search and diligence, by whomsoever they are displayed, which have this object in view. To such it is painful to see a person of the undoubted talents of Mr Bell, improved as they must be by the numerous opportunities of information to which he has long had access, spending his time in such performances as the two Lectures now before us. If he really think that his character as a public teacher demands the vindication which he has attempted, let it be confined to the walls of his own class-room, and to the ears of his pupils, (their minds we trust shall escape); but let him never think of requesting the attention of the public to that, to which they ought not to attend, or of endeavouring to awaken feelings, the display of which is always unnecessary, and often injudicious. When he appears before the profession at large, it would be at least prudent to choose a subject of general and lasting interest, and to shun in its discussion all topics which are indebted for attention to short-lived and personal controversy.

III.

Observations on the History and Treatment of the Ophthalmia accompanying the Secondary Forms of Lues Venerea; Illustrated by Cases. By Thomas Hewson, A.B., Member of the Royal College of Surgeons in Ireland; Professor of Materia Medica and Pharmacy to the College; and Surgeon to the Meath Hospital, and County of Dublin Infirmary, &c. &c. &c. London, 1824.

This is a practical work, which shows that the author has bestowed considerable attention on his subject, and which forms no inconsiderable addition to our knowledge of the several forms of inflammation incident to the human eye. Minuteness of description arising from attentive observation, correct pathological views, considerable refinement in diagnosis, and clearness in therapeutic precepts, are the great excellences of these observations; and our readers will be ready to say, that such recommendations are neither so trifling nor so common as to be overlooked. Yet the book is not free from faults; nor are these so few or insignificant as to warrant our adopting, with justice, the old saying, Non ego paucus offendar maculis; for, to omit the careless and inaccurate language in which the author has too often expressed himself, we have to regret the more substantial sin of loose reasoning and inaccurate thinking, or rather of no reasoning at all. The short compass of the whole book is pervaded, as we shall show, with a violent paralogism with regard to the nature
of the disease which forms its subject—which the author assumes to be syphilitic or venereal; but without advancing arguments of any force to prove that it is, or to repel the objections of those, who, with equal justice, might ascribe it to mercurial poisoning. We mention this, however, merely as a caution at the outset of our remarks; and we shall, without further comment or stricture, proceed to give our readers some idea of the manner in which Mr Hewson treats his subject. We therefore take our author's description and mode of investigation as we find it.

According to Mr Hewson, when the syphilitic poison, after occupying the constitution, attacks the eye, it affects chiefly its internal tissues; and though, in consequence of the effects being most visible on the iris, the disease thus created is generally considered as inflammation of that membrane, it affects not only this but the choroid coat, the lens and its capsule, the ciliary body, and even the retina,—in short all the interior structures of the organ of vision; and therefore he regards it as a variety of internal ophthalmmy (ophthalmia interna) produced by a specific poison, observing a peculiar course, and giving rise to peculiar effects.

This inflammation consists of two stages, the first of which presents at its commencement nothing peculiar, and begins very much like an ordinary attack of ophthalmmy. There is perhaps a greater degree of aversion to light, exposure to which causes much pain, and a profuse discharge of burning tears, and the eyelids are in consequence generally violently contracted over the eyeball. There is always more or less of what Mr Hewson terms external inflammation, or vascular redness of the white of the eye; and if the enlarged vessels on which this appearance depends, be attentively examined, it is possible to distinguish two orders, a superficial belonging to the conjunctiva—the vessels of the mucous membrane—and a deep-seated pertaining to the sclerotic, sometimes bright red, more frequent of a purple colour, the characteristic peculiarity of which was long ago shown by John Cunningham Saunders to be, that they passed into, or were connected immediately with, the substance of the iris. This appearance is described by Mr Hewson in the following terms.

"A great part, however, of the redness of the eyeball is produced by vessels passing through the sclerotic, which becoming more numerous and frequent in their insculations as they advance forward, and terminating abruptly, nearly at the space of a line from the cornea, about the situation of the ciliary ligament, cause in this part the peculiar appearance of almost a distinct red circle. Neither at this, or the more advanced periods of the disease, do these enlarged vessels pass over the surface of the cornea; nor have I ever observed any speck or ulcer forming on it: in a few instances there has been an appearance like the arcus senilis." p. 5.
These characters may be said to indicate the existence of inflammation of the iris, which never continues long without producing marked changes in the aqueous humour, and in the appearance of the pupil, or central aperture.

"This humour," says Mr Hewson, "is always more or less clouded by an opaque fluid, which is generally seen floating in the anterior chamber. This prevents a clear view of the iris and pupil, and causes an appearance as if there was an opacity in the cornea. As to its nature, this opaque fluid would appear to be lymph, secreted by the vessels of the inflamed iris. It varies in quantity; it is sometimes so abundant as to render the greater part of the iris invisible; and, intercepting all passage of the rays of light, for a time entirely deprives the patient of vision. In some cases it scarcely disturbs the transparency of the aqueous humour; in others we see it condensed and collected into a mass, and attached to some part of the iris, generally near the pupil. Whilst in this state, in the more advanced stages of the disease, vessels shoot into it, and it becomes organized. It would seem to be specifically heavier than the aqueous humour, for it changes situation according to the position of the head. Thus, after the patient has lain some time in bed, it may be seen on either side of the anterior chamber; but when he is for any time in the erect posture, it accumulates chiefly about the lower part of the chamber and inferior margin of the pupil; also, as more or less of it always lies within the space of the pupil, it produces here an appearance like commencing cataract." pp. 6, 7.

