cial cause of the imperfection) much improvement has occurred; some patients have been able to read with the operated eye who could not do so before. Without any especial reference to the comparative powers of the two eyes, the remark of the patients has been very general that they can use their eyes afterwards with greater freedom and comfort.

The experience of others, I believe, accords with my own, as to the imperfect adaptation of this operation, as now performed, to the cure of external strabismus; happily, the proportion of these cases to the more curable ones is small. Dieffenbach maintains that paralysis of the rectus internus always attends external strabismus—an assertion I cannot think correct, as I have observed such eyes capable of being turned in by a voluntary effort of the internal rectus. He has occasionally, after separating the rectus externus, passed a small ligature through the conjunctiva, between the cornea and internal canthus of the operated eye, drawn it towards the corner so as to produce an artificial internal squint, and secured the thread to the bridge of the nose by adhesive plaster. I am unable to procure satisfactory information as to his success in cases of external strabismus.

I must not trespass upon the time of the meeting by entering upon the very interesting topic of the moral effect of strabismus upon those who have experienced this personal defect. Until its removal by the operation so scientifically devised for the purpose, I had no idea of the extent in which this deformity had exercised a painful influence upon the minds of those who had been the subject of it. The comfort of numbers, through a long course of years, has been daily embittered by it, and many a promising character has been permanently stamped with a distressing and morbid sensitiveness, from a dissight which is known to attract notice, but which often subjects the sufferer to much less observation than his exaggerating imagination leads him to suppose. Had the triumph in surgery, which will perpetuate and shed a lustre upon the name of Dieffenbach, been far less perfect in its results than it is at present (or than it will probably become after more experience), it would still have been gratefully hailed as a precious boon by those sufferers who alone can fully appreciate its value.

CASE OF
CONICAL CORNEA,
TREATED
BY FORMATION OF ARTIFICIAL PUPIL
AND SUBSEQUENT EXTRACTION OF THE LENS.

By JOHN WALKER, Esq., Manchester.

Joshua Bentley, aged forty-seven, from Lees, near Oldham, was admitted August 21, 1841, into the Manchester Eye Hospital. He states that he had always enjoyed excellent health, with the exception of a severe attack of cholera eight years since. Seven years ago he had an attack of inflammation of both eyes, since which his vision has been somewhat impaired, although he was able to follow his usual employment as a cotton-spinner, until February last, when he ceased work, his sight being no longer such as to enable him to continue it. He can find his way about pretty well, and can read a moderate sized type when held at two

inches distance from his eyes. With the right eye, when the lids are nearly closed, as in drawing them together by pressure at the external canthus, he can read at a much greater distance, but not so with the left. When looking at a lighted candle or other luminous body, it appears to be multiplied about ten or twelve times, but no chromatic aberration is noticed. The multiplication of images is not observed in looking at ordinary objects, and when the eyelids are nearly closed, in the manner before mentioned, luminous objects appear single.

On looking at his eyes, there is a peculiar sparkling appearance at the centre of the cornea, which is observed to be pointed in the shape of a cone, and decidedly opaque, the opacity being most extensive in the left. In other respects the eyes appear perfectly healthy. He has for some time past been under the care of a surgeon, who has applied various remedies without benefit. Concave glasses were not found to improve vision in the least degree, nor did looking through a small hole in a card make any change. He was ordered to use a solution of the extract of belladonna and to take a purgative occasionally.

Sept. 25. He has used the remedies prescribed without experiencing any change in the condition of his eyes. As there was no probability of his being benefited by any medicinal or topical applications, he was advised to submit to some operative proceedings. The patient having assented, the operation proposed to be first tried was that of removing a portion of the iris, so as to bring the pupil to the bottom of the anterior chamber, and away from the opaque and projecting portion of the cornea. This it was agreed to do in one eye first, and, as the left was the most affected, it was selected for the experiment. A puncture was accordingly made with an extraction-knife at the lower border of the cornea, close to its junction with the sclerótica, sufficient to admit of the introduction of a hook or small forceps. This was followed by the immediate discharge of the aqueous humor and the protrusion of a portion of the iris. The prolapsed iris was then laid hold of with the forceps, drawn out of the wound, and snipped off with scissors. The pupil was now observed to extend close to the inferior margin of the cornea. The eyelids were then closed, and secured with plaster dressings.

29. Inflammatory action has been very slight. The operation has been perfectly successful; the pupil is clear, and extends to the bottom of the anterior chamber, presenting the exact appearance observed in the congenital defect termed *coloboma iridis*. Vision, he thinks, is slightly improved.

