## On the treatment of sympathetic ophthalmia and dislocation of the lens / by George Edward Walker.

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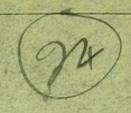
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ON THE



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OF

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AND

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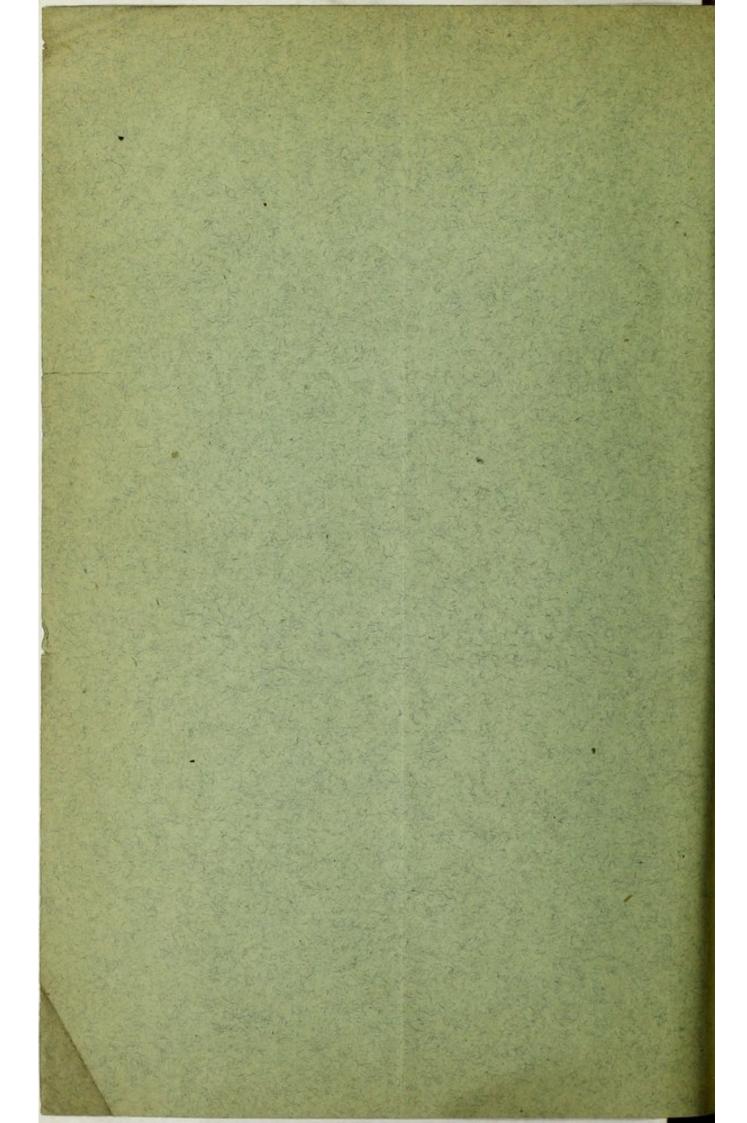
GEORGE EDWARD WALKER, F.R.C.S.,

Surgeon to St. Paul's Eye and Ear Hospital, and to the Blind School,
Liverpool.

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# ON THE TREATMENT OF SYMPATHETIC OPHTHALMIA,

BY GEORGE EDWARD WALKER, F.R.C.S.,

Surgeon to St. Paul's Eye and Ear Hospital, and to the Blind School, Liverpool.

The statement of the fact that Sympathetic Ophthalmia has been cured by a combination of old methods with greater ease than an iritis of average severity will no doubt be received with surprise and incredulity. Nevertheless, that such is true will be seen from the following history:—

Hector Fraser, age 52, Shipwright, was admitted into St. Paul's Eye and Ear Hospital, May 4th, 1877. Some six weeks before admission a Surgeon, finding him suffering from chronic glaucoma of the left eye, proceeded to perform iridectomy. After the patient was etherized, the usual incision was made; and immediately on its completion, the eyelids contracted so strongly as to force out the wire speculum, and then almost to empty the eyeball of its contents. It was useless to attempt to get out the sector of iris, so the lids were closed. Adhesive inflammation followed, and, unfortunately, symptoms of sympathy appeared in the right eye about a month afterwards.