We will not be so captious as to question the correctness of this opinion about the formation of lymph, as the cause of muddiness of the aqueous humour during iritic inflammation, although our author adduces no fact in proof of its truth, and although the possibility of proving his opinion be exceedingly problematical. Mr Saunders remarked the effusion of lymph from the inflamed iris, but it was always in definite drops or masses aggregated together, and not diffused through the aqueous humour, as Mr Hewson imagines it to be. If this notion of our author be erroneous, the error is to be ascribed to the peculiar opinions which pathologists entertain of lymph, and of the inflamed membranes by which it is effused. There are two circumstances to which it is requisite to give attention, in order to form a correct idea of the point at issue. The first is, that inflammation of a membrane, such as the iris or the choroid coat, does not invariably cause the formation of lymph; the second is, that lymph is not directly effused in propria forma, but is separated by a subsequent process from the fluid which is the product of inflammation.

If we inquire into the nature of the tissue of which the iris consists, we find it impossible to form any very definite notion
of its structure or organic properties. It is utterly unlike any other substance, either solid or membranous, in the whole animal body. The longitudinal fibres which are seen in the anterior surface of the recent eye, were regarded as muscular by Drelincourt and Ruysch, and a multitude of authors who followed these anatomists. Morgagni, on the other hand, declares that he never could, even with the aid of a lens, distinguish muscular fibres; a conclusion in which he was afterwards supported by Duvernois and Weitbrecht, by Ferrein, who considered the iris as a mere vascular membrane, more recently by the accurate Haller, who ascribes the dilatation and contraction of the pupil to the more or less impetuous afflux of fluids to its colourless vessels, and even by Zinn, who, though he thinks it ought to be referred to muscular tissues by its action and properties, admits that he never could distinguish muscular fibres even by the microscope.

All authors who have investigated the structure of the iris, agree in representing it as a very vascular membrane, and that its principal structure consists of numerous arteries and veins, and a copious supply of minute nerves from the small branches of the ciliary order. These fibres, capillary vessels and nerves, are connected with each other by means of a very delicate filamentous tissue (subtilissima cellulositas), as in other organs; but what peculiarly constitutes and distinguishes the membrane from others, the most elaborate anatomists have failed to inform us; and we must confess that we are unable, in the present state of scientific materials, to determine. It is therefore entirely uncertain, whether it can be justly referred to the order of serous membranes, as some authors have thought; and nothing is known either of the analogies according to which morbid causes operate on it, or of the pathological effects which its structure would show peculiarly to result from its inflammation.

From these facts, therefore, it is to be inferred, that knowledge of its anatomical structure throws little or no light either on the process of inflammation, or on the peculiar effects which it produces; and it must be admitted, as a simple ultimate fact, that the iris, when inflamed, may secrete fluid which coagulates into lymph, but that it does so, not in consequence of being a serous membrane, to which it is very doubtful if it bear any resemblance. It must not, however, be imagined that the iris secretes lymph indiscriminately at any part of its surface; for invariably this morbid production is found at the pupillary margin, which it almost uniformly renders more or less irregular, and too often connects by adhesion to the capsule of the lens.
According to these views, the muddy appearance of the aqueous humour is not explained by merely having recourse to the supposition of the presence of coagulable lymph; and, in point of fact, inflammation may exist in the membrane without giving rise to this morbid production. Without attempting to determine specifically in which of the component tissues of the iris inflammation exists, we may safely assert, that one of its most common effects is derangement of its usual secretion, and the formation of a quantity of morbid watery fluid. We see examples of this in inflammation of the skin, as in blisters, rose, pemphigus, and some of the vesicular diseases, in inflammation of the cellular tissue as in oedema, and in inflammations of several of the serous membranes, as in effusion of watery fluid in consequence of pleurisy, pericardial or peritoneal inflammation, and, in some instances, of hydrocele. Very nearly on the same principle may turbidity of the aqueous humour be ascribed to inflammation of the iris, or perhaps of the ciliary body and processes. The exact sources of the aqueous humour are not positively known. To pass over the opinions of Nuck, which were refuted by Chrouet and Haller, it appears to be generally agreed that it is derived chiefly from arterial extremities, which some, as La Hove, de la Charriere, Lobé and Hevermann, place in the anterior surface of the membrane, but which others, as Haller and Zinn, think are none else but the arteries of the ciliary processes. If this probability be connected with the fact of the direct passage of a zone of vessels from the sclerotic to the ciliary ligament and processes, as first noticed by Saunders, and now particularly remarked by Mr Hewson in the work before us, we obtain a clearer view of the pathological cause of the muddy state of the aqueous humour. If it be admitted that inflammation, or any vehement vascular irritation, has the effect of deranging those secretions which depend on direct capillary action, it is natural to expect that inflammation, which affects the ciliary body and perhaps the processes, will have considerable influence in changing the aqueous humour, the transparency of which is intimately connected with the healthy state of the ciliary arteries.

Bichat describes a proper membrane of the aqueous humour, which, according to him, covers the posterior surface of the cornea, and, advancing to the great circle or ciliary margin of the iris, covers it before, and is insensibly lost before it reaches the pupil. He expresses no doubt that this membrane furnishes the aqueous humour, by exhalation, though he admits that it resembles the serous membranes in nothing but its transparency. The existence of this membrane, however, is by no means as-
certained; for the ingenious author admits, that it is demonstrated in the form of a thin plate behind the cornea with great difficulty, by exposing the eye to the heat of boiling water; and that no contrivance has yet rendered it perceptible on the iris. Here is, therefore, no proof that there is a proper membrane of the aqueous humour, further than what is derived from conjectural analogy; and we must, in the mean time, be satisfied with the old hypothesis, which ascribes the formation of this pellucid fluid to the ciliary arteries.

We have been led into this digression in order to prepare our readers for understanding the descriptions of Mr Hewson, and to enable them to estimate the truth of some of his pathological opinions. It appears, on the whole, to ourselves, that the muddiness of the aqueous humour is to be regarded simply as one of the effects of inflammation, spreading from the ciliary body over the iris before, and the processes behind, and that it is quite unnecessary to have recourse to the effusion of lymph to explain this loss of transparency. Effusion of lymph may take place, but it is a distinct process entirely.

