decide the ultimate result. Still conscious of the great utility and applicability of that one remedy on which I had throughout relied, I steadily persevered in it, till the long-wished for sleep came to the rescue; and on wakening, after an almost uninterrupted sleep of thirty hours, what a change had taken place! The countenance had resumed the expression worn in health; the bathing perspirations no longer bedewed the body; the pulse, which only a few hours previously had been thready, small, and almost too rapid to count, was soft, fuller, and compressible; the urine, which had been voided in small quantities, and involuntarily, was now abundant, and passed with consciousness. The mind was clear; intelligible questions were asked and answered by him: in a word, the disease had vanished with the long sleep, leaving behind a deficiency of strength but slowly to be regained, and bad habits to be amended. My patient was well. During the fifteen days of the continuance of this attack, I administered seventy-nine drachms of laudanum, besides ten grains of solid opium, and twenty-five and a half grains of acetate of morphia, which were taken in the form of pill.

Remarks. Whatever in this instance may have been the exciting circumstances that determined the disease, I would attribute much influence to the long-continued discharges of blood from the rectum, which *more* than predisposed by exhausting the nervous powers, and enfeebling the condition of the general health. To that cause, also, may, with fair probability, be assigned the protracted duration of the attack, and the slow return to health. This form of the disease no doubt had its cause in a passive congestion of the venous cerebral circulation; and no one could have witnessed the complete course without being at times struck with the close affinity to mania on the one hand, and to febrile delirium on the other, so much in accordance with the condition of the circulatory system were the symptoms more or less developed and modified. The history of the case itself—the bleedings—the slow absorption of large amounts of stimulants—the debility—the general irritability with weakened powers—the small compressible pulse—the clammy skin, and tremor—demanded at once a nutritious diet, a certain amount of stimulant drinks, and, above all, *sleep*, the one thing so necessary to recruit the exhausted powers, and to restore vigour to the brain.

Great diversity of opinions exist on the treatment of delirium tremens, some believing that the disease has a certain course, and has a fixed termination, not to be altered by remedial measures; whilst others place their entire reliance on opium; and others again on purgatives and depletory measures; while experience surely proves that disease cannot be met by any plan of treatment laid down at the beginning, but must have remedies varied according to the condition, temperament, habits and idiosyncrasies of the individuals in whom that disease may occur. During the progress of this case the opium was sometimes combined with cinchona, and sometimes with sulphuric ether and camphor. On one occasion, during a long paroxysm, attended with great violence, I found it expedient to give nauseating doses of antimony, following its effects by hourly doses of laudanum. It is very important, when administering opium with a view to procure sleep, to enjoin rest and quietude. I have seen a patient in delirium, with the system entirely impregnated with opium, die, without having derived the least benefit from its exhibition; and I am quite satisfied that in some cases where the restlessness of the patient has prevented sleep from ensuing after sufficiently large doses, I have seen the desired effect produced by tranquilising the system with tartarised antimony prior to the opium being administered: at other times by the inhalation of chloroform after it; nor do I think it should be lost sight of that, in order to fulfil the object we have in view, we should either give opium in a large dose at once, or in full doses frequently repeated. A great responsibility, I own, attaches itself to the medical attendant; and I cannot now but think if I had administered for one dose a much greater quantity of morphia or laudanum, my patient would have been more speedily relieved.

In the numbers of the *Lancet* for August 15th and 22nd will be found a very important paper by Dr. Oliver, of the Salop and Montgomery Counties Lunatic Asylum, on the Facts and Observations respecting the Principles to be kept in view in regulating the Administration of Opium. To the observations of Sydenham, "that great exhaustion of nervous power, being dependent on want of harmony between the cerebro-spinal and sympathetic centres, forms one of the three great symptoms which peculiarly require the use of opium," Dr. Oliver adds that the facts which most certainly prove the existence of this necessity are those which indicate both that the process of sanguification has been seriously impaired, or, in other words, that the quantity of blood in the system is insufficient for the general purposes of nutrition; and that some of the most essential elements of neurine are either wasted too rapidly in the wear and tear of the vital processes, or cease to be separated from the blood for the ordinary purpose of repair.

In the *Lancet* for August 15th, a case is detailed extending over seventeen days, and the stated quantities of opium and morphia during each day. On the first, nine grains of hydrochlorate of morphia were taken; second, seven grains; third, fifteen grains; fourth, fifteen grains, and twenty grains of solid opium; fifth, fifteen grains; sixth, fifteen grains; seventh, fifteen grains; eighth, eighteen grains; ninth, twelve grains; tenth, four drachms of tincture of hyoscyamus; eleventh, six grains of morphia; twelfth, three drachms of tincture of opium three times a day; thirteenth, six drachms of tincture of opium; fourteenth, three grains of morphia, and half an ounce of tincture of opium; fifteenth, six drachms of tincture of opium; sixteenth, six drachms of tincture of opium; seventeenth, half an ounce of tincture of opium, and five grains of powdered opium; about which time improvement was discoverable. Other cases are extensively dwelt upon, to which I will refer those who are interested; and at the conclusion of the paper is an extract from the letter of Mr. Joseph Allen, of the Liverpool Royal Infirmary, where a patient, suffering apparently from delirium tremens and mania, took in one day an ounce of Battley's sedative solution, two drachms of powdered opium, and eight grains of acetate of morphia; and with great benefit. The same patient, when convalescing, took every night, in two doses, four scruples of powdered opium.

