by its sanies, where a kind of anomalous sphincter is formed, its aperture communicating with some vestige of the old canal beneath—a sort of termination, more or less favoured by the situation and form of the parts, the motion occurring on them by varying of posture, as in sitting down or rising up, as also by the alteration which the cellular tissue has undergone, and which retards so much the granulating process.

For the purpose of overcoming the difficulties in question, in this as in some other cases more or less of the same kind, an additional step was added to the ordinary operation, by employing a pair of scissors curved on the flat, and, with these, deeply cutting off the indurated margins of the canals previously laid open by the bistoury.

By this means a more sound structure is exposed; the hardened cellular tissue and corresponding integument are removed; a good base, whence granulations may spring, is afforded; and the sides of the old canals, with their mischievous tendency to incomplete coalition, are altogether removed; the dressing afterwards is more simple and less troublesome, as filling up from the bottom of the wound is now in most cases an inevitable process.

Dec. 20. The sinuses are soundly filled, and the parts completely cicatrised.

To the above mode of treatment I have sometimes found the application of a little strong nitric acid an useful adjunct, thus destroying some of the lining membrane at the bottom of the fistula, which it did not seem desirable to remove by the knife.

A CASE

OF

MUSCULAR AMAUROSIS, COMPLICATED BY MYOPIA.

RELIEVED BY

SECTION OF TWO OF THE RECTI MUSCLES.

TO THE EDITORS OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

GENTLEMEN,—From some resemblance of the title of this case to that of the last, and to those of several future cases which I intend to offer for insertion into your Journal, I feel it necessary for me to state, that I have no desire of fatiguing the attention of your readers with cases similar to each other; but have, in the publication of several cases on one subject, the object of displaying to the profession the varieties of the disease and the different degrees of treatment it may occasionally require.

The case of Mary Ryadon, reported by me in the "Provincial Medical and Surgical Journal," of Dec. 18, 1841, was remarkable for the completeness of its cure, being accomplished by the section of *three* of the recti muscles; the present case will show what extent of cure may result from the section of *two* muscles.

I am, Gentlemen,
Your obedient servant,
JAMES J. ADAMS.

George Speller, aged 18, by trade a watch-case maker, of healthy appearance, dark complexion, with dark hair, and hazel irides. The appearance, position, and association of his eyes are perfectly natural, though their power of equal and simultaneous convergence is very slight, the utmost degree of which is produced by the holding of an object at five inches from them. Central repulsion in the left eye. The power of inversion of either eye is nearly complete and equal; that of eversion is equal, but not complete by half a line. Sight, with both eyes open, sufficiently good for him to see to read small print at the distance

of *five* inches, for about half an hour at a time, when the eyes will require to be rested; for if he attempts to read beyond the time above mentioned, the letters will appear to mix one with the other, and become as if obscured by a mist, the denseness and duration of which, is always in proportion to the degree of exertion endured before resting; should he be desirous to pursue his reading on the recovery of distinct vision, he can do so for a period somewhat less than two hours, by the aid of repeated rests of the eyes, at intervals, of gradually decreased length, the periods of rest being multiplied and lengthened, in the inverse ratio, to the decreasing periods of occupation. Small print cannot be seen beyond seven inches, or large print, "double pica," beyond nine, or nearly ten inches. The distance at which he usually reads such type is at about half the above-named measure. He states that, in consequence of his sight becoming dim, and objects appearing confused whenever he looks earnestly and stedfastly at them, he has been compelled to abandon all attempts to earn his livelihood at the finest and most profitable branches of his trade, and that it is with much difficulty he can accomplish enough of the coarser kind of work to support himself; for if he attempts to execute any finer work than that to which he has been accustomed, he cannot persist in his attempts for longer than an hour, the sight being then so very dim that, in order to restore it to its usual condition, a rest of many hours will be required. He adds, that there are certain kinds of minute workmanship in his trade which he cannot see to execute, even for a short time, when his sight is at its best, and that, therefore, he is quite incapable of being instructed in those branches of his trade which are, from their required delicacy of execution, the most profitable. He remembers that, eighteen months ago, he used to see the time by Cripple-gate church clock, and that soon after this period it became more difficult for him to do so; twelve months since he could only see the shape of the clock, and now its situation is but just discernible.

