

able in the consideration of the mammalian orders in general. This is the less excusable at a time when naturalists universally acknowledge that the consideration of internal structure forms one of the factors essential to a scientific and natural classification. Again, man, as forming a member of the zoological series, is treated of in one page, the author evidently being of opinion that, as in this case, comparisons are odious, and referring the student to other, and, let us hope, more instructive works on the subject.

The volume throughout gives the impression of hasty and imperfect compilation, and we can only regret that a work which promised to be of such value should have been marred by the production of a volume like the present, and express a hope that should another edition be called for, the second part may, to a great extent, be re-written.

A Manual of Medical Jurisprudence for India, including the Outline of a History of Crime against the Person in India. By NORMAN CHEVERS, M.D., etc. Calcutta: Thacker, Spink, and Co.: 1870. Pp. 861.

THIS book is the third edition¹ of a work which, as the author himself states in his preface, "is not an elementary treatise on medical jurisprudence. It is a system for India, intended to be used by those who have already mastered the science of legal medicine as it stands, well-nigh complete for Europe, in the works of Taylor, Casper, and Guy." It is, in truth, not a work which, as a whole, can be critically reviewed anywhere,—certainly not in this country, where data and experience are wanting; but it is a most valuable contribution to what we may term ethnological medical jurisprudence, a book to be pondered over and studied as unfolding many interesting and little-known chapters in the criminal history of mankind, and one which must be, in a great measure, indispensable to all teachers of this branch of medical science, as many of our students go to practise in India; and in its pages alone is to be found copious information on the many subtle questions which will daily come before them there. And it is a matter of no slight importance in the detection of crime and of criminals to be acquainted not merely with the poisons or weapons usually employed, the ordinary methods of employing them, and the traces of their action on the bodies, but also with the habits of the parties who ordinarily employ these instruments of vengeance or greed. Race and caste, and the social and religious habits associated with

¹ The first edition was merely a reprint from the Indian Annals of Medical Science for October 1854. The second was drawn up by order of Lord Dalhousie, in the same year, for Indian use, and was never published, strictly speaking; so that this is, in reality, its first appearance before the public.

them, affect crime in India as they do everywhere else; and no more apt illustration of the importance of a knowledge of these, as aiding in the detection of the criminal, could be given than is conveyed in the following quotation:—

“A London detective, suspecting that one of a party of coal-heavers had just committed a sanguinary murder, would probably look for an individual with clean hands. A deeper insight into class habits was shown by the Judge of Rajshahye, when he inquired of a Hindu, who confessed that he had been one of a party who had committed a murder, whether, upon throwing down the body, he and his associates *bathed*.

“The meaning of this will be rendered clear to the inexperienced reader by what came out at another trial before the same judge. Certain Hindus, having strangled a woman and thrown the body into the Ganges, were asked, ‘if they did not mean to bathe;’ they replied, ‘No; for if they did, they would be suspected.’ The person who asserted that he asked this question was tried for the murder. The judge remarked, ‘What convinces me that the prisoner lent a helping hand to remove the body, was the question he put to his associates about bathing. It is notorious that, when natives touch a corpse, they consider themselves defiled and impure (*asood*), and invariably bathe, whatever hour it may be. Now, if the prisoner had been a mere looker-on, the idea of bathing *at night* would never have suggested itself to him, nor would he have adverted to the fact in his confession.’”—*Nizamut Adawlut Reports*, vol. v., Part 2 of 1855, p. 406.

In a country such as India, inhabited by various races, of different social and religious habits, it is impossible to overestimate the importance of a thorough knowledge of even minute points of difference in regard to them. In this country it may not be of importance, and it would certainly be impossible, to detect evidences of religious belief on a mutilated body: in India, it is the reverse. It is often of the greatest importance to ascertain the caste and condition in life so as to establish the identity of a body; and at page 57 and subsequent pages, Dr Chevers has entered somewhat fully into this subject, detailing the difference between Hindus and Mussulmans, both male and female. As an instance of the minute manner with which these details are given, and the extensive observation on which they are based, we may mention that even a woman's character in some districts may be judged of by the development of her calves. In the Cossyah hills the women gain their living by toiling up and down hill with extremely heavy loads, hence their calves rival in muscularity those of a ballet-dancer; while one in whom this respectable muscularity does not exist probably lives by prostitution. The hillmen also have their great toes so largely developed and set so widely apart, that marks of their feet could never be mistaken for those of inhabitants of the plains.