Oct. 16. No particular change is observable in the appearance of the eye since last report. The slight irritation which followed the first operation has totally subsided; the improvement of vision is found to be but trifling; he can now read small type at the distance of three inches, whereas before he could only do so at that of two, and there is a proportionate improvement in viewing other objects. This limited amendment being far from satisfactory to the patient, he was desirous that a further attempt to improve the vision of this eye should be made. The removal of the crystalline lens was accordingly resolved on, and extraction was the operation which appeared the most likely to meet the exigencies of the case. It being

important to preserve the transparency of the inferior portion of the cornea, opposite the newly-formed pupil, Mr. Walker thought it most advisable to resort to the upper section. The patient was accordingly placed on a sofa with his head sufficiently raised, the operator being seated behind. The lids being properly secured, a double-edged extraction-knife was pushed across the anterior chamber, the point entering at the outer angle and being brought out at the opposite side, cutting upwards around the superior margin of the cornea and admitting of the immediate discharge of the aqueous humor. An interval of about two minutes having elapsed, the lids were then separated, the curette introduced beneath the flap of the cornea, and the capsule gently lacerated, when the lens, which was perfectly transparent but having a slight yellowish tint, was immediately discharged, without any pressure being required, and without any escape of vitreous humor. The flap being properly adjusted, plaster dressings were then applied in the usual manner. The patient was directed to remain on the sofa for a couple of hours, and afterwards to be conducted carefully to bed. A draught, containing thirty drops of laudanum, was ordered to be taken at bed-time.

17. He had some pain during the afternoon subsequent to the operation, but was quite easy all night, although he did not sleep much. The dressings had not become loose, and were, therefore, not disturbed.

19. No pain since last report. The dressings were removed for the first time since the operation; there is but little inflammatory action apparent; the wound seems to have nearly healed, and there is no constitutional disturbance; bowels costive. Ordered to take a senna draught.

23. The dressings have been changed every day since the last report. Slight inflammation continues. Omit the plaster strips, and apply instead the saturnine lotion; senna draught to be repeated occasionally.

No unpleasant symptoms occurred after this, and the patient left the hospital at the expiration of about a fortnight from the last report.

Dec. 11. The eye has long since recovered from the immediate effects of the operation, but the pupil is blocked up with opaque capsule, so that he has very little vision. A cataract needle was this morning introduced posteriorly, and the capsule divided and freely lacerated. After the operation he could clearly discern all the objects around.

13. The opaque capsule, which after the operation had receded into the posterior chamber, has again advanced into the pupil, so that vision is still much impaired. There is but little inflammation of the eye. Ordered to use the saturnine lotion and to take a purgative occasionally.

Feb. 5, 1842. The opaque capsule is nearly absorbed, or otherwise removed, but there still remains a small portion, like a piece of fine thread, stretching across the lower part of the pupil. A needle was again introduced, and the piece of capsule cut across. Immediately afterwards he was able to read very small print at the ordinary distance. But trifling irritation occurred from this operation, and in three or four days afterwards he was enabled to return home.

The result of the operative proceedings in this eye were in the highest degree satisfactory, for, as the patient himself stated, he could now see with it as

well as he had done any time during the last twenty years. He could read small print at the usual distance, and see surrounding objects a great way off. Looking at objects through a hole in a card improves his vision slightly, but no other optical contrivance is of any service. The cornea of this eye, when contrasted with the other, is seen to be considerably less conical—indeed, it may be said to have lost its conical shape altogether—whereas previous to the operation it was the most so. This result would, probably, be due to the contraction of the substance of the cornea during the healing of the wound.

The improvement of this eye being so great, and the right remaining not merely useless, but a source of confusion to the other, he was desirous that it should also be subjected to the same operative proceedings, and it was accordingly determined to gratify his wishes.

March 12. A small aperture in the lower border of the cornea of the right eye was made with a cataract-knife, through which the sharp-pointed iris-hook was introduced, and a piece of the iris drawn out and snipped off with scissors. The pupil was now found to extend quite down to the margin of the cornea and remained perfectly transparent, precisely as had occurred in the other eye. The usual dressings were applied.

15. Scarcely any inflammation has resulted, nor has he experienced any pain. Vision, however, has undergone no change, and looking through a small aperture in a card was not found to be of any service.

April 23. He has been somewhat out of health since the last report, but now states that he is quite recovered, and anxious to proceed with the further treatment of his case, as no benefit has resulted from the previous operation on this eye. The operation of extracting the lens by the upper section of the cornea was accordingly performed this morning, and effected with the greatest ease, the crystalline readily escaping without any loss of vitreous humor. The usual treatment was afterwards resorted to. As the result of the operation on this eye was unfortunate, it will be needless to detail the particulars. It will be sufficient to state that, up to the end of the first week, the patient went on remarkably well. He had then a severe attack of inflammation, which assumed the character of ophthalmitis, and terminated, notwithstanding the employment of active antiphlogistic treatment, in suppuration and atrophy of the globe. After the operation he was very inattentive to the directions given—got up and went about the house, and even out of it, at the expiration of the third or fourth day, the weather being at the time extremely hot and sunny, so that the result is not surprising.

REMARKS.

