THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. IV.]

TUESDAY, AUGUST 2, 1831.

[NO. 26.]

I.

CASE OF SPECTRAL ILLUSIONS,
WITH OBSERVATIONS. BY RO-
BERT L. N. STREETEN, M.D.
WORCESTER, ENG.

On the 20th of October, 1830, I was requested to see E. R., a child, eleven years of age, residing in Union Court, Cripplegate, who had become blind on the morning of that day. I was informed that she had had severe inflammation of the gums, about a week before, which was attended with considerable swelling, and some redness of the face, together with a good deal of headach, at times. Plant leaves had been applied, with the effect of relieving the inflammation and swelling, but the pain of the head increased, and she had some confusion of ideas, with slight wandering delirium. The fever, however, was said to have been trifling, and her bodily strength not affected. In the morning of the 18th, she lost the power of distinguishing colors, all objects appearing white, or black, or some intermediate shade. She continued in this state till the morning of the 20th, the day on which I saw her, when, on her awaking, it was found that she could see only portions of things placed before her eyes, and, in about two hours after, was unable to distinguish light at all: a blister had been applied to the back of the

neck the night before, and was then discharging.

Upon examination of the eyes, the pupils were found free from opacity or cloudiness; they were moderately dilated, even in the full light of day, and she said she could perceive no light; but upon exposing the eye suddenly to the action of a strong light, by closing, and afterwards quickly opening the lids, the pupils immediately contracted. The retina and the humors of the eye appeared therefore to be free from disease. She complained of pain across the forehead; the pulse was rather full and of good strength, though not quick; the skin cool; the tongue white. She had had a costive evacuation since morning, which contained an *ascaris lumbricoides*.

Upon inquiring further into the history of the case, I received the following extraordinary account:—About seven weeks before, on the 30th of last August, she was very much alarmed by the apparition of a man at the window, dressed in what she termed a coffin dress, which apparition recurred the next day, and again after an interval of eight days. On the morning of the 13th of September, she saw most distinctly her father standing at the foot of the bed, with his arms folded across his breast. She immediately burst into tears, believing, as she said, that her father, who

was absent from home in America, was dead. He then spoke to her, saying, weep not,—weep not,—and shook his head; then, shortly after, calling upon the Saviour twice, he appeared to fall backwards, and, as she expressed herself, vanished into the air. A short time previous to the appearance of her father, she fancied she heard the looking-glass struck as with a stick, and then saw it fall into pieces, and yet, as she remarked to her mother, it could not be, as the glass still remained in its situation, and entire. From this time, she became the sport of spectral illusions of various descriptions. Upon one occasion, her mother being with her, she was getting out of bed, when, suddenly drawing her foot back again, she started with horror to the other side of the bed, asserting that she had been laid hold of by the cold hand of her dead father. At another time, she exclaimed, that the room was full of spirits, though, when questioned about them, she said she neither heard nor saw anything, but that she felt conscious of their presence. During the whole of this period, though unable to suppress her terror at the illusions, she was conscious that they had no real existence, and reasoned correctly about them with her friends. Her bodily health was very bad; she suffered much from headaches, with giddiness and beating in the temples, and, as was reported by the mother, more than once expressed her apprehensions that she should lose her sight.

Her observations were generally remarkably intelligent, and she was perfectly consistent in her accounts, though her recollection of many things which had occurred, was obviously impaired.

She was ordered four leeches to the temples, and directed to take a grain of calomel, with four grains of jalap, every six hours.

On the 22d, I saw her again. The leeches had bled well, the sight returning almost immediately after. She could then distinguish colors and objects at a considerable distance, though some degree of headach was still felt at times. The bowels had been freely opened, the evacuations being very dark and green; the tongue was rather white; the pulse natural. The calomel and jalap powders were directed to be continued at intervals of eight hours.

On the 26th, the sight still remained imperfect, and she complained that there seemed to be a mist before her eyes; the pulse was natural; the bowels open, the stools still dark-colored, green, and slimy. She complained also of pain across the forehead, and her memory was, in some respects, impaired. She had totally forgotten how to read, and mistook one letter for another; not that she was unable to see, and distinguish the difference between them, but she had lost the power of connecting the proper sounds of the letters with the arbitrary character representing those sounds. Leeches were again applied to the temples, and as her mouth had become somewhat tender, the powders of calomel and jalap were omitted, and one compounded of jalap and the super-tartrate of potass was ordered to be taken every morning instead.

On the 28th, she could see nearly as well as ever, and her recollection had returned. She could now read distinctly; but the abdomen felt tense, and was prominent. She complained of gnawing pains of the bowels at times, and the

motions were still dark-colored and slimy.

