

laws. Civilization assists, no doubt, in filling the madhouse, and other houses which need not be named.

CASE.—A young lady, approaching thirty-two, of good abilities, gentle and ladylike disposition, and of excellent education, finds it difficult, from some family arrangement, to enter on matrimony. She passes her twenty-seventh year with difficulty, daily becoming more and more eccentric. The usual course of excitement is gone through. Without the smallest natural tendency towards religious feelings, and a head remarkably low in that region where such feelings are supposed usually to reside, she becomes fanatical, and raves about the "ministry of the Gospel." The usual routine of such excitement is gone through; meetings, social and otherwise, delay for a time the coming evil, which at last breaks forth in madness. She becomes implacable towards her mother; suspicious, cunning, malicious, vicious, malignant, obscene beyond all imagination. And now comes out the natural character—the pure animal; the mask imposed by education, birth, society, rank, is thrown off at once, and all that we are wont to consider as opposed to humanity, as not human, but as characterizing the brute, having now established itself, the necessity arises for the removal beyond the pale of society of the individual whom social conventionalities have plunged into this sad condition. This lady recovered.

The class of disease of which I now treat requires, on the part of the physician, the greatest caution, both as to diagnosis and treatment. Family connexions interfere, family interests, interested views.

But I return to the question of insanity originating in ovarian excitement. We have seen that it is not any actual pathological condition of the ovaria which excites those morbid sensations which, radiating towards the cerebro-spinal axis, at times disorder the spinal marrow, producing hysteria under all its Protean forms; at times extending upwards to the medulla oblongata, influencing the cerebral hemisphere, and upsetting the judgment. These terrible results depend, for the most part, on a condition of the ovaria the intimate nature of which is quite unknown to pathologists. But it is not the less real. The hypochondriac, when he flies to the river, or points a pistol at his head, or seeks the fatal cord, has no actual disease in the brain, nor perhaps in any other organ, and yet there can scarcely be a doubt but that some organ supplied by the sympathetic system of nerves is functionally diseased, radiating through that system to the brain itself those diseased feelings embittering all his mortal existence. So it is with woman. At forty-two or forty-five she does not become hypochondriacal. The liver has little or no influence over her, but she may become hysterical and nervous and disturbed in mind. If low-headed, she often becomes demoniac—that is, terrified and fearful at the appearance of the demons which haunt the imagination; the furies pursue her, goading her on to madness. To the physical condition of lunatics late observers have given that minute and delicate attention which characterizes the present age. The observations are not more minute than those of the great observers of antiquity; on the contrary, they are much less so. But we describe them now in detail; we give the details, they gave the results.

It has been noted, and may readily be admitted, that well-established facial characteristics of disease are of great diagnostic value, especially in mania; but much of this must depend on the tact of the observer—that is, the physician, for there are some who observe everything naturally, and there are others who never can be taught to observe anything. Tact, the observance of minute differences, cannot be taught, cannot be acquired; it is a natural gift. A friend informs me that looking attentively at the insane he has been led to think that in some insane persons, male as well as female, no facial characteristics ever show themselves. In others, on the contrary, they are well marked. There is generally perversion of all the mental qualities, natural feelings, and disposition. This is at least the general idea, although a different view might be taken of this subject. It is probable that in hereditary insanity the expression of the face, form of the head, &c., may be of more value than in others. In many cases, but not in all, the expression of the insane is brutal and degraded. In mania, the eye is unnaturally brilliant, quick, unsettled, and projecting; in melancholia, it is dull, downcast, and evasive; there is also at times the *oculus bovinus* of authors. The mouth also has its peculiar character occasionally; the lips quiver and are agitated; saliva flows, but no verbal description can convey to the reader an accurate idea of such images. The external ear is said to be peculiarly formed in those subject to insanity; the lobe becomes elongated, misshapen, and vascular in insanity of long standing. The general complexion is also usually excep-

tionable, being sallow, sickly, and a peculiar odour is not an unfrequent accompaniment of insanity.* I need not dwell on the bodily physiognomy of lunatics, their attitude, and gait; the automatic movements of the incurably insane; the rumination occasionally present; insensibility to external impressions, as extreme cold or heat, hunger, thirst, &c. This is not a treatise on insanity generally, but has a reference mainly to those cases which are traceable to ovarian excitement or other pathological conditions of the sexual organs in woman which have fallen within the scope of my own observation. Difficult cases arise in practice, and especially in this practice—cases presenting great difficulties in diagnosis and treatment.

The preceding observations, if they do not afford any elaborate views of the disease, may, it is hoped, lead towards a clearer apprehension of the real sources or origin of the complaint; may enable physicians, by a careful attention to all the circumstances of the case, to forewarn relatives and friends of the possibility of certain results following a certain course, and especially when a tendency to insanity is hereditary, to warn the friends early of the terrible results which too often follow the neglect of Nature's laws.

ON A CASE OF

POISONING BY TWELVE DRACHMS OF LAUDANUM.

REJECTION FROM THE STOMACH NINE HOURS AFTER WITHOUT SYMPTOMS OF NARCOTISM; RECOVERY.