Amid much that is of a purely forensic interest, we occasionally fall in with information more purely general in its character. At the commencement of the present great war, we all remember how it was seriously propounded by some of the French journals, that to burn the dead would be the easiest and best mode of disposing

of the unfortunate victims of war; the following quotation will show that, however effectual, it would neither have been an expeditious method, nor one inexpensive or easy of being carried out:—

"As it is very difficult, so also the complete destruction of a body by fire is rather expensive. The Medical College Hospital pays the municipality of Calcutta Rs. 1-9-6—the price of firewood being from three to three and a half maunds (of 80 lbs. each) per rupee—each, for burning the Hindu dead with wood. We read, in Strype's 'Life of Cranmer,' that three loads of wood fagots at 12s., and one load of furs (furze?) fagots at 3s. 4d., were charged for in the burning of Ridley and Latimer; and 100 of wood at 6s., and 150 furze fagots at 3s. 4d., for burning Cranmer.

"In most of the incinerations in England during Queen Mary's reign, a bag of gunpowder appears to have been hanged around the neck or body of each martyr. This not only abridged suffering, but must also have much assisted the destructive action of fire when, in exploding, it tore open the great cavities of the body. Under ordinary circumstances, it is usually found that portions of the solid viscera long resist the action of the fire. Germannus says that Joan of Arc's heart was found unconsumed. M. Tardieu found, in the remains of persons who perished in a conflagration in Paris, that the soft parts exhibited great diminution of volume. This was more especially observed upon the viscera, which had been more or less protected from the immediate action of the fire. Some of these were mummified. The blood in the heart, aorta, and other large vessels presented an extraordinary appearance, resembling wax or fatty matter of most beautiful carmine colour. The cerebral substance was contracted to half its bulk, and in consistence resembled a half-dressed sweet-bread.

"These appearances of partial destruction represent the effects of slack, irregular, insufficient accidental heat upon the structures of the human body. In India, those whose business it is to burn the dead to ashes, effect this within a few hours, with great completeness, and with a moderate consumption of fuel—*i.e.*, about 400 pounds of wood.

"Dr Hutchinson of Patna, an active observer of all that can throw light upon our knowledge of medical jurisprudence in India, took an opportunity to ascertain exactly the amount of wood which would be necessary to destroy entirely an adult healthy body, and the time that would be necessary for its complete cremation. The pyre was composed of ten maunds of wood, but an equal amount of jala straw was necessary, as also two bottles of oil. The pile was lighted at 6.30 P.M., and at 3 A.M. next morning the consumption of the body was declared to be complete. When he visited the spot he found, in the centre of the ashes, the heads of two femora entire, but completely calcined, and a mass of incinerated matter, as large as two fists, said to be the remains of the liver. Thus 20 maunds, or 1600 pounds of wood and straw, and two bottles of oil, were required to consume a healthy body, and eight and a half hours were required for the operation, which, even then, was virtually incomplete. Here, however, five times the needful quantity of fuel was consumed.

"Baboo Ram Lall Chuckerbutty, of the Medical College Hospital, and my pupil, Baboo Rajendranath Mullick, have been at some pains to ascertain for me what the practice at the Nimtollah Burning Ghaut, Calcutta, is. The attendants there say that *five* maunds of fuel (wood and dry stalks), with about a chittack (two fluid ounces) of ghee, are sufficient in ordinary cremations. I saw what remained after two of these cremations—chiefly the heads of large bones, bodies of vertebræ, and portions of skull. Doubtless, much tact and skill, with a view to expedition and economy of fuel, are employed, and latterly the incandescent remains are frequently stirred together with poles.