Mr Hewson also notices, that instead of lymph, drops of blood may fill the anterior chamber; yet the symptom, though alarming, is without danger. The formation of purulent fluid constituting hypopion, though more formidable, is much less common, according to Mr Hewson.

The changes which take place in the shape of the pupil, are so various in different cases, that it is almost impossible to describe them in general terms.

"In a few cases, it remains for some time preternaturally dilated and fixed like an amaurotic eye; but in general it is rather within the middle state of expansion, and remains nearly immovable in every variation of light; so that, while comparing it with the pupil of the other eye, it at one time appears more dilated, and at another more contracted, according to the greater or less intensity of light to which they are both exposed. As the disease advances, the pupil contracts, and soon begins to lose its regular circular form; some part of its margin is observed to make a different curve from its original one, and at first to assume more of a straight line. This may take place in one or more parts of the margin, and for a greater or less extent, which will cause the pupil to take on different figures: sometimes appearing semilunar, at other times oval, triangular, or quadrilateral. Some portion of the pupil, mostly about its superior part, preserves, in all stages, for a greater or less extent, its natural form; and within this space, it moves a little under the influence of varying light, and also expands under that of the extract of belladonna; whilst the remaining portion is not affected by the same agents. We usually find a larger accumulation of lymph about the latter parts."
"As the disease proceeds, the contraction of the pupil becomes more remarkable, particularly about where the morbid action first manifested itself; and thus while one part of its border is closing towards the centre, and the other remains stationary or dilated, it consequently, sometimes appears as if drawn out of the natural axis."—pp. 8-11.

In some instances, minute eminences like pustules appear about the pupillary edge of the iris; but they are more common in the second stage of the disease. The duration of these symptoms is from six to eighteen days, and it rarely happens that the twentieth arrives, without some of those which belong to the second stage appearing.

These consist merely in the greater contraction of the pupil, its irregular puckered appearance, attached in one or more points to the capsule, and, above all, in the formation of the pustules or tubercles already mentioned on the iris, but chiefly its pupillary margin. They are described in the work before us in the following terms.

"When these occur, there is always more pain and tenderness felt in the eyeball than usual; they commonly present themselves at or near the pupil, and on that part of it where the morbid process is most active; now and then they are seen on the surface of the iris, between the pupil and its ciliary attachment. They are found from the size of a large pin-head to that of a small split pea; sometimes a solitary one, at others two or more of them appear unconnected; but in some cases a number are clustered together, and project into the pupillary space, so as nearly to fill it up, or protrude forward into the anterior chamber. At one time they hang pendulous, at another they are attached by a broad base: when small, they are of a dark red colour; but when large and prominent, they are more or less white at the apex, while about the base the redness continues. By closely examining them in this latter state, we distinctly observe that the inflamed superficial membrane of the iris is reflected over them, and forms their anterior covering; and thus, when these tubercles are small, their covering retains the redness caused by its state of inflammation; but when they are larger and more pointed, it becomes transparent about the apex, where, as happens in a common pustule, their whitish contents are visible.

While in this state, in some rare cases, the tubercle bursts, and its purulent contents are poured into the anterior chamber, thus giving rise to the symptom called hypopion, so common in idiopathic internal ophthalmia. The different circumstances, however, I may here shortly remark, under which this symptom occurs in these respective species of ophthalmia, are, with a little attention, sufficiently manifest; for, in the venereal case, we clearly observe that the matter is deposited into the anterior chamber from the pustular tubercle, which is previously formed and always present; whereas, in the lat-
ter instance, we cannot distinguish from what direct source it is produced.

"After the disappearance of these tubercles, we may often discover a fissure or cicatrix in that part of the iris where they have been situated. With regard to their nature, from what I have observed of them, I would conclude that they are either pustular, or for the most part formed of a purulent deposition. Having never found them attendant on any other kind of inflammation or morbid action, I have always looked on them as characteristic of venereal ophthalmia." pp. 13-16.

As most of the symptoms hitherto mentioned are visible in the iris on simple inspection, the disease has been generally considered as inflammation of that membrane chiefly. Mr Hewson, however, very reasonably conjectures that it is not confined within such narrow limits, but affects the choroid coat and retina.

"Indeed, we rarely find," he remarks, "any morbid action set up in the iris, where the deeper-seated coats do not, at the same time, manifest some symptoms of being affected; and in the disease we are now considering, it has already been observed, that defective vision, and intolerance of light, are among the earliest symptoms complained of. These symptoms also occur before any marked or decided signs of disease appear about the iris and pupil, or before we can discover any sufficiently apparent causes, to account for their existence. They continue unabated, or rather increasing, whilst any degree of the morbid action is going on, but in a great measure subsiding on its removal. We shall, therefore, be often surprised at the extent of useful vision, to which, under proper treatment, the patient is restored, though some of the effects of the disease which we might suppose most likely to interrupt it, such as an adherent and contracted pupil, and opaque capsule, remain nearly unaltered and permanent.

"From these observations, and others which will appear on a closer investigation, we may infer, that the morbid action attendant on the venereal ophthalmia is not confined to the iris, as some have supposed, but that the choroid coat and retina are to a greater or less degree involved in it." pp. 17, 18.

This internal inflammation, then, may either be confined to one eye, or, after affecting one, may attack the other, where it may follow nearly the same course which we have already traced. Its natural tendency is to produce closure of the pupil, opaque capsule, or such opacity of the choroid coat or retina as to impair, or even destroy vision entirely; and wherever it is not opposed by seasonable and energetic treatment, more or fewer of these effects are generally observed to result. In some cases, which are luckily not very common, a more formidable termination,—abscess, and suppurative destruction of the whole organ, take place.
"The first symptoms," says the author, "which indicate a tendency to this, are some degree of œdema and swelling on the forepart, and on one side of the eyeball, immediately behind the ciliary attachment of the iris. At this place, a distinct tumour soon forms, which in a few days becomes pointed, and white and soft at the apex; when opened, the matter it contains oozes but slowly from the orifice, and will be found darker in colour, and more thick and tenacious in consistence than common pus.

