exercised upon the muscles, it excites and sustains the action of these organs, and thus the will, dwelling on recorded sensations, gives birth to memory, and, by exciting the muscular organs, engenders motion." And all this is regarded by many an eager reader as a summary of our astonishingly increased information—the result of minute anatomy of the brain, the announcement of our great progress in physical and metaphysical investigation, and the groundwork of incalculable improvement in the knowledge and treatment of mental disease.

It is thus that we talk ourselves into blind complacency, most comfortably adapt our discoveries to our wants, and lose sight of the greatness of the question, by reducing it to the limits of our puny capabilities to explain.

Into what dimensions would not man be condensed were he left to the tender mercies of some great physiologist? How quickly would he be shorn of his incalculable greatness were he delineated by the pencil of a scientific materialist?

If all that is mere assertion and pure assumption in the statements of those who claim profound familiarity with the structure and functions of man's nervous system, were carefully sublimated in the retort of common sense, the precipitate of novelty and truth would, we fear, be incalculably small, nor easily to be detected amidst the lingering fumes of hypothesis and error.

Ignorant, as we confessedly are, of how the material and the spiritual act and re-act upon each other, incapable of more than very partial mental analysis, limited to the examination of the grosser forms of nervous matter, and still most imperfectly acquainted even with these; finding in the little that we know, far more to humble than to inflate—the finite nature of man's powers becomes more and more apparent as he progresses, the fancied depths of his philosophy are reduced to their true shallowness, and while the mind shrinks under the accumulating evidence of its own feebleness, it swells with adoring wonder when visioning the vast and yet inscrutable unknown.

Were the deep consciousness of our weakness more habitually felt, and the ever fluctuating character of human experience more clearly perceived, what a repulse would be given to the many wild and presumptuous hypotheses now rampant amongst us, and how would that daring spirit of impious inquiry, which seeks to subjugate the supernatural to the laws of inductive science, be controuled and driven back by a sounder, a more Christian philosophy,

An age of science, as the present period well exemplifies, is ever closely allied to one of scepticism and gross credulity; and man, in his eager efforts to acquire, too easily forgets the narrow sphere of his powers; indulges in exaggerated

unreasonable expectations, and under the garb of philosophy, and when most glorying in his strength, becomes both the victim and advocate of the wildest delusions.

Every day's observation more and more convinces us, that a well-grounded reliance upon the dicta of Revelation is essential for the safe guidance of science as well as of morals; and amidst the jarring turmoil and confusion of conflicting opinions and startling novelties, the safest course is to breathe more and more of the sobering atmosphere of that truth-speaking volume, where man's true nature and destiny are unfolded, and where much that he calls wisdom is pronounced to be folly.

We shall not apologise for the introduction of remarks, which have no direct bearing upon the subject of the present communication; but our thoughts having for a moment been directed to a consideration of the physiology of the nervous system, we felt it impossible to suppress a brief expression of our convictions as to the nature and tendency of much we are now daily called upon to examine and embrace.

There is ever something more in carefully formed conclusions, than either language can embody or reason define, and a deep conviction of fallacy may be felt, where the power of demonstration may be feeble. Moral truth thus often shields us from the seductions of intellectual aberrations, and while, unable to disprove, we fail not the less to disbelieve and to avoid.

Such sentiments we are aware will ever fail to be popular, and by many be considered as retrograding to the mediæval ages of mysticism and darkness; but satisfied of their truth, and conscious of their comfort, we do not hesitate in their avowal, and would rejoice to be instrumental in their still wider diffusion.

OBSERVATIONS ON THE NATURE, ORIGIN, AND TREATMENT OF PUERPERAL FEVER.

By EDWARD BLACKMORE, M.D., Edin.

(Concluded from page 230.)

CASES OF ABDOMINAL INFLAMMATION ATTENDING A SINGULAR GANGRENOUS AFFECTION OF THE MUSCLES. (A SORT OF ERYSIPELAS.)

The analogy of these cases in the essential character of the morbid action, to those of malignant puerperal cases, and their occurring about the same time with the latter, gives to them extreme interest in reference to the first object of this paper.

CASE XVII.

