cornea is a frequent attendant; generally the edge nearest to the portion of affected choroid, so as to resemble part of a broad arcus senilis. In other cases there are extensive but irregular spots of whiteness; in some severe and long continued cases the cornea becomes almost opaque, and undergoes dilatation, so as to become broader and more prominent.

Exophthalmus and exophthalmia may accrue, without much inflammation of the sclerotic and conjunctiva. After a time, however, the eye is apt to suffer from external inflammation, chemosis, puriform fluid

behind the cornea or between its lamella; the eye bursts. It continues to protrude, assumes a fungous appearance, bleeds profusely, and, productive of pain and deformity, requires to be extirpated. Intolerance of light and epiphora generally attend in a considerable degree. Pain, when there is no protrusion, is moderate. When the sclerotic is much, especially when suddenly distended, with increase of redness, the pain becomes severe and sometimes furious. Hemicrania is present, affecting the cheek; not circumorbital.

Vision is variously affected. Dimness, hemiopia, diplopia even with one eye, frequently distress before redness or blueness of the eye is visible. Sometimes total blindness ensues, when the choroid appears partially affected; in other cases the whole is affected, the whole ball enlarged, yet considerable vision is retained. The subjects are adults, the strumous particularly. Various degrees of fever attend. After much pain from distention, cachexia with quick pulse, pale complexion, excessive irritability, great weakness. The digestive organs are frequently much deranged from the first.

Prognosis. Recovery is slow. In many cases, we may reckon ourselves fortunate, if we *arrest*. Yet sometimes the cure proceeds beyond expectation. Dr. Mackenzie, whose interesting remarks I have been thus, not thievishly, compendifying, attended a man who *many years* had almost lost the sight of the left eye. The right was now attacked; pupils greatly displaced; visible arteries of the right eye dilated, sclerotica extenuated; the left eye was enlarged, deep

blne; a great part of the cornea opaque. By blood-letting, counter-irritation, etc., the disease was arrested in the left eye; and the right eye recovered so, that he was able to read an ordinary type.

This narration is certainly very encouraging in this formidable malady; and the ability to read an "ordi-dinary type" as much a matter of triumph as, in most cases, the decyphering of the diamonds of the Pickering press. And I take this opportunity to enter a protest against the minute letter-press of these days of penny literature; this denarian era. The booksellers vie with one another, which shall compress an established author into the smallest space. And whilst undoubtedly the art of printing is carried to a wonderful degree of minuteness of type, the reader cannot rejoice, with impunity, in pages fit only for the scholars of Lilliput. In this ophthalmic sense, at any rate, cheap literature *is* a national evil. And in these days, when the love of learning has reached even to courtiers; when a whig cabinet would *almost* resign on a subject of education, it is imperative on every ophthalmogist to raise his warning voice in behalf of the endangered vision of the rising generation. I protest against pocket Shakspeares; the bellygerent Gibbon flattened in the Minerva *press;* the *Iliad* in a nutshell. For, be it remembered that among the causes of choroiditis, as asserted by Mackenzie, is "over use of the eyes, in reading, sewing, miniature painting, and other minute works."

No man can have attended to much of the practise of an eye infirmary, and not have witnessed that state of things, which Mackenzie has authoritatively pro-

nounced to be choroiditic. I must confess that I have always regarded these cases as hopeless, when the objective phenomena, e. g. the blue sclerotic, are present; as puzzling, when objective symptoms there are none. "In some, the very *first* symptom complained of, is dimness of sight." Now this alone would not decide our diagnosis; not if accompanied with "moderate pain;" with photophobia and lacrymation; the only subjective symptoms, which are mentioned, or at least conceivable, before the objective occur. Yet the narrative, which I have just quoted, must inspire us with confidence in the prescriptions of his physician, *as soon as* we can form a diagnosis; videlicet—profuse and repeated bloodletting; frequent and liberal leeching; frequent purgatives; tonics, *after* depletion; counter-irritation.

Yet to me it is clear that this heroic treatment would rarely be borne by weak, strumous subjects; who may present the presumed choroiditic phenomena. That, at all events, I should never adopt it before accession of the objective symptoms. Yet it must be said that the subjective phenomena mentioned; dimness, pain, intolerance, epiphora; are frequently complained of by patients, of operative, sedentary occupations; sempstresses, weavers, watchmakers, printers. The chief benefit to be derived for them has been, as far as I have observed, through cessation from their microscopic labors; exercise, and appeals to the abdominal secernents. As by the mild mercurials, the blue, the Plummer's pill; with rhubarb; or with *small* doses of castor oil in the morning, enough to keep the bowels on the qui vive.

When the mischief has gone on to discolor the sclerotic; to thin it; and to leave a mere perception of light or very indistinct vision; it requires more faith, than I possess, in the therapeutic art, to attempt to remedy the evil. Redness is always reckoned among the signs of inflammation. Yet it is easy to conceive of this morbid condition in the choroidal vessels, without external redness.

No doubt, considering the ticklish delicacy of the ophthalmic structures and organism, the physician ought to be awake to the primary threatenings. The questions are; whether there may not be, besides afflux, another cause of choroidal disease of an opposite character; congestive, remorant, passive vascular plethora. Whether, if this be so, the antiphlogistic method is demanded, or the opposite; or a modified, compound treatment. The solution of this problem requires and proves the personal tact of the practitioner. Whatever the dogmata of the schools or of this or that didascalicus; the individual surgeon must trust in numberless cases to his own observations and reasoning; or, perhaps, make a hazardous dash at the treatment, after all.

Take, for instance, such *a case* as the following. Miss T., a delicate, handsome young gentlewoman, cannot read nor sew without very soon experiencing pain in each eye. She, therefore, gives up both these amusements, and leads a dull, uninstructed life. Now here is pain, one symptom of inflammation; and the palpebral linings are passively injected, uniformly. Yet there is no other objective symptom; her irides are active; and she can see for a time the minutest print,

with her concave spectacles, required by a natural myopia. This case cannot, with any propriety, be treated with general or local depletions; and I have enjoined merely comparative disuse of the eyes; and medicines to operate on the uterine system, which is deficient in its monthly functions. In this lady this torpor is, most probably, at the bottom of the ophthalmic mischief; and similar cases are not infrequent; where to contemplate the symptoms as only local, would imply but narrow views of pathology.

Yet local causes may, no doubt, augment or perpetuate the evil. Suppose a case of passive, slight congestion in the globes of the eyes, engendered through amenorrhæa or other constitutional causes. Yet in such the symptoms may be aggravated through a low position of the head; in the sempstress, the reader, or the scholastic pupil. Heads up! therefore, is as needed an order as to the members of an awkward squad.

These symptoms are eminently troublesome and enduring; and when occurring in the young, who require education, are particularly lamentable. Months, years of this important, unredeemable period are often lost.

When they exist in those artisans, male or female, whose bread depends on their brows, they are very distressing. In these instances it is cruel to prohibit study and labor. One would leave it to the good sense of the patients to moderate their performances. To take warning by their sensations of pain or of fatigue in the eyes; of dim confused vision as to

minuter objects; to consider they have done enough for the time of study or of work; to abstain, until the organs, recruited by repose or change of scenery, are again equal to their duties.

This is taking of these symptoms a less terrific view, than when they are judged to be genuine amaurotic; the commencement of a disorganizing, blinding process. That intolerance of light, carried to a great pitch, and confusion of vision, are not essentially always formidable, is proved by the experience of *albinos*, whom the Bells class among "the degenerate varieties of animals." I know an albino gentleman who is now well stricken in years, in whom the photophobic distress remains as great, as when he was an infant. Yet his vision, under the adapted degree of light, is as perfect as usual at his advanced years. Two sons of this gentleman display the same total absence of black pigment as does their sire. The father has laboured hard in a vocation which requires an unremitting use of the eyesight; through which he has acquired a lordly fortune. And who would have imagined, a priori, that all this could have been effected, with a daily intolerance of light, by eyes not a whit the worse for sixty years of wear?

To these remarks it may be objected, that I have assumed a choroiditic character for symptoms, which are only nervous; unconnected with vascularity, active or passive. I have assumed no such thing; but the contrary. I have presumed that the phenomena, which are described by Mackenzie as due to commencing choroiditis, may be founded on venous remora,

or simple functional debility. Here should be avoided that fierce treatment so proper, if the symptoms could be sworn to as arterially vascular, not nervous. But the fact is that the same symptoms are described as precursors of pure amaurosis. And hence Mr. Lawrence, who certainly does take vascular views, so to speak, recommends the antiphlogosis for them.

CHAPTER V.

TUNICA RETINA.

The views of Mr. Lawrence are certainly very simple, if they be but true. "The distinction between internal ophthalmia and amaurosis does not involve the nature of the disease, but its precise seat and extent. By the former we designate inflammation affecting the internal tunics generally, and therefore including the retina; when the latter alone is affected, the disease is called amaurosis. The presence or absence of the alterations caused by inflammation, whether acute or chronic, in the iris or pupil, will form a sufficient ground of distinction. When the source of disease is in the retina, the affection, in the great majority of instances, is inflammation of that structure, more or less violent. When the affection is active, its pathology is clear, and we name the disease

RETINITIS.

This active inflammation may extend to the internal tunics generally, and thus produce ophthalmitis interna. Under other circumstances, the nature of the affection is not so obvious, and instead of calling the disease chronic retinitis, after the organ affected, as we probably should do if its pathology were well understood, we name it from a symptom.

Since the principles of treatment are the same in both instances, it is of no importance practically to draw an accurate line of distinction between the cases, in which inflammation, whether acute or chronic, is confined to the nervous structure, and those in which the internal tunics generally are involved in the inflammatory affection.

We cannot trace an accurate line of demarcation between what is called internal ophthalmia and amaurosis; in the former the inflammation is more active and affects more parts; in the latter it is a slower affection and confined to the retina.

Treatment—The object is to put a stop to vascular excitement, to prevent the permanent injury of altered structure and impaired function in a part, the peculiar delicacy of which particularly exposes it to such danger. We must, therefore, employ antiphlogistic treatment of a decided character, and follow it up with a decision and steadiness commensurate with the importance of the affected organ."—LAWRENCE.

It is thus evident that this able surgeon looks on *retinitis* or inflammation as the cause of amaurosis, quoad amaurosin. But is this true? Certainly it is the order of the day, resulting doubtless from the extension of morbid anatomy, to look at vascular movements with an almost exclusive eye. No man, but little conversant with French medical literature, but must agree to this. And in exact proportion as the vessels are respected the nerves as such are undervalued.

This seems presumptuous. Because we cannot see the working of the nervous department, we should

not reject its vast efficiency. It seems more in harmony with all around of power in nature to attribute the most potency to the least visible agents. The less the bulk the greater the performance. A stroke of lightning effects in a trice what would occupy for hours a whole corps of sappers and miners, with Colonel Paisley at their head.

No man however deferent to the authority—no man however disposed jurare in verba Magistri Lawrence—when he compares the success of heroic mercurialization with reported cures by electricity and other appeals to the nerves—but must hesitate a little in believing that amaurosis is essentially retinitis.

The great facts of cures are on record. Schmucker and Scarpa testify to the amazing influence of emetics; and against emetics Mr. Lawrence protests with decision. From his therapeutics not a few venture to recede; claiming the liberty, whilst they allow his facts, to doubt his theory.

Yet it is known that this admirable surgeon is not guilty of universal and promiscuous antiphlogosis. "It must not be supposed that all amaurotic patients require bleeding and salivation."

"In a thin, pallid, and feeble woman, who had destroyed her health by close confinement to needlework, and whose eyes were beginning to fail, the same active measures would by no means be admissible as in the former case. To think of bleeding and salivating such a patient would be perfect madness."

And yet once suffer the idea to take root, that amaurosis is inflammation of the retina; and this madness would be manifested by many a practitioner, who would recollect the inflammation, but forget the restraint. The truth or error of a theory may matter little, so far as its broacher is concerned; a wise, practical, enlightened man. But it may play the deuce, when wielded by the herd. So in theology. The theory of the Calvinistic divine may be sported by a pious and holy parson; but, scattered among the simpletons of his flock, it engenders antinomian and mischievous results.

How can we reconcile the facts, asserted and undisputed, of cures of amaurosis by the most various and seemingly opposite remedies? Not by the unbending theory of inflammation. But by supposing some constitutional causation, removed by therapeutic processes, which, acting on a wide arena of the system, include occasionally the fontem et originem of amaurosis.

The simplicity of the Laurentian view is very captivating, and one wishes it were true and self-evident. But one cannot believe that the optical expansion, any more than other portions of cerebral or nervous material, never suffers but from appreciable and vascular commotion.

Few persons pretend to have obtained any singular and glorious triumph over amaurotic phenomena. On the contrary, they have been the source of much humiliation for the art. Where there has been marked aberration from the healthy standard of frame—as in amenorrhæa; or disordered digestions; private

practice and that of the Infirmary have been effective. But in the cases where a guess only can be made at the possibility of the cause, there is nothing to report as eminent. The most cloudy prognosis is ever to be formed of the "drop serene." Where there is the least proof of morbid vascularity, in exact proportion is the difficulty of detecting the seat of the disorder, and cæteris paribus, of effecting a cure. It has been said already, that there are two classes of amaurotic sufferers. One, in whom the dimness of sight is intermittent, capricious; but mainly produced by inspection of minute things, in work or study. In these, cessation from ocellar exercise removes the dimness, to return only with returning employment.

Another class, in whom the obscurity of vision is constant, without intervals of perfect vision, although the darkness may be at one period intenser than at others. In these cases the symptoms have acquired truly the denomination of amaurotic. The first are more appropriately called *weakness of sight*. These may be well termed *spurious amauroses*. The last, with incessant dimness, the true. In the *true amaurosis* particularly, the object of the physician is to discover whether the brain or the optical nerve be the seat of the disorder. It is always to be suspected, in the first instance, that the Gutta Serena is cerebral. If the globe of the eye be unchanged in magnitude; if it be equally as in health renitent to the finger; not lax and pittable as in synchysis of the vitreous body; not stony, as in an opposite state of things; if no alteration of colour, as to sclerotic whiteness, or pupillary clearness be detected, then one nearly feels

assured the disorder is cerebral, not ocular. If the only objective symptom be the fixed, dilated, serene pupil, the disorder has a cerebral causation, whether functional or organic. It is the pupil of apoplexy; of the man drunk; of the syncopic from hæmorrhage; of the moribund; of the affected cerebrum. Tant pis! It is a vain effort of the vis medicatrix to let in all the possible rays of light, when the percipient itself or its more immediate agent is at fault.

The next question is, since the disorder is assumed to be cerebral, whether the brain be functionally and curably; or affected organically, and without hope. This can be distinguished pretty accurately by the action of the eyes; if they move not in harmony; if there be any squinting, we have never known much or lasting benefit procured by medicinal treatment. Such is the conviction; so strong that one feels disposed to exhort a student never to harass such a squinting amaurotic with fallacious hope or abortive medicine. One feels weary of endeavours to remedy this miserable condition of amaurotic eye.

How desirable is it that the feelings of the incurable patient should be considered; and that if his eyes be disordered, at least his heart should not be sickened by hope deferred. Deferred sine die! One of the disgusting practices of our profession is this vain attempt at hopeless cures. It is ruinous to the patient; to his *morale* and his purse. It is reflective on the therapeutic art. It is gainful only to the leech.

An artful prolongation of unfounded hopes is not confined to the swindling oculist. The aurist makes a still richer harvest. The credulity of the deaf ex-

ceeds all understanding. How many instances have we all known of this amiable weakness: amiable, because it implies some innocence to be duped by the crafty! weakness, because if their own family surgeons and physicians have assured them that the art is impotent in their particular cases; if the greatest authorities have been regularly consulted in vain, it implies numpscullery to fancy that the advertizing, puffing aurist can possibly be the philosophic man.

Let us feel, however, no great hostility to quacks. Miror magis their ingenuity of extracting money from pockets, which the regular, honest, accomplished practitioner rarely beholds patulous. The behaviour of the mass of mankind to our anxious, overworked, benevolent profession is so shabby, that really one rejoices at the wealth of Solomon—as did the Queen of Sheba—at the opulence of Brodum—St. John or Eady. A mean, mercenary patient, who would bilk a worthy surgeon in the country, is eased, in a few weeks, of a pocket-ful of guineas by an astute metropolitan aurist. Are we to pity him? The honorable practitioner, even when he is hopeful of a case, seeks to benefit, at the least possible expence to the patient. His own pocket is the secondary consideration. With the dishonourable surgeon the prominent idea is his own purse; the welfare of his credulous client a minor affair.

The honest physician, if he sees no hope of remedy, at once declares his prognosis and dismisses his unfortunate applicant. The crafty scoundrel has to play a game; he holds out hope, day after day; week after week; until the patient, not the doctor, despairs in

good earnest: sighs over his irrecoverable sovereigns, and returns to his home, the same or worse than he left it. These are the fellows who disgrace our profession, but who revenge, for honest practitioners, the scurvy treatment which they have too often received.

To these fellows the public, as saith Le Sage, is a good milch cow, which easily parts with its store.

The public is gullable. This is a postulatum. Then let a man not scruple in profiting by its gullability, and he may reckon that his fortune is as good as made.

He needs not be a Galen nor an Aretæus. But he must obtain the reputation, among the laïcs, that he is equal to both of them, put together. This is no hard matter.

Let him select for the scene of his operations a metropolis; or a watering place; or a spa. Let him take for the basis of his treatment some peculiar theory, innoxious; let him prescribe inflexibly upon this, and he is *sure* to cure the major part of his applicants. This is certain. Never mind the lesser number. If the methodus medendi injures or destroys them, because their diseases, complicated, specific, constitutional, require discrimination and science and leisurely observation, never mind. The failures are forgotten; the successes only talked about! Then, to give to these lucky hits the character of science and speciality, let the physician assume an eccentricity of demeanour; affect to be blunt, then he will be thought honest and independent. Let him even swear a few round oaths, not seldom. A spice of the devil will pass him for a genius even among the saints. Nay!

let him be vulgar. Let him forget the delicate behaviour due to English gentlewomen of all ranks; of every age; and he will find crowds of ladies on his list. "What is the best way to get the respect of mankind?" "*Treat them ill.*"

Disputes about the ultimate tissue may be very important to the microscopist. But it has always been known that many disorders of the locomotive nerves and of the nerves of general sensation exist independent of inflammation, in the practical sense of this term. The spasms of Tetanus; the convulsions of epilepsy; tremors; subsultus exist in every degree, without detegible inflammation.

Uneasiness, pain, agony—the tic doloreux—exist without vascularity. Why should diseases of the locomotive, tactual, ganglionic nerves shew themselves in full force, without vascular phenomena; and the nerves of the remaining four cerebral senses, of hearing, sight, smell, taste, be supposed never to ail, save through the fault of the blood vessels?

In regard to optical derangements, it is certain that amauroses, not a few, do exist independent of retina or nerve; fairly caused by disorder of brain. So that at any rate to talk of amaurosis as a form of retinitis would be, in such cases, erroneous.

Then, when we are carried thus back and deep into the scull, for the fons mali, we are brought to the question, whether all cerebral disorders are vascular; all indicating depletion? Who will say they are?

Then, again, it is certain there are simply functional diseases of the eye; dimnesses, which have been term-

ed amaurotic. Blindnesses cured by emetics or emmenagogues. Rapidly, immediately cured, when the visceral secernents have been animated, or the uterus rendered catamenious. In these cases is there vascularity, which could possibly justify the term retinitis?

The author of these notes is so far from being able to talk learnedly on retinitis, that he can find scarce a single case recorded in the note-books, public or private. Not one that he can swear to be truly retinitic: simple and isolated and marked.

Yet the ophthalmologic student should prepare for the worst; since, in some districts of the empire, it must be far from rare. Because Mr. Middlemore, of the Birmingham Eye Infirmary, although he does "not think retinitis is by any means a common disease"—has notwithstanding "witnessed the disease *many* times in attorney's clerks and in artists in the offices of architects; and when it was the custom to employ the eyes by gas light on the introduction of that mode of lighting apartments, the disease was *particularly prevalent,* though more generally chronic."

At the close of the first volume of his great work this author describes retinitis, acute and chronic; and it befitteth a writer, essentially deprived of the subjects of a picture, to borrow the delineation from an artist so provided with studies as that gentleman.

ACUTE RETINITIS.

Symptoms. At the commencement the patient will complain of intense, agonizing, deep pain in the eye, sometimes darting, in other instances throbbing; this pain will frequently occur unexpectedly. A sense of

tension of the globe with scintillations. The pupil much contracted will have lost its clear black; iris slightly projected; great intolerance, profuse lachrymation. A few sclerotic vessels may be enlarged, there *may* be slight zonular arrangement, but this, as well as the enlargement of those of the sclerotic, is much less than in inflammation of the iris and choroid —sometimes absent, always disproportionate to the severity of other symptoms.

The agony in eye and head increase; *tightness* of head, heat of scalp; you may be tempted to regard the affection of the eye merely as a symptom of phrenitis.

The intolerance of light, extremely great, is after a time diminished, the patient almost insensible to it; pupil dilated, motionless; dingy muddy; sometimes lens and vitreous humor are amber-colored or greenish; iris projected towards cornea, nearly in contact; zonular vessels more distinct; there may be much external vascularity. This state may give rise to *amaurosis*.

Some writers represent the pupil as contracted, others dilated. Some say there is great intolerance, others that the retina is quite insensible. All these statements are correct, with qualifications. The pupil is, at first, somewhat contracted, there is great intolerance; but this condition is rapidly exchanged for dilated pupil, insensibility of retina.—MIDDLEMORE.

Now, how can a student distinguish this from choroiditis or acute glaucoma? *Diagnosis;* as given by the same gentleman. Retinitis is attended with more pain, more intolerance, less tension than *inflammation*

of the choroid; sclerotica not discolored, vessels round the cornea less distinct, less superficial vascularity, disease more rapid. From *acute glaucoma* this is the diagnosis; viz. Pain and intolerance greater, pupil more contracted, humors less cloudy, disease quicker, constitutional symptoms infinitely more severe.—MIDDLEMORE.

All this is remarkably distinct on paper; and it is much to be wished that the antitype were as distinguished. But when one considers that the iris, whose movements form a marked objective symptom, contracts not only in retinitis, but through hypersensibility; through iritis; and becomes narrowed, with a gaping pupil, in the secondary stage of retinitis, as in the chorioidean affection; that in the glaucoma, also, this dilatation is a constant phenomenon; the clearness of diagnosis has vanished. All that minute description is not likely to be often realized; yet of course one does not gainsay the frequency, which may have been witnessed and testified, as an exception to a rule, by a particular oculist. The truth seems to be, that internal ophthalmia almost always involves more tunics than one. And practically considered, whether the retina, or the chorioid, or the hyaloid septa be the seat of the mischief,

The treatment must be similar. And this, as common sense and Dr. Mackenzie dictate, should consist of rest, darkness, abstinence, depletion, mercury. Copious bloodletting, plentiful leeching. Venœ sectio jugularis aut arteriœ temporalis. Calomel with opium.

CHAPTER VI.

TUNICA CORNEA.

An exquisite structure is this window of the eye. Here is a portion of the ball without traceable nerves, without red blood, without injectible absorbents; tough, motionless; yet essential to the communication of the mind with the visible world! Pellucidity itself! hard as a cartilage, yet giving passage to the imponderable light.

A Parisian lecturer states that he has found that corneal affections form "exactly one-half" of ophthalmic maladies. He also asserts that sclerotitis, so called, is not inflammation, but mere vascularity, produced by conjunctival or iridal inflammation.

Now, certainly, the sclerotic, like other fibrous structures, is comparatively tubeless. It does not rejoice in blood vessels. But, few or many, that these vessels are morbidly distended is a matter of fact. If red blood appears more copiously: or where white blood alone previously flowed; if too this redness be cotemporary and continuous with inflammation of iris or of cornea, what right has a philosopher to call the sclerotic blush "vascularity" only? The vessels are straight, parallel; but they are preternaturally injected. They manifest that character, peculiar to vessels in tendinous structures; as Mr. Paget of

Bartholomew's has lately narrated in the *Medical Gazette*. Could inflammation make them tortuous or retiform?

"The sclerotica is a tissue, which, in other parts of the body, is so rarely inflamed, that some pathologists entertain doubts as to its ever being the seat of inflammatory action." Doubts or credulity are sometimes of small importance. There exists a pathologist, who doubts his own existence, but believes in Gallandspurzheimism.

Pindar charged the physiologists of his day with doing little more than

ἀτελη σοφίας καρπὸν δρέπειν.

What would he have sung of modern pathologists, foreseeing their discrepancy on subjects, which the senses themselves can immediately detect?

Whether or not keratitis be a very frequent disorder, compared with other ophthalmiæ, it is of course an important form of inflammation. What avails it that the humors are clear and the nerve perceptive, if the corneal window be opaque, like glass that has been breathed upon or puttied? And such is the cloudiness engendered by inflammation. This is not wonderful, if only one stratum of cornea be affected; conjunctival, or lamellar, or serous. Much less marvellous, if more strata, or many, or all be involved. It is desirable to ascertain, if it be feasible, what particular layer is the seat of disorder; because the deeper-seated will require for their rectification measures of more potency, local and systematic. Where the

adnatal covering is alone congested, the cloudiness is lighter than when the laminæ, or more substantial texture is deranged. Where the laminæ also, or alone, suffer; the denser opacity is of course attended by much greater dimness of vision. Where the tunic of the aqueous humour, the lining of the cornea, is the solitary situation of disease, this may be seen through the superjacent membranes. In this case the cloudiness is not so much diffused, as partial, specky, dotted.

STRUMOUS KERATITIS.

Corneitis, when complicated with scrofula, is a prodigiously mulish disorder. Of course the vision is affected in proportion to the nebulosity and the complication of other structures; and other structures always are more or less complicated. How comes it that intolerance of light is so grievous a symptom in this business? Because, one would think the very cloudiness of the glass, by obstructing the rays of light, would have forestalled intolerance. Where the cornea is unconcerned, in other forms of strumous ophthalmy, the photophobia is most annoying; bearing no proportion to the vascularity. So here it happens that there is much or little of vascularity; but the peculiar intolerance of scrofulous ophthalmies is evinced.

This scrofulous ophthalmy will not bear mercury, in general; at all events it will not tolerate much. The hydrargyrus is a poison to these patients. How is a student to diagnize this inflammation and say dogmatically, *this is scrofulous?* A strumous ophthalmia

means inflammation in a strumous subject; and the crasis is too well known and easily seized to render necessary any definition by me. Then other inflammations about the bodies of these cachectic unfortunates are of a languid, chronic, half-and-half character. Nothing active in the process; nothing of usual termination; no "laudable" pus. So here. If the exterior of the cornea be involved, phlyctenulæ; if the middle, opaque deposits; if the lining aqueous membrane, numerous dots are visible.