"While the abscess is thus making its way externally, we at the same time observe it pointing towards the anterior chamber. A contiguous portion of the iris is protruded forwards, so as to come nearly in contact with the cornea: this soon gives way; and the same kind of tenacious matter which appears at the external opening is seen deposited in flakes into the anterior chamber, but does not subside in, or mix with, the aqueous humour, as happens in common hypopion. Both iris and cornea are quickly destroyed by sloughing and ulceration, the aqueous humour, lens, and a part of the vitreous humour, are evacuated, the sclerotic contracts about the vacant space, and, finally, the anterior chamber is obliterated.

"Cases of the kind here described are fortunately not common. One instance is noticed, and two figures are given of an eye thus affected, in Mr Saunders's posthumous work, without, however, any of the particulars of the case being added. Another is stated by Dr Farre, in a communication to Mr Travers, and three have fallen under my own observation, from which the above description has been drawn." pp. 20, 21.

This inflammatory process, though in some instances it gives rise to trifling uneasiness, is generally attended with periodical paroxysms of acute pain about the ball of the eye, the orbit, cheek, temple, or one side of the head, not much unlike intermittent hemiania. The time of attack is generally towards evening, during night, or in the early part of the morning; and during the paroxysm, which may last for two or three hours, there is a copious flow of scalding tears, the countenance is flushed, and the pulse quick and hard.

Mr Hewson commences his account of the constitutional symptoms by observing, that the eye is susceptible of this disease only when syphilis has advanced to its secondary stages, and contaminated the system in some degree; for, though a half-cured, indolent chancre or bubo may be present, some degree of constitutional affection is necessary to its production. According to the experience of Mr Hewson, the ophthalmic inflammation is most severe where the secondary syphilitic symptoms are most distinct, where no mercury has been used, or where the administration of this mineral has been irregular, inefficient, or protracted; but milder and more indolent where
mercury has been employed, and especially with an alterative effect.

The secondary symptoms which are most frequently observed to accompany the disease, are cutaneous eruptions, scaly or papular, bone-ach, depending on inflammation of the medullary membrane, node or periosteal inflammation, pains about the joints, and very generally ulcers or sloughing of the soft palate and tonsils.

"If the skin is free from any symptom to which we can attach suspicion, we are next to examine into the state of the throat, which is very frequently affected at the same time with the eye. We shall here often find one or more ulcers, or a greater or less degree of excoriation, or irritation, either actually present with, or immediately preceding, the ophthalmia; and in some instances the transition of the disease from the throat to the eye has been remarkably rapid, a day or two only intervening between its disappearance from one, and its seizing on the other. As the symptoms about the throat are often of an extremely dubious character, we can seldom solely rest our judgment on them; but must, as has been observed above, take our view of the case from an inquiry into the other circumstances attending it." pp. 27, 28.

We may add, that we have seen several examples of the internal ophthalmic, or iritic inflammation, in persons affected not only with papular or scaly, but with pustular and tubercular eruptions. Some varieties of one or other of the latter, especially the hard phlyzacious pustule (rupia and ecthyma), give rise to those ulcers, blotches, or morbid cicatrices, which Mr Hewson has remarked among the constitutional signs; but it is very doubtful, indeed, whether they are to be ascribed to the pure and unsophisticated action of the syphilitic poison or not.

It may readily be supposed, that this internal ophthalmym is very liable to be confounded with other forms of ophthalmic inflammation; and, indeed, it is doubtful in our mind, how far it is practicable to distinguish it from inflammation of the same parts occurring spontaneously, or from other causes than absorption of the syphilitic poison. Difficult, however, as this task unquestionably is, our author has essayed it, and furnishes his reader with diagnostic marks to distinguish the venereal ophthalmia from idiopathic inflammation of the iris, from inflammation of the capsule of the aqueous humour, and from rheumatic, arthritic, and mercurial ophthalmym. These marks, as might be expected, are derived, not so much from the symptoms and pathological characters of the several affections, as from the history of their course, and the influence which is exercised over them by various external agents. But, even with this allowance, the difficulty of establishing a real difference be-
tween venereal ophthalmia and idiopathic or other inflammations of the iris, appears to be extreme. Our readers may take the following diagnosis of idiopathic iritic inflammation as an example of this.

"1st. It does not so very quickly disorganize the structure, or disturb the functions of parts it attacks; and it is often for months' duration, sometimes subsiding, or almost entirely disappearing; and again, after certain intervals, returning, without leaving any permanent injury.

"2d. We shall rarely observe (indeed I have never met such a case) that it produces the same kind of pustular tubercles on the iris, and about the pupil, which have been mentioned as frequently appearing in the venereal ophthalmia.

"3d. After it has subsisted for a long time, it frequently causes organic changes in the iris, choroid, retina, and in the vitreous humour, and terminates in amaurosis, sometimes with an adherent and contracted pupil; in others this is dilated; and in these cases, it is not unusual to observe, in the same individual, one pupil amaurotically expanded, and the other closed.

"Finally, mercury alone is not so active, or so certain in subduing idiopathic inflammation of these parts, as some writers suppose; whilst the means necessary to resort to for this purpose, and which most frequently succeed, are totally useless in the venereal ophthalmia." pp. 34, 35.

Whoever peruses these paragraphs will unquestionably imagine, that, with the exception of the appearance of pustules or tubercles on the iris, all the symptoms indicate merely a shade or slight difference of degree, and that idiopathic inflammation of the iris is only a little more indolent than that which our author represents to succeed the absorption of the venereal poison. Yet we have only to look at the very next member in order to find an admission, that even these marks, slight as they are, are insufficient to assure the practitioner of the peculiar nature of the disease, without accurate inquiries into its history, and watchful examination of its subsequent course.