Sight, in the right eye, much the same as that experienced with both eyes open, though it is not quite so clear, nor does he see by it so distinctly at the same distances, its point of distance of vision being at four inches. Sight, in the left eye, very dim; he can just see by it to make out one or two letters of "double pica;" and those not beyond two and a half inches from the eye; very slight attempts to use this eye rapidly increases its dimness; its sight is best towards his left shoulder.

He is very subject to severe pains across the forehead and in the brows, which are felt most severely at such times as the sight is rendered most dim; these pains, with their accompanying dimness of vision, are produced by over exertion of the body, exposure to bright lights and heat; indeed, they in every respect resemble the painful symptoms described in most of the cases of this class. The history of his impaired state of vision is, simply, that he always had a weak and near sight, but did not know of its very defective state in the left eye, till he commenced the business of watch-case making, now about three years since. His treatment hitherto has been various and inefficient.

Sept. 13. I divided the left internal rectus muscle, and the left eye became instantly much diverged. In about two hours after the operation he could see with it, unaided by the right, to read a few words in "pearl" type, and he could read easily "double pica;" its dimness was less dense and more slow in its approach.

16. Position of the left eye still very much diverged; its power of inversion is very slight, being only to the extent of one line inwards of its central natural position. The sight is slightly improved since the day of operation. Instead of applying the bandage, as I ordered, he has made some mistake, and only applied the bandage when in bed at night.

22. The position of both eyes is nearly natural, the

left being slightly diverged from its centre. The power of inversion of the left eye is increased, and is capable of inverting its cornea to the extent of two and a half lines inwards of its natural central position. Sight, in the left eye, very much improved; by it he can see to read "double pica" at the distance of four inches and "pearl" at two inches; its dimness does not come on so densely or quickly as before operation; he now sees best with it towards his nose. He complains of feeling very giddy when he removes the bandage from the right eye, which had been ordered to be kept closed.

28. Position of both eyes nearly natural; the left is slightly diverged, and is somewhat fuller than the right. Association, not natural. If the left eyelid be closed, the cornea of the right eye will be observed to remain stationary, in its central position, while the left cornea will be found, on suddenly re-opening the left eyelid, to have become extremely everted, and, at the next instant, it will be observed to move to its usual position, a point about one line outwards of its centre. If the right eyelid be closed, the cornea of the left eye will turn slowly to its natural central position, and remain there till the right eyelid be re-opened, which, on being done, will show the right cornea to be in a position extremely everted; however, it, like the left, moves towards its natural central position. The motion of the right eye, from its everted position towards its centre, is active; that of the left, under similar circumstances, passive. The convergence is made equal at about six inches. Repulsion active, and nearly extreme in the left eye. Inversion very complete in the right, but not in the left by full two lines. Eversion not complete by half a line, and equal. Sight, with both eyes open, improved with respect to distance: he can see to read easily, "pearl," at seven and a half, and "double pica" at fourteen inches; a dimness of the sight comes on much quicker than previously to operation, and is accompanied by a sensation of pain across the eyeballs; any slight exertion of the eyes will cause them to be felt for a less time than one minute. Sight, in the left eye, improved in every respect; he can see to read "pearl" at three and a half inches, and "double pica" at five inches, for several minutes without the presence of any dimness; but if the exertion of the eye be continued, a dimness will commence, though it will not extend to the same degree of darkness as before operation; sight equally well in all directions.

Sight, in the right eye as with both eyes open, with respect to the power of seeing distant objects, but not with regard to its dimness, it being very slight after a long continued exertion, so that, from the above observation, it is apparent that the disposition to dimness is greater when both eyes are open than when either is separately employed. He has had no pains in the head or brows since the operation, a slight aching sensation over the eyeballs, after attempting to read or gaze intently, alone being felt. Ever since the last report he has kept the right eye closed by a bandage, on the removing of which, a sensation of stupidity and giddiness is produced, which gradually subsides if the eye be allowed to remain uncovered.

Oct. 9. Position of both eyes perfectly natural. The left eye is rather more prominent than the right. Association, unusual, and as related at last report—i. e., if either eye be closed, the cornea of its fellow will be central, the cornea of the closed eye at the same moment being everted. On the re-opening of the closed eye, the everted cornea will be seen to turn towards its centre, and to correspond with its fellow; the motions of the left being passive, those of the right quick and forcible. Convergence, equal at four inches; repulsion, extreme and in the left; inversion, fully complete in the right, but not complete by one line in the left; eversion, equal, but not complete by half a line. Sight, with both eyes open, very much