If the inflammatory proceedings be rather more marked, interstitial abscesses, ending in ulcers; or ulcers primary may be noticed. Or there are dense opacities, when there is no abscess, and no ulceration. And as the disease advances, in some subjects, and when the corneal substance is mainly involved, the membrane becomes conoidal. The globe loses the spheric character. This conoidal effect is produced not solely in the cornea; but the sclerotic portion of the globe contributes. There is a subsidence of albuginea concentric with the corneal edge; a species of flat, shallow, undefined sulcus all round, which seems to be the basis of the unnatural conicity. The hard texture has been mollified by inflammation.

When the cornea is thus much affected, most luckily and in general the inner, softer tunics escape. Was not a remark of this sort made by Dr. Vetch; that the sclerotic vascularities were propagated over the cornea *or* the iris? That if the one course was taken, seldom was the direction inwards observed at the same time? This is a great consolation; and hence it arises that dimnesses, which sometimes terrify

by their intensity, yield to treatment without any sequelæ; having been due only to obstruction of rays and not diminished optical perception. It is doubted whether the perfection of figure is restored to the conoidal globes; but, if not, the vision seems to have been undamaged. Surely there is some internal adjustment.

Is it overstraining to liken the scrofulous affections of the cornea to those of the arthric cartilages and membranes? In these we have superficial, outward inflammations and abscesses; on and around, not in the joints. So we have phlyctenulæ and pustules and ulcers on the conjunctival exterior of the eye. Then the substantial disorders of the cornea resemble, do they not? the morbid processes of the very cartilages. Then the lining membrane, that of the aqueous humor, may be compared with the inner membrane of the joints; over-secreting or inflamed; or ulcerated and secreting puriform matter; hypopyon. At all events, and generally, the strumous disorder of the eye is, like arthric struma, chronic; breaking the textures slowly; refractory, constitutional. The pain is comparatively little, when one looks at the vascularity. The patients do not suffer "like a horse." One should wish they did, if they were brutal grooms, or steeple-chasers, or knackers! But usually these active, air-taking, muscular persons are free from strumous ophthalmies.

The mischief usually, when intensest, is albuginous opacity. Yet, doubtless, the symptoms, unarrested by art, or aggravated by bungling, may end in perforation of the cornea and any of the sequelæ.

TREATMENT OF CORNEITIS.

As a general rule I would say this; that the hard tunics and the serous membranes of the eye require often mercury or the turpentine: that the mucous membrane of the globe, lids, and lacrymal passages requires not the hydrargyrus, so urgently. The horny substance of the corneal tunic is lined by a serous membrane; and covered by a mucous, or some modification of a mucous, coat. And if the inflammation be, therefore, deep, it is to be attacked with systematic remedies; the local not neglected. Such a disorder should be treated with mercury or turpentine conveyed into the stomach; and antimonial eruption produced on the side of the head. This part must be shaved; and the smooth portion of the temples, unhairy by nature, should be religiously avoided, on account of the unseemly scars left by the antimonial pustules. I have seen the bosom of a handsome lady quite disfigured by these cicatrices; antimony having been rubbed upon that region for a pleurisy. I have seen the throat of a finely-formed, beautiful young woman equally damaged by this remedy, applied against bronchocele.

What has been said about bloodletting, in cases of sclerotic inflammation, is applicable to the corneal affections. For these, usually, neither general nor local bloodletting is required imperiously.

Case in illustration. Jonathan Green, aged 30, applied at the infirmary on the 30th of March. The

inflammatian of the cornea has deposited a speck of lymph in the substance of the tunic; and the conjunctiva is involved in the inflammatory process. Let him take five grains of blue pill every night; and a small portion of epsom salt in the mornings; locally whitewash. April 6th, the pills are omitted. 24th, the solutio argenti nitratis is used for eyedrops; and on the 6th of June this patient is discharged free from inflammation and from corneal speck.

Case.—William Elwin, aged 34, Jan. 23, 1822. *Inflammatio corneæ*, of 8 months standing. Right cornea—generally dull, with considerable deposition of lymph. Margin of pupil invisible; glistening appearance as of lymph, on or in the iris. The vision is best in this eye. Left cornea—still duller—same appearance of iris. Both eyes present a vascular and spongy conjunctive, especially within the lids. Ten grains of blue pill daily: wine of opium locally. 30. Right eye improved, as to vision. A grain of calomel night and morn. Feb. 1. Perhaps the left eye may hereafter be benefited by an artificial pupil. Feb. 8. A grain of calomel at night. April 3. Corneæ clear, except two specks on right. Lids natural. Vision greatly improved—Discharged.

It is not, for a moment, intended senselessly to decry venesection. But simply to shew that this is not indispensable. The lancet, the everlasting lancet, is the order of the day; in books, in lectures, in practice. Whence could this philhæmatous mania have arisen? Whether an alderman drops in an apoplexy; or a postillion is crushed by a carriage; or

the last pulse has beaten through inanition, forth comes the lancet; if a doctor, or the king of France be passing.

When red blood is visible in the cornea, all possible doubts about inflammation are ended. When red blood has not yet entered into this diaphanous structure, if it be clouded, it is proportionally and virtually inflamed. Here is another exception to the rule of inflammation, as commonly laid down. Here there may be no redness; swelling; pain nor heat; and yet the part inflamed. As in a structure carrying red vessels, an enlargement or multiplication of these is essential to the inflammatory condition; so in a white texture transparent like the cornea, an increase or alteration of the uncolored contents of the tubes may prove the existence of inflammation; before the vis a tergo has injected into them red blood. Nay! the diminution of transparency is one of the first as well as last phenomena of keratitis.

Different names have been bestowed on obscurations. The lighter form has been called by the Greeks *Leucoma nephelion;* by the Latins *Nebula.* The denser degree has been termed by the former *Leucoma Paralampsis,* from its shining whiteness; by the Roman writers, *Albugo.* The nebulæ are said to be curable; at all events when recent. The albugines are said to be resistent of all methods of cure. It is an unresolved question, when a nebula is too old to be dispersed. "In infants, as their years increase, it often vanishes spontaneously." Thus deposed Dr. George Wallis, and thus the experience of all oculists teaches. Yet is it useful to retain on the books of

an eye infirmary these leucomatized infants; and prescribe some innocent collyrium, to keep their parents, impatient of time, from placing them in the hands of rash and rough empirics. Men, who would increase the mischief; and prove as nephelegeretous as Jove himself.

Then how often does the practitioner, who is instilling the stimulant drops—laudanum, or the lunar solution, or the liquor cupri—fancy that he is dispersing a cloudiness, which is dispelled only by nature—and in spite, perhaps, of his irritamenta.

Where the patient is not infantile; but a child, or youth, or adult; it is not uncommon that he should be brought for the cure of an old leucoma. In these cases, it is not probable, if nature fails, that art can succeed. If any portion of that inflammatory activity, which clouded the cornea, still remain; then it has seemed that the stimulation locally of the absorbent vessels, and the ministration of mercurials internally have been effective. In such a condition, it is presumed, were the corneæ of Vetch's consumptive patient. "Five days previous to his death, he was seized with a violent aggravation of the fever and other symptoms. At this time the opacities, by which the vision in both eyes had been long obstructed, disappeared with amazing rapidity; and his vision became nearly distinct." Mr. Wardrop quotes this case; the less wonderful, when he tells us that "A patient had obscurity of the crystalline lenses, which considerably impaired his sight. This continued several months, when he was seized with pain of the chest, fever, spitting of blood. These symptoms con-

tinued several weeks, and, during that period, the obscurity of the lenses altogether disappeared, and his vision was restored!"

This case of cataract spontaneously dispersed is very interesting. Nobody doubts a corneal opacity to be the product of vascular action. Is, then, a lenticular dimness like it? Nothing as yet is certain. One has known cataracts remain in statu quo for years. There are in this place an elderly lady and an older gentleman, who have each lost one eye by dense suffusion, but retain each a visual power in the other, with which they can manage to read. This vision has lasted many years, in spite of cataract half-formed, unprogressive, in these other eyes. Is this due to vascular action ceasing at a certain point?

But if the parts are in quietude; and the opaque deposit has become through time a portion of the corneal constitution—habit here is second nature—it is not probable that remedies will avail. To bring the corneal capillaries into play by mercury, all the capillaries in the body must be set agoing; and would even this be curative of a leucoma? Surely not; if at all albuginous.

Where there is hope of removing the corneal obfuscation, one of the best remedies is the lunar caustic, weakened by aqueous solution or in ointment, locally applied. Then the *mercurials;* the *bichloride* in solution; or *calomel* or the *nitricoxyde* or the *nitrate* in ointment. And a mild but steady use of hydrargyrus internally; with the object in view of stimulating the corneal absorbents. "Boerhaave prescribed

the repeated use of calomel and *cathartics*, to dissolve the lymph and free the cornea from leucoma." One has fancied the *turpentine* beneficial in these cases. At all events the clouds have been dispersed during its use. Consequence or effect?

The *albugo* is the same in kind as the nebula; greater in degree. Some pretend to be able to distinguish what leucomata have resulted from ulcer; what from abscess; which without breach of texture. It has been said that when the original corneal substance has been absorbed or suppurated away in disease, the new and substitute structure is opaque, invincibly opaque.

Be all these stories true or fictitious; the state of the parts as to look and form is the surest guide. If there be pearly whiteness—*paralampsis*—especially if there be prominence of cornea—the case is surely irremediable. All of hope that can here be indulged is, that the cloudiness, which usually surrounds an albugo may be cleared away, up to the confines of the albugo. Should this denser obstruction stand right before the pupil, and the sight be useless; even then one needs not despair of partial benefit, through a compound process, partly natural, partly artful. If the surgeon will clear away the nebula, nature will cooperate and dislocate the pupil to opposite the cleared portion of cornea. She will, if the patient be young and the iris loose, without fail. She may, if the patient be adult. This is one of the most pleasing sights afforded to the pupils of an ophthalmic school. Marvellous vis medicatrix!

Case.—A disbanded soldier applied at the Infirmary. He had been just discharged from his regiment on account of the state of his vision. The left eye had been destroyed through gonorrheal ophthalmia. The right was in the following state. Upper third of cornea *cloudy;* lower thirds *albuginous.* Enough of perception of light to prove that the mischief was in front. Guthrie's nitrated ointment was prescribed for the nebulosity; which it soon dissipated, sufficiently to shew that the lower portion of the iris was synechial with the cornea; and that a minute, useless portion of pupil was peeping over the edge of the albugo. Then I added the extract of *belladonna* to the *nitrated argenteous* ointment; half-and-half; and the result has been an expansion of pupil behind the clarified cornea, so extensive as to give him most useful vision; and to abolish all thought of an artificial pupil.

In other cases has been tried, with similar triumphs, this medicinal compound. Or is added simply the *lunar caustic* to the extract of belladonna; 2, 3, 4 grains to the dram. And a bit of this is to be inserted within the lids at bedtime. The belladonna never loses its efficacy; and never hebetates the retina. The pupils at the old Charterhouse Square Infirmary must remember to have seen present herself a woman, whom Ware primus had treated at least twenty years before. It was a case of double extraction; the pupils were dragged into the corneal cicatrices; but those many years she had been maintaining an useful dilatation by the belladonna.

Every body knows the invincible obstinacy of the

VASCULAR CORNEA;

rendered vascular by the Egyptian ophthalmia. I talk thus, because I have never seen in civil life so remorseless a disorder as the soldiers present. In this terrible malady the red velvet lining of the lids looks like red plush, which at times no treatment decolors nor lævigates. Look at the cloudy, grey corneæ, with their wickerwork of blood vessels. And remember the months, nay years of fruitless toil at clearing them. Local stimulants; incisions; excisions, circular, radiated. More benefit has been derived here from Mr. Guthrie's nitrated argenteous ointment than any other remedy. And this is saying a great deal!

In that form of *keratitis,* which answers to Mackenzi's description of the *strumous,* the symptoms are at times most refractory. The opacity complete; the cornea conoidal—the mischief running back to other and interior textures. Vision, but of light, gone.

In such a case, lately treated, in conjunction with a surgeon of Dereham, the prognosis was of the gloomiest kind. In spite of mercurialization and adjunct remedies, scientifically administered by that gentleman, the lad was becoming daily blinder; nothing of remedy *told;* when the patient broke his thigh badly. Great irritation was produced in the soft parts and surface of the limb; and the eye became perfectly clear. There is reason to attribute this to the femoral counter-irritation. And this nar-

rative confirms the propriety of a treatment, long and successfully adopted; great irritation excited by the antimonium tartarizatum. This was mentioned before; and the place to be selected is the parietal surface of the head, on the side of the affected organ. It must be confessed that it seems to benefit in exact proportion to the *pain* it inflicts.

Yet is there anything peculiar about the antimonial eruption, to account for its superiority? Is the idea of Dr. Jenner well founded, that it may owe its efficacy to its similarity to the natural eruption of small pox? In this fever, doubtless, the counter-irritant is a salutary eruption; as proved by the calamities engendered by its not appearing; or, having appeared, being depressed or repelled.

Sauvages classifies two more species of leucoma. First. *Leucoma Oule* of the Greeks—*Corneæ Cicatrix* of the Latin physicians. These cicatrices, "which succeed to a wound, commonly disappear spontaneously, as may be seen in those who have undergone extraction of the cataract." Secondly. *Leucoma Gerontoxon—Arcus senilis.*

Every body knows the arcus of old persons. But nobody understands its physiology. It is not always an index of years. It occurs occasionally in middle life; and it runs, according to the statement of a lady, who shewed it when thirty, in all her family; whose members manifest it in early life. It gives a bland, subdued, and dispassionate expression to the eyes; and, perhaps, is intended by nature for one of those symbols of mature and judicious age, which produce involuntary deference in younger breasts.

We are told that Ætius gave the name of *glaucosis* to an opacity of the whole cornea—a word too similar to glaucoma for us to adopt it—and that Van Swieten cured two cases of such opacity by *corrosive sublimate.* In one, the cornea had been opaque many years and became perfectly pellucid. In the other, both corneæ were entirely opaque, and the crystalline lentes had more opacity than natural—what is their natural opacity?—He continued the sublimate eighteen months with most fortunate success. He states that the constitution can bear this remedy for a long time without any injury.—WALLIS.

Tbis statement about the sublimate is in harmony with the observations of Dr. Holland, as narrated in his "*Medical Notes.*"

"An opacity of the cornea and muddiness of the humours are spoken of from the bite of a mad dog."

In such a case, in all probability there were opacity and muddiness in the eye of the surgeon's mind. When will the members of our profession think it possible that a patient may be mad in imagination only? when will they cease to assume in every case, in conformity with the apprehensions of the terrified victim, a physical virus?

He who has long scrutinized the accounts of hydrophobia, given in newspapers, on coroners' inquests, must arrive at a firm conviction that, in a vast proportion of the cases, death has resulted from nervous apprehension. That in these there has been no canine virus, which has affected the frame. That the idea of rabies torturing its victim; not repressed, not diverted by the surgeon: but seized, fostered, acted

on, has engendered those various, terrible, and fatal phenomena, which have deceived all parties. Subjoined is a case, by way of specimen, not so striking as some.

On Wednesday, John Lander, aged 24 years, died in Guy's Hospital. The deceased was bitten by a dog on the 17th of last June in the right arm, was immediately cupped, and escharotics applied to the part. Three days after the dog died *without the usual symptoms of hydrophobia.* The deceased continued in *fear* for some time, but it gradually wore off. On Saturday last he experienced excessive pain in his legs and knees, which gradually worked upwards to his arm. On Sunday severe pressure of the chest ensued, and difficulty of breathing, accompanied by *great mental excitement.* On Monday he again went to the surgeon, who bled him, and feeling assured he was affected with hydrophobia advised his removal to the hospital. Although placed in a warm room he complained of great cold, and was seized with attacks of spasmodic inspiration that caused him to grind his teeth in a frightful manner. He expressed utter abhorrence of any liquid. He frequently vomited green bile, with a severe spasmodic and convulsive action; his pulse became small, but compressible, and the tongue quite white, with lividity of the edges. About half-past 12 o'clock yesterday he was seized with a tremor of the whole body, and his head rolled from side to side. From that period he gradually sank, and died gnashing his teeth in most excruciating agony about a quarter past 1. Did hydrophobia, or terror, destroy this victim?

There is a corneal opacity, kept up, it is said, if not engendered by *granular palpebral* linings. If this be so, these nebulosities must arise from vascular action maintained on the cornea by the friction of the scabrous lids. Yet it seems doubtful whether these corneal affections be effects or simply coœval with the palpebritis; each due to the same cause of congestion.

It hath been the manner of some to classify the granules of the conjunctival membrane; but for practical treatment this division seems superfluous. They are all, in proportion to their prominence, evidences of a relaxed condition of the vessels; and require more or less of astringent, repressive or stimulant applications. The practice, so rife at one time, of putting the patient, young or old, tough or tender, to the pain of the lancet scarifying the lids; this practice is here never pursued nor ever required.

It does not appear that surgical any more than medical treatment is efficacious in proportion as it is rough and brutal. The practice of scarifying with barleybeards, thistles, rasps, and pumice stones has been discontinued; and it is to be hoped, the lancet will also cease to scare. "These incisions, by destroying the smoothness of the mucous surface, also by direct injury, give rise to great pain. This method is not a consistent mode of diminishing inflammation of a part so delicately formed."—MIDDLEMORE.

Doubtless the tendency of the chirurgical art is to render careless of the infliction of pain; and if a man resist this tendency, and resist it triumphantly, he forms an admirable member of the human family.

Which of his pupils will forget the gentle, soothing manner, to his prostrate patients, of a chirurgic baronet still living? His handsome, manly physiognomy; his athletic form; so finely in contrast with his bland voice and *light manipulation?*

τῳ μὲν κουφοτέρας χεῖρας πόρεν ἔκτε Βέλεμνα
σαρκὸς ἐλεῖν τμῆξαί τε καὶ ἕλκεα πάντ' ἀκεσάσθαι.

The brutal person, who does not vanquish his natural sentiments, is inevitably made worse by the operative art. Whilst the noble-minded surgeon displays his eminence by tenderness as well as dexterity. This philanthropy beams out in the very beginning of a work by a metropolitan operator, whose performances, it is reported, astonish the medical spectator by their unrivalled, splendid celerity. "The first consideration is the state of mind and *feelings* of the sufferer."—*Surgery by Liston.*

The saving of pain appears the great object of this author, whose very art is founded on its infliction.

For the opacity of the cornea few English surgeons have tried a remedy—"mercurius dulcis with sugar"—much vaunted for "man and horse," blown through a quill into the eye. This proceeding even Dupuytran commended; but there is something uncouth about the process, even if a practitioner has actually studied projectiles.

CORNEAL ABSCESSES.

But keratitis may not end in simple deposit of lymph. It may engender pustules on the surface; abscesses in the interstices of the lamellæ; or near to the aqueous humour.

The pustular ophthalmy usually plants its phlyctenulæ on the sclerotic portion of the conjunctive; preferably at the junction of albuginea with cornea. More rarely on the corneal surface. Mr. Velpeau states that photophobia is due to a corneal, not conjunctival affection. And, certainly, when the pustules occupy the sclerotic conjunctive, the patient confronts the light with great audacity.

The superficial *phlyctenular* ophthalmia is hardly ever fatal to vision, unless sadly maltreated. At worst, it leaves a nebula in the region of the little abscess. These are abscesses, which never demand chirurgery. We never scarcely see any, which are not easily ruptured by nature; leaving a surface, whereon the local stimuli may act with benefit. If indeed they do act with benefit; or merely are innocuous, whilst the native powers are filling up the breach of surface.

It seems clear, that if nothing were done locally in most cases, these postpustular ulcers would be healed; just as similar ulcerations of the membrane lining the cheeks and lips depart without trouble.

Treatment.—These *phlyctenular* eyes should be exposed to the air; and, if they do not dislike it, to the light. At all events to the air, if the light be shaded off. Yet we constantly see children brought for advice, whose eyes are encased in as many folds as a Turkish turban. By these the ophthalmia is increased; the pustules turgesce the more; and an artificial, spurious photophobia is engendered.

These simple *pustular* ophthalmiæ yield to cooling laxatives, to the atmospheric collyrium, if one may so

talk; to cooling lotions; or, which may seem odd, to the reverse of cooling, stimulants locally. Take your choice. Of the latter, the best possible is the nitrate of silver; weak in solution; or substantially applied to an obstinate pustule.

The deeper *abscesses*, the interstitial pustules, so to speak, are a graver enemy. Here we have to fear leucomata, penetration of the cornea, hypopyon, procidence of iris, blindness.

It is marvellous how nature dreads and prepares for these penetrant ulcers! How she gets ready to thrust a portion of iris into the corneal opening, long before the actual rupture! How in a trice, when it does occur, she stops the leak! In these interstitial abscesses, *the treatment* must be proportionally active. General bloodletting from the arm. Where is the wisdom of those practitioners, who recommend in such cases arteriotomy or venæ sectio jugularis, rather than bleeding at the bend of the arm? This is simple, unfussy; effective both as to velocity and quantum of blood. Why should it be pretermitted?

Then the other antiphlogistic remedies and mercury must be prescribed. The local remedies can hardly tell through such a depth of horny substance. But a general refrigeration should be maintained over the ocular regions by cold washes.

But if, in spite of bloodletting, mercurialization, etc., the abscess burst internally, this is not a bad ending, provided the cornea does not give way also in front. If it burst internally only, there is a probable resolution of the disorder, commencing; since the hypopyon, which results, is, apparently, innocent. This

hardly ever distends the chamber, requiring instrumental evacuation. But when it occurs, it seems to produce a mitigation of inflammatory symptoms; and to give an opportunity for the rapid and effective influence of mercury. The pus is taken up wonderfully quick.

This hypopyon is not always the result of acute keratitis and active ulceration. In some chronic, indolent ulcerations of the cornea, it exists; copious, enduring, painless. One repeatedly sees it in the corneal affections of the insensitive, ironsided, agricultural laborer. He goes on with his plough, or his scythe, to the last moment of vision. Then he seeks the ophthalmic infirmary. He is received into the house; and with quietude, darkness, abstinence; little depletion and less local appeal, the pus is absorbed; and he convalesces in very little time.

Most covetable patients are the fortunate agricolæ! when compared with the squalid, cachectic, vicious townsfolk! Even for the triumphs of our art, in these days of conflict betwixt the spade and the shuttle; calicoes and corn; georgics and gin; all hail the rural population!

It is right to warn the student of the loose manner, in which the term hypopyon is confounded with hypopium, by our oculistic authors. This latter term means extravasated blood, sugillatio—a black eye;

στεφάνων, τριχίδων, αὐλητρίδων, ὑπωπίων.—Aristophanes.

Hypopyon, from πύον, means suppuration; and the student will see the propriety in a grave and technical work of distinguishing an upsilon from an iota.

Let not the reader imagine these remarks to be irrelevant; but remember the doleful story of Don Vincent de Guzman. When he was seized, two famous physicians were sent for, Dr. Andros and Dr. Oquetos, who were of opinion that the humors were in a state of fermentation. "We must make haste," said Andros, "and purge off the humors, though they be crude." Oquetos maintained that they ought to wait for the concoction of the humors. "But your method," resumed the first, "is directly opposite to that of the prince of medicine; Hippocrates says that we must purge, when the humors are in the orgasm, that is, in a state of fermentation." "Oh, there you are mistaken," replied Oquetos; "Hippocrates, by orgasm, does not understand the fermentation, but the concoction."

Which was right? Don Vincent was not the man to decide; but, obliged to chuse, bestowed his confidence on him, who had despatched the greatest number of patients; I mean the oldest of the two. Andros withdrew. Oquetos remained triumphant, deferring his cathartic. But death, afraid the purgation, so sagely delayed, would deprive him of his prey, prevented the concoction; and carried off Don Vincent; who lost his life, because his physician did not understand Greek!—Le Sage.

Intelligat, et pro comperto habeat mancam et imperfectam prorsùs esse medicinæ artem sine literis.—Halford.

ULCERA CORNEÆ.

Sauvages has classified these into several varieties.

1. *Argema.* The silvery ulcer. "In some part of the external circle, about the breadth of half a line, with redness of the conjunctiva, with whiteness of the cornea."

2. *Bothrion.* Small, hollow, straight, clear; equal to the head of a pin.

3. *Epicauma.* External, often in the middle; foul, burning, ash-colored, sometimes flocculent.

4. *Encauma.* Deeper, very burning, sordid, difficult to cicatrize.

5. *Cœloma.* Hollow, round; broader than the bothrion, not so deep; near the iris.

6. *Elcydrion.* Superficial, clear.

This distinction; is it practical?

Some of these given characters may be found occasionally in ulcers of opposite nature and demanding opposite treatment. And the diagnosis should be founded not so much on the ulcerated as on the inflammatory condition. The greater mass of ulcers depends on activity of vessels; the true inflammatory state; and they require the antiphlogistic treatment. It hath been too common to contemplate the ulcer per se; to consider it a cause, not an effect; requiring direct, whilst mediate applications would cure. Even now, much as ophthalmology is cultivated, this error prevails; formerly, it was universal. Cæteris paribus no application to an ulcer of the cornea is demanded. There may be much photophobia; and

then it will be proper to exclude the light by a closure of lids. Then what more adapted application to the morbid surface of the cornea, than the natural? the smooth, moist palpebral lining? Not pressed down hard by a relentless bandage; nor stifled with a heap of rags and kerchiefs. But maintained in quietude by a strip of calico. But if there be little or no intolerance, then the cornea may be subjected to the atmosphere, if this be bland; and the surface of the ulcer be not scabrous and irritant of the moving eyelids.

The touchstone of skill in treatment, is the character of ulcer as to languor or activity. If one is satisfied that the ulcer wants a fillip, there are numbers of appropriate stimuli. Of which the best are the zinci sulphas, the cupri sulphas, the argenti nitras.

If there be a whitish halo—*argema?*—round the ulcer, then one knows that the cicatrization is proceeding. And the pencil of vessels repairing from the nighest point of conjunctiva is positive testimony. Until the peculiar study of the eye was a branch of medical education, these reparatory vessels were deemed inflammatory; and the surgeon was solemnly occupied with their destruction; ignorant that he was doing all the mischief in his power; counteracting nature herself in one of her most admirable performances. That day has past; but not long since. And such a monstrous error as this, in an era of medicine supposed to be acmëan, should teach us to distrust, in many other cases, methods, which we dogmatically prescribe.

One often sees an exuberance of lymph flowing over the edges of an ulcer; crowning it; and tempting the surgeon to interfere and repress. But if he waits, he will find his meddling useless; the lymph smoothed down to the corneal level; and the successful vessels retracting to disappear. Still, if he is impatient and fussy, the laudanum will expedite the process; which, when formerly misinterpreted, was assisted roughly enough. "If fungous excrescences arise, small ones may be subdued with escharotics, the best of which is lapis infernalis; if large, the knife may be safely used in the hands of a skilful surgeon." Certainly the knife, as well as the stone, would be called infernal now; but, superas evadere ad auras, there is a divine stone, which would be beneficial as an astringent of these deposits, if indeed they approached to a fungous look. The *lapis divinus* was formed of the blue vitriol, alum, nitre, camphor; equal parts. Of this powder two drams were dissolved in four ounces of water. And such a composition, used as eye-drops, is worthy of its name, compared with the potassa fusa.