Being from home at the time of his admission, I did not see him till May 7th, when I found the usual symptoms of violent sympathetic inflammation, profuse epiphora. photophobia, general scleral and conjunctival injection, beetle-green iris, &c., the pupil somewhat dilated with atropine. Of course, the first thing to be done was to enucleate the offending eye, which was now small, soft, and tender, though free from pain, but there was great pain radiating from

the right. On the 8th, the left was removed, the retina being found universally detached. The next day the man was rather cheerful on account of the remission of the pain in the right eye and right side of his head; but, as I put it down to the shock of the operation, I did not share his joy, but rather looked forward to an exacerbation the next night, which indeed happened as I feared. The disease increased in severity until the 13th, when, on account of an increase of pain the previous night, I told the matron to leech the temple. Next day I found the reaction caused by the leeching had excited a considerable hæmorrhage into the anterior chamber. The extreme frailty of the eye may be judged of from this circumstance. Then seeing that nothing but hopeless blindness was left for the poor man if ordinary methods were tried, I resolved to use a very old remedy, which, as far as I know, has not been used with anything like vigour under similar circumstances-namely, mercury. \*I am very well aware it was used in pre-enucleation times, but then the offending eye was left in its proper orbit; here however I had a different case, for I had got rid of the exciting cause, and had only to deal with the disease itself. I told the matron to bring him under the influence of mercury as soon as possible, and she acted so vigorously that he was salivated in two days. After this the eye has no history; it simply got well faster than any inflammation comparable to it in violence (I do not mean sympathetic), that I have ever seen. On the 19th, with a convex glass of about 10, he told the time by a watch, and I made out the disc in a hasty

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<sup>\*</sup> Before this I had been gradually extending the use of Mercury in Ophthalmic Therapeutics. Limiting it at first to disease of Syphilitic origin, I have been driven by the failure of ordinary treatment to its use in other Ophthalmiæ, as those of rheumatic character, and I have had abundant reason to be satisfied with the results. I may say that I invariably employ the inunction method, either the old blue ointment or one of Mr. Marshall's oleate of mercury, and that I never hesitate to salivate if I think fit. I look on as childish the late craze about the great danger of mercury in the hands of a man of ordinary sense: of course I am aware of the existence of idiosyncrasies, but ordinarily one need not take account of them.

examination, finding in it the signs of simple neuritis—viz., woolly whiteness and swelling, with narrowness of vessels: the iris had lost its greenness and the general redness was almost gone. This improvement continued steadily; and on the 26th he could read  $4\frac{1}{2}$ ; and on the 2nd June  $1\frac{1}{2}$  with 8+. The disc presented now a marked contrast with the state shewn in the examination of the 19th, being healthy and having a large physiological cup, which was well shewn by the binocular. I may here interpose the remark that this case shews the use of the cup, as allowing a considerable effusion to take place in the nerve without extinguishing its power.

The eye is now free from all signs of disease, save that there are three minute adhesions of the iris to the lens, and by a magnifying glass some points of uveal pigment are visible, shewing that there was a much more extensive adhesion, which became broken down by treatment.

From a discussion which took place on this case at the late Meeting of the British Medical Association, I learnt that mercury had been used in several instances of late, and with, at any rate betterresults than the do-nothing treatment. But it was acknowledged by a very eminent Surgeon that there is no case known where the recovery has been so complete as in the case herein mentioned, and I ascribe this to the free use of the drug instead of the usual timid giving of it.