"Though many other points of difference," says Mr Hewson without the slightest reason, "might be adduced, and will readily occur to an attentive and experienced observer, no reliance whatever should be placed on lines of distinction drawn from topical appearances alone; but in all cases, the state of the patient's general health, both previous to, and after the occurrence of any ophthalmic symptoms of the nature we are now considering, should be closely and minutely inquired into. The necessity for this never more forcibly struck me than in some cases that appeared as the sequelae of the typhus fever which, a few years ago, spread so widely and so fatally throughout this country, and which still, though to a more limited extent, continues its ravages amongst us." pp. 35, 36.
The author then goes on to inform us, that in the autumn of 1815, when contagious fever prevailed to an unusual extent among the poor inhabitants of that part of Dublin, in which the Meath Hospital is situate, many suffered from ophthalmic inflammation, with such symptoms as induced Mr Hewson to suspect a venereal taint, and interrogate his patients as to its truth. Finding his suspicion unfounded, he ascertained, by subsequent investigation, that during convalescence from fever, and even long before this period, the internal coats of the eye became remarkably susceptible of inflammation, which was further called into action by premature exposure to cold, or unguarded application of cold or moisture to the person. For several successive years this ophthalmmy continued to accompany the fever, and unless treated as the seat and nature of the disease demanded, it was liable to produce the same injury to the structure of the eye. Five examples of this disease are given at the conclusion of the work; and no one, we are satisfied, who regards the symptoms merely, and the appearances of the iris and aqueous humour, will find it possible to distinguish it from that which occurs, or is said to occur in the persons of those who are affected with the secondary symptoms of the venereal disease. Under these circumstances, it is manifest, that the attempt to establish a distinction is gratuitous, if not useless and idle; and although a difference between the two diseases may actually exist, our author has completely failed in establishing it, or in giving us decisive marks of its existence.

These observations naturally lead to an inquiry of a very difficult nature, and in which our author under the head of "ophthalmic symptoms caused by mercury," has contrived partly to evade the doubtful points, partly to meet them by assumed principles, or broad assertions. He remarks, in the first place, the urgent necessity and the unequalled difficulty of drawing clear lines of distinction, between those symptoms which have their origin in syphilis, and those which result from the morbid action of mercury; laments the prevalence of vague and unsettled opinions on the subject; and disapproving of the ambiguous manner in which Mr Travers has spoken of the difficulty, expresses his doubts, whether the statements of this writer are altogether borne out by facts.

"It is not," says our author, "because a majority of the cases of iritis met with "are consequent on the use of mercury," nor yet because they sometimes occur "while the system is charged with mercury," that we are authorized in concluding one to be the specific effect of the other; for we might with equal reason assign mercury as the cause of the greater number of constitutional symptoms generally acknowledged to be syphilitic, the cases in which they appear
being commonly found under similar circumstances. A more obvious, and, in my mind, a truer source of the cases in question, may generally be traced to a defective and inadequate mode of administering mercury; in consequence of which, besides other effects, it fails to exert its antisyphilitic properties, or to eradicate the disease from the constitution; and, during its exhibition in this way, and while the system is yet under its influence, we frequently find syphilitic symptoms appearing in succession, or retiring from one place, and breaking out in another, and often committing some of their severest ravages. This is no uncommon result of what is termed the alternative plan of treatment, which is confined to the administration of pills, and in which the patient is placed under no salutary restrictions; and ophthalmia, like other syphilitic symptoms (as will appear from a perusal of many of the cases subsequently detailed), is no very unfrequent consequence of it. A minute investigation, however, into an extensive variety of cases, which came under my observation while acting for some years as surgeon in the Lock Hospital of this city (perhaps at the time the largest establishment of the kind in Europe), not alone impressed me with the opinion that iritis occurring under the circumstances above stated is, with very few exceptions, connected with a syphilitic taint of the constitution, but also that the ophthalmic symptoms usually associated with the "constitutional use" of mercury, are of a very distinct and different nature from the disease in question. Indeed, my experience leads me to look on primary iritis as a very rare effect of the constitutional use of mercury. On the contrary, I have observed the external structures remarkably subject to be morbidly affected by it, and this without its manifesting any tendency of the same kind elsewhere."

Now, it cannot be denied, that mercury does in many constitutions give rise to a train of symptoms, so similar to the secondary effects of syphilis, that they were long mistaken for those effects, and still continue by many practitioners to be ascribed to the inveterate grasp of the venereal poison. It is certainly a curious enough coincidence, that a morbid animal poison and mineral substance which often acts as a poison, should at the same time, in certain constitutions antagonize each other; and also, when absorbed into the constitution, give rise to the same or very similar pathological effects in the same animal tissues. The syphilitic poison when taken into the circulation, may produce cutaneous eruptions, papular, scaly, pustular, and tubercular; it may produce ulceration of the soft palate, inflammation of the fibro-mucous membranes, bone-ache, inflammation of the periosteum, &c.; and mercury will in many persons be followed by exactly the same effects. Nor do we think that the explanation which our author offers of these effects, which he ascribes
to a defective and inadequate mode of administering the remedy, so that it fails to exert its antisyphilitic properties, will furnish a solution of the problem. For it is well known, that no efficiency of exhibition, either by repetition or completeness of mercurialism, will counteract the occurrence of such symptoms; nay, too often they are aggravated and rendered utterly unmanageable in consequence of such effectual and adequate administration. That the effects cannot with greater justice be ascribed to what is termed the alterative plan, may be inferred from the fact, that bad effects less frequently follow this, than any other mode of administering mercury.