If one might, under a general rule, assimilate corneal ulcers to those of the soft parts, one should imagine that the ulcer, secreting puriform matter, was the "simple or healthy"—Bothrion—Cœloma. That the clear ulcer—Elcydrion—transparent, stationary, whether straight or round, broad or narrow, hollow or superficial, ranked with the "weak" or "indolent ulcers"—and that the foul, ash-colored, flocculent ulceration—epicauma—encauma—might be called the "irritable, gangrenous or sloughing."

We are too apt to hurry our proceedings in the treatment of corneal disorders. In such a texture the movements, whether from health or towards recovery, are essentially slower than those of sensitive, highly organized parts. And this remark is applicable to all visible ophthalmiæ. It is not thus in our treatment of internal, latent inflammations of other parts. Although in these we know the processes, which are going forward, we give the vis medicatrix time. In the ophthalmiæ we are frightened by appearances; and stimulated by the impatient patient to meddle too much. Among such useless interferences ranks evacuation with the lancet of corneal abscesses. First; because one never sees them productive of irritation and tensive pain, as in soft parts. Next; because their matter is not liquid, fluent, laudable; but tenacious and loath to quit its nidus; whether this be interlamellar; or the cornea has been perforated and hypopyon the result.

But, another sequela of corneal perforation, whether or not pus be manifested in the chamber, is the projection of some solid content; membrane lining the cornea; or iris; or, occasionally, hyaloid membrane. Wonderful narrations of the projected corneal lining —*tunica humoris aquosi*—are published. How it sometimes rises "so far above the natural level of the cornea, as with difficulty to be covered by the eyelids. We are obliged to remove it with the scissors, or destroy it by the lunar caustic"—yet a similar protrusion is apt to return again and again, even in the course of a few days.

Who can understand how the serous membrane, lining the cornea, can be thus expanded, like a bubble of soap from a boy's tobacco pipe? This coat has always appeared too consistent for such rapid elongation. Yet what else can it be, in cases where the hyaloid structure has not had a chance of exit?

Be it what it may, rash appears the prescription to cut it away or cauterize. This projection is a much more innocent tumor than a hernia iridis: and may be intended by nature to prevent an iridal protrusion. It blocks the aperture fully, restrains the humor aquosus, and cannot, soft as it is and pillowy, exasperate the lining of the lids.

This theory of the salutary repagulum, presented by the aquose vesicle, is confirmed by a case in Christ's Hospital, which occurred to the observation of Mr. Wellbank.

"If there be strangulation of the neck of the supposed sac, from narrowness of the ulcer, or thickening or adhesion of the iris, the communication of the vesicle with the anterior chamber may be intercepted, although the sac thus insulated is still capable of secreting the watery fluid, and effecting a rapid adhesion of its divided edges. Where, however, from extent of ulceration, this strangulation is not perfect, the aqueous humor of the anterior chamber will be actually discharged on puncture, and *the iris thrown forward.*"—*Wellbank on Frick.*

This little work by Dr. Frick is worthy purchase by the ophthalmic student. It is concise, racy, in the style of American laconism. It displays the art of

concentration; doubtless, the most difficult in literature. To know where to stop. To give the reader a chance of obtaining truth, and the meaning of the author, by his own deduction; without the marshalling of every possible word and sentiment on the surface of the page. Granting that

> Decipimur specie recti. Brevis esse laboro, obscurus fio—
> Invitium ducit culpæ fuga—

still this over condensation of style occurs, only

—si caret arte.

By whatever method, stimulant or antiphlogistic, local or systematic, the ulcer may be treated, it appears scientific to let the aquose hernia alone, to be sloughed away by the closing cornea: and to retain the lids in close apposition to the tumor—the best of compresses as most congenial.

It is not for an individual to contradict the many grave authorities which have advocated cauterization. To narrate a peculiar practice and personal reflections is justifiable. He may be permitted to deprecate the cautery, who has never seen it benefit, and believes it does harm generally in aqueo-capsular herniæ. Doubtless, in the iridal hernia, to which the term

MYOCEPHALON

hath been applied, there is often much pain, whether in the conjunctival surface irritated by this novel body; or in the iris itself, whose sensibility has been developed.

But it seems preferable to keep the lids opposed; and moderate the pains by opium internally, opiate

drops to the eye, sedative washes without; rather than interfere with the natural process, which, the inflammation moderated, will be set up. This process consists in throwing the conjunctival covering over the flyhead projection; and with this the cautery would interfere mal à propos; speaking generally.

The belladonna must be applied incessantly, that the iris may be helped against needless and great protrusion. For procidentia iridis seems to be medicinal as well as natural. Nature plugs the ulcerous aperture with a bit of iris, in order to prevent fistula; synechia anterior; and proportional displacement of the post-iridal contents. The object of the surgeon appears to be the prevention of superfluous protrusion; the induction of the healing process in the ulcer; and the simultaneous retraction, which numerous cases prove to be practicable, of the iridal plug.

If *indeed* this *myocephalon* irritate perilously the conjunctival linings of the lids; or if the iris be *indeed* itself the seat of agony, caused by the bit entangled in the ulcer, one possibly might deem it proper to cauterize—to destroy the projection, or hebetate the iridal nerves. But this proceeding is an evil; and seldom performed with the triumphant result, which books describe.

"As it is extremely difficult to avoid injuring other parts of the eye, I would advise you only to resort to cauterization when it is indispensable. The astringent collyria, usually employed in ophthalmiæ, may sometimes be used successfully. In one or two instances, in which I had prognosticated an aggravation of the malady, unless cauterization were resorted to,

the patients got well in the course of a few months, although astringent collyria only had been employed. Since then I have, several times, allowed the disease to take its course, without attempting to cauterize, and the patients have likewise got well. We may temporize when the ophthalmia is slight, and there is no fear of suppuration and sloughing of the cornea; cases, in which the perforation is small. When it is large and the prolapsus of the iris is considerable, cauterization must be resorted to as soon as the inflammation has subsided."

These are the opinions of M. Velpeau, as published by Mr. Bennett in the *Medical Gazette*. They shew us how discriminate is the practice of that physician; how averse from promiscuous use of the caustic in iridal prolapses.

In the ninth of Mr. Lawrence's "cases of gonorrheal ophthalmia," the protrusion of the iris covered by the membrane of the aqueous humor, formed a smooth oblong tumor on the margin of the cornea, about one-third of an inch in length, and half as broad. Not caustic, but a weak solution of zinci sulphas was used; the result was perfect vision; although there remained an opacity about one-eighth of an inch in diameter, and the iris adhered to it.

After all, if the surgeon must use the argentum nitratum, let him consider his object. If it be the destruction of the iridal sensibility and pain, let him confine the touch of his conified caustic to the iris; if it be the induction of adhesive inflammation, surely both structures, cornea and iris, are concerned in this. A solution of the mineral would here be preferable;

and the camel-hair pencil. The substance has failed, not infrequently.

In morbis medendis, is qui ultimo loco vocatur, remediis, quæ jam ab aliis tentata fuerant, sibi narratis, facilius, interdum casu, incidere potest in novum aliquod remedium, quod cæteris salubrius sit. Quæ si recordaremur, modestiùs forte sentiremus de inventis quamvis felicibus; nisi enim alii ante nos impedimenta removissent, via nobis libera et expedita haud esset; ita partem gloriolæ nostræ haud exiguam debemus aliorum, qui ante nos eadem tentaverant, erroribus.

Heyne. Præfatio ad Pindarum.

The argentum nitratum has been thus applied to an iridal protrusion in each eye; week after week; temporary ease being produced, because the lids were kept closed after each application. The patient soon complains of fresh misery and intolerance. Again conjunctivitis is induced; again the caustic is applied. A fresh slough is made in fresh iridal structure; the same ease; repeated protrusion; renewed burning away. Until the whole iris is brought into synechial contact with the cornea! and vision can only be restored, if the parts will permit an artificial pupil.

It is likely that this pain and subsequent symptoms might be prevented by the complete quietude of closed lids; for the rupture of cornea, per se, always abates inflammation. And to set to work directly with the escharotic seems to be contrary to the process, which nature is curatively adopting.

Although the subdivision of labor in our profession is a great good, as hath been stated in a former page; yet is it not an unmixed good. The tendency

of the artist is to overvalue his own department and tools; of the physician to contemplate, only or chiefly, systematic treatment; of the surgeon to recur, mainly or exclusively, to manipulation. The extraction of a few cases from the rough records of a public case-book, will serve to shew that no rule exists of rigid application; but that some corneitides may be cured by systematic treatment; some by local; that some require them both. M. Velpeau demands our thanks for his recommendation of *local treatment*, occasionally, alone.

April 13. A young man, aged 17, displays *chronic corneitis.* Let him try the unguentum argenti nitratis. 20. The cornea is more acutely inflamed. Citrine ointment should be substituted as a milder drug. 24. Unguentum argenti nitratis may be repeated. 26. Better, since the stronger application. May 1. Better. No farther remedies, save on the 25th a pulvis purgans, before the patient is discharged *cured.*

Case.—A female child, aged 4 years. *Strumous corneitis,* chronic. Aug. 31. Unguentum argenti nitratis. Pulvis purgans. With these simple remedies pursued until Oct. 23, she was on this day discharged *cured.*

The following are a few cases of terebinthinate treatment.

Case of keratitis cured by turpentine. A boy, aged 10 years, had been malè oculatus about six months—the conjunctive and sclerotica were inflamed; and the inflammation of the left cornea had deposited lymph at the edge of this tunic. Whitewash locally—turpentine internally were given. In a very brief period,

the sclerotitis was subdued and the cornea cleared.

Similar treatment has succeeded equally in a *case of keratitis, with ulcer* of the cornea. The sclerotica implicated in the inflammation. Locally whitewash; *turpentine* internally were prescribed and these alone.

Case.—A young woman, aged 16, had laboured under sclerotitis with *corneal inflammation*, a long time. The result were conicality of the ball and great opacity of the cornea. Yet by patient, enduring use of the turpentine, she had obtained in about four months great transparency of the corneal tunic; when she ceased to appear for advice.

Case.—A young woman, aged 20, had endured *corneitis* nine years. The cloudiness of the left cornea had disabled her from seeing any minute objects; but with her right eye she could just manage to see how to use the needle. She was told to apply the argenteous unguent; and to swallow turpentine, which, in about a month, rendered her cornea so clear, that she ceased to present herself.

Case.—A scrofulous boy, aged 7 years, who had suffered from *inflammation attacking the corneæ*, was ordered to swallow half-dram doses of terebinthina thrice daily; and to use the vinum opii locally. By this simple treatment his corneæ were cleared in seven weeks.

Case.—Another miserable, scrofulous child had long suffered *corneitis*, with the usual results. Hazy as were the corneæ, yet the intolerance of light was dreadful. On the 4th of May, the half-dram doses were prescribed thrice daily. And an antimonial irritant to the scalp. Through the summer months

the oil continued to be taken, with augmented efficiency. The right cornea, by the beginning of September had become clear; the left all but transparent; and in the beginning of November he ceased to shew himself.

Case.—A young woman, aged 16, applied, in the middle of Sept., with *corneitis*, nebulosity and central leucoma. Using antimonial irritation to the scalp; the argenteous ointment to the eye; and the turpentine internally—she obtains a cure in the middle of November.

The impression on the mind of the witnesses of the terebinthinate methodus medendi is, that it tells quicker than the mercurial or the ordinary. That this is eminently visible in the wretched, scrofulous child. A patient, who in general quite wears out his welcome, before he is cured or relieved or absconds.

The cases, at all events, illustrate the positive benefit of a terebinthinate treatment in corneal maladies. Similar evidence might have been adduced, in the second chapter, for the same management of sclerotitis. But the pleasant reading of a book is so lamentably spoilt by the interposition of rugged cases, that unless they be imperiously required, there being doubts about the reasoning and deduction, they should be pretermitted.

Nebulous cornea; from siphylis; conical. Nov. 28. Mary Smith, aged 27, contracted siphylis five months ago. Now the iris of the left eye is inflamed; the pupil is irregular, cloudy; the vision is dim. Cupping on the nape. A calomel pill every four hours. Dec. 1. The eye is very painful. V. S. ad. ℥ xii.

Dec. 3. The pain hath departed. Apply the belladonna. Let her continue using the pills of calomel and opium. Dec. 6. The left eye is better; but the right is becoming iritic. The pupil is perpendicularly oval; the cornea is surrounded by a vascular zone. Let antimony be applied behind the ears. A pill every four hours. Dec. 9. The left eye, that originally affected, is becoming conical. Even the whole globe; yet the cornea is clearer. The right eye improves. The mercurial influence is inadequate. Let us administer a mercurial pill with greater frequency. Dec. 10. Even now the mouth is not sufficiently sore. Let the pills be continued. Dec. 17. The left eye is much better. The right eye is well. Dec. 24. Discharged *cured.*

In this case of Smith we may remark the supervention of iritis in the right eye, when the frame was influenced, certainly somewhat, by mercury. We see also the conification of the cornea, even of the whole globe, under the attenuating influence of inflammation, or of the hydrargyrus, or of both. This conicity differs from the simple cone of the cornea. In mere corneal deformation the cone, as such, evidently projects from the rotund globe. In the conicity of the ball there is a gradual prolongation of the whole organ; betwixt the albuginea and cornea, we detect no spherical demarcation—there is a slight flattening of the former at the corneal rim.

This supervention of iritis, the mercury influencing the frame, is a great puzzle; say what we will. The ingenious Mr. Travers, in the "*Surgical Essays,*" has expressed his belief that the mercury is the cause of

this supervening iritis. Is it? or shall we decide with Dr. Farre, that the mercurial action is an erythema; not adhesive, but counter-adhesive? Certain it is, that even during a mercurial impregnation of the system, iritis attacks the eye.

Case.—Harriet Etheridge, 29 years. Her left eye has been disordered a fortnight. There is iritis; and lymph deposited. The cornea is slightly muddy; the sight is imperfect. March 17. Let her take every four hours calomel and opium. A detail of the bloodletting and other means is omitted, as irrelevant. March 22. Let her take the hydrargyrus every six hours. April 7. She is much improved; the cornea is clear; the pain has departed; sight is returning. Let her still take the hydrargyrus. Then comes the report of April 10. *Much affected by mercury. Right eye becoming iritic.* Pupil drawn noseward; pupillary edge of iris drawn backward to the capsule of lens.

This case is quoted, as similar to Mr. Travers's. The patient continued to take the mercury until April 28; and was discharged by Mr. Browne, her surgeon, June 2. This case, does it, more than others, imply that the mercury caused iritis; or simply did not prevent it; the disorder, whether siphyloid or any other, still marauding in the frame? Mercury, given for keratitis or other disorders, does not produce iritis; which seems to militate against the Traversian theory. Yet mercury, failing to cure in some cases, may be suspected of augmenting, at least maintaining the ophthalmia. Mercury seems inert, perhaps noxious in the following

Case.—1824, May 12. John Claxton, aged 27. *Chronic iritis, with corneal and sclerotic inflammations.* Let him take, besides adjuvants, a pill of calomel and opium every four hours. April 24. Fully under the influence of mercury. July 1. This patient derived no benefit from a steady perseverance in the above treatment. When all medicine was omitted an improvement began: and with a better diet and the cinchona very considerable benefit was soon obtained. He is to go home for some months, to Lowestoft.

"When medicine was omitted, an improvement began." What a capital confession for Moliere!

"His grace fell sick; and finding the affair grow serious sent for three famous physicians. As soon as the arrival of these was reported in the castle, nothing was heard but groans and lamentations; the servants looked upon the death of their master as just at hand; so much were they prejudiced against these gentlemen, who had brought along with them an apothecary and surgeon, the usual executioners of their prescriptions."—Le Sage.

As the Sulphas Quinæ seems to have been used by Mr. Middlemore and others, so the terebinthina is often recorded.

MORBILLOUS CORNEITIS,

or inflammation of the cornea excited by the measles, is, most probably, due to the strumous crasis of the patient. This tunic, with the conjunctiva, is often

attacked during this disorder, or when it wanes. And what objection is there to the term morbillous, even if no specific character be seen in the vascularity?

"The precursory fever of the measles is accompanied, especially on the third and fourth days, with a tenderness and some inflammation of the eyes, and a slight turgescence of the eyelids, together with a serous discharge from the eyes.

Inflammatory affections, indicative of a cachectic condition of the system, are liable to occur at the close of the disease, and prove tedious and troublesome. In some, inflammation of the eyes and eyelids, of a more unmanageable character than the common ophthalmia."—BATEMAN.

Doubtless, the same physician who asserts the "Non-existence of arthritic, rheumatic, or scrophulous ophthalmia as a specific disease," will object to a rubeolous. All these terms are legitimate. Arthritic ophthalmia is inflammation in a gouty person. It partakes of the character of gouty inflammation in other parts; modified only by the texture, which it invades, of the eye. So of rheumatic; so of scrofulous ophthalmy. It is said that similar phenomena are manifested in patients, not gouty, not rheumatic, not scrofulous. What then? The description of these varied ophthalmiæ is not founded on a solitary specimen; but as applicable to a number; on *the whole*, the gouty, the strumous present such and such appearances.

M. Velpeau is perfectly convinced that what has been denominated arthritic opthalmia is nothing but iritis or choroiditis, or these combined. Still if an

attack of gout in the extremities, as authors declare, will remove these ophthalmiæ, they are as much gouty, as the inflammation in the great toe, which relieves them. To deny this is mere logomachy.

"Whether gout is a specific disease?" The gout is the gout; an inflammatory action, if not definable, in a way which will satisfy a minute philosopher; yet well known; easily recognized. A fit of gout in his foot would satisfy the sceptic of its real specificality; as a kick on the breech must have convinced the sophist that there was such a thing as matter. But it is not for the other members of the profession to prove the speciality of gout; but for M. Velpeau to disprove. On him lies the burthen.

"He says that within the last three months he has recognized the symptoms called arthritic in at least twenty patients, of all ages, of both sexes; and yet not one had ever been affected with gout. The symptoms are merely those of iritis, together with some others, referred by authors to inflammation of the choroid membrane."

This is a bone, for whose picking the Germans may, perhaps, think it worth while to contend with the Parisian lecturer. Or those English writers, who speak dogmatically on the matter; as the author, whom I have quoted in the former portion of these pages.

But gout is not the only disorder given to the winds *portare in mare Creticum*—the region of "liars," with "slow bellies"—the proper place for a fabulous nosology, connected with alvine constipation. Rheumatic and scrofulous ophthalmia fare no better.

"These two specific forms cannot be recognized, unless it be first proved that scrofula and rheumatism are specific diseases. There nature is still unknown; and their history requires revising entirely."

It may be "absurd to assert that a patient is rheumatic or scrofulous, merely because the ophthalmia presents certain characters, although himself may offer no symptom of either of these affections." But where there is strumous or rheumatic disorder, there, at all events, one may strictly denominate the ophthalmia specific.

Undoubtedly prudence, tenderness, truth may prevent our terrifying a family by denouncing a child as scrofulous, when he is only an ophthalmic sufferer; yet it is possible that scrofula may betray itself in the eyes alone.

Sure enough there is no strumous ophthalmy, if there be no such disease as struma—no rheumatic, if there be no such disorder as rheumatism.

But if there be a specific disorder of the frame; if this be allowed; there is one phenomenon, which would settle the dispute about the speciality of some ophthalmiæ. This is metastasis. If the gouty inflammation leave the toe, and the eye suffer; or the eye suffering be relieved by an inflammation attacking the foot; that ophthalmia must be arthritic. Metastasis is believed even by the poets:

> Emovit veterem mirè novus; ut solet, in cor
> Trajecto lateris miseri capitisve dolore.

Will our ingenious oculist, who discredits the speciality of so many disorders, decry likewise the metas-

tases? If so, he might unawares encounter the catastrophe depicted in the subsequent line:

Ut lethargicus hic cum sit *pugil*, et *medicum urget*.

I know of nothing, which would gratify the medical world more than an attempt by the ingenious lecturer to unhorse these two diseases, which have so long bestrode our abused minds. If he succeeded, he would merit well of mankind. If he failed, perhaps the dexterity of his argumentation would cover the disgrace of his defeat. Until, however, he has annihilated it, we must continue to believe in the separate existence of rheumatism and of scrofula.

Yet, after all, in this logomachy, as on other subjects of discord, the parties may come to an honorable compromise. "I am quite willing to allow that rheumatism or scrofula, coexisting with an inflammatory affection of the eye, exercises more or less influence over that affection—no one doubts the influence, which certain causes exercise over disease."—Velpeau.

Now it is not certain that any writer means more by scrofulous ophthalmia, than inflammation modified by scrofula. And so of the remainder. Nay, what more could be said of the inflammation in the ball of the toe, characteristic, according to the credulous, of the gout; than that it is an inflammation in that part, modified by the gouty diathesis?

The siphylitic ophthalmia is admitted to be specific. But can any thing juster be said of siphylitic iritis, than that it is an inflammation modified by the morbus gallicus?

However, this gentleman will doubtless favour us with an elucidation of his views; or else he will resemble the politicians, who have now, more than two lustra, distressed and degraded this British realm. Whose aim has been the subversion of the received, the ancient and the common-sensible; with nothing substituted in their place.

But I have to contend that, if the views, anti-arthritic, be correct, the honor is due to this country; and to a gentleman, who has, on another arena, contended for his country's honor.

Mr. Guthrie, in his remarks on glaucoma, published in 1823, says—"This the Germans pronounce arthritic upon no sound principles, unless it be, that when persons are subject to gout and suffer internal inflammation of the eye, it oft assumes characters, which, when they appear in others, are therefore denominated gouty, although no such predisposition has been observable. Which fact they admit; as well as another, that the inflammation is sometimes, in gouty persons, of a healthy character. The inflammation is really disorganizing, not necessarily connected with gout. The consequence of viewing it as gouty has been, that they consider it as affecting two classes, one of meager, irritable habits, the other of a flabby and relaxed fibre, pastose, in order to account for the different symptoms; but the symptoms depend not alone on the habit of the patient, but on the part affected.

For instance, *they say* that in the iritis arthritica of meager, irritable people, the iris becomes immoveable, the pupil, angular, contracts and remains in its proper position. After every attack of pain, the pupil con-

tracts more and more, and lymph forms in it, which destroys vision.

In flabby, callous patients, the pupil always expands and assumes an oval form as in ruminating animals, because the radiated fibres of the iris contract towards the canthi, particularly towards the internal. The pupillary edge is turned towards the lens, the small circle of the iris disappears. The pains become tearing and piercing as if the ball would burst, a symptom that the vitreous membrane is affected, it and the humor becoming opaque—the approach of glaucoma. If the lens take a share, it forms a cataracta viridis, glaucomatosa, and appears to swell out towards the iris.

The pains augment, varicosity of the ball increases, the sclerotic and choroid form partial adhesions, nodulated swellings; the cornea acquires a cadaverous appearance, vision is destroyed.

The symptoms here detailed in no case depend on inflammation modified by habit; on the contrary, in the first example, the iris only is inflamed, not the choroid or hyaloid membrane. In the second example, the choroid is the part affected, with the vitreous membrane, the iris scarcely implicated. The pupil was dilated because the choroid was inflamed, not because the individual was relaxed, flabby, or callous. When the choroid coat is inflamed, without the iris, the iris changes color, the pupil is dilated; but these symptoms proceed no farther. When both choroid and iris are inflamed, the choroid obtains the mastery, and, in consequence of the pressure from behind, the pupil is more dilated."

These are the opinions, long recorded, of an author, of whom it may be said, as of an heroic soldier-surgeon, of ancient days—

Ιητρὸς γὰρ ἀνὴρ πολλων ἀντάξιος ἄλλων,
Ιοὺς τ' ἐκτάμνειν, ἔπιτ' ἤπια φάρμακα πάσσειν.

Mr. Herbert Mayo states—vide the *Medical Gazette*—that "Siphylitic iritis is sometimes the only symptom manifested in lues." Is it marvellous, if scrofula or rheumatism or gout should, in like manner, be only or first made manifest in the eye?

Although, luckily, in general an ophthalmia is propagated only in one direction, from without to the iris; or, sparing this structure, to the cornea; yet occasionally it bifurcates and seizes both iris and the transparent tunic.

Case.—Elizabeth Hewson, aged 30, is admitted, March 29, 1826, for iritis of the right eye. The iris is immoveable. But the *cornea*, also, is *ulcerated* and universally traversed by vessels. Thus vascular also is the palpebral conjunctiva. The pain is superorbital; and the vision is nearly abolished. Let her be cupped; and take a Guthrian pill every four hours. In two days the mouth began to be touched with the mercury; and the vision to improve, through a clearer cornea and a pupil expanded by belladonna. The mercury was diminished to one grain in each pill. April 3. Two grains of calomel were prescribed thrice a day; which induced a free mercurial action. Under this the iris regained its natural color and mobility; and the ulcer of the cornea was filling up on the 15th,

when she was made an out-door patient. June 7. She was discharged *cured*.

Here we see iritis and *keratitis* in full play together; both yielding to mercury; and both cured by it. And here we see mercury curing the adhesive action, which was agglutinating the iris, and opacifying the cornea; and at the same time filling up the corneal ulcer. Preventing and forming deposit at the same time and in the identical structure. Say what we will, this is a pathological marvel. Wonderful must be the therapeutic vis naturæ, if it can use mercury with such varying skill and complex adaptation. While the mouth was "severely affected," the ulcer was healing. This does not look like action merely erythematous. But it tempts one, with Mr. Travers, to "not consider the alterative action of mercury" to be limited to one order of vessels. I have used the word erythematous, in deference to the authority of Dr. Farre, who calls "the condition of the extreme arteries, when fully excited by mercury, an erythema —an action, which essentially weakens the cohesion of parts; but the adhesive inflammation is so exactly opposed to this, that both cannot be the result of mercurial action."

About the etymological truth of this, as applied to the Greek term erythema, some doubt may be entertained. But the context explains what Dr. Farre intends to express. Mr. Travers's *Essay on Iritis*, as, I suppose, every medical reader knows, contends for a *mercurial iritis*. An iritis caused by the very agent we all use to dispel inflammation. How reconcile such opposite effects? Considering the opposite

conditions, both of the system and the part, in health and in disease, Mr. Travers thinks the seeming contradiction ceases. Sees no difficulty in understanding how the sound iris should become inflamed and throw out lymph—and the inflamed iris recover healthy action, and the lymph be absorbed, under the same agent. A sound part presents as marked a distinction from a diseased, as the opposite states of diseased parts present. Yet we see deposition and absorption go on at the same time in different parts of the system, healthfully if according to their need; the reverse, if otherwise. Sound parts, morbid depositions reduced by absorption; deep ulcers filling with granulation—one ulcer cicatrizing, another sloughing on the pudendum of the same individual.

We inject a transparent ulcer upon the cornea with a solution of caustic, lymph is thrown out, and it heals. We inject the cornea rendered opaque by lymph, with the same solution; the lymph is absorbed, and it becomes clear. In either case a contrary effect would be produced, if the remedy were resorted to at an improper time.