A man, of industrious and sober habits, aged 45, of a robust and muscular frame, had been hard at work in plastering the ceiling of a room, which made his arms ache severely; after which he was attacked in the afternoon of August 12th, 1831, with severe rigor, sickness, and pain in the middle of his arms and calves.

of the legs. He got some medicine from a druggist, to allay the pain, probably an opiate, after which he slept for twenty hours. On the following day he got a purgative, as he was costive; the pains were unmitigated, and the vomiting returned. In the evening, as he manifested a tendency to stupor, he was bled. On the third day he complained of headache, the pain in the limbs was less severe, but he had much pain in the belly and again vomited. On the evening of the *fourth* day he was still suffering in the belly and limbs, without much of fever. On losing a pound of blood he fainted; the *blood buffed*, not cupped. Twelve leeches on the abdomen, ten grains of calomel, with some Dover's powder, a saline purgative, and colchicum.

I saw him the next morning: his mind had wandered, but was then placid and collected; he exclaimed to me in a strong voice, "Oh! Sir, if I could get rid of this pain in my arms, I should be well!" His manner expressed alarm and restlessness; breathing hurried; tongue loaded; urine high coloured; the bowels had been purged; the *abdomen bore pressure well*; *each arm at the middle of the biceps was tumid, livid, and very tender*; *gangrene had manifestly begun*; *the pulse had ceased at the wrist*. He died an hour after my visit.

Inspection twenty hours after death. The body presented externally the appearance of health, except at the arms, which were black and vesicated; an extravasation of bloody serum, in the subcutaneous cellular texture around the bicipites muscles; sanious matter flowed from the orifice in the vein, the exterior of which was livid, but it did not appear diseased. The substance of the bicipites was gangrenous; the legs were similar to the arms. On opening the chest foetid air escaped; the right lung was a little turgid with dark blood; the heart pallid and collapsed; the peritoneal coat of the *small intestines* showed a diffuse livid vascularity; they contained foetid air; the other viscera were sound.

CASE XVIII.

A labourer, aged 60, while at his work, having been previously in good health, was attacked September 11th, with rigors and severe pain in his limbs and body generally, to which headache succeeded. The next day, after some salts, he was sickened and purged. On the third day he had the most agonising pain in the middle of the *anterior part of the right thigh*, which quickly became tumid and tender. At five p.m. of this day, he was bled to eight ounces, and twenty leeches were applied on the thigh; and ten grains of calomel with opium were given; the blood was sisy; the pain a little mitigated. I saw him the next morning; the pain at the thigh so severe, in paroxysms, as to induce syncope; in the remissions the pulse was natural; the tongue whitish; thirst intense; no pyrexia; headache gone; the thigh was scarified to relieve tension; the usual quantity of blood did not flow on the incision; a poultice was then applied, and purgatives given. The next day, at one p.m., I found him *pulseless*; the respiration hurried; the mind collected; the sartorius, which the incision had exposed, was gangrenous. Cordials and opium were given; but he died in a few hours.

CASE XIX.

A poor industrious woman, who resided near the former patient, was seized on the day of his death with shivering, followed by acute pain in the right axilla

and pectoral muscle. No remedies were used for a week. On September 23rd, she was bled to eight ounces; a few leeches were applied to the seat of pain, and calomel with opium, and colchicum, and purgatives, given. In a few days she was better. I saw her on the 26th, ten days after the attack; the pectoral muscle still tumid and tender; no vesication or discoloration of the skin. The part remained in the same state for the next ten days, when suppuration was evident; but she would not submit to an incision until three weeks afterwards, when the abscess was opened, and a quantity of greenish ichorous pus emitted. She slowly regained her health.

CAES XX.

A labourer in the lime-stone quarries, two miles from Plymouth, aged 54, was seized, while at his work, with severe rigors, quickly attended with pain in the right arm, shoulder, and head; to which pyrexia succeeded. His medical man bled him early, and then used stimulants externally and internally; but he never recovered so as to leave his bed. An abscess afterwards formed on the hip, and the muscles on the sacrum sloughed. When seen by me, December 9th, he was much emaciated, complained of pain in the abdomen, and had had a foetid mucous purging for some days; the tongue brown and dry; respiration very much hurried; (he *had a slight cough* for a few weeks, without expectoration, which attracted little notice;) on the right shoulder and neck was a pallid emphysematous tumour; and the sores on the sacrum were very unhealthy. The cordials which he had taken to this time were suspended, and by mild alteratives the intestinal disorder was soothed; but he survived only a week.

