make the fluctuation very obscure. Her general health remained unimpaired, and she only complained of the great weight, difficulty of respiration, and an inability to lie down. The remedies before tried were again resorted to, without benefit, and the increase of the fluid was so rapid, that paracentesis became necessary in January last. The puncture was made at the usual point, midway between the umbilicus and pubis. The depth of the adipose and infiltrated cellular tissues was so great (nearly three inches) that after making the external incision with a scalpel, a large trocar was passed entirely to the guard of the canula, and the latter firmly pressed inwards before the fluid could be made to flow. Instead of passing with the usual facility into the sack, the instrument seemed to meet with the resistance of a firm body, which was probably one of the tumours so commonly connected with the cyst in this disease. The fluid oozed so slowly from the wound, that the canula was withdrawn, and the incision left open, that the discharge might thus take place. On the following day it was ascertained that, in the course of a few hours, there had been evacuated forty-eight pints of a fluid, which soon firmly coagulated, and had precisely the appearance of blood; however, upon compressing a handful of it, it left no sanguineous stain; neither did the pulse give evidence of the system having sustained a loss of the vital fluid.

The abdomen, though somewhat softened, was not apparently much lessened in size. It was evident that the fluid was not entirely discharged; some relief was derived from the operation, and she was able to lie down for five or six weeks, after which a rapid reaccumulation took place. Medical treatment was resorted to, but without effect, and in the latter part of June it became necessary to repeat the operation. At this time the anasarcaous swelling of the abdomen and lower limbs was enormous, and fluctuation was discoverable only above the umbilicus. The patient could scarcely rise from her chair without assistance, and suffered much from dyspnoea; the measurement around the largest part of the body was *six feet and nine inches*. Owing to circumstances, my friend Dr. Hoffman advised me make the incision and puncture above the umbilicus; from which a free discharge of transparent fluid was obtained, which soon coagulated. The inconvenience met with in the former operation, from the depth of the infiltrated cellular tissue, was at this time obviated by a suggestion from Prof. Gilman—viz., that the anasarca should be lessened around the point to be punctured, by pressing and kneading the part with the fingers for some minutes. After the perfect evacuation of the sac, the quantity drawn off proved by measurement to be *seventy-nine pints*.

The wound healed kindly, without any unpleasant symptoms. A new mode of treatment was now resorted to. She was put on the steady use of hydrarg., prot. iod.; p. scilla., and p. digital., which after five weeks slightly affected the gums, and acted very freely upon the kidneys. Three months have now elapsed, the patient's general health is very good, the anasarca has entirely disappeared, and she has once menstruated, being the second time in the period of eighteen months. From a recent examination by several medical friends, it is evident there is no return of the disease, both iliac regions being in a natural condition, and the abdomen perfectly flaccid.

From the previous speedy return of the disease, and the period which has elapsed since the last operation, I am led to hope that its reappearance need not be looked for; and that this may prove one of the few cases which yield to medical and surgical treatment combined.

REMARKS.

The sanguineous appearance of the fluid first evacuated was new to me and to those friends who saw it. The resemblance of the fluid to blood was so

exact, that most of those who saw it did not hesitate to pronounce it blood. Whence was this colour? Probably from a small quantity of blood being mingled with the fluid, the blood having flowed from some artery wounded in the operation. The trocar, as I have mentioned, seemed, after having penetrated the abdominal wall, to pass for some distance through a firm, dense structure. This was probably one of those tumours by which the walls of ovarian cysts are very frequently occupied—in it the blood-vessel which supplied the blood probably existed, and it was the dense fibrous structure of this tumour which prevented the free flow of the fluid on the first operation. That the bloody hue of the fluid was accidental is proved by the fact that, although the fluid was not entirely evacuated on the first operation, yet at the second it was found quite clear, though coagulable as before.—*New York Med. Gaz.*, September 15, 1841.

A CASE

OF

MUSCULAR AMAUROSIS,

CURED BY THE

SECTION OF ONE RECTUS MUSCLE.

By JAMES J. ADAMS.

Mary Engling, aged 15, a stout, ruddy, and healthy looking girl, says that, with the exception of being subject to headaches, she enjoys very good health.