"In this manner, it is said, fat bodies may be consumed in two or three hours, emaciated ones in four or five. Nothing can be more complete than the destruction of parts; for, although portions of bone retain their shape, pressure between the fingers reduces them to dust. This result is unexpected, seeing

that many dead bodies weigh more than 200 pounds. In the cremation of the bodies of wealthy men, eight to ten or more maunds of fuel (much of which is sandal-wood), with from one to twenty seers (each a quart) of ghee, are expended; but all fuel in excess of five maunds is waste."

The fighting Bishop of Bayeux, who preferred the mace to the sword, was scarcely more chary of shedding blood than the Bengalee, when merely prompted to take life for his own advantage without being goaded on by any urgent promptings of revenge or terror of detection. For centuries Thuggee by strangulation prevailed in all parts of India, till the whole system was investigated and exposed by the researches and activity of General Sleeman, since which time it has been almost entirely suppressed in India, though it has since then been adopted in more civilized countries, where it is known by the term garrotting. In them it is fortunately usually carried out in a more brutal and less scientific and fatal method than by those who originally employed it. Many of us are old enough to remember the stories told, about the time of the publication of General Sleeman's investigations, of the astonishment of respectable gentlemen at the unexpected success of their amateur attempts at Thuggee. No more effectual mode of producing insensibility or death, if long enough continued, could indeed be devised, than rapid compression of both carotids. Fortunately, the recovery is equally rapid if the compression be only momentary, but it is otherwise if longer continued, and many victims in this country owe their lives simply to the brutal and unscientific character of their assailants. But though Thuggee by strangulation has long been exploded in India, Thuggee by poison is still rampant, gangs of such poisoners by profession still infesting every main road, and lurking in the purlieus of every large town throughout the country. According to Dr Chevers, it is pursued systematically as a trade, and is not merely the device of a stray criminal here and there. All kinds of poisons are occasionally employed, both mineral and vegetable. Of the latter class, that most frequently employed is one or other of the various species of *datura*, so commonly used in medicine; and this seems to have been selected because its seeds so closely resemble those of the *capricum*, so universally used all over India as a condiment, as to be with difficulty detected; and this all the more, that apart from a bitterness, readily enough attributed to impure salt, these poisonous seeds have little or no taste. As illustrations of the various modes in which this nefarious deed is perpetrated, we may give the following quotations:—

"One Purkhit Mytee was tried at Midnapore in 1853, and sentenced to imprisonment for life in transportation, for having administered the seeds of the dhatoora to three travellers on their way from Calcutta to Cuttack. The prisoner accosted them, and, saying that he was of their own caste, offered to share the expenses of the road. Putting up at a shop, the prisoner offered to cook rice for the party. After eating a portion, one of the party found some seeds sticking to his teeth; and, on taking them out and examining them by the light, it was agreed by all three that they were the seeds of the dhatoora

plant. The prisoner, however, observed that it was nothing but the seeds of dhunia (*Coriandrum sativum*), and encouraged them to finish their meal, although he declined eating any himself, saying that warm rice disagreed with him. Two of the people became insensible immediately after: the other, suspecting that the rice was poisoned, had refrained from eating any, and gave the alarm. The intoxicated persons remained two days and a half before they recovered from the effects of the poison. On the prisoner's person was found a scrip or purse containing several pockets, in one of which were seventeen seeds of the dhatoora plant; and, in the remains of the food, the darogah discovered some seeds of the same plant.