A few days before the preceding case came under my notice, I removed from the eye of a child the membranous cataract left after complete Sympathetic Ophthalmia, very reluctantly, and only at the urgent desire of the mother. The history of the case before the operation is shortly thus:—The child Mary E. Wedge, Age, 12, on Sept. 3rd, 1873, was cut across the eye with a piece of mug thrown at her by a boy. On Nov. 26th, the eye was said to have been removed at a special hospital, but from the resulting cicatrix the operation must have been some form of abscission. At the time of the operation the second eye was sorer than the first, so says the mother, but she could see well with it. After this she got gradually

worse, and at the time when she applied to me in March, she had mere perception. I removed the membranous cataract on the 10th of April, through a corneal incision, tearing it bodily away with the iris forceps. There is very little danger in using considerable force to an eye that has gone through a severe inflammation, as such an eye takes no notice of violence, which would destroy a healthy eye. Of course all the vitreous, being fluid, was lost, and the eye collapsed; nevertheless, it speedily plumped out and the wound gradually healed with the only disadvantage of attachment of the iris. Finding the good effect of mercury in the previous case, about two months after the cataract was removed, when I found that she had still scarcely more than perception of light, I ordered inunction of mercury, and on the 27th of July with a  $2\frac{1}{2}$  + she could read  $8\frac{1}{2}$  Sn., on Aug. 8th, with  $2 + 4\frac{1}{2}$ , and now she takes her place in one of the Board Schools, and gets through her lessons very creditably.

A case more hopeless than this it is scarcely possible to conceive. After 4 years continuous sympathetic inflammation,—
the disease was active when the child was brought to me—that such
recovery should take place, is surely a reason for us to persevere in
attempting the cure of the many diseases of the eye, which are
now, like this Ophthalmia was formerly, believed to be incurable.

# ON THE TREATMENT OF DISLOCATION OF THE LENS.

In the Ophthalmic Hospital Reports of May, 1876, Mr. Streatfeild has reported a case similar to the one about to be related, except that in his case the right lens was dislocated directly upwards and the left upwards and inwards, whereas in my case both lenses were dislocated upwards and outwards. It is obvious that these differences in position effect the line of treatment in no respect. I may add that my case was treated in 1873, the first discission being performed on the 18th of February in that year,

so that I had not the advantage of the experience afforded by Mr. Streatfeild's case, but it will be seen in the narrative below—which was written before the completion of the case 3 years ago—that before beginning the treatment of the case, I reviewed the method adopted by Mr. Streatfeild, and rejected it for reasons therein stated. The perusal of his case confirmed me in the idea that the treatment which I adopted was right.

The patient in question was a tall thin growing lad of 17; he has now grown into a strong, broad shouldered man of over six feet, and is evidently not at his full growth yet. According to his mother's statement his sight had been imperfect from his earliest age. The deficiency was brought under the notice of the staff at Moorfields, at which Hospital he stayed several weeks, some two years before I first saw him, towards the end of 1872. I found then that he had dislocation of both lenses outwards and upwards behind the Iris. In the ordinary state of the pupils, which was a slight degree of dilatation, the right lens, by its lower and inner part, covered about half the pupil, and the left covered rather less. Both lenses were perfectly transparent. Vision was only distinct for objects at 6 inches; the right eye was the one mostly used, and there was great divergent squint.

At first, being well alive to the dangers of dealing with dislocated lenses, and being informed of the opinion of the Moorfields Surgeons, which was that he should be left alone for two years,—which I believed to mean that it was a dangerous case to meddle with,—I proposed that spectacles should be tried, hoping to procure vision through that part of the pupils uncovered by the lens. But I was told that spectacles had been found useless, and on trial myself, I found such was the case, and then took some time to consider what to do. The friends were urgent that something should be tried, seeing that the boy was 17, and from his imperfect vision was very backwards in his education. After considering for some time, I came to the conclusion that the best

results would be obtained by the removal of the lenses, and that by the operation of discission.