Oct. 11, 1841. The appearance of her eyes is not quite natural or healthy; the left appears to be smaller than the right, its cornea is partly covered by an opacity, the result of ulceration; one large blood-vessel, with three or four smaller vessels, passes from the conjunctivæ sclerotica to the surface of the opacity; the conjunctiva sclerotica are reddened in various parts, particularly at their superior portions, by numerous distended blood-vessels; the conjunctivæ palpebrarum are of a red dusky colour, and villous; the tarsal margins of the palpebræ are red, incrustated by mucus, and nearly deprived of cilia; she is much troubled by lachrymation and intolerance of light; the position, and association of her eyes, are natural; convergence, extreme and equal; inversion, more than complete by a full third of the surface of each cornea; eversion, very complete in both; sight, with both eyes open, very defective when required to be exercised by reading, working with a needle, or by close employment of the eyes; she cannot see to read a full-sized print for longer than one quarter of an hour without producing such a degree of blindness, as will prevent her from seeing the form of large letters, and will require her to rest the eyes during many hours before the sight will be recovered to its usual state. During her attempts to read for the quarter of an hour, she would feel herself compelled to rest her eyes for a few seconds at a time after the expiration of each minute; the necessity for the momentary rests seems to arise from an appearance which the letters assume after being looked at for one minute; they appear to mix, dance, lose their distinctness, and vanish through a fog; the necessity for resting her eyes for many hours, after having used them during fifteen minutes, seems to depend on her incapability of seeing to read more than one or two words at a time without a dense mist appearing before her eyes, accompanied by profuse lachrymation, and much pain in the eyeballs and eyebrows. The same difficulty occurs when she is employed at needle-work, but not so speedily, she

being able to see to work during twenty or twenty-five minutes before a rest of long duration would be needed, though the momentary rests require to be as frequent. Fine needle-work—such as stitching or very small print—she cannot see when her sight is at its best state. To read or work she usually holds the object at about *four inches* from the eye, though I ascertained that, in a favourable light, she could see to read “pearl” at the distance of thirteen inches, and “double pica” at thirty-two inches, if both eyes were allowed to remain open; if the right eye alone was employed, “pearl” was seen at twelve inches, “double pica” at twenty-six inches; and if the left eye was used by itself, “pearl” could not be seen beyond eight inches, or “double pica” beyond twenty-four inches. The distances above given, are the extreme lengths from which she can see to distinguish print under the most favourable circumstances. I also observed that her power of seeing at such distances was constantly varying; every now and then she could not, by her best efforts, see beyond half the above-mentioned distances.

If either eye be used by itself, a dimness would appear before it more quickly than if both eyes were employed, and the dimness in the left eye will occur more rapidly than in the right. She complains much of pains across the forehead, in the temples, over the eyebrows, and in the eyeballs; the pains are, in their attendance, nearly constant; but are felt severely during the first two hours of the morning, at candle-light, and after any exertion of the eyes, or over exertion of the body. By candle-light she cannot see to read more than a few words of very large print.

Her history is, that when a child at two years of age, she caught cold in both her eyes, which remained affected during several months, and left a chronic inflammation of the palpebræ and their tarsal edges; from the date of the first attack of cold to the present time she has been subject to repeated fresh attacks of cold, attended by severe inflammation. She says that her sight was not observed to be much affected till about two years since, when the above-described symptoms commenced, and they have continued gradually to increase in severity till now. Her catamenia have been regular and natural during the last eighteen months.

Nov. 19. In consequence of the very irritable state of the left eye, the vascular condition of the conjunctiva, and of the corneal opacity, I have delayed to operate; and, in the mean time, applied myself to the treatment of the vascular opacity. This affection had been previously combated, but without success, by an eminent ophthalmic surgeon, with mercury, purgatives, alteratives, local depletion, and counter-irritation. The treatment which I adopted was the careful application of lunar caustic across the trunk of the principal vessel, which passed from the conjunctiva to the centre of the lymph; in the course of a few days a slight thickening had taken place around the point of the vessel which had been touched by the caustic; that portion of the vessel which previously had extended between the point touched and the centre of the opacity had entirely disappeared, and the opacity was less dense, but numerous, and apparently freshly filled vessels, surrounded the obliterated part of the old vessel; and many of them extended to the border of the corneal opacity. At present the thickening, or deposit of lymph, which recently existed where the caustic had been applied, has disappeared, and with it all traces of the old blood-vessel; the numerous small blood-vessels which were seen early after the obliteration of the large vessel have, likewise, very nearly disappeared, and the large opaque mass of lymph on the surface of the cornea is gone; a slight haze alone remains; the intolerance of light and lachrymation are diminished; and her eyes are less irritable in their appearance than when I first saw her in the month of October last.