"Khoman hired carts, the drivers of which he intended to drug (they having probably lately received pay). When they halted to cook, he pretended to go to the bazaar in order to purchase flour, but came back saying that there was no buniah to be found, upon which one of the cartmen said, 'We have plenty of flour; take some of ours;' and he gave him about a pound and a half. He took it away, as if to cook, but returned in a short time saying, 'You have given me too much; I only require enough for two cakes; take back the rest.' Saying which he threw down a quantity of flour adulterated with powdered dhatoora. Of the drugged flour the cartmen made their bread, after eating which they became insensible, and were robbed of all the money and property they had. The same Khoman, on another occasion, hired some cartmen, whom he knew to have money about them. On the night of the first halt, he and one of the cartmen went to a neighbouring village to buy food. The cartmen bought chaff for the bullocks, and Khoman flour for the men. Just as the bread was baked, Khoman left on pretext of an assignation. The others ate their food, and shortly afterwards became insensible. When they recovered, they found that they had been robbed of everything, and that their friend was not to be found."

How rude and unskilful these modes of administering narcotic poisons appear when contrasted with our more effectual and scientific modes of procedure—that is, if we can trust newspaper reports; the booty is, however, proportioned to the skill exerted. A few rupees in the possession of a carter, or some trifling gold ornaments on a prostitute, excite the cupidity of a half-naked wanderer, and he poisons his victims by narcotic drugs introduced into their food. Here we proceed more scientifically to work. A factor returning from collecting his rents is narcotized by smoking a medicated cigar, and robbed of thousands of pounds; or a shop assistant is sent to a hotel with many hundred pounds' worth of jewels for inspection, and there chloroformed and robbed. Many of these modern instances are somewhat mythical, but all require more careful investigation than they have as yet met with; for though in robbery as in rape, *non omnes dormiunt qui conniventes habent oculos*, the subject is nevertheless one of great interest, and practice is usually found to be in advance of science. One point of great medical importance in relation to the action of these various narcotic poisons—we refer to the reciprocally antidotal action of opium, datura, and belladonna—has thus been referred to by Dr Chevers:—

"In the *Edinburgh Medical Journal*, June 1860, Dr Thomas Anderson, now Curator of the Calcutta Botanical Garden, published a memoir on 'Opium as a Remedy in Poisoning by Datura,' which has subsequently led to some very interesting inquiry.

"Dr Anderson remarks that Mr Benjamin Bell, in an article (read before the Medico-Chirurgical Society of Edinburgh) on 'The Therapeutic Relations

of Opium and Belladonna to each other,' published in No. xxxvii. of the *Edinburgh Medical Journal*, for July 1858, directs attention to the doctrine propounded by him some years ago, that opium and belladonna exert an opposite influence on the human system, and that thus one may be used to counteract the other, even though administered in a poisonous dose. In the summary given at the commencement of his article, of the origin of this opinion, he mentions some apparently, and, to Dr A.'s mind, perfectly conclusive experiments made by him in 1853 (*Ranking's Half-yearly Abstract*, vol. xxii. p. 303), on the action of belladonna in poisoning by opium. He further gives very interesting details of two cases of partial poisoning by atropia, which he treated successfully by the injection of morphia. While conducting his experiments in 1853, he became convinced that the converse doctrine must be true, viz., that opium would counteract the action of belladonna, and of all the solanaceæ with like properties, such as the species of *datura* and *hyoscyamus*, and perhaps tobacco.

"In Britain, poisoning by belladonna, or by henbane, is so exceedingly rare an accident, that it was vain for him ever to expect to meet with a case of either. However, in 1854, he proceeded to India, where poisoning by *datura* is of everyday occurrence; and he determined to test his theory by administering opium to the first suitable case he should have an opportunity of treating.

"He publishes the following case as illustrating his theory of the impossibility of these two classes of poisons exerting their action simultaneously on the brain, and is, moreover, the converse of his former experiments, and at the same time supplementary to Mr Bell's.