These observations apply chiefly to those doubtful points relating to the appearance of general symptoms, occurring secondarily in persons who have been exposed to the poison of syphilis, and who have also been under the influence of mercury. The great point which particularly claims inquiry at present is, first, whether the syphilitic poison alone would produce iritic inflammation; secondly, whether there are grounds to believe that mercury, or mercurial poisoning, operates as a cause of iritic or internal ophthalmic inflammation; and thirdly, whether there are just grounds for distinguishing the disease which attacks the eyes of those who labour under the secondary symptoms of syphilis, from those which is the result of mercurial poisoning.

On the first of these questions, we believe it would be idle indeed to entertain any doubt; for, under certain circumstances, the eyes of persons affected constitutionally with the venereal poison, are particularly liable to internal inflammation. It is true, that few even affected with chancre, or a trifling excoration, fail to have recourse to the popular remedy; and we very rarely, in civil practice, meet with patients who have passed through all the stages of the disease, and who show its entire course unmodified by any disturbing force, unsophisticated by any deranging agent. It is only, therefore, in those whose delicacy prevent them from applying for advice, or whose carelessness lead them to neglect even the means within their reach, that this simplicity of disease is observed. Mr Hewson remarks, what most practitioners are aware of, that the greater number of females who are infected by their husbands, rarely use mercury till the disease appears in the constitutional form, and these are very frequent subjects of ophthalmymy; and he states it also to be common among the lower orders of the Irish peasantry, who, when disordered, are notoriously negligent in resorting to the necessary treatment till some of the secondary symptoms appear. These facts are so well established, that it would be uncandid to deny them; but we cannot bring our minds to the tone which Mr Hewson assumes, when he tells us, with a sort of trium-
phant sneer, that, among the anti-mercurial experiments of our military surgeons, iritis has been no uncommon occurrence; and that, in some unpublished official reports, with an examination of which he had been favoured, he found it expressly stated, that "iritis was more frequently observed as a secondary symptom than is known to happen after treatment with mercury." Now, we will not attempt to say what these reports may be, nor shall we call for their production, as Mr Joseph Hume would probably do; but we may be permitted to remark, that we have not only seen various official reports, published and unpublished, but have seen the treatment, or "the anti-mercurial experiments," as Mr Hewson terms them, of various military surgeons, in various hospitals, and the result was uniformly, though in various degrees, the reverse of what Mr Hewson has here recorded. We have seen very few examples indeed of secondary symptoms of any kind, where mercury was not exhibited, and not above one or two unequivocal cases of iritic or internal ophthalmic inflammation. In civil practice, we have had occasion to employ the non-mercurial or simple plan of treatment, both publicly and privately, and have seen only one or two cases in the former situation, where the patients were careless and indifferent about their habits of living, and exposure to weather. In short, though the occurrence of internal ophthalmic inflammation in venereal cases treated without mercury, is not to be regarded as impossible, our observations lead us to infer, that it is an infinitely rarer occurrence than where mercury has been administered.

But while we are thus disposed to modify the statements of our author, candour obliges us to confess, that iritic inflammation may occur in the persons of the diseased; and perhaps the frequency and the liability of its occurrence depend on the operation of the same causes which favour the production of secondary symptoms in general. Cold and moisture affect the throat, perhaps the greater part of the gastro-pulmonary mucous membrane, in such patients, more readily than those in health; and one of the natural tendencies, if not a solution, of this local affection, is an eruption on the skin; and very frequently in those otherwise predisposed, inflammation of the eye. Of twenty-five cases which Mr Hewson has detailed of iritic inflammation, in ten patients the disease appears to have reached the secondary stage, and given rise to eruptions, or bone-ach or pains, without the evidence of any mercury having been taken. The following Table will communicate to the reader some idea both of their primary and secondary symptoms, the latter of which were in general present while the iritic inflammation was going on.
Cases of Persons affected by Iritic Inflammation, who are reported not to have taken Mercury.

| Names            | Age | Primary Sores                  | Secondary Affections                                      |
|------------------|-----|--------------------------------|-----------------------------------------------------------|
| Fanny Murphy     | 24  | Sore and bubo.                 | Eruption, pains, night-sweats.                            |
| Mary Goulding     | 27  | Sore on the nipple.            | Eruption, headache, pains, night-sweats.                  |
| Sarah Logan      | 36  | Disordered by her husband.     | No apparent symptom.                                      |
| Catharine Matron | 30  | Disordered by her husband.     | No syphilitic symptom.                                    |
| Matthew Gibson   | 24  | Chancres, which healed         | Eruption, headache, pains, stiff limbs and night-sweats.  |
| Ann Whelan       | 20  | Neglected sores.               | Eruption, pains, night-sweats.                            |
| Margaret Connor  | 27  | Disordered by her husband.     | Pain in one side of head; no other symptom.               |
| Mary Harte       | 40  | Disordered by her husband.     | Pains of shoulders and other joints, night-sweats.        |
| Henry Smith      | 40  | Chancre and bubo.              | Eruption, pains of legs, arms, and joints.                 |
| Michael Flood    | 6   | Supposed to be congenital.     | Nodes on both tibiae, night-fever and sweats.             |

In five of these cases, there were eruptions, pains of the joints, and night fever, terminating in sweating; in two there was no apparent syphilitic symptom, save iritic inflammation; in one there was none, save hemicranial headache; in one, pains of the shoulders, elbows, knees, and joints in general, with night fever, were the only secondary symptoms; and in one, a boy of six, in whom the disease was believed to have been transmitted from his parents, to these symptoms nodes on the tibiae were added. In admitting these cases as evidence of the position so strenuously maintained by our author, it must not escape notice, that we credit their authenticity and correctness on his testimony only, and on the accuracy with which he has investigated and ascertained their history. If it appear, on further inquiry, that mercury has been taken by any of the patients of this list, their evidence falls to the ground entirely.