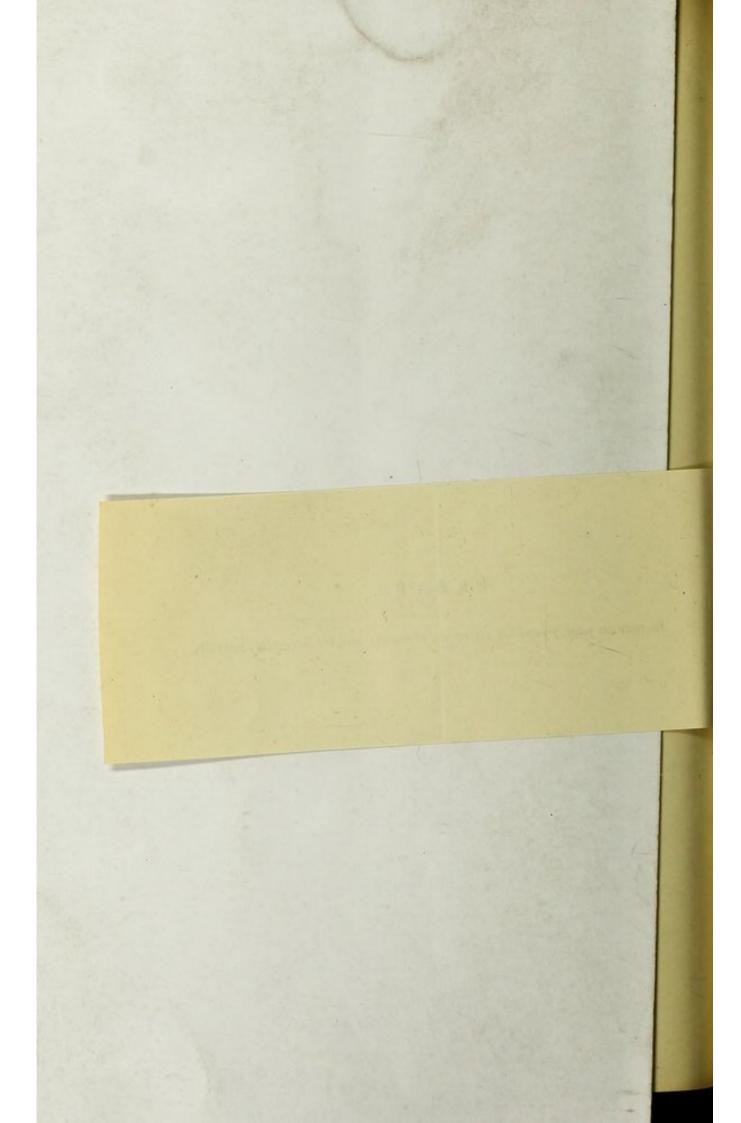
The reasons which decided me to attempt the removal of the lenses were these: - If the pupils were displaced by iridodesis, binocular vision would be rendered impossible, for both lenses were in the outer and upper part of the globe, therefore only one eye could be used at once as before the operation. Further, there would be added the danger of the teasing of the adhesion of the iris to the cornea. Such adhesions according to Von Graefe are a fruitful source of glaucoma. last essay on the Pathology and Treatment of Glaucoma, a translation of which (by Mr. Thos. Windsor) appeared in the Ophthalmic Hospital Reports, Feb., 1871, he says:- "We have noticed not unfrequently, that eyes affected with synechia anterior or leucoma adherens, after being good for many many years, are ultimately attacked by glaucoma on the approach of old age." Now if such should happen as the result of disease why not of operation? I have recently learned that even at the Moorfields Ophthalmic Hospital, the operation of iridodesis is becoming disused on account of the grave results which have followed not unfrequently. Further, if the lenses remained in the eye, there was the danger that when the patient grew old, glaucoma should be produced by them, as by dislocation of the lens in old people from accident. Von Graefe says on this point in the essay quoted above :- "We know with respect to congenital dislocation of the lens that glaucoma is no uncommon sequence."