"The 43d Bengal Native Infantry, of which he was then the medical officer, while on its passage from the Punjab to Calcutta by boats, on the river Ganges, halted for four or five days at Futtebhaur, in the beginning of December 1855. The sepoys were of course allowed to go on shore, and many of them visited the large bazaar at Furrackabad. One of the sepoys, a man well known to him, was found by his comrades lying by the roadside, in a state of high delirium, and was brought to the hospital boat. He had been seen partaking freely of sweetmeats (the Hindu eats them by pounds weight at a time) in a bazaar, some hours before he was found; and the men at once ascribed his condition to poison administered in the sweetmeats. The many varieties of native sweetmeats poisoned with *datura* and *blang*, one of the preparations of Indian hemp, are well known in all large Indian towns, and are used to cause death, or stupefaction so complete as to allow of robbery or violence being committed; and a sepoy, when in undress, usually displays valuable ornaments sufficient to tempt a thief or thug. Even without this knowledge, the symptoms were so marked, that he had no difficulty in forming his opinion of the cause of the patient's condition. He saw him immediately after he was brought to hospital, and found him in the following state:—He was reclined on his back in bed, in a wakeful, muttering delirium, unbroken by an interval of even transitory consciousness. His face was much flushed; the eyes were reddened and wandering, and the pupils were brilliant, widely dilated, and quite insensible to light. The pulse was much accelerated and small. He continually twitched his extremities, but especially his hands, and every now and then pinched and tugged at the bedding. Though utterly unconscious to real external objects, the brain was evidently active, with continual visions before his eyes, and his mutterings and frequent clutchings referred to imaginary objects. He was not in the least degree violent, and required no restraint, but merely an attendant to keep him covered during his restless tossings about.

"He swallowed any liquid put into his mouth, but exactly as patients in delirium tremens do, in one convulsive mouthful.

"In an hour after his arrival at the hospital, Dr Anderson began the administration of opiates, and prescribed one grain of the muriate of morphia in solution, to be given every hour, beginning the first dose at 2 P.M. He watched the effect most closely, taking the state of the pupil as his principal guide.

"Eight doses were given before he could observe any result. After the eighth dose, about 11 P.M., he noticed that his attention could be fixed for a moment, and that the muttering could be arrested by loudly talking to and shaking him; that the hands were less tremulous.

"Still, no impression had been made on the widely-dilated pupils, and he was evidently as wakeful as ever. Dr A., therefore, before retiring for the night, directed the continuance of the morphia until the morning, with orders to discontinue it so soon as sleep threatened to come on. He did not see him again until six in the morning, when he found all his delirium gone, the tremulousness much relieved, the pupils almost reduced to their natural state, and the patient surrounded by his delighted comrades, who were listening with wonder to the native doctor relating to them how 'dhatoora' poisoning had been cured by 'apheem' (opium).

"Though he was able to talk, and was nearly well, Dr A. considered it advisable to persevere with the treatment until sleep had been obtained. This did not supervene until three doses more had been given.

"After several hours' sleep, he awoke perfectly well; and after two days' more detention in hospital, he was dismissed 'fit for duty;' and while Dr A. remained with the regiment, was never again in hospital. In all, 15 grains of the muriate of morphia had been administered in eighteen hours; and with reference to the largeness of the amount, he took care to inquire concerning the habits of this sepoy, and found that he used opium in no form whatever.

"In this case, as well as in the experiments published in his former paper on this subject, the amount of the narcotic used as the antidote, whether belladonna or opium, to restore the normal condition of the brain, would, by itself, have been a poisonous dose. This tolerance of the one poison, produced by the presence of the other poison in the system, seems to him to be a strong additional argument in favour of his theory.

"It also induces him to go further, and to believe that all narcotic poisons with distinctly opposite actions, and destroying life by their effects on the nervous centres, will, when present in the body together, counteract each other until eliminated from the system by the excretions.

"For example, the distinct coma-producing narcotics, such as opium, will, he believes, in all cases be counteracted by the poisonous solanaceæ; and, as a remedy to the action of strychnine, he would hope for success from the use of conia, or preparations of hemlock itself; and of course, in all these cases the opposite would hold true.

"Unfortunately, no correct conclusion can be drawn from our experiments made on the lower animals, as they are variously affected by narcotics. To dogs and cats he has given morphia in enormous doses without producing almost any effect; and to them five and six grains of atropia prove quite harmless. Rabbits will feed for months on belladonna leaves, and have their pupils dilated all the time, but otherwise they are not affected. Blackbirds eat belladonna berries in large quantities and do not die.