The second point in this inquiry,—the possibility of mercury creating a disposition to iritic inflammation, or, in other words, operating as a cause of the disease, has partly come under notice already, in the few observations which led to this discussion. Mr Hewson, as we have seen, is of opinion, that mercury possesses no injurious power of this kind, and states, in opposition to what Mr Travers had inferred, that its constitutional operation rather diminishes than increases the susceptibility to the disease; and he subsequently has recourse, as vol. xxiii. no. 83.
we have seen, to the supposition of a defective and adequate mode of administration, to account for those cases of iritic inflammation, which occur in the persons of the diseased who have taken the mineral. It is quite unnecessary to inquire into the reasons, on the strength of which Mr Hewson maintains this opinion, for in truth he assigns none; and is ready to meet every objection, by quoting experience and observation. Unfortunately, however, for the effect of this mode of reasoning, the book itself furnishes means of appreciating the weight which should be given to general assertions, formed either on speculative and dogmatic principles, or without due attention to all the points of a question of fact. Mr Hewson makes his readers believe, from the outset of his observations, that he treats of ophthalmic inflammation consequent on absorption of the venereal poison only; and he all along speaks of the disease as the genuine product of the syphilitic poison. This view of the origin of iritic inflammation would be perfectly correct and consistent with facts, providing Mr Hewson formed his opinion of the disease from subjects in whom the syphilitic poison had been suffered to pass through all its stages, and produce all its effects, without the intermixture of that source of fallacy which results from the administration of mercury. It would be perfectly reasonable and legitimate to ascribe the internal ophthalmia to the operation of the morbid animal poison, if it did not appear that, in the majority of cases of the disease, another agent, which is well known to be adequate to its production, had been allowed to operate.

This error of logic is, however, amply compensated by the extreme candour of Mr Hewson in laying before his readers, not cases only in which no mercury had been given, but several in which a very full and complete dose of this mineral had been administered. Of the twenty-five cases recorded in the Appendix, not fewer than fifteen are instances of persons who had used the remedy in one form or other; in many it had been used more than once; and in one or two (Mr J. C. and Ann Moore) it had been given in great quantity, and in general with marked effects. That our readers may have a satisfactory view of the evidence furnished by these cases, we submit them, digested in a tabular form, collected as they are from the reports of the author; and we think it will require either great ingenuity, or great effrontery, to maintain that they do not furnish strong presumptive evidence that the iritic inflammation, if not the consequence of mercurialism, was at least as likely to arise from this cause as from the constitutional effects of the syphilitic poison.
| Names of Persons | Age | Primary Symptoms | Remedies | Interval between Prim. and Sec. Symptoms | Secondary Symptoms |
|------------------|-----|------------------|----------|----------------------------------------|-------------------|
| 1. John Woods    | 32  | Repeated venereal infections. | Pills and washes. | 1-2 years | Copper spots on forehead, shoulders, and arms, ulcers of tonsils. |
| 2. John Kearney  | 37  | Chancres, bubo. | Pills till mouth became sore. | 7 months | Painful sores difficult to heal, leaving bad cicatrices. |
| 3. John Lyons    | 67  | Venereal symptoms some years ago. | A course of mercury. | 7 months | Purple-papular eruption, night-pains, sweats, and weak limbs. |
| 8. William Dobbs | 26  | Chancres and bubo. | Pills and sore mouth. | 6 months | Headach, pain of limbs, night-sweats, bone-ach, ulcer of tonsils. |
| 9. Mr J. W.      | 20  | Chancres and bubo. | Three inunctions, very sore mouth. | 7 months | Iritis only. |
| 10. William Burges | 24 | Fungous warty sore on penis, and similar ones on scrotum, &c. | Twelve pills. | 8-10 months | Pains, eruption, *ecthyma syphilitica*. |
| 11. Mr J. C.     | 24  | Excoriation on glans and inner surface of foreskin. | Some pills, afterwards great quantities of mercury, and pills again. | 1-3 years | Pains and stiffening of limbs, night-sweats, eruption afterwards. |
| 12. William Church | 28 | Chancres, succeeded by bubo. | A wash given by a quack, and afterwards some pills. | 2 years | Pains of temples, thighs, and knees, night-sweats, copper patches on arms, body, and legs. |
| 13. Francis Brennan | 28 | Chancres about 2 years before. | A few pills. | 6 months | Sore throat and eruptions. |
| 15. Sally M'Kean | 28  | Sores of the nipple. | A liquid medicine given by a quack;—corrosive sublimate? | 2 months | Eruption on the arms, breast, and shoulders, night-pains and sweats. |
| 18. Anne Carey   | 30  | Chancres and bubo. | Mercurial medicines irregularly, and in small quantities. | 4-5 months | Blotches, scaly eruptions on arms and shoulders, followed by pains of limbs, &c. |
| 20. Michael Brown | 26 | Disordered, primary symptoms 6 months. | A solution given by quack;—corrosive sublimate? | 5 weeks | Superficial ulceration or excoriation of left tonsil. |
| 21. George Wolfe | 47  | Chancres and bubo. | Wash and some pills till mouth became sore. | 3-7 months | Brown scaly spots about scalp, shoulders, and arms, night-sweats. |
| 22. Ann Moore    | 18  | Not stated. | A few rubbings, considerable quantity of pills, without ptyralism. | | Eruption of forehead and right cheek, superficial ulceration on right angle of mouth and tonsils, nodes on both tibia. |
| 23. Mrs S.       |     | Disordered by her husband. | A few mercurial pills, mouth affected. | | |
We trust that, when Mr Hewson glances at this body of evidence, collected from his own cases,—when he perceives that so great a proportion as three-fifths of his whole examples of iritic inflammation may be traced to the unfavourable operation of mercury, he will take the trouble of watching his patients with more vigilance, and inquiring into their history with the utmost accuracy, and, divesting his mind of the assumption which evidently runs through his whole book, that the origin of iritis from syphilis is never to be questioned,—that he investigate the question again with greater attention, and with comparison of the numerous cases which his opportunities necessarily give him. The cases which we above mentioned are not to be received as genuine examples of syphilitic inflammation attacking the ophthalmic tissues, but must be regarded as the result of mercurial action operating as a poison. It is worthy of notice, that, in all of these cases, the patients had been exposed, some repeatedly, to the ordinary causes of inflammatory diseases,—cold and moisture; and some had been thoroughly wetted (Case 11th) when under mercurial influence; and it is well known, that, under no circumstances does mercury show a greater tendency to act as an irritating poison, and a cause of local inflammation.