The state of her sight is, in every respect, the same as reported in the foregoing pages.

22. I divided the left internal rectus muscle, and separated it from its cellular connections after the manner I usually do; the muscle was larger than usual, and the result of its division was a divergence of the left cornea from its centre.

24. Position of the right eyes central, that of the left slightly divergent from its centre; sight, with both eyes open, very confused and indistinct; sight in the left eye, when the right is closed, stronger and clearer than before operation. Treatment, to close the right eye by a bandage.

27. Position of the eyes as at last report; sight in the left eye improved; she can see to read “pearl” by it at thirteen inches, and “double pica” at three feet; its dimness after exertion is less dense, and does not take place so quickly as heretofore; she has not felt any pains in the head, brows, or eyes, since the third day after operation.

She says that, during the two days succeeding the day of operation, she felt, when both eyes were open, very giddy, and since then, that her sight has been more confused than previously to operation; that objects have appeared to be larger than natural, and to be in constant motion, but not double; also that these symptoms were always immediately relieved by the closure of either eye. This morning all the above described symptoms ceased, and have not yet returned. To continue the use of the bandage to the right eye.

Dec. 7. Position and prominence of both eyes perfectly natural. Association, not quite natural; the cornea of either eye being diverged, if its lids be closed, while that of its fellow is slightly inverted; convergence, full and equal at two inches; repulsion, in the left eye nearly central—i.e., if an object be held close to the root of the nose, the cornea of the left eye turns towards its natural central position, while that of the right eye is more and more converged; previously to operation, not the least degree of repulsion could be detected, and the power of convergence was extreme and equal. Inversion, just complete in the left, and more than complete in the right, by one third the extent of its corneal surface. Eversion in the right complete; in the left more than complete by nearly one quarter of the surface of the cornea.

Sight, with both eyes open, much improved; she can see to read the print of a newspaper for the space of an hour, without being required to rest her eyes, no dimness nor pain being experienced during that time, though at the end of an hour's exertion of the eyes she has been compelled to rest them, in consequence of profuse lachrymation. “Pearl” can be read at twenty-six inches, and “double pica” at five feet. By the left eye alone, she can see to read “pearl” at twenty-four inches, and “double pica” at four and a half feet; sight in the right eye not quite so perfect as in the left; “pearl” cannot be seen by it beyond the distance of twenty-one inches, nor “double pica” beyond three feet, and a dimness after exertion of this eye appears before the sight. So that, by the late operation, the clearness and power of vision for distance, in both eyes, has been improved, which now, contrary to its state previously to operation, exceeds in the vision of the right eye.

Not the slightest degree of pain has been felt in the head or eyes during the last seven days.

20. Position, prominence, and association of the eyes, perfectly natural; convergence, slight and equal at four inches; repulsion of the left commences when the object is held at one inch from the root of the nose; a nearer approach of the object causes an instant increase to the repulsion, which continues as the object is neared, till the left cornea becomes just central. The eye, when thus repelled, does not remain steadily in its central position, but oscillates violently from side to side, as if a strong and irregular

antagonising action was taking place between its external and internal recti muscles; inversion just complete in the left eye, and more than complete in the right by one third of its corneal surface; eversion complete in the right, and more than complete in the left by nearly half of the corneal surface.

Sight, with both eyes open, very much improved; she has on several occasions during the past week read newspaper print for two hours at a time, without experiencing dimness of her sight, watering of her eyes, pain, or in fact any kind of inconvenience; and she has also worked at her needle during four hours per day with the like degree of comfort, with the exception of her feeling at times a slight pain in the left temple, which occasionally will extend to the right temple and to the back of the head, which lasts for about an hour; she may be said to be free from all the symptoms of her complaint. With both eyes open she can see to read "pearl" at twenty-six inches, and "double pica" at upwards of five feet; by the left, "pearl" at twenty-five inches, and "double pica" at five feet; by the right, "pearl" at twenty-one inches, "double pica" at three and a half feet; so that the power of the left eye very nearly equals the perfection of that experienced when both eyes are open, and it exceeds the power of the right; the slight pains of which she recently complained are now only felt at the first part of the morning, and during the middle of the day; exertion of the body or eyes does not appear to excite them.