"It is, therefore, only to experiments on man that any value can be attached.

"Dr Anderson urges his brethren never to give up hope of the most desperate case of opium-poisoning; but after the failure of the usual means, such as emetics, the stomach-pump, electricity, etc., to endeavour to produce, as rapidly as possible, the first symptoms of the action of belladonna on the system, by the administration of atropia either internally or by injection under the skin, as indicated by Mr Bell. His firm conviction was that, in all such desperate cases (desperate as regards the old treatment), this plan, when boldly adopted, would be invariably successful.

"He had just heard that Dr Carnegie, medical missionary in China, in a letter lately received from him, mentions a case of poisoning by opium which he had just cured by giving belladonna.

"Since Dr Anderson's views were first promulgated, the question has received attention from many practical investigators in India and at home. The

results obtained are very contradictory. In favour of the view we have cases by (1) Dr Ranking of Madras, who gave Sydenham's laudanum, with apparently beneficial effects, to a lady poisoned by a decoction of dried belladonna leaves recently brought from France.¹ (2) Several cases of opium-poisoning, in which the subcutaneous injection of atropia in quantities of from $\frac{1}{4}$ th to $\frac{1}{16}$ th of a grain was had recourse to with apparent benefit.² (3) In 1869, my friend Dr Scriven, Principal of the Lahore Medical College, employed a solution of atropia dropped into the mouth and eye, and by enema, in a boy poisoned by laudanum, who recovered.³ Again, in 1870, Mr Scriven employed quarter-grain enemata of atropia twice in the case of a man who had swallowed about eight grains of opium. This appeared to assist in restoring sensibility.⁴ (4) A case of poisoning by belladonna, in which laudanum, in what must otherwise have been poisonous doses, was administered to two young children by Dr Bernard Kavenagh; the children recovered.⁵ (5) Entering the Medical College Hospital, on the 20th November 1868, I found two young native women, who had been drinking all night long with their friends, in a marked state of datura-poisoning. One of them was extremely excited, but her case was not severe. In the other there were alternations of delirium and insensibility. I saw her three hours after admission. She was almost insensible, but tossed about uneasily; the abdomen was swollen, the pupils were widely dilated, the pulse had been for some time very weak, and she was upon the verge of collapse. I gave 25 minims of laudanum; and, in less than an hour, all anxiety regarding her recovery was removed from my mind, as she rallied completely, although the pupils continued to be dilated, and moderate symptoms of datura-poisoning remained. She also took a 20-minim dose at night. The other patient was similarly treated, with no marked result. They were discharged well in three days.

"Against these may be placed the following cases and arguments. At 10 o'clock on the night of the 13th December 1868, James Browne, a patient in the Calcutta Medical College Hospital, while convalescent from fractured ribs, poisoned himself with what appears to have been solid opium obtained from outside. Six hours afterwards, all ordinary treatment having been used in vain, I saw him, at 4 A.M. He had been completely comatose for four hours. The pupils were utterly insensible to light, small, but not extremely contracted. Face much congested, pulse of fair volume, but very irregular. I injected *three* minims of a solution of atropia (gr. iv. to the fluid ounce), hypodermically, at the epigastrium. 4.15.—Condition unchanged. *Three* minims more were injected. 4.40.—Pulse more irregular, patient otherwise the same; *three* minims of the solution were dropped into the mouth. 4.45.—Pulse somewhat improved, *pupils have begun sensibly to dilate*; condition otherwise the same. 4.53.—Respirations 23, unequal, somewhat stertorous, pulse 110, unequal. 5.5.—The size of the pupils is at least doubled since the atropia began to act. They are dilated beyond the medium, and are quite insensible to light. 5.10.—Pupils widely dilated, condition otherwise the same. 5.20.—Pupils widely dilated. Some failure of pulse. 5.40.—Pulse sinking considerably. Enema of two measures of brandy in an equal quantity of hot water. 5.45.—Coma and collapse increasing. The dilatation of the pupils is still increasing, and is now quite equal to the dilatation recently observed in two severe cases of datura-poisoning. Repeat the enema, stronger. 6.5.—Collapse advancing. Repeat the enema. 6.12.—Expired. The size of the pupils did not alter. I allowed the body to remain in the ward that my colleagues might observe the great dilatation of the pupils at their morning visit.