BY GEORGE D. GIBB, M.D., M.A., F.G.S.,

PHYSICIAN-ACCOUCHEUR TO THE ST. PANCRAS ROYAL DISPENSARY, MEMBER OF THE CANADIAN INSTITUTE.

DR. CHRISTISON relates a case in his work on Poisons of a man who swallowed an ounce and a half of laudanum, and in an hour, half as much more, and lay down in bed. Some excitement followed, with numbness of the extremities. He continued sensible and so lively for seven hours after the first dose, that a medical man did not believe his statement. It was not until the *eighteenth* hour that stupor set in, and in two hours more the symptoms of poisoning by opium were of an aggravated kind. He finally recovered under treatment, but the cause of the protraction of the symptoms could not be ascertained.

Recollecting the record of that case, and knowing that the symptoms of poisoning by opium are sometimes protracted, I was not unprepared for what occurred in the following case; I must confess my mind was subject to considerable doubt at first as to the quantity of laudanum taken, but the proofs were rendered so clear during the progress of the case as to permit not the shadow of a doubt any longer to remain. The poison was taken with a felonious intent, the act having been contemplated for some time. The effects of the drug were pretty well understood by the individual himself, and when swallowed dissolution was anticipated within an hour. The twelve drachms filled a stoppered phial, purchased from a druggist in Red Lion-street, under the pretence it was wanted for a voyage with his family. On tasting the two or three drops which remained, it had the well-known flavour and bitterness of the ordinary tincture. It was swallowed in two doses, one taken almost immediately after the other, with results of which the following narrative is a brief outline:—

A gentleman, seventy-two years of age, possessed of much activity, but in embarrassed circumstances, swallowed an ounce and a half of laudanum at eleven P.M. on July 15th, with the intention of destroying himself. He passed a restless night, not in the least inclined for sleep, and was more or less excited the greater part of the time. At seven o'clock on the following morning the servant knocked at his door as usual with hot water, when he told her to come for me, as he was very unwell. I reached his residence before half-past seven, and found him in bed quite rational and unexcited. He had not slept the whole night, he said, which circumstance made him think he was past recovery, and as there was now no chance for life, he wished to give me some directions before he died. I learnt from him that he had taken laudanum in the quantity named, and

* Dr. Burrows observes that it is a pathognomonic symptom so unerring, that were he to meet with a patient having the odour, he should not hesitate to pronounce the patient insane. See Dr. Burrows on Insanity.

at the hour mentioned. The pupils were contracted, but not completely so; he was a little exhausted, and did not speak with his usual firmness of voice.

I quickly procured the assistance of my friend, Mr. Roberts, of Great Coram-street, and in our presence, at eight o'clock, he spontaneously vomited a quantity of fluid from the stomach, which contained the greater part of the laudanum, the smell of which was unmistakable, and the bitterness as great as when it was swallowed the night before. The name of the druggist who sold the laudanum was ascertained, the stoppered vial which had contained by measurement twelve fluid drachms was sent to him, and we learnt, on clear evidence, the laudanum was a pure and genuine article, and had been purchased at the time stated by our patient. We then gave him a breakfast-cupful of strong coffee, which was rejected in about a quarter of an hour, with much mucus. The coffee was repeated in twenty minutes, but only a portion of it was taken, and he remained quiet. His pupils were now more dilated than they were; and no constitutional disturbance was manifest. He was, perhaps, in the slightest degree drowsy. We left him at nine o'clock, in charge of a careful nurse.—Ten A.M.: I saw him again; he had been perfectly quiet; his pulse was 60, full, regular, and strong; pupils slightly contracted; drowsiness a little more marked; his ideas not easily collected; skin somewhat hot. He had taken nothing since previous visit. His lips were all along of a healthy pink colour, and the tongue was clean. As he felt squeamish, I prescribed an emetic of twenty grains of sulphate of zinc to be taken at once.—Four P.M.: As before, quiet and calm; skin clammy, but warm; pulse 60, full and regular. Still nauseated, but had not vomited, even after the emetic.—Half-past eight P.M.: Saw him with my friend, Dr. Logan. Skin drier and warm; pulse as before; rational and calm; pupils a little contracted. He had some nausea after waking from a doze, in which he snored loudly; and vomited freely, which was encouraged by draughts of warm water. The egesta were a mixture of coffee and water, and smelt sour. He had dozed occasionally during the last four hours, but had not actually slept. He felt very languid and weak.

July 17th.—Ten A.M.: Perfectly recovered in every respect, but disposed to vagaries; had slept well the greater part of the night. Pulse 58, not so full, softer, and more natural; pupils natural.—Eight P.M.: Feels giddy on attempting to get up. From this period he had no more uneasiness, and got quite convalescent.