Delirium tremens also makes its appearance in a form which is nearly allied to phrenitis, occurring generally in robust subjects, hard livers, and not unfrequently following a debauch. In such cases, there is from the commencement a greater exaltation of the cerebral functions; the congestion is arterial and active; and there is generally pain referred to the head. The countenance is very red, and the veins full; the eyes fiery and suffused, the globes appearing to be prominent; and patients have a very ferocious appearance. On analysing this important symptom in cerebral diseases—this wildness of expression—it will be found mainly due to a complete retraction of the upper eyelid under the orbit, thereby exposing the entire anterior surface of the sclerotic. The other ordinary evidences are of a mixed description, sometimes identical in their nature with those of the first stage of meningitis, in others having the more characteristic resemblances of true delirium tremens. The first object is to relieve the immediate symptoms; for, if neglected, a condition of congestive apoplexy may speedily ensue. Venesection, cupping, croton oil, purgatives, and tartarised antimony, are the means which meet the requirements; and I believe the best form in which to administer opium, when the congestion has been lessened, is Dover's powder, in doses of from two to three scruples.

The rapid sketch now given shows the immense importance of combating a disease according to the form it assumes, and the absurdity of the pretence of adopting a specific form of treatment, which in so many instances exposes the medical practitioner most justly to the charge of quackery and charlatanism.

ON IRITIS.

By W. J. Moore, Esq., Assistant-Surgeon, Bombay Army; formerly Senior Resident Surgeon at the Queen's Hospital, Birmingham.

The following cases present some characteristics which are contrary to the appearances generally following injuries of the eyes, and probably, therefore, will not be destitute of interest to many of the readers of the British Medical Journal.

Case I. While I was engaged on service in Persia in the early part of the present year, an accident happened to some individuals in my medical charge, who were engaged making a battery for the defence of an important military position. To such end it was necessary to "blast" the hard soil and rock by means of gunpowder; and, a premature explosion having taken place, several persons were wounded, the case of one of whom is now briefly related.

This officer was struck on the eyes and face by numerous grains of powder, each of which were picked out with great care by the aid of a lancet. The right eye had one grain

lodged about the centre of the cornea, and another about midway between the internal margin of that body and the inner canthus. These grains were also detached, and the patient enjoined to remain quiet, in a subdued light, and to take purgative medicine. At this time the internal structures of the eye were perfectly natural.

The next day there was considerable conjunctival congestion, and a *slight* dilatation of the pupil was observed.

On the morning of the third day this dilatation had become much more apparent. Although on stimulus, the iris became as contracted as its fellow, yet in subdued light there was enormous dilatation. It was also slightly discoloured, of a reddish muddy hue, and there was some little tendency to puckering at the internal marginal circumference.

After the lapse of a few hours, these morbid appearances having rather increased than otherwise, I deemed it necessary to administer calomel and opium, and apply leeches. The next day, *the fourth from the date of injury*, it was reported to me that the patient had become suddenly blind.

On inspecting the organ, I found an effusion of blood filling the anterior chamber—and, as far as I could judge, the posterior also—to about two-thirds of their extent, the upper third showing the superior margin of the iris contracted so much as to appear a mere line, in the centre of which was a perpendicular red streak, showing the effused fluid had evidently issued from that part. The mass was slightly moveable by altering the position of the patient; and thus constituted what may be called an immense bloody "hypopion."

Leeches were again applied; and the calomel was continued. The blood began to be absorbed, and the iris gradually reappeared, gained its natural colour, but continued dilated. The patient took strychnia, etc.; had blisters applied without effect. Vision, however, which was at first impaired, gradually became perfect, even better than that of the other eye, and the patient is now doing good service against the Bengal mutineers.

CASE II. A seaman, while engaged landing stores for the troops after the capture of the forts and city of Mahomrah, received a blow on the right eye, Iritis came on the third day afterwards, accompanied by *dilated* pupil. The usual treatment was employed, excepting the use of belladonna. The iritis yielded in a satisfactory manner; but, as in the other case, dilatation remained, and did not improve during the months the patient was under my observation.

REMARKS. The dilatation of the pupils in these cases must undoubtedly be due to some nervous injury; but why a comparatively slight blow, like that which happened in the first case from a grain of gunpowder, should have been followed by permanent dilatation of the pupil, I am unable to say. I have seen numbers of cases where sparks from the anvil, etc., have struck the eye; but in only one instance did any nervous injury result, and then complete amaurosis occurred. Another point very remarkable is the fact that the dilatation did not appear until, in one case, twenty-four hours, in the other three days after the injury. The extravasation of blood also occuring as it did four days after the accident, is again contrary to what usually happens; this result generally quickly, if at all, following.