¹ Mad. Quar. Jour. of Med. Science, vol. x., 1866, p. 401.

² British Medical Journal, 8th Jan. 1870, p. 34, from American Half-yearly Compendium of Med. Science.

³ Ind. Med. Gaz., 1st Sept. 1869, p. 182, Dr Scriven's paper containing reference to other cases, not cited above.

⁴ *Ibid.*, 1st March 1870, p. 54.

⁵ Med. Press and Circular, and Ind. Med. Gaz., 1st Nov. 1869, p. 237.

"This case distinctly proves that, in opium-poisoning, the presence of atropia in the system may altogether change the condition of the pupil, without in any way alleviating the other symptoms of opium-poisoning.

"The converse of this case occurred in the practice of Dr S. W. Grose of Philadelphia;¹ the result of which was that, the patient having been poisoned by three grains of atropia, 'a grain and a half of morphia, used hypodermically during the space of half an hour, merely intensified the poisonous effects of the atropia, and still further jeopardized life.' 'A scarcely perceptible contraction of the pupil' after the injection of the second half-grain of morphia; but as the patient became worse, 'the pupils regained their natural size.'

"I regard these two cases as being strongly confirmatory of Dr Harley's conclusions.

"1. 'That' [upon collation of the cases] 'the evidence of antagonism between opium and belladonna in any given case is inconclusive.' [I would reserve the point of action on the iris.—N. C.]²

"2. 'Belladonna has no influence whatever in accelerating the recovery from the poisonous effects of opium.

"3. 'That somnolency, stupor, narcotism, and coma, the essential effects of the action of opium, are both intensified and prolonged by the concurrent action of belladonna.

"4. 'That belladonna is powerless to obviate the chief danger in opium-poisoning, viz., the depression of the respiratory function.'³

And we would merely remark, that our own experience of the action of conium having been directly contradictory of Dr Harley's, we are disposed still to regard the question as undecided, and deserving of further investigation. We ourselves have not the slightest doubt but that the various vegetable narcotics exercise a modifying influence upon each other, and that being conceded, as we conceive it must, it only remains to settle by further experiment the amount and kind of that influence, to determine whether the one may not be an antidote to the other.

Dr Chevers's work is one possessed of great and varied information for all who are interested in the progress of ethnological, medical, and medico-forensic science, and we therefore cordially recommend it to our various readers interested on these points. And though, regarded purely from a medico-forensic point of view, it falls infinitely short, in precision and accuracy of detail and ratiocination, of the classical works of Taylor and Casper, it is unquestionably a great foundation-stone laid in our Eastern Empire, on which some future forensic physician may raise a superstructure in every way more accurate and scientific, and yet perhaps less interesting, than this remarkable work, which possesses all the attractiveness attributed to "fresh fields and pastures new."

¹ American Journal of Medical Science, October 1869, p. 401.

² Dr Taylor says that, "in the later stage of opium-poisoning, and when progressing to a fatal termination, the pupils may be found dilated."

I do not think that this applies to my case, in which the action of atropia was clearly developed in forty-five minutes. In Scriven's case a little of the solution of atropia was dropped into the left eye, the right eye being reserved for watching the constitutional effect of the alkaloid, the pupils being contracted. The left pupil dilated rapidly and fully under the influence of the atropia, the pupil of the right began to dilate in an hour. After recovery, the pupils of Mr Scriven's patient remained dilated as those of Baker did after death. As the former recovered, the right pupil was the first to recover its normal size.

³ The Old Vegetable Neurotics, p. 309.