improved; he can now see to read "pearl" at nine inches and "double pica" at fifteen, but has not tried the utmost degree of exertion that his eyes will sustain, though he is certain that the dimness does not present itself so quickly or so densely as it did previously to operation. He has not seen double since the operation. Sight, in the right eye, nearly as perfect as with both eyes open. Sight, in the left eye, much improved, he can now see to read, easily, "pearl" type at the distance of four inches, whereas, before operation, he could only recognise by this eye a few of the letters of "double pica" within the distance of two and a half inches; "double pica" can now be read at six inches. A few days since he read, by the left eye alone, a newspaper, for about half an hour, without any inconvenience, no rest being required. The pains about the forehead and brows are lessened, he has felt only two or three attacks of them since the operation, and those of a much less severe degree than heretofore.

11. Divided the *left external rectus* muscle, and removed a portion, it having been previously extensively separated from its immediate connections of cellular tissue. The position of both eyes, three hours after operation, was that of a full and equal convergence. The power of everting the left cornea was greatly diminished, and could only be exerted to about one line external of its centre.

16. Position of both eyes slightly converged, the left more so than the right. Association nearly natural; closure of the right eyelid causes the left cornea to turn from the usual position to its centre and the right cornea to be more inverted; closure of the left eyelid does not appear to affect the position of either eye; convergence, slight at six inches; repulsion, fully central in the left; inversion, complete in the right, but not in the left by one line; eversion, none in the left, and not complete in the right by full one line. Sight, with both eyes open, still improved. Sight, in the left, nearly as before operation. He complains of pain over the left brow.

23. Position of the left eye slightly converged, that of the right nearly central. Association, as on the 16th; convergence, full at three inches and equal; repulsion, left eye fully central; inversion, not complete by nearly two lines in the left and by one in the right; eversion, not complete in the right eye by half a line; in the left, the eversion does not take place beyond half a line from the natural central position of the cornea.

26. The position, association, and other objective symptoms of his eyes, are the same as at last report; the power of eversion of the left eye being alone excepted, it having slightly increased, and now extends to one full line outwards of its centre. Sight, with both eyes open, very much improved; three days since he visited his master for the purpose of ascertaining to what extent his sight had improved; all the branches of the business at which he had been accustomed to work, were seen with greater clearness than he had ever known them to be; he then tried to execute a branch of the trade which he had never before been able to see to do, namely, that of "turning the flat clean," as it is technically expressed in the trade, which consists in making certain grooves of the watch-case clean and true; the difficulty he formerly experienced in doing this seemed to him to arise, principally, from two causes—namely, that he had not a sufficient power of seeing the work, and that any attempt to do so only increased the difficulty; the parts appearing indistinct, bright, and dazzling. He worked at this department for one hour and a half without the sight being affected, though a pain over the left brow began to be produced; he then ceased to work; in half an hour after he had done so the pains ceased, and have not returned. Yesterday, he read the newspaper with both eyes open for the space of about an hour and a half; no pain or dimness was produced; he felt that he could con-

time to read for as long a period as he wished; and he then tried to read the same sized print by the left eye alone, which for the space of half an hour he did; a slight dimness was the result; he remained perfectly free from pain.

Nov. 6. *Position* of both eyes natural; the left eye is more prominent than the right, but not to any noticeable amount; association natural; convergence equal, and slight at six inches; repulsion active, and fully central in the left; inversion not complete by one line in the right, and by half a line in the left; eversion not complete in the right by half a line, and in the left it does not extend beyond two lines from its central position. Sight, with both eyes open, still improved, both with respect to strength and to distance; he can see to read the minutely engraved words of the Lord's Prayer, as engraved in a circle of less size than a four-penny piece; a continuance of the effort is attended by a slight pain in the eyes, more particularly in the right; if either eye be used separately to view these minutely engraved words, the letters are not seen quite so clearly, but no pain is felt. Yesterday he read the print of a newspaper during two hours by candle-light; he did not feel the slightest inconvenience from so doing; no dimness appeared, nor was pain felt; neither was there any occasion for his eyes being rested.

December 8. *Position* of both eyes, and the association, natural; convergence equal, and slight at four inches; repulsion in the left eye active and central; inversion and eversion as at last report; sight improved; no dimness has been observed to present itself after exertion of the body or of the eyes; he has frequently, of late, read for the space of two hours at a time by candle-light, without being subject to any inconvenience from the presence of either pains or dimness; he has felt occasionally, during the early part of the morning, a few wandering pains about the forehead, and a sense of more than usual drowsiness.