But there is another explanation. It is this; the changes, which parts undergo in the commencement of healing, are not opposed and dissimilar, as the conditions appear.

The absorbents, for example, level the callous edges of ulcers and thus prepare them for healing. This is as obvious an effect of mercury as the absorption of simple depositions. The granulation of the ulcer is an after-process, which follows as a natural effect the salutary change in the circumference. The filling of

the breach is an act of the constitution, and may be regarded as the *remote*, not the direct consequence of mercury.—Travers.

Now, whichever is the true physiology; whether the hydrargyrus can affect both orders of capillaries, deponent and absorbent—or whether it acts only on one set, and the movements of the other be consecutive, indirect and natural—and whether the set stimulated be the depositors or the absorbers; the facts quoted, narrated, well known, are extant and untouched.

Nor let the reader imagine this digression irrelevant and anile. The truth is, that in the treatment of corneal ulcers some persons have great fear, lest the use of the mercury should attenuate the cornea, already threatening perforation. Such cases, as have been narrated; and such reasonings, as those of Mr. Travers, may tend to dissipate these terrors. May tend to confirm the oculist in a perseverance with mercury, whilst the inflammation, which is the origin of the ulcer, exists.

Mercury, it is true, is a sorbefacient; I have known it produce a corrosive character in an ulcer penis, which menaced the destruction of the whole glans. I have known a gentleman in that condition—his general health nearly destroyed with erethism, dysenteria and depression of the vital powers; merely because his surgeon imagined that, as the chancre was spreading, the mercury was the more demanded. Whereas, the complete and instant cessation from the drug allowed the immediate granulation of the sore.

But such a case as this, not at one time rare, is

widely different from one of corneal ulcer, the result of corneitis. Whether, this inflammation being subdued, and the mercury still over-impregnating and really poisoning, the corneal ulcer would go on to corrosion, is another question. Probably it would. But, in general, cases are constantly occurring, in which the mercurial action and granulation of ulcers are synchronous. Thus:

Case.—Bernard Wyet, aged 60, applies on the 3rd of November, 1824, for an ophthalmia in the left eye, which had subsisted ten weeks. The conjunctiva and iris are both inflamed; the centre of the cornea is opaque; the vision has fled. The details of treatment are omitted. Let him take every four hours a pill of calomel and opium. Nov. 6. The *cornea* is uow *ulcerated*, in the seat of the opacity. 12. The breath and gums display the mercurial influence. But the *ulcer is filling up;* the iris has regained its natural color; the vision returns. This patient continued to improve rapidly—but in December, having been sent home, underwent a relapse, which protracted his ultimate *cure* by Mr. Browne.

There is, then, a point up to which mercury, although a sorbefacient, is consistent with deposition; even apparently causes it. Beyond this point the mere sorbent, attenuant, phagedænic character of the mineral is displayed. Where is this point? Where stop with mercury in corneal; in any ulceration? The point must be guessed by the judicious observer. No definite, unalterable, mathematical mark can be perceived in the various, infinitely various, circumstances of morbid structure and action. Nothing can

be more unsatisfactory, after all, than theories about the mode of action of medical materials. The Traversian theory or any other. We know the great fact that breaches of continuity are healed under or by mercurial influence—we know that breaches or rather solutions are maintained, created by it. Ulcerated solutions of continuity are generally and at first attended by other phenomena; in the dense structures, by inflammation or callosity surrounding; in the transparent, by opacity. It is probable that when these added circumstances are removed, mercury has done its all; and that to prolong its use would be productive of phagedæna.

Case.—Phœbe Stout, aged 8½ years, displays two *ulcers* on her right *cornea;* an *opacity* in her left—sequelæ of inflammation. Let her take calomel and opium every night. This was ordered August 30th. Sept. 12. The ulcers are healing. 27. Great improvement. Oct. 10. So greatly better, that the mercury may be omitted; and the local stimulus of the vinum opii will complete the *cure.*

Here the surgeon guesses successfully at the point, where mercury has sufficed. And if the patient had persevered, in all probability we should have witnessed phagedænic ulceration of cornea.

Must not one concede a sort of knowledge of its opposite duties, not to the mercury, but to the mysterious vis medicatrix whose agent the mineral is pro tempore?

> Labouring art can never ransom nature
> From her unaidable estate.

——Nature is made better by no mean,
But nature makes that mean: so, o'er that art,
Which, you say, adds to nature, is an art,
That nature makes.

But even the vis naturæ may be vanquished; and he, who pushes the drug to the attenuant degree, may call himself a victor over her!

This place will subserve as well as another, wherein to attempt to justify the use of the termination *itis*. This is properly to be tacked on to a Grecian name of anatomical structure. But the great convenience of this ending may render it usable, whatever the language adopted.

Thus *keratitis* is the correct term for inflammation of the cornea. But since the Latin cornea, not keras, is in constant employment, let us not hesitate, for convenience and general understanding, to adopt the word corneitis. And so of other disorders.

Ulceration of the cornea is often a simple effect; curable through the cure of the inflammation, which caused it.

Case.—David Sheldrake labors under *inflammation* of the adnata, the sclerotic, the *cornea;* on which is an *ulcer;* and the disorder has subsisted fourteen days. Let him be blooded to ℥ xiv; purged: and use whitewash to the lids. July 12. Let him take five grains of the blue pill, with Dover's powder, thrice daily. A blistering plaster. 19. The mouth is becoming sore; and the symptoms yield. Let him take only two pills a day. 27. The inflammation is

much diminished; the ulcer very shallow. Vinum opii is now applied—and he is very soon discharged *cured.*

In the last case, of Sheldrake, no application was made to the ulcer, until this was filling up, when the vinum opii was instilled. In the following

Case.—Anne Blyth, aged 43, labors under mild subacute sclerotic inflammation, of ten days duration. But the *cornea* displays an *interstitial abscess;* the iris is not involved. Let her use no local remedy; but try the turpentine. She is discharged *cured,* August 15.

Case: capitally illustrating the efficacy of the terebinthina.—Charles Hazel, aged 7 years. There is a partial *suppuration* of the *cornea,* which has caused *hypopyon.* The iris is inflamed, discolored. He is ordered to swallow *the oil;* and to use the belladonna collyrium. He improved so rapidly that in a fortnight he was made an out-door patient; the ulcer healed; the pus absorbed; the iris sound.

The fortune of physic resembles the fortune of war. A case, so auspicious as that of Hazel, justifies a similar treatment of similar symptoms. Behold a dissimilar result.

Case.—William Mountain, aged 7 years, applied, Oct. 17, for *hypopyon* in the right eye, whose *cornea* is beset by a *variolous pustule,* which has penetrated the tunic. The turpentine is prescribed; with the saturnine wash. 21. The hypopyon is increased. Let a grain of calomel, commixed with one-third of a grain of opium, be taken every four hours. Even this most active mercurial treatment arrested not the

secretion; which, on the 24th, escaped through the perforant pustule. Feb. 27. Result; a complete staphyloma, of considerable magnitude.

When was discussed the siphylitic iritis and other forms, it was said that an alternation of hydrargyrus with terebinthina succeeded now and then; whilst each drug alone was impotent. So in *keratitis*, the combination seems occasionally useful.

Case.—1837, June 3. James Corboe, aged 14, has labored under ophthalmia three weeks. The sclerotic is very vascular; the *cornea*—it is the left eye—is *opaque* and becomes *conoidal*. The Guthrian pill was too purgative. Let it be given, with the antimony omitted, ter die. Belladonna wash. Tartar emetic locally to the side of head. This mercurial treatment was practised seven days; with no improvement. On the 10th, terebinthina is prescribed, at night; the pills not to be totally left off; but repeated less often. 22. Under this method, he recovered so rapidly as to be made an out-patient and cured.

This was a case of combination of the two articles; but the alternation is as visibly efficient as in iritis. The ulcerated cornea, with hypopyon, has by this alternating method been cured without sequelæ. The case moreover of Hazel is not the only case known of ulcus corneæ with hypopyon yielding; the ulcer granulating; the pus absorbed; with the use of the vegetable oil *alone*. No sequelæ left.

These are cases, which illustrate the propriety of not always meddling with local applications. So in *traumatic corneitis;* as shewn in *cases*, where a petty fragment, as of iron, has been struck into the cornea;

very deep; it often seems perilous to attempt to pick it out, lest the tunic should be pierced. The corneitis in some such cases is slight; and is successfully encountered with whitewash and purgation alone. No inflammation is set up; and the patient is not visually disabled—the extraneous body not irritating.

When an inflamed cornea ulcerates; and ulcerating produces *iridal protrusion*, even *staphyloma racemosum;* when even the abscission of the staphyloma has been performed; the lens escaping; even then, in some rare cases, vision may be secured. Take this most rare

Case.—Maria Bradford, aged 22; May 21. Left eye; prolapse of iris in divers places; vascularity, in every direction, of cornea; (kept up by friction of the lids?) Perception of light. Right eye nebulous. Scarifications, leeches, calomel with opium, were prescribed. July 2. The protruded iris has retired almost completely. 23. The cornea has regained its natural shape. Above the synechia anterior partialis are seen two-thirds of pupil; dilatable. This is an instructive case, as there was actually held a consultation, whether to abscise the staphyloma. Aug. 5. The iris reprolapses. The part to be touched with lunar caustic. Let her take calomel and opium, &c. 1824, Jan. 3. Pupil nearly invisible, from albugo. May 2. There exists a decided staphyloma; and severe palpebral conjunctivitis from its friction. The vision is gone. In a few days the staphyloma was abscised; the lens escaping. Four or five weeks afterwards the eye recovered, extraordinarily, the na-

tural form and size. The opacity occupied not quite two-thirds of the lower part of the cornea; the upper part transparent. July 13. An operation for artificial pupil has been performed. From the degree of synechia anterior some fibres of the iris were divided, the number not satisfactory; but the operation was repeated more than once; a good pupil formed; and she was discharged cured, November 22.

The cases, which have been narrated, have been those of disorder in the conjunctival covering of the cornea; in the lamellar structure; in both; in all the substance, since perforation, prolapse and their sequelæ have been witnessed. They prove that keratitis may be successfully treated with local remedies only, in some instances; with systematic remedies only, in others. They shew that the everlasting prescription of the books in favor of sanguineous depletion is not always gospel; and they prove the power of turpentine. M. Velpeau thinks he has disproved the specificality of certain ophthalmiæ, because he can cure them locally. This does not seem conclusive. Is a siphylitic ulcer the less specific, because it yields to the unguentum hydrargyri nitrico-oxydi; no internal mercury given?

For the *scrofulous corneitis*, beside turpentine and quina, the iodine has been used with success. And the formula kept for patients of the infirmary has been, because the most portable, the tincture, as prescribed by Coindet the discoverer. The preparations of modern use are perhaps more efficacious.

The traumatic corneitis requires the same treatment as the constitutional, or the simple and local.

The results of blows vary like the effects of other causes of inflammation.

Case.—Thomas Barnes. His *traumatic corneitis* ends in ulcer and hypopyon. He is admitted May 7; mercurialized; his ulcer cicatrices; the pus vanishes; and he is discharged from the house, June 2.

Case.—Thomas Barker, aged 35; received a blow from a whipthong on the cornea of the right eye. The result in his case of *traumatic keratitis* is a central nebula—and an arcus resembling the senile. The vision of minute objects gone.

Case.—Philip Stapleton, aged 24; receives on the cornea a blow from a stone. After ten days he presents himself; and there is pus in the great posterior cavity of the globe. It points two lines below the cornea; it is evacuated by the lancet repeatedly; and in three weeks from the injury the eye is atrophic.

CHAPTER VII.

MEMBRANA HUMORIS AQUEI.

The distinct, almost isolated inflammation of this lining of the cornea is not so difficult of diagnosis, as some persons might imagine. Its opacity, the result of inflammation, is dotted, as hath been said: and we can perceive the seat of disorder to be subjacent. As we occasionally behold dirt through a stratum of pellucid ice. This membrane is said by the microscopic anatomist to line both cavities, posterior and anterior. And if it does, what solution does it not afford of the diseases in this region? Nay! the disorders themselves elucidate the tunic and its extensiveness.

For instance *iritis*. One symptom is a loss of polish and brilliancy in the iris, followed by diminished transparency of the posterior surface of the cornea; the anterior chamber frequently becomes charged with soft lymph, not easily to be distinguished from pus, often confounded with true hypopyon. The membrane is covered with tubercles of lymph, in some cases organized, destroying vision by adhesions of the iris, closure of the pupil.

If a wound be made through the cornea, and the aqueous fluid escape, often we find adhesive inflammation set up, and if the iris comes in contact with the cornea, adhesion immediately ensues.

When an ulcer forms on the cornea and destroys each lamina, before it absolutely penetrates, a little membrane is pushed into the excavation, convex, resisting long the ulcerative process; this same vesicle is the serous membrane of the chamber.

The some observation applies to the posterior chamber, in synechia posterior, adhesions of the pupil, opacities of the anterior capsule.—DALRYMPLE.

To an inflammation of this membrane has been given the name

AQUO-CAPSULITIS.

Symptoms, as detailed by Mackenzie. Muddiness of anterior chamber. Occasional appearance of eyeball unusually full. In severe cases lymph effused, adhesion between iris and cornea. Often milk-like spots on the internal surface of the cornea, the most characteristic mark. Of the spots the central points are surrounded by a disk, resembling the eye of a pebble.

All this is the general and acknowledged condition; but the author just named compared the spots, moreover, to minute drops of ammoniated oil. Where is the similarity of oil and the eyes of a pebble?

There is the zone on the sclerotica. Sometimes vessels in the membrane. Sensation of distension in the ball; of pain in the head.

Treatment.—The main method, as lauded by Mr. Wardrop, is evacuation of the aqueous humor. But it doth not appear that oculists in general are disposed to follow this gentleman's advice. Why do they not? The following *case* must be interesting, if the diagnosis be credited.

W. Grey, aged 47, presents himself on the 31st of May with the symptoms of *aquo-capsulitis*. It would be endless, in a public record-book, to detail the phenomena of each case. That this of Grey was truly an instance of inflamed membrane of the anterior chamber, must, therefore, be assumed by the reader. Grey is requested to swallow the *turpentine*. June 11. An antimonial plaster is applied to the right temple. And now ʒj of terebinthina is given every six hours. June 27. He is reported "nearly well." July 5. Very much improved; and now he disappears from our Infirmary.

Whether inflammation of the lining membrane would affect the quantity of the aqueous humor is doubtful; the sensation of fulness recorded, and the *apparent* prominence not convincing on this subject. Since the aqueous humor is secreted by this membrane, it should follow that in aquo-capsulitis, whether or not be diminished the secretion, muddiness of the humor should result; this inflamed membrane secreting a thicker fluid; quality if not quantity affected.

In

HYDROPHTHALMIA

what is the fluid? what the secernent? Are some, many of the cases of dim, lost vision due to a hypersecretion of vitreous or aqueous humor; when no enlargement of the eyeball indicates? In the adult, the dense tunics oppose a successful resistance, it may be well imagined, to the distensive fluids, oversecreted. Up to a certain point of pressure they would resist: and long before that point was reached, the perceptive

structure, the tender retina must inevitably be pressed into paralysis. This, perhaps, accounts for the hardness, almost stony, of some amaurotic eyes.

In the child, especially the infant, the distensive power of the fluids, combined with the growing capacity of the shell of the eye, allows an enormous enlargement, without rupture of the ocular tunics.

Case.—Antony Baker, aged 9 years, displays, in lieu of an eye, a rotund, resisting staphyloma of the whole globe; purple as a grape; big as a Seville orange; with little, if any, indication of cornea. The lids cannot cover it; but it is painless; and nothing demands chirurgery, save its monstrosity. 1834, Nov. 22. After a long consultation, it was decided that a puncture should be made. From the statement of his mother, it had been growing from birth. "It is her opinion—as also several country surgeons'—that the disfigurement was caused, a stick having been thrust into Mrs. Baker's eye, previous to her confinement. When the child was born, there appeared a little mark at the corner; at the expiration of a week, the eye began to enlarge. The child has always been very healthy."

Staphyloma hydrophthalmoides would be, perhaps, a fitting name. The puncture was made; and the sac collapsed, like a vaginal tunic emptied of serum. The escape of aqueous fluid was complete and the lids could unite. Dec. 10. The saccus has regained nearly its former size, and there is no pain. 13. An abscission of its front half was performed, as in the usual operation for staphyloma. Laudable suppuration occurred; and a mere knob remained, immovable

by the muscles, when he was discharged cured on Jan. 21. The practical inference from this case is—no fear of malignity; and a bold chirurgical removal of the part projecting.

The remarkable part of Baker's case was its total freedom from pain. It was not a case of exophthalmia, for there was no inflammation. It was not a case, strictly speaking, of exophthalmus, for the tumor was in situ ocellari. Nor was it general hydrophthalmia; in which "the pain is excessive. The patient is deprived of sleep, appetite, reason. Beer has witnessed this disease only in extremely cachectic subjects."—MACKENZIE.

Case.—1823, Sept. 8. Levi Kemp, 11 months old. *Symptoms.* Right eye enlarged; prominent as an exophthalmus. Sclerotica vascular, blue, varicose. Cornea blue and obscure; and one cannot decide whether the blue obscure be owing or not to a synechial iris. There is a button-like knob near the centre of the cornea, yielding as if there were suppuration, which is indicated by a straw color. The disease has existed ever since the child was three weeks old. Perhaps it was then first observed. I cut transversely through the cornea and tubercle, when a *large* quantity of aqueous humor, the lens and the vitreous humor were evacuated. Then this great ball collapsed and was covered with the lids, which, previously were so sundered, that the lower was tucked under the ball; and the upper concealed one-third only of the mass. Yet, next day, the ball was nearly as turgid as before. Sept. 12. I repeated the transverse incision; much watery fluid escaped;

and two flaps of cornea were cut away with the concave scissors. A dense mass, black and white, was now visible; resisting the forceps; and the lids were closed. 18. The globe has become large; but not by much so large as previously; for the lids can cover it Lymph thrown out nearly level with the cut edges of cornea. 27. Cornea almost regenerated; smooth. Ball lessening; sclerotic dirty yellow; trifling varicosity. When this child was abstracted from our care, there remained a firm ball, larger than a natural eye; but smooth, round, looking quiet; as if the dense tunic was compressing solid contents, the blueness of distended sclerotic gone.

It seems likely that these cases illustrate a kind of dropsy in the eye, which as yet is not so recognized. The following is not a very outrageous supposition; videlicet; that the eye of Levi Kemp, let alone, would in time have become like that of Baker; the solid contents and membranes *dispersed* by the accumulating fluid. That the tumor in Baker was the ruins of an eye; the interior mechanism destroyed by the pressing fluid; and the sclerotic tunic gradually and quaquaversum distended. Converted in fact into a mere cyst.

This theory seems backed by *a case* recorded in the fifth volume of the *Medical Gazette*, in the number for October, 1829.

Louis Bonnet, aged 20, had, since he was eight years old, a tumor, which filled the left orbit and projected greatly between the lids, which were tightened, very distended as to breadth, separate an inch and a half. The intermediate body was convex, red;

covered with a conjunctiva fungous, bedewed with puriform mucus. Of the spot, where cornea should have existed, a brownish tinge was the only mark. The mass appeared placed betwixt the muscles of the ball, which moved it; resistance announced a cyst; the tumor fluctuated.

The orbitar cavity had acquired extra dimensions. Delpech plunged a bistoury towards the middle of the lower lid; a citron-colored fluid was spirted out. Introducing a finger he discovered that the cyst was prolonged through the foramen opticum, so dilated as to give passage to the finger. The cyst was plunged into the cerebral substance, whose consistence was distinguished! Charpie was introduced lightly, the wound parted with anointed linen. Fifth day; death. *Autopsia.* The cyst had plunged into the inferior portion of the left lobe three inches, thrusting before it the pia mater and arachnoid.

Now did this cyst originate in the foramen, as Mr. Delpech inclineth to think; or was it the eye cystified? If the reader will refer to the *Gazette*, he will find no statements of positive and indisputable facts, whereon to decide that it was a cyst external to the eye, which it had dispersed by sorbefaction! But be it what it may, the wary surgeon will simply evacuate such a cyst; not grope with his finger into the brain; or he will, at once, abscise the prominent anterior; and treat it as a staphyloma, which has encountered the scissors or the knife. Then, probably, his patient will not be carried off by suppuration of the brain. That such cases—of Baker, of Kemp; perhaps of Bonnet—are illustrations of oversecretion of fluids in

the ball, the dense tunics not balancing sufficiently; yielding, not checking; is rendered likely by the physiology of the eye.

Les globes volumineux sont formés ordinairement de tuniques plus minces; les petits de tuniques plus épaisses.

Soemmering par Demours.

CHAPTER VIII.

CORPUS CILIARE.

It hath been said in a former page that, the extreme vascularity and anastomoses of the interior of the eye considered, one wonders every inflammation becomes not, sooner or later, ophthalmitis universalis.

But if the doctrine of partial inflammation be once allowed—and no man denies it—it should seem that true science would aim at the detection and diagnosis of inflammations more partial and more numerous than, as yet, ophthalmologists have described.

Every structure may be inflamed alone; and any structure inflamed but in part. Then let us take the ciliary body and inquire whether this is ever the subject of

CILIARITIS?

The corpus ciliare extends from opposite to the termination of the retina as far as the edge of the crystalline; a space two lines and a half on the temporal side, less on the nasal. It is divided into pars plicata, and pars nonplicata. The former, which is the ciliary processes, is about one line in breadth; the latter one and a half. The corpus corresponds to the zonula ciliaris on the anterior part of the vitreous body; their folds and depressions reciprocally receiving each other. The posterior edge of the cili-

ary body is dentated—*ora serrata*. The processes are about seventy, very vascular, supplied from the same sources as the choroid. The corpus appears, like the choroid, to receive few or no nerves.—Wharton Jones.

The *ciliary processes* are continuous with, and produced from the choroid; in fact mere folds of this membrane.

The *ciliary body* is the common origin, continuous with the choroid, attached to the ciliary circle, adherent to the iris anteriorly, difficult to separate. We must not, *therefore*, conclude identified organization. The different functions of the iris, its appearance, structure forbid.

The body and processes together form a concavity towards the vitreous body; plane, facing the iris. The processes and body are cellular, possessing extreme vascularity; various ciliary arteries, forming numerous arches at the extremities of each process; the blood returning along the vasa vorticosa and ciliary veins.—Dalrymple.

He, who reads these descriptions of the vascular ciliary body, would not readily deny its liability to inflame; in common with the choroid, of which it is a continuous prolongation; in common with the iris, with which, although not continuous, it is connected. Then may it not be separately inflamed?

Mr. Middlemore, in a section on the anomalous forms of inflammation, inserts some cases, which he believes to exemplify *partial inflammation of the corpus ciliare*. From these one may attempt a picture of this supposed, yet probable, disorder.

The pupil is rather small, drawn a little upwards and outwards, where, just behind the corneo-sclerotic junction, the sclerotica is a little projected, bluish-red. The redness occasioned partly by vessels in the sclerotic, partly by intense vascularity beneath it. The bluish appearance of the membrane would seem to depend on attenuation. A few very large, somewhat tortuous sclerotic and conjunctival vessels pass towards the vascular substance, which is curved round the corneal margin, about one-third. Sometimes the eye is free from pain and external inflammation. Sometimes the inflammation is suddenly increased, with, in addition to the appearances previously noticed, a faint zone round the cornea. These attacks occur at intervals, varying from one to two months. During the augmented inflammation, there is pain above the brow, upon the cheek, towards the nose; sometimes passing to the whole side of the head and face. Intolerance; lachrymation; occasionally scintillations; muscular spasm; diplopia.

In another *case* the cornea appeared prominent, too remote from the iris; nebulous near the projection of the sclerotica. The iris healthy; but the pupil scarcely so active as it ought. A small pustule, also, near to the bulging indicated the recurrence of attacks.

In a third *case*, the symptoms, milder, were chiefly objective; pain, lachrymation, intolerance slight. A new attack of inflammation was ushered in by the pustuliform body at the edge of the cornea.

It is not likely that an objection will be raised against the diagnosis formed by the narrator; but

Mackenzie in his chapter on choroiditis had, years before, alluded to this disorder in the ciliary body. Speaking of the tumor produced by that inflammation, he said that it "commonly takes place on one side only of the ball, generally near the cornea, as if the corpus ciliare was the seat of the disease." *Staphyloma corporis ciliaris.*

Two such *cases* are, at this time, under treatment by the author. The diminution of vision is trivial; but the eye will not sustain the effort of reading without pain. The vascularity and bulging are seated in the equator of the eye; the temporal side of the left eye in each patient, a young and a middle aged lady.

The sclerotic veins return visible and varicose from the corneal junction towards the outer canthus. In both cases there is elevation of corneal conjunctiva at the morbid spot, resembling the appearance produced by a forming, not formed pustule. In the younger patient there are specks of cloud on the adjacent cornea. Active treatment hath been employed by their family surgeons; bleeding, leeching, mercury; but beyond a certain point these remedies ceased to tell. The very aspect of the parts is obstinate. What can local applications effect, playing only on the unbroken surface; while the seat of disorder is partly subsclerotic, partly occupant of that dense structure itself? And even of systematic remedies how slight the hope that they should reach and influence this morbid structure! The veins enter largely into the formation of the disorder; organs which, when dilated in varicosity, require mechanical compression and support;

refusing aid from the materia medica. Neither of these two cases was presented to me in its primary condition; but the patients appeared, when they had been much weakened and discomfited by active treatment. Treatment, which, in these cases one is disposed to deprecate; injurious; inductive of symptoms, which the disorder, treated less heroically, might not have engendered. Least of all can one approve of irritant stimulation by the lunar solution et similibus. The treatment, if one may argue from failures, should be soothing; soothing only to the eye; cooling, laxing, anodyne to the frame. Where art cannot reach; or reach with mischief, the boundless resources of the vis medicatrix may apply, if nature be not disabled and paralyzed by over medical treatment. To keep the heart and arteries from distention and hyper-activity; the bowels regular through the Plummer's pill and rhubarb; and the general vigor sustained by cordial tonics: rather than diminished by depletions: is the practice indicated by the few examples seen and read.

In the cases just mentioned, most energetic practice and most stimulant applications had been tried in vain. In both the author requested the patients to rest on their oars—to give the naturæ vis breathing-time—and to repair, by tonics and nutriment, the breaches made by the therapeutic assaults. This repose answered during a short period, when a trivial cause reproduced activity of disease in both cases, and convinced him of the truth of Mr. Middlemore's description that "the eye is particularly prone to a relapse." Can we not oppose the venienti morbo?

known by "slight intolerance and lacrymation, vascularity of sclerotica considerably augmented, especially near the margin of cornea—polish and mobility of iris diminished—eye very painful?" Because this first and perhaps vincible stage is brief. "In a short time the sclerotica bulges at those points, which were vascular, has acquired a dark-bluish or leaden tinge, and the general inflammatory state is diminished." This "enlargement of sclerotica and dimness of vision remain." "The inflammation does not *at first* particularly affect either sclerotic, iris, choroid, retina or ciliary processes, but some part immediately beneath the corneo-sclerotic junction, which is left in induration and enlargement." For this first stage the writer quoted recommends antiphlogistic remedies, mercury, counter-irritation. But as yet no proof subsists of their paramount or permanent utility. Mr. Middlemore deserves our thanks for introducing these cases rather urgently to notice; and his remarks will be found in the seven-hundred-and-sixty-seventh page of his first volume; and the five-hundred-and-twenty-ninth of his second.