On these heads Middlemore says: "*Severe* blows on the eyeball may cause the effusion of blood within it"; "may also give rise to amaurosis"; but there is no case mentioned in which dilatation of the pupil and effusion of blood took place days after the injury had been received. Tyrrell, Blundell, Haynes Walton, and Lawrence likewise do not detail a case of the kind; neither do any of these authors mention the anomaly of an iritis accompanied by dilated pupil.

The latter says: "I saw complete amaurosis caused by a small shot, which struck obliquely and did not enter." And again: "Concussion of the retina, internal extravasation of blood, are the almost invariable concomitants of such an injury"—(violent blow). These effects, however, immediately followed the injury.

It was mentioned in the first case detailed that the patient was struck about the face by the grains of gunpowder. These penetrated more or less deeply, and were, as before stated, picked out as well as might be. Numbers of blue or, in some places, black marks were, however, left, which I considered unavoidable. It so happens, that since I have had occasion to treat a similar case, and was advised by a non-medical friend to wash the parts with, and dip the lancet in, milk, previously to using it. This plan was adopted; and certainly, although not quite successful, the result was an improvement on that of the first case; the injuries in the two cases being as nearly as possible equal. I do not myself see what the *modus operandi* of milk in such cases may be. I should, however, be much obliged to any gentleman who could furnish me with a method af treatment calculated to prevent or remove the disfigurement occasioned by the lodgment of gunpowder grains—an accident which the military surgeon is frequently called upon to treat.

LITHOTOMY BY THE MEDIO-PERINEAL SECTION: WITH CASES.

By ALBERT G. WALTER, M.D., Pittsburgh, Pennsylvania, North America.

THE simple and beautiful operation of lithotomy by incising the membranous and dilating the prostatic portion of the urethra and the neck of the bladder with the finger for the extraction of stones, being now fully established by the successful practice of Manzoni and Bresciani de Borsa, of Verona, and latterly by that of G. Allarton, of England, needs hardly any further recommendation. Still, as the dogmata of the schools and the rules of time honoured practices are not readily given up by the majority of professional men, even when found wanting in success and certainty of cure, and as too often many valuable suggestions pass by unheeded from indisposition to investigate, try, and adopt new practices, I think it no more than a duty incumbent on any member of the profession, to furnish to it the results of his experience, when benefit to the science and to the public must follow its promulgation. The successful results of the medio-perineal section are so startling, every case of stone thus treated being truly a triumph of modern surgery, that they ought to be made known, and spread far and wide, for the benefit of suffering mankind.

There can be no doubt, but that by the introduction of this new and simple operation, the sufferings of the patients will be greatly mitigated. Those afflicted with stone will consequently submit to the operation sooner, being assured that it is free from dangers which are apt to follow the antiquated lateral operation; and surgeons, too, will more eagerly resort to it, being no longer harassed by the uncertainty of the results of the old practice. The patient will escape great sufferings, by being operated on while the stone is yet small and the bladder free from serious disease. The surgeon's labour will be greatly shortened, having to deal with the urinary organs yet unaltered by the presence of the foreign body. Lithotrity, too, will have to yield its claim of greater security from danger to this novel practice, in which the bladder is not molested at all by the use of instruments.

Allowing every claim of priority to De Borsa and Allarton, for the introduction and promulgation of this new practice, I am still disposed to claim that, prior to the publication of the experience of the above named surgeons, I had occasion to resort to it about ten years since.

CASE I. A boy, aged 6, Frederick Kuner, of good constitution, but suffering for two years from a stone in the bladder, became my patient in January 1847, while attacked with retention of urine. On passing a catheter, I found the stone wedged in the prostatic portion of the urethra, examination by the rectum and manipulation of the perinæum confirming the diagnosis. Not being able to grasp the stone in this situation by any instrument which I had, nor believing that one could be constructed to answer the purpose, and unwilling to push it back into the bladder and then resort to the lateral operation, I made an incision three-fourths of an inch long into the membranous portion, upon a grooved staff, and introduced a probe into the wound to the staff, which was then removed. Guided by the probe, a polypus forceps was introduced down to the stone; but, on attempting to grasp it, it slipped back into the bladder. The retention of urine was relieved, but the stone had escaped, to trouble my patient again. While hesitating how to proceed farther, I inserted my finger through the wound into the neck of the bladder; and, contrary to what I had expected, the finger moved freely in the prostatic portion of the urethra, and entered the neck of the bladder readily. A polypus forceps was now introduced into the bladder, and the stone (of the size of a small cherry, and of the mulberry species) was easily removed. The boy made a rapid recovery, left his bed on the third day, and would have done so sooner but for the urgent remonstrances of his parents. The wound in the perinæum closed in a week. The urine, on the second