On account of cataract glasses affording no relief, even when the pupil was dilated, so as to make the most of that part of the pupil free from the lens, I dismissed the idea of iridectomy downwards. Besides this, I was very unwilling to mutilate the eye unnecessarily, and to perform iridectomy would have been to rob the eye of a round mobile pupil, so necessary for perfect vision when the lens is absent.

Now, having abandoned for these reasons the idea of iridodesis

## ERRATA.

In note on page 7 read for virtreous, vitreous; and for latterally, laterally.



and iridectomy, there came the question of extraction. This is recommended to be done by means of the old extraction operation or by the modern scoop operation with iridectomy. Both, however, are highly dangerous, as it is impossible to remove the lens without a large incision, and much vitreous is nearly always lost. It then occurred to me to procure removal of lens by absorption, and I searched the text books for authority. In Lawson's Treatise on "Injuries of the Eye," he says, "The choice of the operation for removal of the lens lies between the ordinary extraction by a large corneal flap and the traction operation." In Stellwag von Carion, displacement of the pupil is recommended; and for removal of the lens he says, "It is advisable to first tranfix the cataract with a needle pushed through the sclera, to push it through the pupil and hold it against the cornea, and then remove it by a flap extraction." Modified linear extraction is also mentioned.

In Soelberg Wells, Iridodesis recommended, and for removal the \*Scoop operation.

\*Bader is somewhat obscure, and at the time I first read the first paragraph I took it that he was against the operation, but I have since learnt that the somewhat sweeping assertion is limited to those cases where no aqueous can get at the lens.

He says—"If the lens is dislocated into the virtreous chamber it does not become absorbed though it be lacerated." Further on is a paragraph which I did not see till some time afterwards, which seems to favour the course I pursued. "The lens should, if possible, be removed by absorption, combined with iridectomy, if it is displaced latterly or obliquely, and if iritis or sympathetic irritation or glaucomatous symptoms arise, or if vision is too much impaired."

About twelve months after the first operation, I found that Mackenzie has recommended exactly the same procedure. He says:—"I have recommended extraction as the most advisable operation in most cases of dislocated lens, peculiar circumstances, however may lead the Surgeon to remove it with the needle from the anterior or posterior chamber leaving it in the situation which the cataractous lens is made to assume in the operation of depression on reclination. This is best affected by a bent needle passed through the sclerotica, and the point of it inserted into the back of the lens. In young people in whom the lens is soft division may be practised through the cornea or sclerotica, and, as it is difficult

This is all I found at the time when I was considering what to do. Of course I never dreamt that the removal of a dislocated lens by discission had not been tried, but I thought it had perhaps become obsolete from the grave iritis which had resulted from the mode of performing the operation. And, certainly, when one reads the description of Mr. B. Carter's method of performing the discission, one does not wonder at it getting into disrepute.

There seems to be amongst writers a universal unwillingness to deal, by discission, with such cases on account of the danger of cutting into a transparent lens. This, no doubt, is begotten of the experience afforded by accidental wounds of the lens which, equally in infancy and old age, so frequently prove fatal to the eye. there is little parallelism between the two modes of cutting the An accidental wound of the lens means usually extensive wound of the cornea or the ciliary region or of both with prolapse of the iris, &c., whilst by a skilful discission one can so graduate the solution of the lens as to cause only a very little irritation of By cautious drilling of the lens, I have been enabled to afford patients well advanced in years very fair sight after dislocation of the lens backwards. The lens can be thus diminished in size, and afterwards removed by a comparatively small incision through the cornea. Two such cases occurring in men, aged 50 and 65, I shewed to the members of the Medical Institute in 1873.