CHAPTER IX.

HUMOR VITREUS.

"*Glaucoma* is no opacity of the vitreous humor, nor an opaque retina, but depends chiefly on change of color in the posterior lamellæ of the lens, by which these, reddish-brown or deep amber, absorb the blue and violet rays of light, leaving the yellow and green but little affected. The glaucomatous lens, seen in the eye by *reflected* light is green; seen out of the eye, by *refraction*, is a deep amber or reddish-brown." —FORBES and CONOLLY.

That glaucoma was an opacity of the vitreous body —a cataract posterior to the lens—was almost universally by the moderns believed. But if this statement, made in the Forbesian Review, be true and scientific, then we discover another illustration of the sagacity of the ancients. "The Greeks of the second century came to the conclusion that the *glaucomata* depended on a change of *color* and consistence in the crystalline lens. These were the opinions of Rufus and of Galen; Oribasius, Aëtius, Paulus, Actuarius, and a crowd of others; even Maître-Jan."

Thus writeth Dr. Mackenzie, who hath dissected many glaucomatous eyes; finding the choroid without any pigmentum; the vitreous humor fluid, pellucid, colorless, or slightly yellow. No trace of hyaloid membrane. The lens yellow or amber; firm, trans-

parent. In the retina, no limbus luteus nor foramen centrale.

To the deficiency of pigment he is inclined to ascribe, in a great measure, the opaque appearance—a reflection of light from retina, choroid, sclerotic. It is probably bluish, when it leaves the reflecting surface, but greenish from passing through the yellowish vitreous humor, and through the lens still more yellow or even amber.

There is no green surface to reflect that color; the light must in transmission acquire the hue, most likely in the lens. Were it proved that the retina, naturally bluish, supported by a whitish sclerotica, reflects the light bluish, then one of the principal phenomena might be no longer difficult of explanation. In confirmation, if the lens is removed, or sinks, the green is almost entirely lost.—MACKENZIE.

The vitreous humor is not so easily rendered turbid, as some may fancy. The needle, which infallibly opacifies the lens and its capsule, leaves clear the vitreous fluid. Nay! there is reason to think that this fluid dissolves, as does the aqueous humor, the broken lens and lacerated capsule. If the hyaloid partitions were so apt to inflame, as the theory of inflammatory glaucoma assumes; surely we should perceive vitreous suffusion after many of the operations for lenticular cataract. After those, which involved a laceration of the hyaloid septa. That we do not often witness this, tells for the doctrine of Mackenzie most strongly; to some, perchance, convincingly. The author knows no such case of obscuration; but Mr. Cleoburey saith "When the needle

is used very freely, the capsule and cells of the humor are very apt to become opaque;" and he saw a case "where the humor was converted into a substance resembling curd."

A spectacle never presented to the observant and experienced Maître-Jan. He is speaking of the diseases of the vitreous body, when he says—"On lui en attribue encore quelques autres; comme lorsqu'il devient plus obscur, ce que je n'ai point encore observé; c'est pourquoi je n'en dirai rien." An admirable reason for silence, which the authors of huge elephantine books, filled with the sentiments of others, not disclaimed as their own, would do right to imitate. Then we should see with what good reason the literary monarch of Judæa denied the existence of any subsolar novelty.

The strenuous pertinacity, with which the paternity of illegitimate children is denied, is equalled only by the mighty readiness men display in claiming the lawful offspring of another brain.

What a laughable, pitiable plight would most of us present to the spectator, if we were derobed of our extrinsic acquisitions, as completely as a bulky-looking lady is eased of her foreign finery by a relentless officer of the customs!

There is a state of objective symptoms, which the senile eye presents, very confoundable with glaucoma. In this aged organ the decoloration undeniably arises from absent pigment. When the elderly person, with this unblack pupil, applies for advice, it is useless to

attempt a remedy. What can restore the black pigment? What give to the retina the impressibility of youth?

Yet the old amblyopic learns with much difficulty to be contented in his lot; nor seek from various oculists the removal of his dimness. Perhaps the patient does display some concomitant phenomena—congested conjunctiva or subgranular palpebral linings. For this appropriate treatment is instituted; and successfully. Yet the oculist is judged deficient in skill, because the vision is not proportionally restored. But the wonder really is that any longæve person sees at all, considering the exquisite character of the optical apparatus; and the amazing abuse of his eyes, to which almost every body must plead guilty.

Now whether the Greeks of the second century and Dr. Mackenzie, or the contenders for vitreous suffusion be correct; whether any given case of glaucoma result from simple absorption of pigment or from hyaloiditis, surely the condition is irremediable. There is a disorganization more or less actual; and why tantalize the patient or hold up to contempt the art of medicine by fallacious pretensions to relief?

Where there is proof of internal ophthalmia, doubtless there exists indication enough for a methodus medendi. Where there is glaucomatous aspect only, what of hope exists, that can justify medical experiment? Yet we are told that "on the *presumption* that glaucoma originates in inflammatory affection, bleeding and purging have been employed occasionally with benefit; counter-irritation has been useful; that an alterative course will prove more beneficial than if

mercury were pushed severely; that abstinence from alcohol and tobacco must be enjoined; that tonics after depletion may be tried; that puncturing the sclerotica and choroid might prove serviceable; that the removal of the lens improves the vision." Where are the cases? Where are the proofs?

As to puncture, we are instructed, a broad iris-knife should be pushed towards the centre of the vitreous humor, *turned on its axis*, and held a minute or two, so that the fluid may escape. What probably would be the fate of the drilled organ? The same as in the patient, who underwent a similar operation—anciently recorded—

> Οἱ μὲν μοχλὸν ἑλόντες ἐλάϊνον ὀξὺν ἐπ' ἄκρῳ
> Ὀφθαλμῷ ἐνέρεισαν· ἐγὼ δ' ἐφύπερθεν ἀερθείς
> Δίνεον.

This letting out of vitreous humor is founded on its supposed superabundance, although pellucid, in glaucoma. But another writer, with imperturbable gravity, provides against its muddy adulterations.

"It has been proved on animals that the vitreous humor may be almost entirely discharged, and afterwards replaced by a transparent watery fluid without material injury to vision; might we not, when inflammation of the membrane, which secretes the humor, has subsided, evacuate the turbid secretion, and afterwards inject clear lukewarm water? I shall certainly try the experiment in the first favorable case!"

By the goodness of God, in most illnesses the human sufferer is a free agent; and when he permits a doctor

to take liberties with his corporation, has chiefly to blame or applaud himself. But it is not thus with all. The case of children is occasionally very hard—subjected, through resistless parental authority, to the medical gripe.

As to active interference in disorders generally by professional men, the medecine expectante appears to be as rashly neglected here, as it is said to be fatally indulged across the British Channel.

If the French physicians do indeed carry their expectation too far; still it may be of two evils much the least. And surely they deserve credit for the adoption of a mode of practice so different from the native precipitation of the Gauls.

The vis medicatrix is virtually assumed to be a poetical figment; and when once the pharmacopolist has made an entry on the premises, he fancies that his sole duty and glory consist in working without her.

The most pitiful spectacle is the prostrate, partial apoplectic. Alive, sensible; hearing, seeing; but impotent to move a finger or his tongue. In a situation, from which unabated native power can alone save him; a big mass of blood extravasated into his brain—he is a condemned spectator of the depletory movements, which will deprive him of his solitary chance; and torment him moreover to his last. He consciously undergoes in succession the bloodlettings at the arm, the cuppings on the head; purgation; blisters; salivation, that lethiferous process. But he is unable to supplicate for mercy from the inexorable ministers of fate!

Leave me! Oh leave me to repose!

This routine perhaps will go on to the end of the world; since mankind are not one whit the wiser for the histories of the past. Look at the British empire at this moment, submitting to the government of men, who covet fame on the principles of Erostratus. So the history of our profession is an old almanac. The most important lesson that can be read to the incipient practitioner, in these days of bustle without business, is contained in the single word Ἀπέχθ.

The spirit of reckless interference might receive a check, if the physician or the surgeon would, ere he commences his proceedings, place himself in the predicament of his patient. Let him ask himself whether he would undergo the proposed remedium! No man should inflict what he would not endure.

Of the great Lord Exmouth it was said that he never desired any man to do what he was not ready to do himself. Most noble morality!

That attempts to render sight to a glaucomatous eye are essentially futile, might be gathered from the complication with amaurosis, universal and marked. Saint-Yves said "a glaucoma differs from a true cataract, by the complication of a gutta serena."

The fact is, the degree of glaucomatous discoloration will not account for the blindness. If it were simple discoloration, the patient should at most see colored objects. Even were it muddiness of humors, there should be some vision. Have we not all seen in cataracts, capular or lenticular, more of impediment and yet less of blindness?

Then if we adopt the other theory—that of absorbed pigmentum—we cannot solve the problem; because the albino, with all his photophoby, sees notwithstanding well enough.

The retina is in fault in all glaucomata—not simply the humors; for "two persons had their cristalline so opaque, that they seemed to have true cataracts, and these persons were able to read" to Saint-Yves, who, when glaucoma is once formed, pronounces remedies of no service.

There is a remark made by Saint-Yves, which, if true, is as important as curious; and will employ in speculations the philosophic oculist—

"When a gutta serena comes, one eye only attacked, nothing can be perceived by looking at both eyes open; if the well eye be shut, you observe the pupil of the distempered dilate, though exposed to light. The well eye opened again, the pupil of the diseased contracts, like that of the good eye, from which the distempered borrows motion. *This sign is peculiar to this disease and cannot be found in a glaucoma.*"

Chirurgical operation is as useless, for the glaucomatous lens, as medicinal treatment. Nothing can justify attempts, which can only add to the uninterrupted catalogue of failures. If extraction be done, forth flows the vitreous humor, like water. If laceration be essayed, the lens, hard and ponderous, can not be touched without rolling round on its axis; and perhaps soon dropping into the fundus of the globe. This exhortation may impress the junior oculist more through the example of

A case.—1824, June 19. Elizabeth Hayes, aged about 50. The right lens was lacerated with the needle, introduced about three lines behind the cornea. The lens was very hard; green; it revolved from the touches with the needle. The capsule was cut into shreds, visible in the aqueous chamber.

About two months before this, the left lens, green and hard, had been lacerated. This left diminished lens was now seen rolling about in the bottom of the vitreous cavity—"dancing up and down in it," Mr. Cleoburey would say. The vision in this left eye was very imperfect, not guiding; though no traumatic inflammation had occurred.

In the right eye no very urgent after-symptoms demanded heroic treatment; the cataract was undergoing absorption on July 1st; and re-lacerated Aug. 2nd. It was now much mollified; so that flocculi entered the aqueous chamber; and some escaped externally along the shaft of the needle. Some slight symptoms now demanded calomel and opium; but on *the ninth*, the upper part of the pupil was clear, when dilated by the belladonna. Oct. 2. The pupil was fairly dilated by this drug. The cataract, towards the nose, was *considerably cleared.* But the vision was wretched; bearing no proportion to the clarified space.

This poor soul received not any benefit from chirurgery. Her sufferings were all profitless, save to those operators, whom such a history may deter from abortive manipulation.

In this case the glaucomatous look departed, as the pupils were cleared of their lenticular obstructions—

illustrating the views of Dr. Mackenzie touching the cause of color. And verifying the remark of Saint-Yves made more than a century since.

"Some have thought a glaucoma to be an alteration of the vitreous humor; but I have always remarked, in this case, that operation restored transparency but not sight. After the operation, there appears no mark of opacity in the vitreous humor. For which reason I have assigned the name glaucoma to a crystalline cataract, accompanied, even anticipated by a gutta serena."—*Answer to Mouchard.*

The glaucoma may result from causes acting slowly. Such as affected the eyes of Elizabeth Hayes, recently noticed—are they essentially inflammatory? Or it may be acute, as in the case of Mrs. B. quoted in the 63rd page. That case a German would have called gouty; let us name it an ophthalmitis interna. If the iris were really inflamed, its inflammation soon yielded to that of the choroid, which, in the language of Mr. Guthrie, obtained the mastery. Hence the dilatation of pupil rapidly occurring; in spite, perhaps, of retinitis also concomitant.

The causes of glaucoma, be they acute or insidious, may be attacked with the needful antiphlogosis. For the glaucoma formed, visible, blinding

The treatment is, quoad the patient's part, to *bear!* the practitioner's, to *forbear!*

CHAPTER X.

NERVUS OPTICUS.

The maladies of this structure, whether we regard its expansion into retina; or its trunk, invested with a fibrous sheath; or its softer cerebral portion, running back to the corpora quadrigemina, are full of mystery, as to pathology; and uncertainty as to treatment

It is absurd to deny this. And yet, when we take up an ophthalmic treatise, we read as glibly and hopefully about the disorders of the optical nerve, as we run over the simpler, more obvious affections of the containing coats. It doth not appear that, with all modern helps from concentrated studies and ophthalmic institutions, we master the nervous maladies of the eye with more facility or more completeness than the ancients. The Greek and Latin writers, there is reason to think, are as philosophic, as observant, as practical, in this department, as recent surgeons.

It is much to be hoped that the study of the racy ancients will not be totally superseded by any recent medical literature. In exact proportion as they are made objects of inquisition and deference, are they discovered to possess every requisite for the improvement of the mind? Their philosophers are brimful of

facts; and evince triumphantly the logical power of making the most of them.

Yet what has not the pertness of modern assumption claimed and stolen from these former genii? Even the artificial dilatation of the pupil has been appropriated by recent operators, as their discovery, whereas it was noticed by Pliny.

Anagallida aliqui corchoron vocant.—Pupillas dilatat: et ideo hâc inunguntur ante, quibus paracentesis fit. Lib. xxv; cap. 13.

But the student of optic maladies will find great delight, and no little instruction, in the French oculistic writings of the last century. In Maître Jan; in Saint-Yves; in Guerin, who is as entertaining as he is scientific. In Gendron; in Janin. Not wishing to detract from German merit, we ought still to give to the French the applause, which the perusal of their isolated ophthalmologists must extort.

In the management of the maladies, more strictly optic, it seems that no theory as yet can be entirely credited. That every practitioner must use his own sense and discrimination, where his book and his preceptor can accompany him no farther. Much remains to be learnt of the physiology of the eye, even in this era of cyclopædias, when even children are deemed equal to their forefathers, before we can understand its obscurer diseases.

And much, in all certainty, must ever remain a mystery, when we arrive at the immaterial percipient itself. Vision, the faculty, is as profoundly unintelligible at this moment, as if nobody had begun to investigate. Then single vision, with a double organ,

has never been reconciled satisfactorily. Nor do we *feel* at ease about any theory as to beholding upright a topsy-turvy world.

That theory of optical nervous disorder, which refers it mainly, if not solely, to commotion in the vascular apparatus, will not answer in all cases; perhaps in a precious few. It is becoming very common. It is maintained by a distinguished and most practical oculist; and yet, if taken out of the keeping of his judicious and masculine restraint, it seems capable of as much mischief as any predecessor. A narrative, like the following, if successless treatment were as often reported as cures are blazoned forth, would often be read. It shews the impotence, perhaps error, of the common plan of depletion.

Case of amaurosis. 1822, Jan. 18. Anne Lilly, aged 35. *Symptoms.* Great pain in the head and eyes for 12 months. Now very defective vision, scotomata; sensation of a veil before the eyes; pupils contract but are not quite regular. Subject to hæmorrhage from bowels. Fiat v. s. ad ℥ xiv. Pilulæ hydrargyri gr. v omni nocte. Magnesiæ sulphatis ℥ss bis septimanâ. Feb. 1. Is decidedly better; and slightly mercurialized, as is shewn by her breath. 13. Pupils still irregular; she has felt no pain for a long time. 20. Much headache, since last report. Omittr pilula hydrargyri. March 4. Sight of left eye (the best) not so good. Vision of right eye rather improved; has had more headache. Repetatur pilula hydrargyri. Emplastra lyttæ ponè aures. 23. Much pain of left temple. Detrahatur sanguis nuchâ ad ℥xii ope cucurbitarum. 20. Very faint at times. Left

pupil quite circular. Right pupil less irregular, edges jagged. Nuchæ unguentum antimonii. April 17. Vision worse; head more aching; rheumatic. May 8. Eyes worse; health much affected. Omittantur medicamenta hydrargyrica. Misturam stomachicam. 15. Left eye considerably worse. Rep. pil. hydr. bis die. 18. Always *better as to vision, when better generally;* always better after dinner. June 25. Omittatur hydr. July 24. Discharged relieved. This case cannot be judged one of the vascular affections; of the nervous rather.

Case of dimness of sight, of which Susan Blazey, aged 28, complained, 1822, Feb. 13. Pain of head and of eyeballs; muscæ; pupils contract well. Foul tongue and disordered stomach. Blue pill and epsom salt. 16. Calomel; a grain at night. A blister to the nape. 18. Tongue cleaner; sight improved. 22. Eyes recovered.

Here we see a case, wherein the dimness proceeded from constitutional causes; the stomach disordered—

"One of the chief conditions of the body, in that general ill health, usually denominated 'indigestion,' is congestion of blood in the ultimate tissue of our organs. There is congestion of the brain; the veins become distended; and exert a very considerable pressure upon the surrounding parts—the origin of nerves, &c. Besides the great evil resulting from this general pressure, there is another produced by the accumulation of venous blood. Black venous blood has a direct influence in diminishing contractility and sensibility—a destructive and paralyzing influence.

"One of the most common symptoms of the dis-

ordered condition under consideration, is the appearance of small, black, irregular specks, floating before the eyes. This arises from congestion of venous blood in and about the optic nerve. The energies of this nerve are partially paralyzed by the devitalizing venous blood accumulated within and around it. If these specks go on multiplying and increasing, until they form one speck—that is, complete darkness—you then have the disease called amaurosis."—EDWARD JOHNSON.

The theory of this author is highly ingenious; and may be true. At all events, cases, similar to this above, are numerous enough; and demonstrate the connection betwixt the stomachic system and the eye. The records of an Eye Infirmary abound with such matter of course and short entries as the following.

William Adams, aged 45, complains of *indistinct vision;* his *stomach* is disordered. Sumat pilulam hydrargyri. Magnesiæ sulphatem manè. In one week he is reported better—and, like so many others, appears no more, to return thanks. "Were there not ten lepers? Where, then, are the nine?"

This simple form of mercury, with or without the sulphas magnesiæ, has succeeded more than any other method, in removing what is entered as "Incipient amaurosis"—even in cases, where really on close scrutiny no clue to the symptoms can be detected. Some latent, abdominal obstruction has, in these instances, been assumed—nor has the treatment, because empirical, been the less successful.

The treatment of the succeeding case may be called empirical; yet it is consolatory to know that it was

successful, because it was not of a nature calculated to injure the constitution by formidable evacuation.

Case.—Susan Middleton, aged 23, about six months ago was seized with a fit of sneezing, on the subsidence of which she discovered that her vision was rendered indistinct; it was good enough for the general purposes of life; but not adequate to minute objects. This state continued until 1834, July 5, when she claimed relief at the Infirmary. The pupils were dilated. She was ordered to swallow *the turpentine;* a dram thrice daily. July 12. This, after the trial of a week, proved itself inert; the symptoms were not improved; and she was requested to take a teaspoonful of a powder, half bark, half rhubarb, thrice daily; which had improved her vision much on the 11th of July; and continued more efficacious on the 2nd of August—when, like the rest of the ingrates, she disappears.

This effect of sneezing was probably produced through a rupture of minute vessels, supplying the retina or proximate structures. Since we often see an external

ECCHYMOSIS

resulting from causes equally insignificant. This effusion of blood beneath the sclerotical conjunctive cannot, for a moment, by a medical man be construed into inflammation. It is evidently a thin layer of coagulum. At first colored like fresh blood, soon appearing yellowish, from absorption of the red particles; and vanishing without a necessity for any application. Yet this departure may be hastened by liquid

stimuli or the fumes of hartshorn. This bloodshot eye terrifies its possessor, who flies for medical aid, with a promptitude, which perhaps he would not display, were his symptoms graver, only internal, latent and without an altered look. In children this effusion often arises from the whooping cough; or a blow; but often the patient, if an elderly person, is not conscious of this or of any corporeal movement, which might burst the capillaries.

This *Ecchymosis* is seated in the same part precisely as the *Chemosis:* and the similarity of the two words, as to sound, is often deceptive to the student.

SCINTILLATION,

a sensation as of sparks before the eye, hath been considered a very grave and inauspicious symptom. It is not always so. As pressure, with a finger, on the globe will at any time produce this or colored spectra; so, why should a symptom of interrupted circulation in the eye be deemed essentially dreadful?

A gentleman, whose eyesight is perfect, hath for many years been the subject of muscæ, more or less numerous; and of scintillation frequently, when, having put out the candle, he is in the act, with closed lids, of lying down in bed; especially, if his movements are hurried; and the dietetic history of the day allows an assumption, that his bloodvessels are not overempty.

It cannot be doubtful that in such a case the retinal expansion is affected through the vascular pressure; probably of retarded venous blood. A person is con-

scious of this retardation, when in the act of straining in a cloaca; or during any retention of breath.

Under this retention of breath, probably, many of the ocular ecchymoses, the patient not conscious of them, occur. And it is an admirable provision of nature, that external vessels should yield, rather than internal; the conjunctival than the chorioidal. So, in epistaxis! how many an apoplexy or paralysis has been prevented by a bleeding from the nostril! or, to move farther from the citadel, by a rupture of the hæmorrhoidal vessels in the lower bowel!

Case.—George Kett, 24 years old, has suffered, during a fortnight, an amaurotic dimness. Let him take five grains of blue pill night and morn. July 12. The dimness is not abated, yet it does not prevent his vision of small objects; only they are mystified. He complains of the sensation of muscæ. Let him diminish by one-half the pills. July 25. The symptoms are not improved; and now *scintillation* is added to their number. Let him try the turpentine! Sep. 13. Under the use of this he has improved; and the volitant muscæ are diminished in number. 25. He has been taking bark the past few days; and is so much better that he is discharged, as he lives at a distance in the country.

What the rationale of this case, not detailed with minute precision, may have been, is doubtful—it is likely that the terebinthina equalized the capillary circulation of the eye. This is most probably the modus operandi of this drug; removing capillary obstruction; and consequently the augmented action, which this had engendered.

But if any person dislikes this theory, let him reject it. Only let him not crow over his own! What medical philosopher will ever swear by the infallibility of his own theory, when the history of our art is the narrative of the successive abolition of all?

Case of amaurosis, in which the blue pill seemed efficacious.—John Williamson, aged 42, complains on the 26th of Sept., 1835, of formidable amaurosis. Yet, with inability to see minute objects, he is intolerant of light. It is presumed, from his story, that he has recently been the subject of an inflammation of the deeper textures. Let him apply the lotion of belladonna and swallow the turpentine. This treatment, pursued through Oct., produced no satisfactory impression on the disorder; and the local application of strychnine was tried; on the left temple. Nov. 28. The eye on this side regains perceptive power. Let the strychnine be sprinkled on the right temple; one-sixteenth of a grain on an excoriated surface; twice daily.

This application was of necessity soon suspended; as it appeared to excite an ophthalmia. But both eyes continued to clear; and it was resumed in pea-issues, on the 11th of December. But the efficacy of the strychnine ceased; after a fair, continued trial in January, 1836. A seton was placed on the nape; which, March 5, had produced no amelioration; and it seems that he was very irregular in attendance. For he was now ordered to take ten grains of blue pill daily; but no entry is made of his case, until June 11, when he was improved. On this day steel and aloes were prescribed. But recourse was before

more long again had to the mercurial; which was, with or less variation, used some weeks. Nov. 5. He has left off treatment; and enjoys good, practical vision.

This man's irides were brown; pupils contracted; lids connivent; photophobia the most marked subjective symptom; pain absent. His trade was that of a tailor; which he did not resume, but took a shop of haberdashery. That medical measures saved Williamson from complete amaurosy was pretty evident; but which—whether one or the combination or the succession—is not certain. Perhaps this was a case, wherein, although no particular remedy specifically triumphed, one prepared way for the action of another. And above all was beneficial *disuse* of the organs.

Case of Hemeralopia; Night-blindness.—May 29. John Marshall, aged 40. The disorder has lasted six weeks. And this is the third attack. He is a stonemason. Turpentine! June 12. *Decidedly improved.* Can guide himself in the dark! 25. Now the symptoms are stationary. Let him replace the terebinthina by a blue pill nightly. July 2. Mouth sore. Let him omit the internal medicines one week. But apply locally vinum opii. Aug. 13. Discharged cured.

Of night-blindness the pathology is, after all, obscure; and the case of Marshall is not the only illustration of the power of turpentine apparent in this infrequent amaurosis.

It hath been usual to talk of the ovoid or oblong pupil, as if it almost always was horizontal, as in the ruminant animal. It is not so. In the records of an Eye Infirmary, you may occasionally encounter such a *case* as this of

Robert Claxton, aged 70. His right eye is very amaurotic; vision nearly gone. The pupil *vertically oblong;* the iris motionless. The left eye is becoming amaurotic. No pain of balls nor of head. V. S. ad ℥ xvi. Pil. hydr. gr. v, bis die. August 30. Has been thus treated since the 21st ult. His right eye is improved. His left is deteriorated. This man was discharged in September, by his surgeon, the late Dr. Thomas Martineau, relieved—which does not mean much.

Lengthening of pupil in the horizontal diameter hath been supposed to be characteristic of glaucoma; even strictly diagnostic. But it is not so. Mr. Welbank, the editor of Frick, quotes a case from the *Surgical Dictionary*, which had occurred at the Ophthalmic Infirmary in London. In this, the diameter of the pupil was not greatest in the transverse direction.

It hath been the custom of authors and lecturers to affect a precise narration of every case; and to pretend to a solution of its nature; whereas it seems that the greater portion of amauroses is, when they are not confirmed, unintelligible, in our present state of knowledge; and to be treated empirically.

Case.—Mary Ann Brown, aged 17, complains that she is subject to headache, which is intense, and always attended by imperfect vision; and no appreciable cause, stomachic, intestinal, glandular, uterine, is detected. There is no indication for bloodletting or any active treatment. She is ordered to take a blue pill at night; and some epsom salt after it in the morning; producing counter-irritation with antimony.

This course is pursued with varying intensity from the 9th of June to the 13th of September, when she is discharged *cured.* Thus has Mary Ann Brown been treated *empirically* as well as successfully.

And this sort of practice, an appeal to the abdominal secernents, is the best and commonest for those anomalous cases, so numerous, so teazing, called, through ignorance of the real pathology, "Incipient amaurosis." The best, even when no abdominal derangements can be sworn to. The best, most indubitably, when they are evident. But this was said before.