The after-death appearances, reported to me by the surgeon who attended the case, were:—"Among the muscles around the shoulder joint, an infiltration of two pounds of unhealthy pus; an abscess among the pectoral muscles; in the pleura much turbid bloody serum; the lungs hepatised and tuberculated at the upper part; the tubercles hard; in the pericardium a large quantity of serum; the heart small and flaccid; the liver hepatised and tuberculated, of a nutmeg appearance; the small intestines, exteriorly, *much inflamed*; (i.e. I suppose, exhibiting a diffuse livid vascularity;) their interior not examined, as the body was very foetid."

At the same period I met with many cases of acute pains in the limbs, which appeared very different from rheumatism, after shivering fits; which did well with slight remedies. A case, similar to Case xvii, occurred at the same time to a medical friend at Plymouth; and in the same month an experienced surgeon in the neighbourhood met with a fatal case, which excited great consternation. The patient had had the influenza shortly before, and after it complained of *severe pain in the legs*; in a day or two, when thought to be recovering, he died unexpectedly. The legs had become gangrenous in twenty-four hours.

At the middle of the autumn, similar cases occurred at Launceston, in Cornwall, thirty miles north-west of Plymouth, and excited great alarm by their novel and extraordinary character. The wife of a respectable tradesman was attacked in the evening with *severe pain in the wrists*; the next morning the parts were gangrenous; and she died.

The scarlet fever and influenza also prevailed in the same season, and were fatal in some cases from malignant inflammation in various parts of the alimentary canal. It is obvious that this singular affection was not a pure inflammation; its *primary element* was constitutional; its *origin* atmospheric. I conceive it to be *analogous* to the *plague*, and to *erysipelas*, which Sauvages rightly placed among the exanthemata, and Cullen after him, although doubtfully. The *analogy* of this dreadful distemper, and its co-existence with the puerperal fever, go far to determine the nature of the latter; and I shall rejoice if this paper should be the means of eliciting from the more experienced members of the Association some communications *regarding the character of the special diseases* that prevailed when puerperal fever cases occurred to them.

I will only add, finally, an example of *peritonitis in the male sex*, as puerperal fever has been said to resemble this.

CASE XXI.

A very fine young man, aged 17, in the early part of July, 1829, after exposure to cold and wet, observed a swelling of his feet, attended with severe vomiting and purging, for which he took some medicine from a druggist; he then came under the care of a medical man, who bled him once, and used various remedies with imperfect success, the diarrhoea remaining, and a *pain in voiding the last drop of urine*, for six weeks. After a hearty dinner, on August 29th, he was attacked with severe *remittent pain in the belly*; and on the 31st was bled by his attendant to ten ounces, the blood buffed and cupped; and he got a grain of calomel thrice a day. The next day, small doses of turpentine, nitrous ether, and laudanum, were given, from the supposed analogy of the case to puerperal fever.

I saw him September 2nd, affected with a slight pain in the umbilical region; *extreme breathlessness*; pulse rapid; the tongue very white, and brownish in the centre; urine scanty and high coloured; the legs very dropsical; the belly very tumid from obvious effusion. Infusion of digitalis was recommended, and mercurial ointment on the belly; but these remedies were not adopted. The former medicine was continued, with jalap, cream of tartar and squills, and a blister.

3rd. The urine more copious; tongue cleaner; a free purging; aspect less oppressed; pulse 120; thigh extremely tumid and erythematic. The calomel was resumed; the turpentine mixture repeated, and the other medicines.

I saw him again on the 6th. In the interval the bowels had become very costive, attended with *copious vomiting of a dark and greenish fluid*; the pulse more rapid, and was now nearly gone; excessive dyspnoea, and slight dry cough; the belly excessively distended, and tender from the distention; no other pains of it complained of; but he spoke of *heat in the stomach* on taking medicine, and vomited after all ingesta. Leeches, a blister, and a clyster, which failed to operate, had been ordered the previous evening. He died in a few hours on the ninth day of the acute disease.