On the 18th of February, the left eye being illuminated by oblique concentrated light, I passed a discission needle through the sclerotic on the outer side about two lines behind the sclerocorneal junction, transfixed the lens, and depressed it so as to bring it well in the area of the pupil; then, with the left hand, passed another through the cornea, and made a few cautious

to lacerate the capsule or break up the lens in such cases, advantage may be taken of the plan, steadying the dislocated body by a needle passed through the sclerotica on the one side of the eye, while a second needle entered on the opposite side is used to effect the division. Mackenzie on Disease of the Eye, 4th edition, p. 403.

cuts in the lower parts of the lens. The patient was put to bed and atropine frequently instilled, cold applications and a mixture of aconite and belladonna was given to restrain reaction. The best results followed, the lens softened rapidly where it had been cut, and became partially dissolved.

On May 13th, I performed a similar operation on the lens of the right eye, but it remained transparent with the exception of one spot where the second needle had entered. After waiting about six weeks I again operated, the lens becoming opaque during the discission, shewing that although it had kept transparent a great change had gone on in it. A good deal of absorption followed.

On July 27th, I again operated on both lenses for the last time. Solution went on very slowly, but without irritation, after the first few days following the operation, and about twelve months after the first eye was operated on, he could read 1½ Sn. with 2½ For distance he requires a 3½ with which he can read Sn. 50 at 16½.

The only drawback in the case was the time, but much was unnecessarily lost, first, by using the needle over cautiously, by which only a small portion of the lens was subjected to the aqueous; secondly in persuading the patient and his friends to a further operation after the first two. But even with this drawback I think the treatment by discission is much to be preferred, the patient having been under anything like active treatment only for two or three weeks of the whole year. There being still divergent squint, I persuaded him to undergo tenotomy of both external recti on the 22nd of March 1877. The operation succeeded in bringing the eyes together, and he now enjoys binocular vision He has in consequence of the foregoing treatment been able to take a confidential position in a well known firm of wholesale druggists in this town.

As above stated I have repeatedly used the drilling operation in dislocated lenses of adults, with good results in most cases. The operation must be done very cautiously, otherwise much reaction is set up, but if this be safely got over, the eye will stand much violence afterwards.

Early in 1877, the year an Officer in one of the Steamship Lines, aged 32, consulted me about his right eye, as he could not take altitudes any longer with it.  $V=1\frac{1}{2}$  Sn. at 4 inches, but C C only at 4 feet. He says he had a blow twenty-five years ago, but only perceived sight to fail some seven years ago. After dilating the pupil, I found the lens tilted downwards and backwards, and a triangular opacity occupied the lower part about one-sixteenth of an inch at the base.

A cross cut was made in the centre of the lens so as to include the point of the opacity. At first all went on well, much lens matter coming from the cut and being absorbed, but towards the end when all irritation had passed, through some want of caution, he took cold and had rather severe iritis, &c. However, under treatment this subsided and the cataractous degeneration proceeded slowly but safely. He now has resumed his duty, the exigencies of his position compelling him not to undergo further treatment at present. I hope to remove in a short time the remains of the lens, which from the large amount lost after the operation, can be but small.

A case which directly contradicts Mr. Bader's statement, that "If the lens is dislocated into the vitreous chamber it does not become absorbed, though it be lacerated," came under my care in August last. A boy aged 11, was brought to me with the tale that he had received a blow on the left side of the face, and since then the eye had gradually turned out. I found the pupil dilated and the lens dislocated upwards and inwards and somewhat backwards. On the 14th, without using a fixing needle through the sclerotic, I made several radial cuts through the lower edge of the cataract. A good deal of lens matter came into the anterior chamber and became eventually absorbed; but in about six days after the operation the eye became rather hard and very painful, so that I feared

I should have to perform cyclotomy for the glaucoma. Patience, however, was rewarded in a few days, the eye gradually cleared up and then the cause of the disturbance was apparent. A large quantity of opaque lens matter had made its way towards the centre of the vitreous, the anterior aspect of the lens no longer emitting any. The vitreous has since become clear and the lens matter in it is evidently undergoing absorption.

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