The distinction of amaurosis from cataract is, sometimes, very difficult; sometimes not to be accomplished. There may be just enough of departure from black in the color of the pupil to render cataract suspected. This unblack appearance may be due to lenticular haze; or to diminution of pigment; and there may be just so much of subjective dimness as this decoloration would account for. And yet after all it may be an amaurotic business; and we certainly do see often, yes often, considerable departure from the original black, without injury to vision. We see this deviation in middle or elderly life; in persons who are independent of spectacles; in persons who use them, with perfect success as to vision. I will relate

A case, which would be deemed cataractous, but for one symptom elucidant of its real nature. Elizabeth Robinson, aged 62, complains of great feebleness of vision, which has subsisted twelve months. The weakness increases. Yet she is myopic; seeing

clearly at a short distance; very indistinctly objects farther off. Great headache; occasionally superorbital. Is this a case of cataract? For with her left eye she sees constantly a black spot, in dull, shaded light. No. For, when she shuts her eyelids, this black spot is converted into a bright spectrum; a phenomenon, which inclines the diagnosis towards retinal disorder.

Certainly, in spite of all that has been written and spoken about the nervous disorders of the eye—contradistinguished from the humoral and visible—they are still an unexplored region. Latent, obscure in themselves and their pathology, as a science. Obscure and puzzling individually. If they be, even, classified correctly; refusing to fall in to their respective ranks.

The impression made on the mind by the perusal of the practice and orders of a living author, is that this learned surgeon takes too vascular a view of ophthalmic disorder, occupying the posterior and nervous structures. Making a hostile excursion over the Laurentibus agris, I should expect the merited discomfiture from the Laurentia agmina. But I respect and admire too much the attainments of that extraordinary surgeon to differ from his views, unless from a sort of necessity. If any chirurgical philosopher possessed a right to passive and universal assent, he would be the person.

But infallibility is claimed only by the pope—a claim, which his holiness is advancing at present with renewed assurance, and not a little success. Whether he will ever make up lee way, time will discover. Whether he will regain dominion over the prostrate

intellects of even the scientific world is not a question so very absurd. I do not believe in the vaunted march of intellect. No! not in any class of society; moral, political, or religious. Simple or *scientific*. Look at the outrageous theories of the Benthamic and Owenian schools. Utterly at variance with the rational deductions from *all* history; if there be such a literature as history; or such a process as deduction. Look at our foolish statesmen, who have attempted to rule an empire on the principles of rebellion; applauding themselves; and not kicked from office by an indignant community. English gentlemen, subservient to a taskmaster, who avows the principle of insult without satisfaction. Remember the dropsical Johanna, still, yes, still by some believed to have been uterogestant of the Shiloh. Listen to the ludicrous cock-and-bull stories of some of the Millenarians—how the saints are about to reign in their *bodies*, and yet the sexual system to be abolished. Then think upon revived Mesmerism; Homœopathy; Craniology—think of the *scientific* practisers; and the numbers, and ranks, and callings, of the dupes; and do not fancy that the pope has "no chance."

> The times deceased observed, a man may prophecy,
> With a near aim, of the main chance of things
> As yet not come to life.—SHAKSPEARE.

One cannot agree with any oculist, who is Sangradolike in his treatment of all amauroses. Not convinced that inflammation is the essential characteristic of all amauroses, every practitioner cannot bring himself to rush to the attack pell-mell with antiphlogistics; more or less severe.

Case.—Jane Clarke, aged 25, applied at the Infirmary, for treatment, by Mr. Browne, of an amaurosis, which had subsisted six months. The amaurotic symptoms, whose intensity is not detailed, are connected with great headache, which assumes an intermittent form. The general frame is debilitated. The conjunctive is vascular. Vena secetur! Blue pill at nights. Epsom salt in the mornings. After a week, July 21, she is told to take every four hours ten drops of the liquor arsenicalis. Under this treatment she went on improving until the 4th of August, when the pulvis cinchonæ, ʒss, was substituted for the arsenic, by which she was "much affected." Aug. 25 is the last report—"*Cured.*"

Case.—Henry Hughes, aged 24, has suffered with dim vision two years; with superorbital pain. But there is no objective symptom, save sluggish irides. Let him be purged. Locally, let him try the wine of opium. In about a week, Oct. 13, he is told to take daily five grains of blue pill. Under this simple treatment he continued to improve, until October 23, when a soreness of the mouth indicated a temporary suspension of the mineral. It was resumed, however, on the 3rd of November, and an undated entry of "cured" completes the case.

It is vain to pretend that the minute pathology of such a case as this is explicable in our present state of ophthalmology. Here is nothing objective and anatomical to be seen. If one chooses to call such cases amaurotiç, as they are very frequently called, through the vanity of a successful prescriber; then is amaurosis very often cured. To style such symptoms

as these "incipient amaurosis" is a petitio principii and finis, too, which reality may never have borne out, if no medical interference had been instituted. Where there is visible departure from the natural black color of the cavern of the eye; where instead of this one sees a glistening appearance, one cannot wonder if there be departed vision.

This resplendence, when marked, and evidently deeper in the recesses of the eye than the lens and posterior capsule, implies a state not remediable. This condition of things, this

CAT'S-EYE AMAUROSIS,

is, probably, the result of an inflammatory, disorganizing process. For it happens after penetrant wounds.

Case.—William Buxton, aged 10 years, received an injury from a thorn. The thorn entered at the outer canthus, penetrating very deep; and remained in the eye eighteen hours, when, it is said, it was chirurgically extracted. After a fortnight the following were the phenomena. The pupil is immovable, of the middle size; the iris is brownish, although that in the opposite and sound organ is grey; whilst through the pupil are visible some pencils of vessels on a shining concave surface. A faint attempt was made to profit by mercury and local stimuli; but soon abandoned in despai.

Now here is evidently the *Cat's-eye Amaurosis*, produced by an accident; which might be expected to produce inflammation; which, if the change of color in the iris be an index, did produce it. If inflamma-

tion; is the splendor owing to a deposit of lymph? or the absorption of the choroidean pigment?

In cases of this disease, the reflected and varying light, seemed to Dr. Mackenzie to come from the front of the crystalline capsule. The paleness which the iris assumes—the iris is observed, as the disease advances, to become pale and semi-transparent—naturally leads to the supposition that there is a deficiency of pigment.

In one case this gentleman ventured to introduce a needle through the pupil. He felt nothing like resistance of the lens, a profuse discharge of aqueous fluid took place, and the opalescent appearance continued as before. He is, therefore, led to regard cats-eye as a *glaucoma*, the eye deficient in lens as well as pigmentum.

How different from this cat's-eye is the amaurosis of the patient blinded by *a stroke of lightning*; in whom there shall be no objective symptom whatever, save perhaps an immovable iris and staring pupil.

Are the guttæ serenæ of the natives of hot sunny countries like those produced by lightning? only induced slowly, whilst the concentrated light of the thundercloud paralyzes at once?

DIPLOPIA.

Double vision terrifies the patient more than any other subjective symptom. It is one of the few phenomena, which are soon presented to the regular surgeon, without the preliminary consultation with the empiric or an old woman. For the ladies practice still; although Mr. Farr, in his history of the pro-

fession, in the *Medical Annual*, said "So ended romantic surgery." Certès our profession hath not acted very romantically in withholding support from that most deserving, useful, and amusing periodical.

Diplopia hath been classified with reference to its supposed causes.

1st. *Diplopia from squinting.* But the habitual, chronic squinter sees single. Either one eye is fairly put aside, thrust by nature into an angle—latet in angulo—or else "the sensation of a distinct image in the sound eye obscures the weaker image in the debilitated eye."

The cure of such a diplopia, before the habit be invincible, must depend on the cause. It is mostly commencing in infants or children. And often one is consulted about strabonic children, when indeed no cause can be detected; and the treatment must be assumptive and empirical.

One common and powerful cause has been presumed in the window of the nursery, or the candle on the table being so situated, that the infant can see it with one eye only. The other being nullified by the intervening nose. The infant is learning to see; and these first lessons may produce a strabismus lasting for life. For one eye alone is instructed; and the other is soon neglected as an incorrigible dunce. How important, then, is it—not to spin out an obvious sermon from this text!

But when the squint is rather confirmed, in a lad or girl; when it is traceable to no internal nor external causation, what can be done? These cases frequently occur; and the best assumption for treatment

is, that the squint is produced by local muscular weakness. If the squint be converging, assume debility of the abductor muscles. If it be divergent, assume a feeble condition of the adductores. If at one time these, at another the abducent muscles are affected, suppose a general atonic state of ophthalmic muscles. For such a condition tonics are the obvious remedy. And the external application of cold water is an admirable process.

A gentleman, known by the author, undertook personally the cure of strabismus in his little boy. During several successive months he daily sprinkled cold water, for an hour and more at a time, on the cheek, temple, and orbitar region, on the side of the supposed debilitated muscle. And he cured the strabismus. But not one child in a thousand can hope for such patient, parental irrigation. We must be contented to prescribe the shower-bath daily; or affusion from an ewer, the child standing, perhaps, in a wide tub.

I take this opportunity of lauding cold affusion; as a general tonic. With some frames it doth not agree; a fact, known on the first trial, by subsequent chill, livor of surface, malaise. But where a general glow is raised over the surface, it animates the whole economy, body and soul. Nor is it despicable as a luxury. Delicate little girls are known, who look forward, even in the colder months, with pleasure to their morning lavation. And young ladies, tender, even suspected of a phthisical crasis, have practised their cold bathings throughout the severest winters.

2nd. *Diplopia from pressure.* "We see an object double, if with a finger we press the eye from the side;

if the eye be pressed by an exostosis or other intraorbital tumor. The pressed eye perceives the image in another place to that in which it is discerned by the sound." Encysted tumors are not very uncommon causes; nor are they removed without a little difficulty.

3rd. *Diplopia from Anchyloblepharon* is noticed by Rowley, and by nobody else, perhaps. "If the lids be growing together, so as to leave many openings pervious to light, such persons see objects three or four times repeated." Mr. Middlemore has seen "union of the tarsal margins, nearly entire, but there has been an aperture through which the tears and mucus have been discharged." One aperture could not produce visus multiplicatus.

4th. *Diplopia from tears.*

> Sorrow's eye, glazed with blinding tears,
> Divides one thing entire to many objects.
>
> SHAKSPEARE.

The *cure* requires the abstersion of the tears.—DR. ROWLEY.

5th. *Diplopia nervea;* from symptomatic affection of the optic nerve; as from terror, saburra in the stomach, poison, drunkenness, contusion of the head, lids or eyes; apoplexy, hysteria, hypochondriasis." As to the multiplied vision engendered by *terror*, the author is bound, for the honor of his country, remembering the Duke of Marlborough's drummer, to declare that we have no such disorder in England.

Saburra in the stomach is not, in these days, the fashion. They were our forefathers, who carried

about such abominable stomachs,—*naves onerarias multa saburra gravatas.*

The loaded stomach and the awful emetic are seldom mentioned by our present writers. But whatever the designation of the stomachic mischief, the connection of ophthalmic disorder with gastric malady is certain, common, indisputable. Referred to by all writers; and giving rise to all kinds of prescription, according to the theories of the prescribers; or their faith in particular drugs. Surely it is useless to repeat in this place, what hath been said elsewhere and times innumerable. Yet it may be pardoned, if a short digression be made in praise of the Abernethic views. Of that doctrine, which involved the importance of hepatic salubrity; and which established as a criterion the color of the fæces. If there be one phenomenon, deserving of special attention, it is this. The physician, like the painter, should study color. Thus the "eagle's eye," which is claimed for the perfect surgeon, is serviceable also for the physician. The "lady's hand" he may find, as does the operator, of much importance in some manipulations. Nor is the lady's hand so unattainable, if we may judge from the numbers of the profession, who, by the help of this elegant appendage, spring from pauperism to riches; from nothingness to being somebody. The "lion's heart" the physician may safely leave to the chirurgeon; obtaining in lieu the nasus caninus; which, on the principle of the combined assistance of the senses, will aid his vision for Abernethic investigations. Great osmologists are dogs.

Double vision from Drunkenness is as old as the vine-covered hills.

καὶ μὴν ὁρᾷν μοι δύο μὲν ἡλίους δοκῶ,
δισσὰς δὲ Θήβας καὶ πόλισμ' ἑπτάστομον.

A speech which proves that

A king *can* swagger
And get drunk like a beggar.

Double vision seems to have often puzzled the oculists, from a doubt as to its real pathology. The percipient is one, the mind. The pictures are two; one on each retina. Why does not the solitary percipient see two pictures always, not merely when the man is intoxicated? Now this is an interrogation put to a philosopher much quicker than he can answer it. We verge on the immaterial; and inscrutable. Whatever some may think, when they chuckle over the railroad progression of intellect, are we not, on this matter, just where we always have stopped?

The diplopia of the drunken man may help us towards a diagnosis in other cases, in the adult subject. In the tipsy diplopist nobody hesitates to say that the pathological mischief is in the brain. The liquor has got into the head; mediately or in propriâ personâ.

That it is substantially present in the vessels of the brain is not improbable. In the case of a gentleman, who voluntarily encountered death with an over-dose of aqua *vitæ*, I smelt the brandy in the brain itself.

But, whatever the way in which the poison does influence the brain, this is the organ affected in the

drunken bacchanal. Why should it not be influenced in other diplopics?

Home, as quoted in Mackenzie, essays a diagnosis of double vision, produced through an affection of the muscles of the ball, from a disorder owing to the brain or the optic nerve. But Home's cases *prove* not his theory; nor is it probable that the muscles should be affected, independent of the brain, the source of their nervous supplies.

Let us glance over *the cases* in Home's narration. A colonel of engineers was shooting game. Towards the evening of a fatiguing day, every thing appeared double; gun, horse, road. Alarmed, lest he should not find his way home, he succeeded by giving the reins to his horse.

After a night's rest, the double vision was much gone. In three days the colonel went again to the moors, when his complaint returned, more violent. He went to Edinburgh for advice; the disease was referred to the eye itself; the head was shaved, blistered, leeched. He was put under mercury, and kept upon spare diet. This plan was found to aggravate; he, therefore, after a sufficient trial, returned and shut himself up. He gradually left off all medicine, and lived as usual. His sight was, the whole time, perfectly clear, and *near* objects appeared single; at three yards double; by increasing the distance, they separated farther. When he looked at an object, the eyes were not equally directed. The complaint was most violent in the morning, and became *better after dinner and a few glasses of wine.* It continued nearly a twelvemonth, and gradually went off.

Now what proof have we here of muscular, mere muscular debility, from over-exertion of the organ? Much less of repose would have cured it. If the ophthalmic muscles were specially fatigued in shooting, why do we not hear of the sporting diplopia, as well as the drinking?

Suppose a cerebral disorder, connected with the digestive organs, and you solve, more probably, the phenomena in this case of the colonel.

Let us look at *another case* of Home. A house-painter, who had worked a good deal in white lead, was a patient on account of fever, with violent headache. Upon recovering, he saw every thing double. Inquiring into his complaints Home found them to correspond exactly with the former, and treated them as an affection of muscles. He bound up an eye. The patient now saw single and distinctly; but looking gave him *pain and headache*. Had Home erroneously tied up the sound eye? The bandage was removed to the other. He now saw without the smallest uneasiness. He was thus kept for a week: after which the bandage was laid aside; the disease gone.

Now this case, any more than the other, does not prove the curative sufficiency of "rest alone." The story of the pain and headache carries us rather back into the brain.

Case.—"In the beginning of April 1835, I was attacked with inflammation in the right eye. After a few days double vision ensued, and continued to increase till every object, large and small, appeared all confusion.

On shutting either eye, an object appeared single and distinct; but, when seen through the diseased eye, was much brighter than when looked at through the other eye. As the double vision became more confirmed, the *head was very painful,* and at times so affected, that I was *quite incapable of attending* to any thing.

Having covered the diseased eye with a shade, I was enabled to use the other, and to walk the street pretty comfortably. After wearing the shade a few days, I was directed to remove it from the diseased eye to the other, and to use the affected eye occasionally; but on exposing it to the light, the *pain in the head* increased, attended with *giddiness* and *sickness,* and I was, in consequence, quite incapable of reading, writing, or walking. Attempting to do so, I became, as it were, intoxicated and unable to step straight across the room. On replacing the shade over the diseased eye (after an hour) the head became quiet, and the sickness left me, and I was enabled either to read or write comfortably.

The result of this trial compelled me to wear the shade continually on the diseased eye, which I continued to do for upwards of ten weeks, without any visible improvement, or any diminution of the pain in the head. During this period I used the left eye solely, and was engaged in reading and writing eight hours in the day without inconvenience, except the pain in the head, which varied at times.

At this time, the lid of the diseased eye (from its being continually kept closed by the shade) began to

lose its action, and to fall over the eye. It was with great difficulty I could raise it sufficiently to shew the whole of the pupil, and I was therefore compelled to substitute some other blind in lieu of the shade. I had recourse to a pair of spectacles with side glasses; and instead of glass for the diseased eye, black silk was introduced, which effectually prevented the sight of any object. This invention enabled me to have the full use of the *eyelid*, and after a fortnight I could without difficulty open and shut the lid as usual.

After this course for a month, it was evident that a change for the better was about to ensue; the pain in the head had subsided, and the diseased eye had begun, in some degree, to harmonize with the other; for on looking at one object, at a focus of ten inches, it was perceived they moved together, and the object was distinctly seen. It may be well to observe here, that, from the commencement of the disease I could perceive an object of any kind (though not without its being in some degree confused) by looking at it over the *left shoulder*, and bringing the diseased eye into action, by using it in conjunction with the left eye, in the way I have described.

At this period (July 13th) I am using both eyes, and am enabled to see any object *distinctly* and *singly* upon the table, or to read and write without difficulty; this case having been written by me with the use of both my eyes. Objects at the distance of a few yards, when looked at in a direct line, still appear double, but by looking (as I have before stated) over the left shoulder, they are seen distinctly and singly.

By strictly pursuing the course laid down by Mr. Hull, (under whose care I have been since the commencement of the disease,) and by his discernment of the peculiar features and extent of the affection, I am led to hope that, at no very distant period, I may be blessed with a restoration and perfection of my vision."—Hy. Gunton, July 13th, 1835.

Such was the fact. This gentleman, so accurately descriptive of his case, was about thirty-five years old; a commercial clerk: and not very strong in his digestives. A blister, leeches, a purge occasionally were tried; but the main agent of cure seemed to be a tonic, stimulant treatment, with rhubarb and ammonia et similibus; secession from business: the amusements of the country. It seemed that the *brain* was overworked in his mercantile offices; and that this organ was best rectified by attention, through adapted diet and corroborant eccoprotics, to his primæ viæ, which were any thing but in prime order.

Case.—Captain P., who has undergone a long residence in the East Indies, complains of double vision. As he is riding in his carriage, he sees two roads, and other objects double. He is out of health greatly: and if there be connexion with the brain and digestive structures, there is disorder enough in these latter to account for double or other morbid vision. But there is no reason why his ophthalmic muscles should, one or more of them, be weak and inharmonious.

By simple attention to his liver and bowels; the due secretion of the first; the activity of the latter; he was, in a few days partially, in a few weeks wholly rescued from his duplicity of sight. No orders were

given about blinds and bandages; the disorder was assumed to be cerebral: and the result confirmed the assumption. The blue pill, rhubarb, ammonia—how could they have cured a local debility of the ocular muscles?

Another case of double vision.—May 16. William Barker, aged 22. Vision indistinct, double. Iris much contracted, and apparently paralysed. Tongue foul. The disorder supervened on hard drinking a week ago. Let him be cupped on the temple. 17. V. s. ad. ℥ xii. Antimonial ointment. An emetic, powerful. Of the blue pill let five grains thrice daily be taken. 21. A blister to the nape. 28. Vision and iris as before. Acidi sulph. xxx guttas ter die. Omit the hydrargyrus. June 9. Galvanism; which was but once administered, as it produced headache. He took the muriated tincture of iron about a month; under which his vision improved much. The iris moved naturally: and, July 9, he was ordered to recur to the antimony externally, and to persevere with his steel. 23. The eyes move more in harmony; but diplopia still exists. When the left eye is closed, the sight appears perfect. Some ptosis of upper lid remains. By an occasional purge he gradually mended; and was discharged cured, Sept. 3.

In these and similar cases, there is no need, to obtain a pathology, to have recourse to the theory of muscular weakness. In the diplopy or strabismus of children, there may be. One set of muscles alone used, the opponent muscles may be paralyzed from disuse. But in the adult the brain will, in most cases, give a satisfactory account of the matter. What the

process and connection are, may be latent to the end of time.

From some of such instances, relieved, cured without depletions, we must learn that the vascular theory of disorders is not universally to be applied. We must assume, if we desire to be successful; *assume*, at all events, the truth of the old, half-exploded doctrines of nervous power or animal spirits, moving independent of vessels: too capriciously to be subject to the heart and arteries.

The vascular theory pushed too far has done as much harm, perhaps more than the old dogmata about animal spirits. The nerves can effect in one moment of time, what the slower circulation is utterly unable to produce.

"And the men of Israel were distressed that day: for Saul had adjured the people—cursed be the man that eateth any food until evening—So none of the people tasted any food. And they came to a wood: and there was honey on the ground, but no man put his hand to his mouth. But Jonathan heard not the oath: wherefore he put forth the end of the rod that was in his hand, and dipped it in an honey-comb, and put his hand to his mouth; and *his eyes were enlightened.*"—SAMUEL.

Here was a complete specimen of *amblyopia* from inanition, not from retinitis; here was a cure instantly effected through the nervous system; the vascular being totally out of the question. A mere taste of honey!

is a grandiusculous term which may suit a particular set of symptoms; the sight of imaginary persons: *spectral illusions.*

These internal, ocular spectra were first brought before the philosophic world by Nicolai, the bookseller of Berlin. He, agitated by various misfortunes, beheld in his chamber crowds of human beings, whom first he thought to be substantial; on whom, when he discovered they were fantasiac, he made his deliberate observations.

Since the days of Nicolai, these spectra have become an acknowledged, although rare, form of nervous disorder; and they have been attributed to the indirect influence of visceral disorders.

"In every recorded case, they have had their origin in bodily indisposition." Thus saith the Quarterly Reviewer, volume 48; who introduces the case of Nicolai; and a new narrative of a lady. "M. Nicolai and Mrs. A. were both subject to a disorder in the digestive organs: in the former, it occasioned giddiness; in the latter a tension about the head; clearly a determination of blood to the brain. The spectres of Nicolai appeared when digestion began, and vanished on the application of leeches to the abdomen. Mrs. A. was obliged to take a daily tonic, and her apparitions seem to have been produced, when she was prevented recourse to it."

Let the reader, by all means, look at this article on the "Philosophy of Apparitions," in the Quarterly.

Even if he be a radical surgeon or republican apothecary, let him suspend his odium of this great conservative periodical: and consult it here for the sake of science.

Of this admirable review, from its commencement —à Gifford principium—it is not possible that a man, who carries any patriotism about him, can talk too eulogistically. It stands in fine and imperishable contrast with those publications, which assume that a citizen of the world is as good as a thorough Englishman; which sanction, directly or indirectly, all sedition, privy conspiracy, and rebellion; which advocate expedience and political economy as of more value than the national honor.

"The immediate cause of spectral illusions is a disorder in the digestive organs, and the duration of the illusions increases with the severity of the malady."

But what the *locality* of the *illusion?* what the place of its production?

The Quarterly Reviewer tells us that "the eye is the seat of the illusions. Spectres which are *seen*, in front of the eye, must be *seen* by ocular functions; must be impressed on the retina. Spectres effaced by closing the lids, must owe their visibility to the eye; spectres which follow the ball, ascending and descending; which accompany the patient into another room; must be impressed upon that part, which can alone receive images, alone has the power of giving them external existence."

Here is great scope for philosophical reverie and psychological discussion: and whether the sedes morbi is in the retina, as asserted by some; or in the *optical part of the brain*, as judged by others; it is cheering to know that the disorder is functional, secondary, removable.

The spectra seem to have some connexion, which would have been expected, with the mental character and associations of the patient.

Case.—Mr. A. H. aged 80; a devout man, much occupied with the future state: and full of hope and preparation; saw daily during some weeks, at 2 P.M., the spectra of female figures, in white garments, sally forth from a door way, across the street, and then ascend in file to heaven.

This patient had been accustomed to dine, simply but heartily, about this hour of the day. With his empty stomach, crying cupboard, he would rise from his arm chair, walk to the window; and amuse himself, before the tardy repast, with this *angelic* exhibition.

Case.—Captain B. T. an old officer of dragoons; flatulent, dyspeptic, constipate; saw, during a considerable period of time, a pugilistic contest take place at the foot of his bed; in daylight; when he was awake and about to rise and dress. One of the combatants always thrashed the other, and victory closed this matutine illusion.

The pious esurient saw femine angels—*bella es atque amabilis.* The old soldier, reminiscent of pugnacity, beheld a different group—*horrida bella.*

Case.—Miss C. K. is a great admirer of feminine beauty, and makes a collection of the engraved portraits of handsome women. She is troubled with a tâche noire, which darkens the centre of any white surface, whereon she is looking; sky, wall, paper. When she closes her eye lids the black is converted into a shining spot; or a handsome female face, varying, never the same.

She is a bilious subject; yet, it must be confessed, her subjective phenomena do not vanish, under the appropriate treatment of her liver and primæ viæ.

Without any, the least, disposition to impugn the theory of the Review, that the retina is in fault; impressed through vascular distention or vascular impulse, in particular places of its expanded surface—the *character* of the sights would indicate some cerebral connexion. And this congruity, of the visions with the peculiar morale of the illuded patient, is perceptible in almost all of the cases, now not a few, on record.

And although the cases of Nicolai and Mrs. A. and many others prove the abstract innocence of these spectral illusions, yet is it easy to conceive that they may imply a state of retina, which may threaten mischief. The tâche noire mentioned above, is, for instance, obstinate and fixed—and it occupies so much space that, but for another and healthy eye, the patient would not be able to read nor to sew, without the aid of belladonna.

In the case of the old dragoon officer, *Chrupsia* is very often occurrent; and the preternatural color is scarlet. The letters in a book appear not black but *red*.

Of the aged, hungry, pious prosopopic one eye is quite cataractous; one partially.

The following narrative was penned by Mr. G. W. W. Firth, surgeon of the Norwich Eye Infirmary. It does not illustrate the theory that the mind determines characteristic visions; neither is it easy to say whether, in this particular case, they had their origin in diminished nervous, or increased vascular influence, or both.

Case.—R. W., a country gentleman, aged 82, was subject, during many months of the last two years of his life, to the apparition of ocular spectra. These consisted always of bright and pleasing objects, such as vases of flowers; or more frequently groups of human figures of small size and brilliant colouring, such as might have peopled fairy-land; extremely beautiful and graceful in their movements. They were wont to appear to his waking vision at various times in the day; but he could not summon them at will, nor dispel them by moving or closing the eyes. He enjoyed the ordinary powers of vision belonging to his years; but at the time these spectres appeared to him, his sight declined more rapidly; yet he was never obliged to give up reading, to which he was much addicted. He possessed in no common degree the "mens sana in corpore sano." His mind was not imaginative, nor did he read poetry or romance; his bodily health was such that he may be said to have died from old age, without any symptom of disease. His habits were rather sedentary, and his fare, though plain, substantial; for the last fifty years of his life, it was his habit to take his bottle of wine daily; but

he never slept in his chair, nor do I think it was after dinner that these "good people" visited him.