Notwithstanding the unfortunate termination of the last operation, it will be quite clear that the change in the position of the pupil, and the subsequent removal of the lens, are processes well calculated for the improvement of vision in a class of cases which are usually abandoned as hopeless and irremediable. It will be seen that but little is to be expected from the mere change in the position of the pupil; whilst, on the other hand, it appears certain that a greater improvement will result by effecting that change

before the removal of the lens, inasmuch as the opacity of the cornea will otherwise materially obstruct the passage of the rays of light. Extraction, when not contraindicated by particular circumstances, is probably the best mode of removing the lens, because, after a wound of the cornea, a certain degree of contraction of its texture, and a consequent depression of the cone, is almost sure to follow. Such, at least, happened in the present case; and probably this mode of treating conical cornea, when other means are abandoned, is the most perfect of any that can be adopted, embracing, as it does, three distinct and important points—first, a change in the position of the pupil; second, the removal of the crystalline lens; and, third, an alteration in the figure of the cornea.

BIRMINGHAM PATHOLOGICAL SOCIETY.

July 4, 1842.

Dr. BLAKISTON, in the Chair.

DISEASED HEART, WITH ATROPHY OF LUNG.

Mr. Russell brought before the society the heart and left lung, with the vessels and bronchi, which were taken from a lady, seventy-two years of age, tall in her person, with a lateral curvature of the spine. For several years she had an irregular pulse and frequent attacks of dyspnoea, and was in the habit of taking great quantities of food to allay a sensation of sinking from which she suffered; she had also frequent attacks of sickness. About four years ago she was first seized with pain in the head, which was succeeded by violent pain in the lower part of the abdomen; it was attended with obstinate constipation; but when this symptom was relieved, the violent pain still continued, and was only mitigated by frequent doses of morphia. No examination threw any light upon the cause or nature of this pain. She recovered from her illness, and was enabled to renew her habit of visiting amongst her friends.

Perspirations and repeated attacks of dyspnoea contributed to weaken her, and it became extremely painful to her to walk up the slightest ascent. During the last twelve months, the attacks of dyspnoea increased in frequency and severity; she complained of extreme restlessness and excessive weariness, and was never so comfortable as when moving about in her pony gig in the open air; even in cold days she would beg to have the windows of the room opened.

The respiratory murmur was distinctly heard on the right side of the chest, and it was extremely feeble on the left.

All her symptoms of difficulty of breathing, with great irritableness and restlessness, increased during the last month, and she died suddenly early in the morning of May the 20th.

Post-mortem Examination, May 21.

The pericardium was adherent to the left pleura costalis, so as to completely conceal the lung on that side. A large quantity of fluid was collected in the left side of the chest. The lung on that side was very small, and lay at the posterior part of the chest. It, together with the heart, was removed from the body to be examined afterwards. A large curvature of the spine, which

encroached greatly upon that side of the chest, was then seen.

The liver was very large and granulated. The gall-bladder was also very large, and filled with thin green-colored bile; it also contained a very large gall-stone. Spleen large, and its external coating covered with lymph. The uterus was very large, and thickly coated with tubercular matter, which was of a hard osseous texture.

The right lung was not removed from the chest; it was healthy. The following is the state of the left lung and heart:—

The left lung was contracted to less than a third of its normal size, and atrophied, but crepitated on pressure, and was of such specific gravity as to float upon water and keep up the heart and vessels attached to it; its pleura rough and generally thickened, and appeared to bind down the lung to its present size, for in places where the pleura is thinner, the lung was protruded in finger-like projections, as if it had forced itself through apertures, or thin places in the pleura, in a hernia-like manner; the bronchial veins were contracted; the pulmonary arteries dilated.

Heart.—Left auricle rather dilated; tricuspid valves healthy; left ventricle rather dilated, and if hypertrophied, very slightly so; sigmoid valves nearly healthy, rather thickened in their middle portions; and at their sides, or union with the artery, the upper edges are thinned and separated into threadlike bands; the aorta and its branches dilated; the foramen ovale somewhat imperfectly closed, being in such a state as to admit the passage of a probe in four places through valvular apertures; mitral valve contracted and thickened; right ventricle dilated; pulmonary artery and its divisions dilated; sigmoid valves healthy.

ANEURISM OF AORTA.

Dr. Fletcher then brought before the society a specimen of aneurism, by dilatation of the arch of the aorta, in which also the arteria innominata was implicated, and showing compression to a great extent of the superior vena cava. It occurred in the person of Mr. E., aged fifty-five, rather corpulent, who presented himself to Dr. Fletcher as a patient, March 13, 1841. He stated that he had suffered from asthma for some time, and a troublesome cough on taking cold at any time, to which he was very subject; he has difficulty of breathing on any exertion, and cannot walk up hill without resting frequently; he is very often so giddy, that he is near falling in the street.

On examining the chest, it was found to move freely in the actions of expiration and inspiration. The impulse of the heart was greater than normal.

On percussion, there was found dulness at the upper portion of the sternum, extending to the right side, which occupied the upper portion of the sternum as far down as to the space between the second and third ribs, and extended about an inch and a half to the right of the sternum; no impulse was communicated to the hand, in this situation, from the beating of the aneurismal tumor, but there was a distinct pulsation felt, on pressing the finger down, behind the right clavicle, as from a dilated aneurismal tumor; the head and neck appeared puffed, and the circulation in the veins impeded; the pulse was 90, and full.

Auscultation did not enlighten the case; there was no souffle.