15. The objective symptoms remain as on the 8th instant; the sight has continued perfectly free from the occurrence of dimness after exertion of the eyes; with both eyes open, the distance at which he can now see to read "pearl," is at *nine* inches, and "double pica" at *fifteen* inches. Previously to the first operation, the letters of the former type could not be seen beyond seven inches, or the latter beyond nine; and the distance at which he used to see them was about half the above-named measure. Distant objects are seen much more distinctly than formerly; e. g., he can see the figures and hands of a church clock, the whole dial of which, previously to operation, appeared to him to consist only of one black mass.

Sight in the right eye nearly equal in strength to the sight as experienced with both eyes; can read "pearl" at seven inches, and "double pica" at thirteen. Sight in the left eye still improved; he can see by it the small letters of the Lord's Prayer engraved as above described; to read "pearl" at four and a half inches, and "double pica" at six and a half inches. Previously to the operation, by this eye alone he could only make out here and there a few letters of "double pica" at the distance of two and a-half inches, and then not for a continuance beyond a few seconds at a time, a dense fog would appear before the eyes, which, at present, a long exertion will not produce; an occasional pain in the forehead is still felt.

REMARKS.

If the principal characteristics of the above case be reviewed, they will, in a manner, appear thus:—A healthy lad, of eighteen years of age, by trade a watch-case maker, was so defective in his sight that he could not see to do certain fine workmanship of his branch of trade; the difficulty, principally, consisted in his not being able to see distinctly the fine markings of lines and grooves about the watch-case, nor could he continue to exert his eyes over the coarser kinds of workmanship for a sufficient length of time to earn his

living by his occupation. The letters of a full sized print, "double pica," he could not see at the distance of *ten* inches, nor those of a small print beyond *seven* inches. The sight of his left eye was much inferior to that of the right; the letters of double pica were the smallest he could make out, and them he could not see beyond the distance of two and a half inches, or for a longer period than that of a few seconds at a time. Attending this state of the vision, were symptoms of a different kind—namely, pains in the forehead and brows, but which were so connected with any usual exertion of the sight, that their presence and severity were sufficient, without any other cause, to compel the patient to rest his eyes. Such a state as the above rendered him unhappy, and his labour comparatively of little value; he, therefore, willingly submitted to the two operations above described, medical treatment having been long and unsuccessfully tried. Between the dates of September 12, and October 12, 1811, I divided the internal and external recti muscles of the left eye. On December 15, the results of the operations are an increased power of seeing minute objects, even to that of reading the finely engraved letters of the Lord's Prayer, in a circle of less size than a four-penny piece, a capability of seeing distinctly and clearly the minutest parts of the workmanship in a watch-case, an increased power of exerting the eyes on any minute object, or on the letters of small print (indeed, this defect has been so completely removed, that an exertion of many hours' duration does not produce any dimness of the sight), and a nearly complete cessation of his pains.

The distance of his vision, as experienced with both eyes open, is nearly doubled; that of the left eye more than doubled; the distances at which he can now see to read easily, are, "pearl," *nine* inches, for "double pica," *fifteen*. Previously to the performance of the operation, these types could not be read comfortably if held beyond *five* or *six* inches from the eyes. The improvement in the sight of the left eye, is from the power of just seeing a few letters of a large sized print to that of reading almost the finest engraving of letters, and without occasioning the presence of dimness; so that there remains but a deficiency to the length of the sight, which, to be prevented, will require the performance of operations on the recti of the right eye. The complete absence of dimness after exertion of the eyes, and the cessation of the pain, have disposed me to advise the postponement of the intended operations on the right eye, till the severity of this winter be past. It may also be well to observe here, that a state so favourable as the above is not always to be expected to succeed to two operations, and that it is a state not free from the liability of a return of some of the symptoms.

ON THE

TREATMENT OF PARAPHYMOSIS.

By J. TOOGOOD, Esq., of Bridgwater.

The incision of the stricture in Paraphymosis, is pretty generally practised by surgeons, except when this disease occurs in children, and in such the reduction is often effected by pressure. I have seen repeated incisions fail of relieving the stricture, and leave foul and intractable sores, which have been extremely tedious and difficult to heal. I have always succeeded in reducing a paraphymosis, either in an adult or child, however long standing, without having recourse to the knife, by the following method:—I place the patient against a wall, and take care that he is steadily supported by an assistant on each side; a piece of linen cloth is then laid over the glans, and with my thumbs I knead the blood out of it, drawing