It hath been asserted that ocular spectra are the product of disordered action of the retina. Morbid passion would sound more philosophical. Yet if the simple spectra, colors without definition or with regularity, be retinal; it is not possible to imagine that the apparitions of animals and vegetables are effected in this sentient extremity of the optic nerve. Surely nothing short of brain could be thus typo-poetic; if indeed the mind itself be not the actor.

In this tractate, however, the medical character of such phenomena is chiefly to be considered. And it is very consolatory to have learnt from many cases, diligently watched and reported, that neither cecity nor madness is portended by these illusory spectres.

Then if such unreal sights are presented to persons in comparative and careless repose, what marvel if they are seen by the solicitous; the harassed; the monarchic chief?

Brutus one night, before he passed out of Asia, was alone in his tent, with a dim light burning, the army being husht and silent. Musing and thoughtful, as he turned his eye to the door, he saw a strange appearance of a frightful body coming towards him. Brutus boldly asked it, *What art thou? Man or God? Upon what business dost thou come?* The spirit answered, *I am thy evil genius; thou shalt see me at Philippi.* To which Brutus, *Then I will see thee.*

From that time he continued watching, till the morning; then went to Cassius and related the apparition. He, bred in the principles of Epicurus, spoke

to him thus:—'All that we feel or see is not real; our senses, apt to receive all sorts of impressions, are treacherous; and the imagination, quick and subtile, varies them into ideas, which have no real existence. It is easie for the soul, which has in itself both that which forms, and that which is formed, to vary it into what shapes it pleases.

This is evident from the sudden changes of our dreams, in which the imagination represents to us all sorts of passions and appearances. It is the nature of the mind to be in perpetual motion!'—PLUTARCH.

Brutus was a remarkably temperate person, and his visions were not those of a toper. But he had watched too much; and a bodily state was, in all likelihood, at the foundation of this curious affair. The superstructure mental.

A modern sage adviseth his readers, if they desire good health, to eschew politics and religion! The protected member of the social state to be neutral to policy! An everlasting soul indifferent to the unseen! If Brutus, like a simpleton, had not meddled with his country's salvation, he would have enjoyed an eyesight unmolested by the spectre!

MUSCÆ VOLITANTES

are not more volitant than those modern vehicles, yclept *flies*, by way of contrariety. These ponderous four-wheelers, dragged by one suffering, sinew-strained horse, reflect disgrace indelible on their owners, whether publicans, or the private person, who thus "keeps his carriage!"

Above all, heartrending is the spectacle of the two hapless ponies, which are lashed to that infernal cruelty-van, the London Omnibus!

But there is a day of retribution for ill-used beasts. Perhaps the benevolent and zoophilous Richard Martin will superintend some planet consecrated to the happiness of brute souls emancipated from their torture. Perhaps the savages, who have wantonly agonized them here, will be subjugated to the animals hereafter. And those monsters may rely on it, that if Martin be their Rhadamanthine governor, they will howl in vain for quarter.

> Ergo exercentur pœnis, veterumque malorum
> Supplicia expendunt.
> Continuo sontes ultrix accincta *flagello*
> Tisiphone quatit insultans.

The appearance of volitation, presented by the ocular muscæ, is owing to the rolling of the eye itself.

Some have imagined these blackish spots to be corpuscles agitated in the vitreous humor. But this humor is not a liquid, loose in a cavity; but an infinity of guttules imprisoned in cells. How should corpuscules wander about here?

Are they occupant of the anterior chamber? No, for they would be objective to the medical inspector. Are they lenticular? No. The lens shall be clear as crystal, yet the flies be perceived by the patient. Or the lens shall assume every degree of opacity, yet no fly-like, araneous, nor cobweby symptoms exist. Yet muscæ are sometimes precursors of cataract. It is not certain what is the pathology of this *Suffusio*

myodes; this *Scotoma;* or of the thin and branching shadows, connected like a net, spider-webs, plucked wool, et similium.

But the student may form a prognosis fair and favorable, if all of vision, save the muscæ, is correct. If these were a part of general symptoms dependent on lentic or hyaloid disorder, the sight would be diffusedly dim, cloudy, dark.

The probability is, that these phenomena are due to vascular congestion, in all cases. Either arising from active plethora, indicating reduction, abstinence, purification; *or* from capillary obstruction, which demands a fillip through attention to the abdominal secretions and excitement of the nervous system. Yet when once they have subsisted, they seldom depart in toto; aggravated or diminished by causes affecting the general frame.

The retina and the chorioid are the seat, it is generally believed, of those vascular enlargements or effusions, which produce the muscous appearance. These apparitions may, therefore, portend amaurosis. Amaurosis of a peculiar character, not founded on disorder *within* the optic nerve or its terminal fibrillæ; but effected through external and superjacent pressure of vessels or of deposit. Just as the cutaneous nerves of touch are hebetated from thickened cuticle. Can the brawny fists and fingers of a rustic lob-cock perform those exquisite manipulations, which require the soul at the fingers' ends?

HEMERALOPIA

and *Nyctalopia* have been used as most confused and contrarious terms. It is high time they should

be regulated with universal consent or discarded for ever.

Maître-Jan by Hemeralopia means Day-blindness.

But *Guerin* means Day-sight:—"Ils voient rien ou presque rien sur le soir."

Gendron intendeth, also, Day-sight:—"le malade voit pendant le jour."

Pellier useth the word Hemeralopia for Day-vision.

Rowley taketh the same rôle as Pellier: "The patient sees perfectly all day."

Sauvages must be added to their number. In Hemeralopia "the vision is obscured at twilight:" id est, clear by day.

Vetch quoteth Sauvages and, therefore, must be judged a consentient.

Boerhaave is quoted with his "Visus Diurnus."

Scarpa, the immortal, interprets the Hemeralopia as nocturnal blindness.

Weller, the representative of German etymology, says that in Hemeralopia "the patients see in the *day*."

Leblanc, the French veterinary oculist, says that "les animaux cessent de voir aussitôt que le grand jour a disparu."

Cleoburey says the Hemeralopic "see during the day."

Lawrence says that "Hippocrates uses the term hemeralopia to denote night-blindness, and we may as well follow his example."

Middlemore does follow his example.

Bampfield keeps the same good company.

Richter—Henr. Christ. Edvardus—in the Ophthalmologici minores—adheres to Hippocrates, rather than Galen.

After this enumeration of authors, from Hippocrates to Richter, who have used the term Hemeralopia for Day-sight, let us agree to restrict it to this form of disorder. Hemeral sight meaning, of course, night-blindness. Nyctal sight meaning, in pathology, day-blindness.

The genuine Hemeralopia is not accompanied by ophthalmia, visible or latent. It may be deemed a purely nervous affection: and, however obscure in philosophy, is, as practice hath evinced, by no means formidable, in most cases.

Every body quotes Mr. Bampfield; and this chirurgeon, out of cases by hundreds, never lost a case of sight. Blisters seem to have been the most efficacious remedies. And this hemeralopic malady is one of the very few, wherein the hydrargyrus is not tried nor even discussed. Yet if Mr. Bampfield had but used this mineral, and his patients, like most hemeralopics, recovered; every succeeding author would have lauded and enforced the mercury. But as that gentleman's patients were sailors, in whom the scurvy either existed or was dreaded, the quicksilver was prætermitted.

This amaurotic affection seems due to over-excitement of the retina; if we may argue from the numerous cases presented in the torrid regions. In the *case* of the stonemason, quoted page 182, the terebinthina was tried, and the man was cured. But, perhaps, the cessation from exposure to sun and to light, reflected from the white surface of stones, was the real therapeutic.

So in the *case* of a young rustic, exposed all day in the fields, in summer weather, where the symptoms

were marked; and the hours of light and hemeralopia quite synchronous; although the terebinthina alone was prescribed, and the vision restored by night; might not the temporary seclusion from agricultural labor have been the remedium efficax?

But the genuine, uncomplicated hemeralopia is as mysterious, to speak philosophically, as the other retinal maladies. It is true that the nearest approach to a solution of the problem is the theory of over-excitement. But this will not explain all the cases. Not those, in which, however clear the moonlight; however vivid the rays from a lamp, the eyes perceive nothing. Here it seems as if quality, not quantity, of light were the chief cause of the disorder. And yet what difficulties are presented, even by this particular opinion?

NYCTALOPIA.

If we allow that Hemeral means day-vision; Nyctal vision means day-blindness, in nosology. If the day-sight be rare, still more rare the disorder, which dims the vision during the solar light; clarifies the sight, when night arrives.

This state of things is very common, indeed, in the strumous ophthalmia. But here we find vascular, inflammatory action; if not of the innermost, at all events of the external tunicæ. In these cases, as all the world knoweth, there is a morbid impressibility by light; and the hemeral blindness results simply and solely from connivent and closed lids. The eyes are in no sense blind, but overseeing. Then, when the sun hath set; and the bland, undefining twilight

arrives, the scrofulous child throws aside the bandages: or emerges from the lap, or the pillow, or the closet; and runs about the room and garden, with joyous velocity.

But the genuine Nyctal vision, where the eyes have been dull, amaurotic, stoneblind by day; yet more or less visual by night; is a very different disorder, and more puzzling to the pathologist.

The author never, as far as recollection carries, saw treated more than one case, and that he treated in vain.

Case.—Mr. E., a tall, burly farmer, presented himself with the symptoms of gutta serena, far advanced. Blue irides, sluggish; nearly without any motion. Pupils clear, dark. Eyes inharmonious in motion, staring. He never had any severe indications of blood determined to the brain or the eye. But there he was: blood enough somewhere: nor could he have arrived at this magnitude by a diet of air: or the smell of hot bread. E nihilo fit nihil.

He had undergone, from his usual attendant, the usual processus. Blood had been drawn; purgation instituted; starvation *prescribed*. But the sight was weekly become weaker: the pupils wider: the strabismic stare augmented. He was put fairly, but not ferociously, under the mercurial sway. In vain! Then the terebinthina was tried: and a seton run through the nuchal skin. And for a time, while the turpentine was percolating his capillaries: and the seton exciting discharge: this patient became nyctalopic. He could see transient glimpses of his wife: of the furniture in his room: the very stars, if the night

were clear: and he sallied forth into his paddock. But this state of hopeful, nyctal vision was brief enough: and, having sought in London for relief with the same cruelty of failure as here, he is now in a state of perfect, everduring cecity.

About such a case, what of certainty, what of plausible conjecture can one utter? This temporary restoration of vision; by day not by night; one often sees in the true gutta serena during the first few days or weeks of the inserted seton. Great hope, has, in several cases, been thus excited; but the effect has never been lasting. Yet the fact is so decided and the degree of restored vision so great occasionally, that there is ground for curiosity and speculation, why, every thing beside utterly impotent, a seton in the nucha, above all things, should be temporarily influential in the true Drop serene?

HEMIOPIA

is of two kinds. One arises from physical defect. The other from mental superabundance. "He sees things with half an eye." This is intellectual hemiopy. Thus the acute philosopher is hemiopic. The coup d'œil of the born general is another illustration. The Duke at Salamanca. Nelson at the Nile. The great statesman rejoiceth in the same peculiarity of vision. Thus Mr. Pitt with half an eye foresaw and prevented the ruin of his country. Whilst the presumptuous leaders, who have seized the seats of the reform state-coach, with both eyes are amblyopic. They see not that awful gulph, deep as the French, towards which they are galloping. Superficial: sciolous: with-

out personal weight enough to keep steady the vehicle: without skill to master the cattle.

> Sed *leve* pondus erat; nec quod cognoscere possent
> Solis equi: solitâque jugum gravitate carebat.
> Utque labant curvæ justo sine pondere naves,
> Perque mare instabiles nimia *levitate* feruntur;
> Sic onere assueto vacuos dat in aëra saltus;
> Succutiturque altè; similisque est currus *inani*.
> Quod simul ac sensêre ruunt, tritumque relinquunt
> Quadrijugi spatium: nec, quo priùs, ordine currunt.

But the half-sight, of the ophthalmic authors, exists, when of any specific word or thing one-half is obscured. Thus the word PATRIOTISM might to an Irish hero seem RIOTISM. Thus MATRIMONY might to an ignoble fortune-hunter appear MONY. Or the half face of a double-faced man might alone be seen; right or sinister.

And all this, with one eye only, or with both. If with one eye only, it is possible that the disorder may be seated in the retinal expansion. If with both eyes, the brain must be the origo mali. At some point, before the divergence of those nervous fibrillæ, which run to corresponding parts of the retina. For, unless such a state of parts is assumed, it seems utterly impossible to reason on the phenomena.

Dr. Wollaston was an illustration of both sorts of Hemiopia. As a philosopher, he saw with half an eye. As a patient, with cerebral disorganization, he was the victim of this singular disorder in each organ of sight.

Treatment.—To whatever philosophical speculation this disorder may give rise, as it is, after all, a mere variety of amaurosis, it must be treated on like principles. The physician will discover, if he can, whether there be inanition or plethora; whether the brain be directly or mediately; organically or functionally affected. If the latter, the digestive organs, in all probability will be out of repair; and here, as in so many other cases, the practitioner may obey a military exhortation: an excerpt from the catechism of Suwarrow—"Aim at their guts."

PRESBYOPIA,

as the name implies, is the vision of advanced life—occurring in some earlier; in others at a later era. It can hardly be called a disorder, save that it does appear, more quickly or more marked, in those who have been overworked in literary or accomptant employ.

That it is not disorder, in the more terrific sense, is proved by the fact that, whilst near minute objects are almost undistinguished; distant shall be perceived with juvenile, with aquiline discrimination. It is not, then, a fault of retina or nervous system or cerebral, so much as some departure from original perfection of the optical refractors.

The process of adjustment to distant and nearer objects of sight has never been explained in a way, which gives universal satisfaction. Why some animals, with eyes apparently and anatomically not so dissimilar, should have such distant vision, is unintelligible.

"An hour after a wild hog was killed, in India, and long before there could be the least odor from putrefaction, a dark spot was seen in the heavens, which proved to be a vulture making directly for the carcase. Soon afterwards, similar specks were seen; and seventy other vultures made their appearance. Dr. Russel observed, at Aleppo, in serene weather, when not a speck was in the sky, that if any dead animal was left behind by hunting parties, in a few minutes it was surrounded by birds; none visible previously."—*Conversations on the Animal Economy, by a Physician.*

Not for the subject of vision only: but for all the topics discussed in these elegant volumes, the reader may consult them with benefit and delight. Whether that reader be man or woman—son or *daughter*.

Virginibus puerisque canto.

But the presbyopic vision is that, which makes the fortune of the optician: the fabricator of spectacles. And the oculistic surgeon is frequently consulted about the degree of magnifying power demanded for the patient's eyes. But really the medical man is quite incompetent to declare of what power the glasses should be possest. The presbyopic must himself visit the shop of the optician: and try among his stores: and find by trial, and by this only, the adapted lens! In this case, more than any, *demissa per aurem*—all your talking—will be of no service; but the specula, *oculis subjecta fidelibus*, at the counter of the artist, will settle the business. There is, however, a temptation to be resisted; that of too much magnification.

Let the presbyopic be content with as little as he can: without the sensation of straining the sight. This he must avoid. And indeed the sensations of distress about the globe must direct a patient not only as to the degree of refractive power; but as to the prolonged use of his glasses. Lee him snatch them from his forehead, when they produce discomfort. It is an indication of nature.

Nor should glasses ever be worn longer than the business of the time requires. He, who wants his spectacles to read his bible, or newspaper, or classic, may surely lay them down with his book. Why should he walk forth into the street or the country, with these unnatural appendices, unless he wishes to look knowing?

A beardless physician, or a smooth-chinned, young-looking chirurgeon, not willing to bide his time, but rushing prematurely into the field of Libitina, should wear spectacles; plane as to surface, darkish as to color.

But, although his medical attendant cannot tell a man the exact glass, which will suit his peculiarity of eye; he can tell him, if he wants a glass at all—he can warn him against the travelling optician; than whom, at times, no man is more importunate to sell his trumpery; no man more successful in swindling his dupe.

AMBLYOPIA.

This term is much more appropriate than that of *Amaurosis*, which is so recklessly bestowed on dimness of vision, from the real disorder—the gutta serena—down to mere nebulosity of sight.

Indeed the modern and European oculist had better erase the word from his Lexicon Ophthalmologicum, unless he can prevent, more than hitherto, the disgrace of inefficient and baffled treatment. Heretofore, the most successful, the most intelligent and learned physicians have confessed with suitable humiliation, that in amaurosis they encountered a most rebellious, immovable, terrible disorder. What will they say, what will they not think, when in a recent pamphlet they read that, of 3615 cases of various degrees of amaurosis, 1432 were restored to perfect sight; 2183 restored to an useful degree or relieved! But this is Asiatic triumph! The glory of India!

In those oriental, fervid, clear-skied, sandy, reflecting regions, it is to be expected that the affections of the nervous, like those of the external, ocular structures should be prevalent and severe. Thus Egypt; thus Spain. In the writings of non-professional persons, great obscurity must attach to the narrative of ocular disorders. It is not from them we can hope to learn whether diseases of the eye, numerous and striking, be of the nervous or of the vascular genera. From the account given us by the medical men, attached to the French and English armies, in the great war of the Abercrombian with the Consulate troops, it is evident that their attention was arrested mainly by inflammations. But the sequela of unarrested inflammation is well known. What was external becomes by extension deeper seated—what was conjunctival, originally, may end in retinitis and the worst degree of amaurotic blindness.

The quantity of ophthalmic disorder manifested in Spain is very considerable, the population considered.

And it is rather surprizing, that of Spanish oculistic maladies so little has been said by our professional brethren attached to the liberating army. In an entertaining work, recently published, entitled *A Summer in Andalusia*, the prevalence of blindness is noticed by its enterprizing and elegant author. And I extract from a letter, now lying before me, some additional remarks by this lively writer.

"Ophthalmia is very prevalent in Spain, and disputes with the ague the honor of being the sharpest thorn in Spanish flesh. Some attribute its prevalence to the fervid climate and arid soil; others to the frequent and copious bleedings, to which the Spaniards now, as in the days of Dr. Sangrado, have resort. A modern writer tells us that a common reply to enquiries after a friend's health is, 'He was rather poorly yesterday; but he has been bled four times, and is now better.' A great number of men are yearly discharged from the army, incapacitated for service by blindness. And as no places of refuge are provided by government, and no pensions allowed, (and were they allowed they would never be paid,) these poor wretches are driven to beggary for subsistence. They make, however, a thriving trade of it, as they enjoy privileges from which other mendicants are excluded, and monopolize the hawking of newspapers, political and satirical tracts, ballads, and lottery tickets. Most of them are married, which might be expected, for what woman does not like a husband blind to her faults? They seem to make light of their misfortune, and eminently display by their cheerfulness and gaiety the stoicism of the national character. As if to falsify

the proverb, 'better be one-eyed than blind,'—the one-eyed man in Spain is always an object of suspicion and dislike, while the totally blind are treated with universal compassion and respect."

The author of *A Year in Spain* says that the blind move about the streets of Madrid with perfect confidence. When one of them wished to leave the Puerta del Sol, and sought to fix on one of the eight streets which discharge themselves into that square, 'having noticed the bearing of the sun and the direction of the wind, he would set out and move onward with the utmost precision, his staff extended before him, and the fingers of his left hand bent wistfully as if the sensibility of the whole body were concentrated in their extremities. Once I saw two of them, who were going in opposite directions, knock their staves together, and meet in the middle. They knew each other at once, shook hands cordially, and had a long conversation, doubtless concerning the gains and adventures of the morning; for they are the most garrulous beings in all Spain. This over, they compared their reckonings, like two ships exchanging their longitudes at sea, and then went on, each arriving exactly at his respective destination.'"—Geo. Dennis.

To return to

AMAUROSIS,

that intractable disorder, about which, in every era,

Mussabat tacito medicina timore—

the profession will be disappointed by the absence of all real and new information from the coverless pamphlet recently noticed.

They eagerly enquire what are the tributes, brought to ophthalmology, from the fervid east? What the doctrines, what the practice in any infirmary, which enable the superintending surgeon to achieve such boasted victories?

But they will enquire, in this nothingish libellulus, in vain. So far as the starvling tale carries us, we find a silly theory, announced in this fashion. "Not to treat as distinct every morbid affection of the eye, but to consider all in the abstract as one disease, differing only in shade, the offspring of constitutional *derangement*."

Now the importance of constitutional agency in amaurosis is not the discovery of any oriental oculist. But, in spite of all their energies, precisely and eruditely directed, the most accomplished physicians, of Europe and America, have often bewailed the pitiful impotence of general treatment. Surely it behoved a surgeon, who has announced such numerous triumphs over amaurosis, to assure the faculty, by copious details, that his cases were indisputably amaurotic.

But, moreover, there is mention made of an unknown, potent drug, "a native remedy," whose effects are astonishing! A liquid, which is dropped into the ear! Some form of opium! Truly this pamphlet is altogether below a technical notice; save that the situation of the writer was elevated and responsible.

After the misapplication or abuse of the term *amaurosis*, with which so many writers and practisers are fairly chargeable, one feels disposed to evade the term. *Amblyopia* will often subserve as well. An obtuse,

blunted vision, by which the outlines of an object are not discriminated, must, in intensity, become an *amaurosis*. Nay! what can this last affection ever be, in real nature, but an augmented *visus hebetatus?* The eye, which at first fails to appreciate the outline of the dial-hand, next ceases to detect the periphery of the dial itself.

If, indeed, the amblyopic eye were simply dull, the nomenclature must be always exclusive. But when is this the case? Unlesss the senile dimness be an exception, the dim-eyed patient almost always, if his symptoms urge him to seek a physician, complains of something more; of *chrupsia;* or *photopsia;* or muscæ; or other deviations. As to *chrupsia*, or colored vision; the perception of a colored halo, or bur, surrounding the candle flame, as a symptom of nervous malady, is inauspicious. It may be merely a token of imperfect cataract. But, where the media remain transparent, it often foretells amaurosis, complete, hopeless. Effected, probably, through obscure, chronic, almost latent inflammation of the choroid coat.

The *chrupsia*, which merely invests opaque bodies with a more brilliant aspect; as when the heavy letters in a speech of Mr. H——; or a sermon by Bishop ——; or a treatise on fever by Dr. ——: look brightly scarlet: there is not so much of mischievous portent. A rectification of the primæ viæ will render those erudite performances dull again.

Photopsia is of evil augury in proportion to the brilliancy of the flashes of light. This most authors attribute to irregular circulation in the retinal expanse,

and more or less of it every body has experienced; in stooping at a great angle; in straining; or from a blow on the eye; et ceteris.

But, if the patient is all blaze; if he sees scintillation as gorgeous as *used* to be the fireworks on the 5th of November; the fate of his vision is sealed.

It is very curious that in the stone-blind patient the coruscations are, in some instances, *most* coruscant. Here, and in all such cases, the physical impulse of the enlarged blood vessels is believed to excite the retina to see, what really exists not. Mysterious ground! Or, shall we assume the philosophy of latent light in the eyeball; as doth the cherished poet of Abigails and shopmaids?

> The *light that lies*
> In woman's eyes
> Hath been my heart's undoing.

Want of pigment is an occasional cause of *amblyopia*. An effect produced quickly or insidiously. If rapidly, it must, in all probability, result from inflammatory action—if slowly, from enfeebled deposition. In this case on est ordinairement tenté de l'attribuer aux progrès de l'àge, parce qu'elle se manifeste généralement chez les viellards secs et dispóses au marasme; chez des personnes jeunes, très amaigries ou dans un marasme; chez les enfans hectiques; chez les individus, qui ont éprouvé de violentes blessures de l'œil.

L'absence du pigment est encore accompagnée d'autres phénomènes qui denotent l'action diminuée; la décoloration de l'iris; l'applatissement de la cornée; la presbytie; l'arc senile; le trouble de la cor-

née. L'affaiblissement de la vue ne tient qu' à la perte de pigment; plus tard la retine trop fortement éclairée devient *amaurotique*.

Chelius; par Ruef.

Of this state forming or complete what the chance of prevention? What the hope of cure?

Amblyopia glaucomatosa hath been already noticed. And the recent treatise of Chelius, frenchified by Deyber, confirms the views of Mackenzie, as to the chorioidal sedes morbi, by the added testimony of Chelius himself, of Sichel, of Benedict; Weller, Beer, Welther, Rosas, Eble. The vitreous body is either not implicated: or, if discolored, not sufficiently opaque to solve the problem of blindness.

It is chorioidal malady; and the

Treatment must be proportioned to the march of symptoms. If rapid, they must be attacked with antiphlogistics. If slow, by a severe and suited regimen: the avoidance of cold: warm clothes: flannel next the skin: daily walks: disuse of the eye. Let the sufferer avoid excessive light; all painful thought—who does not, to the most of his ability?—indigested aliment: tough, windy, brinish; alcoholic drink. Of remedies, strictly medicinal, Chelius prescribes, for the plethoric, leeches to the head or the tail; laxatives; derivatives.

To the torpid, brisker purgatives; senna, colocynth.

To the gouty, anti-arthritics; especially the wine of the seeds of colchicum.

Of the seton in the nape this physician talks approvingly; and, certainly, in cases, where the black color of the pupil is diminished, and some sort of

post-iridal disorganization effected; as well as in cases of the *serene drop*; the influence of the seton is occasionally very surprising. Yet this cheering benefit is mostly short-lived; it should not tempt the practitioner to encourage himself with hope so buoyant as the patient *will* foster; and with none whatever, if the eyes betray the stare, which arises from discordant muscular action.

After all the discussions on *amaurotic amblyopia*, from Hippocrates to Hocken, the student will find himself entangled in a labyrinth, from which the thread of future experience will scarce deliver him. Writers follow each other, with their unconfessed, plagiaric descriptions; and rarely can one meet with an original, racy statement.

Then the technical divisions and subdivisions of the amauroses are as tedious and profitless, as the subsectional discourses of the reverend P. S. or any other learned but pappy brain. Descriptions and diagnoses founded on post mortem anatomy—not practical; not helping. It wants not much of philosophy to assure the novice that, if a man be amaurotic, the blindness must depend on affected retina: or morbid nerve: or injured brain. But how he shall, in the majority of specimens, detect the seat of the disorder in the live amblyopic, cannot be learnt from his instructors.

Almost all the causes of this form of blindness resolve themselves into pressure on the sentient apparatus; through tumors or dilated vessels. But it is impossible, where nothing can be seen in the fundus of the eye, to dogmatize about the special agent.

He must refer himself to general principles. He must possess some theory, original or borrowed, whereon to act. And, in this case of obscure cecity, the safest most practical idea would seem to be that of Hyperæmia or of Anæmia—too much blood or too little—which is pretty much the same as too much power or a deficit—too much action or languor—an excess or a delinquency of nervous spirit!