For nine hours the twelve drachms of laudanum remained inactive in the stomach, without any symptoms of poisoning; vomiting then ensued, which was followed by perfect recovery. The case is solely remarkable from the fact of no symptoms of stupor setting in, which I should have ultimately looked for as in Dr. Christison's case, had not vomiting occurred. Watching was still, however, necessary. In the course of my experience, an instance occurred under my care, in which three drachms of the tincture proved fatal, although remedies were actively employed, in a sailor, the subject of exhausting suppuration of the knee-joint. In the present instance my patient was a healthy and very temperate man, of remarkable age, and not in the habit of using opium at all. This case is only equalled by the one of the student described by Dr. Taylor,* who swallowed four ounces of laudanum at nine o'clock in the evening, went to bed, and slept till six the next morning, when he vomited freely, and recovered.

Guildford-street, Russell-square, July, 1857.

THE ELECTRIC CAUTERY AND ITS APPLICATION TO DENTAL SURGERY.

By THOS. H. HARDING, Esq.

(Continued from p. 55.)

Of the Operation in general.—The affected tooth being carefully examined, its cavity is to be well-dried out and cleaned; a soft napkin is then introduced, to protect the mouth from the possibility of contact with the instrument, the platinum point of which is passed into the cavity of the tooth, is then heated, and, from its brilliancy, gives a clear and distinct light, and the tooth-pulp is lightly touched with the heated wire, and the whole or particular portion of it required is destroyed. If the operator prefer it, he may have the wire

heated before introduction into the mouth, but my own practice is generally to apply the wire before doing this, and then permitting of incandescence to take place in the mouth, which gives a light which is not seen by the patient, and so well illuminates the interior of the tooth, as to permit the tooth-pulp or diseased membrane to be seen very distinctly and clearly.

There is some caution to be observed in the use of this agent, which it will be as well to mention, and that is, to avoid burning or otherwise injuring the solid part of the tooth; particular attention and care should be paid to this point. This will not happen unless the application is prolonged, which will very rarely indeed be required, if special care be observed to have the wire at a white heat. This is the more necessary, to produce speedy destruction of the part to be touched, which is effected almost instantly. In one instance, under my care, that of a lady for whom I nipped off the crown of an incisor tooth, for the purpose of fixing some artificial teeth, and so exposed the pulp of that tooth, I applied the electric cautery at barely a red heat, owing to feebleness of the acid; the consequence of this was, that the dental pulp became attached to the end of the wire, and was actually drawn out entirely. This has been preserved. It gave some slight pain for the moment, but nothing in comparison to the pointed steel or silver wire used by most dentists. This perhaps unimportant accident, I think, would not have occurred had the cautery been at a white heat, as it would then have completely carbonized or destroyed the part with which it came into contact.

The effect of the operation is the rapid destruction of the pulps of the decayed and condemned tooth; not the whole of the pulp for that is not always necessary, but that portion of it especially which is exposed. If this is done with a light, steady hand, no subsequent inflammation is produced upon this substance of the tooth, or in the cavity. If there should be any marked sensitiveness in the tooth, independent of the pulp, the slightest application of the cautery to it will prove effectual in completely removing it. In the large number of cases in which I have employed the electric cautery I have never known any bad effects produced on the tooth, and this I attribute to the care with which it has been applied. I am, however, quite prepared to believe that a want of attention in this respect would not only prove injurious to the tooth, but even in many instances cause its destruction. It would be only under such circumstances that the operation could be attended with or followed by severe pain.

In whatever condition the tooth-pulp may be, the operation is associated with a little pain. But as the time of its application is not unfrequently just a second or so, in the large majority of instances in which I have employed it, there has been no pain whatever felt. There may be a sort of a twinge, which is but momentary; and whatever pain may arise is not to be compared to that arising from the process of extracting a tooth, which, as is well known, is by no means free from a very considerable amount of pain. Some of my patients have felt so little when it has been applied, that they have asked me to apply it a second time to make all certain that the dental pulp has been effectually destroyed.

The subsequent filling of the tooth is a matter which demands attention after the pulp is destroyed. If the cavity is examined very minutely, a small black speck or spot can be seen after the cautery has been used; this is due to the carbonization of the pulp, and is a guide to some extent in the after process of removal of the carious portion of the tooth, which should always be done after the sensibility has been destroyed by the electric cautery, and is to be accomplished with care in the usual manner, taking the precaution to leave none of the tooth in that condition remaining; every particle of it should be removed. For a few days afterwards, sometimes only one, but generally two, the cavity is allowed to remain filled with a combination of morphine and mastich, and then the tooth is stopped. Sometimes, again, I request my patients to allow a few days to elapse before I stop their teeth, the cavities being in the meantime filled with a solution of mastich and camphor. But I occasionally accomplish what I believe no other dentist has done, and that is, to plug, or stop the cavity in the same sitting during which the pulp has been destroyed. This, however, depends upon the complete absence of pain after the use of the cautery. I have already stated that there is always a little pain, but sometimes this at once disappears, and if then do not hesitate to stop the teeth permanently. I also do this if there has been a little bleeding from the cavity previous to cauterization, stopping the tooth immediately. It might be supposed this procedure of stopping the teeth immediately after the destruction of the pulp would be always followed by dull, aching pain; but I am happy to say that not the slightest in-

* Taylor on Poisons, 1848, p. 597.