Inspection.—The back livid; half a pound of a dark foetid fluid ran out of the nostrils and mouth, on removing the body from the bed; little anarsaca. The cavity of the chest much diminished by the dia-

phragm being pushed upwards; twenty-four ounces of serum in it. The sub-sternal pleura vascular; fibrine on the lower edge of the *right lung*, which was condensed and slightly oedematous, its larger *bronchi* vascular; the left lung more healthy; the exterior of the *pericardium* vascular, four ounces of serum in it. In the *peritoneum* five pounds of *sero-purulent fluid*, with *flakes of coagulable lymph floating in it*; the parietal membrane at the hypogastrium vascular; the peritoneum of the intestines, at the margin of their contiguous folds, very vascular; the membranes of the liver and spleen coated with thick fibrine, and adherent to the ribs and diaphragm; the peritoneum of the stomach vascular; the liver very large and consolidated, but not unhealthy in other respects; fibrine on the serous coat of the bladder; its substance thickened; its mucous coat vascular at the neck; the *left ureter* so dilated as to admit one's thumb, filled with clear urine, terminating in a *cul de sac*; no opening into the bladder; no marks of recent inflammation; a *small uric calculus* in it; the other ureter natural; the kidneys in a state of hypertrophy; the *mucous coat of the stomach* intensely vascular; the intestines distended with air; their interior in a state of hypertrophy, but uninfamed.

This case certainly presents an unusual form of peritonitis in the male sex, and has some interesting resemblances in the morbid appearances to the case of synochus (xiv.), and also to the puerperal fever cases. It was, however, sufficiently distinguished from these by the *rapid sinking* in them, and the *more rapid effusion*. That was an instance of abdominal inflammation, in a scrofulous constitution, from ordinary causes; these indicate a specific exciting cause, that is *noxious* to the life of the animal system. However much the local affection in puerperal fever may resemble, in its particular symptoms, a case of common erythematic inflammation, it is clearly distinguished by its *peculiar progress*. Inflammation, phlegmonous and erythematic, will be modified in the female, and by the natural circumstances of the puerperal state; but I believe, that something more than these modifying influences is involved in that peculiar abdominal affection which attends puerperal fever. I believe that a practised eye could recognise the first case of the fever, by contemplating the whole aspect of the case, and of its *antecedents*, (for in this case the ordinary exciting causes of inflammation are often wanting,) and the mind of the practitioner will be *prepared to observe* its real import, if he has studied the character of the coincident diseases of the place and season. The diagnosis of such a case from one of *pure common inflammation* is of unquestioned importance; it seems to me also, important to discern it from abdominal inflammation in synochus and typhus. And if the records of medical experience are to become valuable by *accumulation*, a *stricter diagnosis* of puerperal fever must be exemplified.

I would again submit, that the foregoing cases exhibit a body of evidence, which, when viewed as a whole, demonstrates that puerperal fever is a specific disease, distinct from all other morbid affections, incident to the puerperal state; that it is a fever of which an abdominal affection is an invariable accompaniment, and in this respect it is perfectly analogous to the exanthemata; that the *local element* of the disease is an *erythematic inflammation*, which varies in the degree

of its *athenic* character, but is always discernible from *phlegmonous* inflammation, in the puerperal, as well as in other states; that it *originates* in an *animal poison*, which both operates as a *contagion*, on personal communication, immediate and indirect, and as an *epidemic atmospheric influence* beyond the range of all personal communications, in which characters, also, it resembles the poisons of the exanthemata; that this poison is probably the same as that of erysipelas; that it operates *epidemically* only when certain extraordinary but natural conditions of the atmosphere concur with it; that the *general treatment* should be more analogous to that of synochus and typhus, with secondary inflammation, and of the exanthemata, than to that of *pure inflammations*; and the successful treatment of *cholera* and *erysipelas* in particular, suggests useful analogies for our guidance in this disease.

(Notes and Illustrations of Puerperal Fever, derived from the unpublished treatises of Dr. George Fordyce, Dr. Osborne, and the late Professor James Hamilton, will shortly appear, in continuation of the foregoing paper.)

CASE OF VENEREAL IRITIS, WITH OBSERVATIONS.

By CLEMENT HAWKINS, Surgeon to the Dispensary and Female Orphan Asylum, Cheltenham.

B. A., aged 41, a shoebinder, was admitted an out-patient of the Cheltenham Dispensary, under my care, August 5th, 1843, with iritis of the right eye, of a fortnight's duration.