We submit these observations on our author's opinions, not in the spirit of hostility to the remedy, the cause of which he espouses, and the innocence of which he maintains; but because we perceive no evidence for the conclusions which he has drawn, and a manifest wish to evade the labour of investigation by the easier course of broad assertion, and assuming positions which ought to be demonstrated. The mineral, undoubtedly, possesses great powers of influencing the tissues of the animal body; but this very circumstance makes it also possess great powers of injury as well as of benefit. Judiciously used, and with proper precautions, it may not only induce no disease, but may cure many. It is a sort of double-edged weapon,—a species of Telephian spear, which may at once inflict a deadly injury and convey the means of recovery.

"Telephus æternâ consumptus tabe perisset
Si non, quæ nocuit, dextra tulisset opem."

But while its evil is daily exhibited under the most careless and ignorant management, it requires, for displaying its sana-tive powers, to be wielded by a judicious and delicate hand.

After the observations which have already been made, it is superfluous to say any thing on the attempt to distinguish oph-thalmic inflammation, resulting from a venereal, from that which originates in a mercurial cause. In the present state of our
knowledge, we believe it is impossible to point out any marks or symptoms by which they might be discriminated; and the cases adduced in the work before us are sufficient proof of the justice of this opinion.

The diagnosis between iritic inflammation and inflammation of the capsule of the aqueous humour and rheumatic ophthalmia, is derived chiefly from the paper of Mr Wardrop, in the 10th Volume of the Medico-Chirurgical Transactions; and of their merit it is unnecessary to speak. The author wisely doubts the existence of ophthalmia from a gouty cause. It may at least be said, that if ophthalmic or iritic inflammation occurs in a gouty habit, it cannot possibly be regarded as different from ophthalmia arising in any other habit.

The conclusion of the Essay is on the subject of Treatment, which, according to the plan of Mr Hewson and most Dublin practitioners, is simple enough. He very justly reprobates the use of corrosive sublimate, as a preparation too violent and too little efficacious. The method of management will be understood by the following extracts, with which we conclude our observations.

"It simply consists in administering a pill, containing two or three grains of calomel, and half or quarter of a grain of opium, night and morning, or sometimes oftener; varying these proportions according to their effects, or the urgency of the symptoms. The opium is useful in allaying pain in the eye, which is sometimes a very distressing symptom; and also by preventing the calomel from irritating the bowels, and passing off too rapidly, the constitutional action of mercury is more promptly brought about. According as this is effected, we shall observe a gradual amendment in the eye: first, all pain and irritation cease; the redness of the eye-ball, the intolerance of light, and flow of tears, subside; the transparency of the aqueous humour is restored; the pupil assumes its natural actions, and all morbid depositions and appearances are removed from about it; and finally, but in some instances slowly, and after a considerable lapse of time, vision returns to its natural state. This is on the supposition that the treatment has been taken up in the most favourable circumstances of the disease, and during its first stage; but when it has been of longer duration, and when the organization of the parts concerned in it has undergone any of those permanent morbid changes, which so invariably attend its latter stage, our success will be more slow and less complete.

"If, after pursuing the preceding treatment for six or eight days, the mercurial influence does not manifest itself, or the symptoms with which the eye is affected do not sensibly yield, frictions may be combined with the pills, until ptyalism is fully established; from the first appearance of which, we shall usually find that the symptoms take a favourable turn. But if, after this sets in, no decided amend-
ment follows, we may reasonably suspect the case not to be of a genuine venereal kind. Though frictions are, with a few exceptions, to be preferred to all other modes of using mercury in the treatment of syphilitic symptoms, in those affecting the eye they are not sufficiently active; nor would it be prudent, in the first instance, to join them with the pills, because these latter will seldom disappoint us; and by attempting to introduce mercury too rapidly into the system, we often defeat our purpose of exciting its proper constitutional action, and render this afterwards more difficult of accomplishment.

"It is almost unnecessary to remark, that, in the treatment of this ophthalmia, confinement can less be dispensed with than in that of any other symptom of lues venerea." pp. 58-61.

He regards blood-letting and blistering as quite unnecessary, and collyria and other topical remedies of no use. Eye-waters are certainly useless, as are most local means in a deep-seated inflammation; but we cannot say the same for general or even local blood-letting, which, if sufficiently copious, we have always found of great benefit, and particularly energetic in keeping the inflammatory process at bay, till the mercurial action began to operate.

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IV.

*Official Report on the Fever which appeared on board his Majesty's Ship Bann, on the Coast of Africa, and amongst the Detachment of Royal Marines, forming the Garrison of the Island of Ascension, in the Year 1823.* By WILLIAM BURNETT, M.D., one of the Commissioners of the Medical Department of his Majesty's Navy, Physician in Ordinary to his Royal Highness the Duke of Clarence, and Honorary Fellow of the Imperial Medico-Chirurgical Academy of St Petersburgh. London. 1824.

This slender volume is valuable on account of the authenticity of the statements it contains, and the temperate judgment of the author. One fact recorded in it is particularly valuable, because the circumstances connected with it can so rarely occur, and are exactly those which seem to constitute, if any circumstances can constitute, an *experimentum crucis* as to the supposed contagious nature of any disease.

The Island of Ascension was uninhabited until 1815, when Bonaparte was sent to St Helena, and it became a matter of precaution to occupy Ascension with a few British troops. Till this time it was only visited during the turtle season, for the sake