Whatever the peculiar treatment of this or that surgeon, two of the highest living British authorities, Messrs. Travers and Lawrence, concur in an eulogistic approval of the mercurial influence. In those cases, which they assume to be retinitic, acute or slower. Who can gainsay this prescription? To distinguish the inflammatory condition is the rub! It may be a fatal error to enjoin this potent, veneficial article in a condition of the structures requiring stimulus, vigoration, nutrition.

Then, moreover, the actual state and crasis of the patient may be accurately diagnized—plethora or vacuity may be an obvious affair; and yet the indicated measures be totally impotent; the amaurosis dependent on a tumor in the orbit, in the cranium, within the cerebrum itself.

Still, in such an instance, the wise, the only methodus medendi is that adapted to the actual and general condition!

What need, in this place, of repeating the eternal detail of what are antiphlogistics, what are tonics? Even students should be instigated, more than they are, to think for themselves; on which supposition, our bookcases would not be incommoded with a

crowd of authors, treading with admirable identity in the footmarks of each other.

A most interesting, where all are curious, tribe of amauroses are those, which are derived from sympathy with near or distant parts! Such is the sympathy with *wounded ramuscule* of the *fifth nerve;* superorbital or elsewhere. Some say they have removed such cecity, by division of the nerve, nearer the cerebrum. So tetanus hath been relieved, induced by wounds. So the tic doloreux hath justified chirurgical discission.

"Cases are on record, of wounds of the frontal nerve occasioning loss of sight; and it marks a particular sympathy betwixt this branch and the common nerves, which pass to the ball, iris and retina, that blindness is occasioned by the pricking of the frontal nerve. Morgagni supposes this to be occasioned by the spasmodic action of the recti muscles, pressing against the globe of the eye down against the optic nerve."—The Bells.

Morgagni erred. And this great anatomist can afford to be charged with occasional mistake. Small men never err.

This theory of the grand pathologist was one of those glaring absurdities, which the wisest ancients and modern antiques sported now and then. Such was the doctrine that attributed an erector power to the ischio cavernous muscles.

Another sympathy, with irritated, nudified ramusculus of the fifth nerve, is displayed, when a carious tooth excites amaurosis. Here, also, the tooth should be extracted, on the same principle as indicates the division of the frontal nerve. We perceive a sympa-

thy with the superior maxillary division of the fifth, in the following

Case.—A literary clergyman was seized with hemiopia, in one eye. The upper half of a body, contemplated with that organ, was alone clear; the lower obscured by an impervious mist. It came on synchronous with the decay of a cuspidatus tooth. This body was not at first suspected to be an agent in the emblyopia; but, after some weeks' duration of the disorder, it was removed in vain. The tooth had excited an uneasiness too trivial to *demand* attention; but, from a careful examination of the history, every practitioner consulted, metropolitan and rural, oculistic and general, concurred in the nature of the cause: this carious tooth. Now about this eye there was no morbid objective symptom: no indication of ophthalmia nor cerebritis.

How obscure the philosophy of "A dimness of sight, without visible fault in the eyes!

"This sometimes proceeds from the stomach. The patients are affected, when that organ is out of order, and, by sympathy affects the *retina*, optic nerves, or *the brain*. I know a lady troubled with a sourness in her *stomach*, who, when this increases, sees everything indistinctly, as if thick smoke or mist were before her; nor does she get free, till, by chalk, or crabs' eyes, lime-water, magnesia, vomits and bitters, she has destroyed the acidity."—WHYTT.

The sympathy, or rather sympoesis of the eye and digestives, is not shewn in the nervous structure only. There is a state of teasing, chronic, subacute conjunctivitis, which one frequently meets; which requires

no local application, save detersion with warm water; which yields to the gentler, continued laxants, as five grains of rhubarb taken *with* each meal.

This sympathy, perhaps, alone explains the mysterious cecity in one eye, which is often met in children, boys, oftener girls; where nothing objective is detectible in the eye, in the frame. One must *suppose* some abdominal irritation, for by ordinary treatment the blindness gradually yields.

All sorts of classification have been adopted of the amaurosis. Man is, essentially, a classifying animal. What system is the best? To what classific, mastermind shall the minor, individual arrangers submit?

No division appears to Mr. Hocken so *simple*, yet correct and comprehensive, as the anatomical; namely, from affection of the retina, optic nerve, and brain. Influence the fifth nerve possesses over vision; we must, therefore, recognise affections of the trigeminus. We must, also, notice amaurosis from imperfection of visual textures (congenital amaurosis;) and lastly, certain affections, which sometimes occur independent, commonly as symptoms only.—Hocken.

Certès, the more simple any thing is the better. Taking the word as classical, not *punico* more. Not unfairly, as when *good* Mr. White said, "simple as I sit here"—and Mr. *Too*good replied, "simple enough!"

But if any body object to this unaffected ordo, let him object! Who would quarrel with nomenclators?

Is acute inflammation of the retina a common cause of amaurosis? "Not more than six or seven cases occurred at the West of England Infirmary, out of nearly three thousand patients."

The subject of Retinitis hath been touched in preceding pages: and here, again, one must repeat that there is no intention to gainsay, from the experience of the West, that this disorder is equally rare in the centre of England; Birmingham or elsewhere. But it is a matter of congratulation to the inhabitants, of East Anglia and West, that they can boast such comparative immunity.

TRAUMATIC AMAUROSIS,

the result of blows, with or without breach of texture, hath been mentioned in a prior page. The most perilous form is attended with the least appearance of evil. The dilated pupil, and this black and serene, is more portentous of mischief, than even ophthalmia and cataract excited by a violent concussion or puncture.

Doubtless this *traumatic amaurosis* requires the treatment indicated in ordinary affections. If there be proof of inflammatory or congestive state, it requires adapted evacuants: or mercurials: or the turpentine. If there be no symptom, evident or fairly suspected, of vascular mischief, the disorder indicates a stimulant appeal to the nervous sensibility.

It is certain that the practitioner, too often, is thrown off his guard, because the symptoms result from external violence. This remark applies even to the ophthalmiæ, and the cataracts, engendered by blows. One has known the pupil undergo occlusion from unmolested traumatic iritis; even, when the presence of cataract, rapidly formed, gave testimony to the force and the peril of the blow.

Where there are amaurotic symptoms, complicated with visible vascularity, the path of treatment is evident enough. The internal mischief may be gathered from the exterior: and the antiphlogosis must be instituted.

Where there is no ophthalmia to be remarked, the paralysis of the nerve is very frequently complete and hopeless. Is this effected, ever, through simple pressure forcibly inflicted? Mr. Hocken quotes a case from Beer, which renders this supposition at times probable.

A man happened to be in a company, when suddenly a stranger behind him clapped his hands upon his eyes, desiring him to tell who stood behind him. He endeavoured to remove the hands of the other, who pressed them the firmer, till at length withdrawing them, the man found that he saw nothing, and continued ever after blind, without apparent lesion of the eyes.

But, whether the paralysis result in this way: or through the fifth nerve and the circuit of the brain: the cases are usually as gloomy as the pupil is serene!

AMAUROSIS ATONICA,

as the words imply, is a disorder the reverse of the inflammatory, the active, the plethoric. It must be more common than would be inferred from the narrations of modern writing. It is probable that the numerous ophthalmic remedies, enumerated by ancient writers, chiefly appealed directly or mediately to the nervous system, and so acted as eye-brighteners.

Thus Pliny—In eodem reperitur et sulphur: emicantque fontes Oraxi oculorum *claritati*.

Elaterium—The expressed juice of the cucumis sylvestris sole cogitur in pastillos, ad magnos mortalium usus. *Obscuritates* oculorum sanat.

The Hawkweed or *Hieracia* is so called, quoniam accipitres scalpendo eam succoque oculos tingendo, *obscuritatem*, cum sensere, discutiant.

Of the cabbage or *brassica*, one species was in much reputation for oculorum *caligini scintillationibusque*.

And it seems that, if it were bis cocta: and post cibos sumpta, crapulam discuti—oculorum *claritati* conferre multum.

This admirable virtue in the cabbage should be more generally known; because, although in these days gentlemen are said not to drink hard, still an unhappy transgressor may like to learn, that the juice of this brassica commixed with the oil of roses; or the leaf of the brassica macerated in hot water, and placed round his brows, will relieve him from the cerebral effects of his debauch! Galen, lib. i. *κατὰ τόπους*.

But, if the penitent and temulent sufferer be loath to sit, crowned with a cabbage garland, he may find another corrector, of the amblyopia produced by drink, in the ses quicarbonate of ammonia. The Germans, heavy drinkers as well as hard thinkers, have introduced to notice this potent alkali. Five grains—well diluted, because it is a caustic article—may be swallowed, and repeated with due intervals, until the crapulous sufferer is himself again! Two drams and a half have been thus ministered successfully.

But, although Pliny exclaimed, *Brassicæ* laudes longum est exsequi!—among the moderns, sartoribus exceptis, the cabbage "est tout-à-fait déchu de son ancienne renommée. Les modernes ont établi cette loi philosophique, que plus une substance contient de parties assimilables, moins elle est propre à servir de médicament. Une seule variété, le chou rouge, riche en matiere sucrée, a pris place parmi les médicamens béchiques. Le chou pommé fermenté donne l'aliment connu sous le nom de chou-croûte *(sauer-kraut,)* qui possède quelques vertus antiscorbutiques."—*Pline par Panckoucke.*

An acetous preparation of the *scilla*–acetum scillæ?–*clariorem* oculorum aciem facit. What modern knows or credits this? The credulity, charged on the Roman Historian, did it not extend to the philosopher?

Of the *rocket*—a brassica—it is said, subtrita eruca si foveantur oculi, *claritatem* restitui.

The *Nasturtium* visum compurgat; according to Dalecamp, sternutatione provocata; but it may have been swallowed for this same purpose, since Pliny describes it as an antibilious purgative. It is, most probably, the Lepidium sativum of Linnæus.

The use of snuffs for the morbid eye was, evidently, much in vogue with the ancient oculists. Are they sufficiently valued now? Not simply in affections of the nervous apparatus, but in outward and visible maladies, as Lippitude?

"A friend of mine had a servant afflicted with bad eyes. He lost his eyelashes, and his eyes were surrounded with a vermillion disk. They were very disgusting, and a friend advised him to take Grimstone's

eye snuff. In three weeks they are as sound as possible. The disorder had lasted some years. Is the fact of any use to you?" T. H. T.

In the few amaurotic cases, in which the author has tried a stimulant snuff, he has failed; perhaps from inertness of the remedy, perhaps from his want of faith. Nothing can be expected, in such cases, without energetic perseverance; and this must be grounded on hope and faith. Why, since Ware primus, backed by Valangin and Blagden, effected cures by sternutation—why should any body despond? Why?

Mr. Ware's snuff was a vegetable vehicle, containing a little of the yellow subsulphate of mercury. It seemed to have benefited through the nasal discharge, or rather in proportion to the quantity of mucus.

But it would be wasteful of time to pursue the numberless remedies, quoted by Pliny, against amblyopia amaurotica. The catalogue is long; and furnishes a fine treasury for the advertising financier. "Where is the best investment of my capital?" "In printed advertisements. Of any subject whatever, from wine to a warming pan; from claret to a close stool. But, above all, of a latent—which meaneth, in the language of the Stamp Office, patent—medicine."

It is curious to observe the variety of *causes* conferred on *amaurosis* by a variety of authors. Thus: bitter *beer*, bitter medicines, quassia have been inculpated, by German authors. A remarkable silence, as to these causes, is maintained on this side the ocean. What Englishman believes in the maleficence of unadulterated malt and hops?

Yet it is true, that the poison, often sold for beer; and fabricated by scoundrels; may and does destroy vision and life. And let not the assassins, who perform this national murder, because they evade the law of man, fancy they can elude all other punishment; and that in the judgment of heaven, *neve ea cædes capitalis noxæ haberetur*.

"One of the causes, to which the greatest influence must be ascribed, is the copious spitting of the *tobacco* smokers, who in modern times pursue their unmannerly practice in all places."

"Blindness with dilated pupils attends poisoning by *tobacco*."

"One of the narcotico-acrids, which custom has foolishly introduced, *tobacco*, is a frequent cause of amaurosis."

This is said more easily than proved. Doubtless abstractedly, the *tobacco* is venenous. And used in excess, like many other things, must be injurious to the health. One physician asserts that a great majority of his amaurotic patients have been in the habit of smoking tobacco, in large quantities. True. But the great majority of Scotchmen, as well as other Britons, smoke. If the degree, in which the mass thus amuse themselves, were so very poisonous, the complaint would be vastly rifer. The fact is, that tobacco hath always had its enemies, from the king to the physician. And it hath enjoyed its patrons, from the peasant to the protector. Cromwell smoked.

But it retains, and ever will, its extensive and fascinating sway; and all, that we can hope, is a moderation induced by medical and hortatory statements.

There are periods, when the ability to smoke is a great blessing. After much physical fatigue; watching; mental anxiety; mental annoyance, from external circumstances, or rascally treatment, the pipe is soothing, refreshing, invigorant.

Suppose it possible that mankind should be deprived, through any process, of the use of tobacco, and you assume their privation not merely from an entertaining but an useful herb. It may be *ungenteel* to smoke the argillous pipe, less vulgar the cigar; but there is a virtue in the nicotian herb, which will not suffer it, however vilified by the empty fashionable, to be thrown away by the sober and substantial world. The pipe is a laxative. Even the learned medici, quoted above, may find it, occasionally, a pleasant eccoprotic. Doubtless, their habits are sedentary, like those of most philosophers, and their chitterlings proportionally torpid; and if, at any time, they have not enjoyed their morning evacuation, they may command it by the pipe or the cheroot, puffed after breakfast. The laxative character of the herb must, at all events, prevent against it any charge of inducing congestion.

It is not humane to issue an autocratic ukase against any of the few pleasures of life, unless they are demonstrably injurious. Some fastidious persons are ready to cascade at the mere effluvium of tobacco—not so the vast majority of men.

Omnibus usurpor pueris, juvenique, senique;
Me quoque debilior, fœmina, sexus amat.
Nunc quoque me crepitant populus Garamantidos, Indi,
Quæque coloratos ustulat ora viros.

JOHANNES MICHAELIUS.

Touching tobacco, it is pleasing to the author to be corroborated by Dr. Sichel, the indefatigable ophthalmic physician, of Paris:—

"Nous n'ayons pas rencontré dans notre pratique des faits qui soient de nature à corroborer l'opinion du professeur de Glasgow, au sujet de l'influence du *tabac* sur la production de l'amaurose."

Veneris damnosa voluptas hath been not infrequently considered a cause of amaurosis. And most unmanageable is blindness, thus induced.

Case.—Mr. T., a remarkably fine young man—sound, wind and limb—has lost his vision gradually. Through mistiness increasing in density—without any other subjective symptoms; without scintillations, without pain. He had never the intermittent amblyopia, which results from simple over use of the eye; removable, pro tempore, by repose; and accompanied with sensation of fatigue. But the march of the symptoms was regular, rapid, unchecked; and in less than a year his cecity was complete—his gutta most serene. No cause whatever could be detected, save

habits of excessive venery. *Ex famâ hæc collecta sunt.* In this distressing case, the usual depletions and mercury and the seton were, late in the disorder, vainly tried.

Case.—Mr. L., looking as salacious as a satyr, married a very pretty woman, with Saxon features; and, soon after his hymeneal life began, was seized with gutta serena, almost complete, in each eye. To this was added ptosis of one lid and strabismus divergens, through paralysis of the third nerve, on the same side. He was treated with mercury, potentially, and he recovered his vision. But never from the ptosis and divergent squint. Thus he uses only one eye; and if the lid of the strabismic eye be lifted with a finger, his vision is double. Why should Mr. L. have regained sight; while Mr. P., under similar treatment, recovered none? Was it that here the fatal cause persisted? While the treatment, through mercury, etc., at once suspended it, until the brain rallied, in the instance of Mr. L.? Because

The treatment, indicated in this kind of amaurosis, would be, remotâ causâ, the reverse of that which obtained in the two cases here introduced. It should be sedative, tonic, nutritious.

Ονανισμος amauroseos causa multis ab auctoribus profertur. The discovery may be made by chance—it hath often been effected, as one reads in Gallic publications, by direct inquiry. Upon this degrading subject the least said is the soonest mended.

As the author is quite assured that *his* countrymen will never imitate the spurcous literature of Tissot, so he leaves to their national delicacy the detection

of the cause—to their good sense and analogical reasoning

The treatment of this atonic blindness.

Rheumatism hath been named by Dr. Sichel as a cause of amaurosis:—Amaurose rheumatismale—excited by l'abaissement subit de la température. L'action du froid sur les séreuses, et la présence dans le globe oculaire d'une membrane appartenant au système séreux, (la membrane de Jacob,) donnent de cette cause une explication suffisante.

Le resserement de la pupille, la photophobie, la photopsie n' existent qú au début, et sont moins marqués que dans les autres espèces.

There is a sensation of cold in the head, the forehead; circumorbital; orbital; in the ocular globe. Often pains occupant of the same region, increasing with cold and moisture, or with varying temperature, diminishing if the weather be dry, warm or equable.

The pupil soon dilates to a medium diameter; irregularly; perpendicularly oval, sometimes quadrangular. Sometimes without dilatation its mobility is dimished, the sight proportionally enfeebled; most frequently in both eyes.

Le feuillet séreux de la retine is probably in these cases the seat of the fluxion.

This statement, about the Jacobian membrane as the seat of rheumatism, appears over refined; and it is not easy to persuade an English reader of its probability. But Dr. Sichel diminishes the incredulity, when he adds that it is not unusual to witness the participation of other tissues, serous or fibrous, such

as the sclerotic, the cornea, or the iris. Sclerotitis or serous iritis alternates at times with the symptoms of retinal amaurosis; but this is more commonly attended by symptoms of external ophthalmia.

The *treatment* of rheumatic amaurosis is by revulsives and antirheumatics skilfully combined with sedatives or antiphlogistics. This form of amaurosis yields often and promptly to an emetic.—SICHEL.

This blindness is different from that which results from a metastasis of rheumatism to the brain. In this most awful affliction, the eye is only a participant through the cerebrum. Itself may be free from inflammation, yet totally amaurotic. The metastasis is to the interior, not to the orbit. In these cases the pupils are always contracted.

We are told by Dr. Francis Hawkins, in his classical *Gulstonian Lectures* on Rheumatism, that its extension to the eye is frequent, under different forms; sometimes affecting the eonjunctiva first, afterwards the sclerotic; sometimes not extending to the iris or cornea.

The two latter forms of disease are connected principally with fibrous rheumatism. When the synovial membranes are the primary seat of disease, the conjunctiva is always first to suffer from the secondary affection, although the deeper structures may afterwards become involved. Thus purulent ophthalmia,—an affection of the conjunctiva,—takes place in that triple affection of the joints, the eye, the urethra; thus on the other hand, in some cases related, the proper tunics were subsequently attacked.

Such cases, noticed by this learned lecturer, are instances of extension;—are they not, at times, proofs of metastasis?

Case.—Mr. N. E. labors under an urethral discharge, which he believes to be gonorrhœal; and he suspects the exclusiveness of his mistress. He takes the usual remedies, cubebs and capivi, and his urethra ceases to secrete. But sclerotitis supervenes. For this ophthalmia ordinary remedies are applied, as the calomel and opium, and the eye recovers. But now the ancle-joint of one leg becomes inflamed; and *this* third disorder yields to colchicum. I told him to believe in the faithfulness of his mistress; and to consider all his phenomena as metastatic rheumatism. Not observing the order of structures, which Dr. Hawkins mentions; for the sclerotic, not conjunctiva, was implicated here.

The true diagnosis in such cases is most important. I have known virtuous, married persons falsely suspected; and deeply agonized through the error.

But to return to the metastasis to the brain at large. To Dr. Hawkins it does not appear certain that genuine fibrous rheumatism is ever translated to the brain or its membranes. Analogy, however, would lead us to expect that the dura mater should not be exempt; especially since the pericranium, with which it is closely connected, is liable to rheumatism.

But there are authenticated cases of metastasis to the head, in which the primary affection was situated in the synovial membranes, one or more joints or bursæ having been inflamed and distended. The patient is suddenly seized with acute pain in the head:

after a short time symptoms of effusion, coma, death. The rapid effusion of serum points out its seat, the arachnoid membrane. Vide the *Gulstonian Lectures* by Dr. F. Hawkins.

The amaurosis in metastatic cerebral rheumatism is always attended with contracted pupil; and of this the cure must be founded on the general treatment. What is this treatment? Alas! in general the malady is too rapidly destructive; when the metastasis hath arrived. Does the depletory process for rheumatism dispose towards metastasis? Many philosophers have answered—yea!

Case.—Bagerley, a sailor, had laboured under acute rheumatism and been treated with *copious venesections*, purgatives, sudorifics. Suddenly the pains ceased; he became heavy; soon insensible, stertorous; his *pupils* became *contracted* to a small aperture, his irides fixed. He died in less than an hour. There was not an inspection of the dead body.

Case.—Mary Clark, aged 27, *Sept.* 12. Her knees were stiff and painful through rheumatism, recently acute, now chronic. So her left shoulder. She was treated with calomel and opium. On the 12th of *October* her pains had suddenly ceased; and, in lieu, she was lying bedridden, with a flushed countenance and intense headache. She was relieved by drastic purgation. On the 15th she was again seized with agonizing headache, the face purple. Her intellects were clear; but she was very intolerant of light: and the *pupils very contracted.* Her pulse totally intermittent; every second, third, fourth, or fifth stroke. She speedily became comatose. Pupils very contract-

ed, but still mobile. The eyes were at times half-closed; at others staring, cast upwards, and fixed; giving the expression, as represented by painters, of extreme pain. The feet were cold; but she was incessantly moving her left hand up and down, as if pathetically. As there was a necessity for immediate counter-irritation, the nitric acid was applied to the back of the right foot; and *freely* to the flexor surface of the left fore arm, and to that of the right; and heated bricks to the soles. She was restored by these and the *internal* stimuli of spirit and water, and ammonia, to consciousness and to great pain in the head. On the 16th she relapsed into occasional coma, which seemed prevented or removed only by blistering and heat to the lower extremities. These, however, did avail. On the 18th the grievous headache returned; with the feeble, intermittent pulse; of which it is curious to remark, that with the headache the intermission is synchronous and commensurate. Coma supervened; with injected eyeballs; elevated; not preserving consent of direction—the amaurotic strabismus. Again were successful the ammonia internally; the *heat* to each foot; a blister.

From this period the coma ceased; but the headache remained, varying in intensity; until the 5th of November, when, having been mitigated by the painful ulcerations, excited by the acid, it seemed entirely to yield to the returning rheumatism in the shoulder.

This case ended in health; but it illustrates the propriety of intense and enduring counter-irritants in such cases of metastasis: of transition to the cerebrum itself, to the membranes; to the sclerotic eyeball.

The frightful cardiac intermissions, synchronous wtih the *headaches*, are physiologically interesting; and the benefit of stomachic stimuli, for the coma, curious in Therapeutics.

Amaurosis from the operation of poisons, as opium, &c. Doubtless this species of cecity must be cured by those remedies, which remove the general disorder of the brain and nerves. Nor should the reader look to an ophthalmic treatise for these materials.

But I seize this occasion to notice and to deprecate the abuse of the stomach pump—the fatal abuse. As if no previous method had existed of evacuating a poisoned stomach, now-a-days no resource is essayed, but this modern hydraulic.

Where the necessity for its use exists, who will depreciate its worth? But *all* poisonings do not demand this formidable suction. And least of all is this process admissible, where the vegetable poisons, in solution, have already affected the nervous system, been propelled into the duodenum or absorbed.

Yet I have heard of a poor creature, suicidal or erroneous, who had swallowed only twopenny-worth of druggist's laudanum—who had spent many hours of drowsiness, before she was detected—and even then was intelligent and rational—subjected to this mechanical remedy, with a violence of lesion, which seemed to every bystander the real cause of her death. "Torn to pieces" was the expression they applied to her mouth.

Amaurosis from chronic retinitis. Mr. Tyrrell, of the Royal Ophthalmic Infirmary—whose fame, as a brilliant operator, no detractor has ever essayed to lessen—has just published *A Practical Work on the Diseases of the Eye.* And they, who peruse it, will quickly perceive the physician, as his admiring spectators have proclaimed the habile chirurgeon.

Where chronic retinitis is assumed or known to be the cause of the amaurotic phenomena, even there "the antiphlogistic plan in its strictest sense is most injudicious; it may do good in one case, it will do mischief in at least a dozen. The disease cannot be cured by loss of blood; the only good is to lessen the tension of vessels, and gain time for the operation of other remedies."

He considers mercury, properly employed, a much more serviceable agent; equally dangerous as bleeding, when used indiscriminately.

"It may be administered with a narcotic, in a form adapted to the power of the patient.

"Power must be maintained by simple nutritious diet, and such stimulus as the habits require;—for those, much accustomed to drink, are rarely able to combat disease, if altogether deprived of that."

Are not these the sentiments of a wise physician, standing on his own firm basis; not bestriding a groggified hobby?

"The acute form of retinitis is frequently preceded by the chronic; the former excited by violence, exposure, or sudden mental emotion. Persons having a gouty diathesis are more especially liable to this dis-

ease."—TYRRELL. Vide the case of Mrs. B., page 63, in illustration.

What says this experienced chirurgeon of the treatment of amaurosis, when even acute retinitis has attacked the luckless sufferer?

"General abstraction of blood is likely to produce injury; should never be resorted to, whilst the pulse is easily compressible; only when it is hard; and even then very cautiously.

"Even local bleeding must be carefully effected, when the circulation is feeble.

"The loss of blood often mitigates suffering for a time—the patient is induced to solicit a repetition, and the medical attendant follows up the *deceptive* plan." Let the lanceteers ruminate over this declaration!

"The most destructive cases have occurred during great mental distress."

It seems that of no nerve is the energy more directly and profoundly affected than that of the optic! Hence the great wisdom, in every stage of amaurosis, of piously deceiving the patient. The brusque, the *true* announcement of the menacing character of the symptoms may increase those which are limited—accelerate the stationary—and confirm the uncertain into hopeless blindness. Whatever may be said to his friends, the patient, for therapeutic purposes, must be cheered and flattered!

Case.—Miss B, a delicate and intelligent young woman, has been, some years, the subject of violent hysterics, during which she has even bitten deeply her shoulders, arms, &c.

These subsided, and, in lieu, she was afflicted with amblyopia, rather grave. She was under the care of a judicious surgeon; and her dimness was bearable and rather yielding. But she was told by an optician, of whom she was purchasing glasses, that her sight was going, and that in a year or so her cecity would be complete.

Her distress of mind, from this annunciation, became at once profound and most injurious. She now has diplopia with her right eye; inability to read a line with either; and her general malaise of eyes, photophobia and want of directing power are increased.

When will the practitioner learn the paramount importance of respecting the mind of his patient?

FINIS.

Norwich:
CHARLES MUSKETT, BRIDEWELL ALLEY.

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