In the month of January, both she and her husband were under my care with iritis, accompanied with ulceration of the throat, scaly eruption of the skin, and other venereal symptoms. Both were treated by local bleeding, mercury, sarsaparilla, and iodide of potassium. The man had a relapse, which required venesection and the exhibition of mercury again for its controul. Both have continued well up to the date of the woman's present illness.

She assures me she has had no fresh venereal disease. The symptoms at present are those of well-marked iritis; obscure vision; anterior chamber muddy; pain in the ball exasperated at night; sclerotic inflammation; iris looks puckered at its small annulus, and is discoloured; circumorbital pain very severe. She looks pale and ill nourished, and knowing this disease to occur so often in people of a cachectic habit, a state in which mercury is ill adapted to relieve, I hesitated what plan of treatment I should adopt. Turpentine suggested itself to me, but as the disease was so far advanced I did not like to give it, as I had no personal experience of its utility. Ordered twelve leeches. Pilula hydrargyri, two scruples; opium, three grains; tartarized antimony, one and a half grain: to make twelve pills, one to be taken three times a day.

August 7th. Much worse, mercurial fœtor on the breath, pain excessive, external redness increased. To take an aperient draught, and afterwards the following mixture:—

Spirit of turpentine	6 drachms.
Mixture of acacia	1 ounce.
Honey	$\frac{1}{2}$ ounce.
Sesqui-carbonate of soda	2 scruples.
Sedative solution of opium	$\frac{1}{2}$ drachm.
Water	$5\frac{1}{2}$ ounces.

Take an ounce three times a day. Extract of belladonna over the eyelids.

9th. I was much pleased to see the improvement which had taken place. The pain has diminished, the vascularity has decreased, the iris looks brighter, vision less obscure.

11th. All the bad symptoms have returned with increased vigour. She says the pain is almost intolerable, she complains of vertigo. Although her appearance is such as to forbid venesection, I was determined to risk it. She lost above twenty ounces from the arm with the greatest benefit, without fainting. The blood was buffed.

14th. The condition of the eye is worse, portions of lymph are seen floating in the anterior chamber. Considering the use of turpentine to be of no avail, I ordered calomel, twenty four grains; opium, four grains: to be made into twelve pills, one to be taken three times a day. A blister to be applied to the neck, and the extract of belladonna to the eyelids, an hour before the pain is expected in the evening.

16th. Improved. Mercury has affected the gums; the pupil was dilated by the belladonna.

20th. Has had a relapse; external redness has increased, with a corresponding degree of pain. Ten leeches to be applied; calomel and opium to be continued.

23rd. The mercury has irritated the bowels, and the symptoms have become aggravated; the mercurial fœtor is strong, but there is no flow of saliva.

26th. Is in less pain, but the condition of the organ is in no way improved; complains of a deep-seated burning pain in the ball. The mercury does not seem to act beneficially. This may be in a great measure accounted for by the poverty she suffers. She has been taking the compound chalk mixture and the calomel and opium. I now directed her to take a dose of castor oil; and three grains of mercury, with chalk, with a quarter of a grain of opium, three times in the day.

29th. On visiting her to day, I was much pleased to find the aspect of the case altogether changed for the better. The mercury has acted most powerfully, producing ulceration and swelling of the cheeks; the external inflammation has diminished, and the pain has gone.

September 2nd. Considerable improvement; very weak. Repeat the pill every other day. Four grains of the carbonate of ammonia, in an ounce of camphor mixture, to be taken three times a day.

16th. I lost sight of her till to day. She has been in the country; is much improved in health; says she can see when she looks down, but cannot when she looks above her head. The iris appears adherent superiorly to the capsule of the lens, in which situation the fibrous structure is nearly lost. Has diarrhœa. Repeat the compound chalk mixture.

20th. The irritation of the bowels has subsided; there is a chronic inflammatory action lurking about the iris; the vision is very imperfect, and the iris has not recovered its wonted appearance. I ordered her to take regularly,—bichloride of mercury, two grains; tincture of cinchona, two ounces: a teaspoonful three times a day, in compound decoction of sarsaparilla.

Oct. 10th. A decided change has taken place both in the eye itself, and in her general health; says she can