The general appearance is greatly improved; the conjunctivæ scleroticæ have become nearly free from redness, and the lining of the palpebræ are nearly natural; they are no longer villous, but simply more vascular than is usual during health; the tarsal margins are less red and irritable, mucous secretion is seldom seen to encrust on them, and her eyes are not, as formerly, filled with tears when exposed to ordinary daylight; indeed she can now face a strong light without a tear flowing over the cheek.

Jan. 24, 1842. Her sight remains perfectly good, and the pains formerly felt in her head and eyes have entirely ceased; she can see to read easily the finely engraved words of the Lord's Prayer, as engraved within a circle of less circumference than a fourpenny piece. The general appearances of her conjunctivæ are more natural than I have yet seen them.

REMARKS.

If the above case be briefly reviewed, it will appear that a girl of fifteen years of age, and possessed of, in general, a good state of health, with eyes naturally placed, was so defective in sight, that she usually held small objects and print at about three or four inches distant from the eyes, if she wished to examine or to read them; and if she was desirous to continue to gaze on the object or to read, she could not do so beyond the space of one minute at a time without a short rest of the eyes; nor beyond fifteen minutes without feeling a necessity for a rest of them of long duration. The sight in the left eye was worse than that of her right; its dimness was more rapidly produced after exertion, and its power of seeing to read "pearl" type did not extend beyond the distance of eight inches when her sight was at its best; with both eyes open, "pearl" could not be read beyond thirteen inches.

She had been subject to constant and severe pains in the head and eyeballs, which employment of the eyes always increased.

Her history made it probable that, from the second year of her birth, her sight had been defective, and

rendered it certain that the defect had increased during these last two years.

On the twenty-second day of November last, her left internal rectus muscle was divided, which was succeeded by a divergence of the left eye. On the second day after the operation, the sight in the left eye had much improved; at the end of a week the position of the left eye was still unnaturally diverged, but the sight improved; at the expiration of fourteen days from that of the operation, the position of both eyes had become natural; the sight in both eyes greatly improved; and the vision of the left eye made more clear and powerful than that of the right; also her pains had ceased.

The state of her eyes at six weeks after the division of the muscle, was thus:—The power of seeing to read "pearl" type, with both eyes open, was increased twofold; and with the left eye alone, threefold. The strength of her sight, as regards its power for continued exertion, was increased from one minute to about four hours—i.e., the eyes, instead of requiring to be rested at the end of each minute, did not need the slightest rest till after three or four hours of their use; the severe pains of her head and eyeballs had completely subsided, and an evident improvement in all the symptoms of the chronic inflammation and congestion of the tunics was present. So that the division and free separation of one muscle of an eye, natural in position, did at first produce a temporary change of that position, but lastly in no way altered the natural direction, or association of the eyes; and restored the eyes from a state of weakness, which had deprived the patient of the use and comfort of her sight, to a condition nearly natural and capable of enduring lengthened exertions with ease.

Broad Street, Feb. 1842.

ON THE BEST METHOD OF

EXAMINING THE AUDITORY APPARATUS.

By P. MENIERE,

Physician to the Royal Deaf and Dumb Institution, Paris.

(Concluded from page 154.)

THE MIDDLE EAR.

In what manner can we directly examine the cavity of the tympanum? How can we distinguish the various lesions which are seated in this part of the ear? The observations already made on catheterism of the Eustachian tube show what assistance may be derived from this means, in the diagnosis of diseases affecting the middle ear. When air is forced into the cavity of the tympanum, certain physical phenomena occur, the nature and value of which we can strictly determine. Let us now examine the practical application of these phenomena.

In a healthy state, the air which is introduced into the cavity of the tympanum produces no sound whatever; the *bruit de souffle* mentioned by Laennec can never be heard. When the Eustachian tube, however, is swollen, and allows the air to pass in occasionally, under strong expiration, then the elastic fluid rushes from time to time into the middle ear, distends the tympanum, and causes a dry sound, easily