From this time she rapidly improved, and soon recovered the perfect use of her eye-sight, together with her usual health and spirits. She experienced no return of the spectral illusions after the first application of leeches to the temples.

I was induced to trust this case chiefly to the action of purgatives, as, from the presence of a lumbricus in the stool voided on the morning of the 20th, I concluded that the amaurotic symptoms might, in a great measure at least, depend upon the irritation arising from worms in the intestinal canal; and I was subsequently induced to persevere in the practice, both by the relief afforded, and by the morbid nature of the excretions from the bowels, though no worms were afterwards observed to come from her.

The subject of the appearance of spectral illusions in certain states of disease, is one of great difficulty; and, notwithstanding the elaborate researches of Dr. Hibbert, still involved in considerable obscurity. The forms under which these illusions were presented to the mind of this child, may, perhaps, in part be accounted for. Thus, the first apparition of a man in a coffin dress, may probably have arisen from the strong impression made upon her by the funeral dress, and general appearance of a sister, who died early in the spring of last year. And afterwards, it was perhaps natural that her illusions should be connected with the recollections of an absent parent; especially as considerable uncertainty existed in the minds of his friends as to his welfare. Again, the exclamations which were heard by her as pro-

ceeding from him, were probably connected with the wishes expressed in his behalf by his wife; who, in consequence of the infidel tendency of his principles, was in great anxiety as to his spiritual state. Still, however, there remains to be accounted for, the vividness of these impressions, causing them to be mistaken, upon their first appearance at least, for actual occurrences; and that, notwithstanding reasoning powers of more than ordinary acuteness, for the age, and station of life, in which the subject of them was placed.

There is a case in one of the early volumes of Nicholson's Journal, translated from the personal narration of the author in a foreign publication, and since made more generally known by the treatises of Drs. Ferriar and Hibbert, which, in many respects, resembles the present. I allude to that of Nicolai, the Prussian Bookseller. It appears, that in consequence of great and repeated agitation of mind, occurring subsequently to the neglect of an habitual bloodletting, the apparition of a deceased person was presented to his view. This was afterwards followed, and for a length of time, by illusions of a most extraordinary description. The apparitions of persons, whether of departed friends, or of those living at a distance from him, sometimes singly, more frequently in considerable numbers, were of constant occurrence. The phantasms, however, were not always resemblances of friends, they were often entirely strange to him, and occasionally even animals presented themselves before him. After this had continued for some months he began to hear them speak. Usually, they addressed themselves to him in few words, such as those of consolation

coming from the apparitions of his most intimate friends ; but sometimes they appeared to carry on a conversation with one another. For a full account of the particulars of this extraordinary case, I must refer to the works before mentioned, confining the subsequent remarks to such points as more especially bear upon the case related above.

As far as appears from the narrative of Nicolai, the illusions, in both instances, were connected with a similar physical state of the cerebral organs. There was, in each, a preternatural fulness of the vessels of the head : thus, in Nicolai, the phantasms were excited by an agitating cause, following the neglect of an habitual bloodletting ; while, as he afterwards states, they immediately disappeared under the use of leeches to the temples. In the case of E. R., they were obviously connected with that state of the cerebral circulation, which has been termed determination of blood to the head ; evinced by the preceding headache, gradual loss of the memory, &c., terminating in the occurrence of the amaurosis ; and, also, by the immediate relief arising from the local abstraction of blood, by the same means which proved successful in the case of Nicolai. Her mind had likewise been much agitated by causes of distress before alluded to.

Some curious speculations connected with the subject of apparitions, naturally arise from a consideration of the phenomena in such cases as this. A very interesting one is, the liability of the nerves of sensation to become affected with false impressions, through the medium of the brain.

When, in the obscurity of twilight, a white post, or the stump of an old tree, is taken for a spec-

tre, it is obvious that an erroneous idea of an existing object is formed in the mind, from a defective impression made upon the sense of sight. If, however, the object be approached, a nearer view, or an examination by the sense of touch, corrects the previous impression, and tends to remove the erroneous nature of the idea which had been before excited. This is, in fact, merely and simply an example of the *deceptio visûs*, with which, at present, we have nothing to do. But when the illusion has its seat in the mind ; when there is no primary external action in the deceived sense ; it is obvious that the false impression made upon that sense, is to be accounted for altogether on different principles, and will also be regulated by different laws. To give any satisfactory explanation of the causes of illusions of this kind, is quite out of our power ; but in some instances, they appear to be connected with fulness of the vessels of the brain, though as to the mode in which this vascular fulness acts in the production of phantasms, we are entirely in the dark.

It has been supposed, by some authors, that illusions of this description are usually confined to the sense of sight, and that the sense of touch is rarely liable to be affected by them. "The ideas, which have their origin in the affections of our muscular frame," observes Dr. Hibbert, "much less frequently delude us than those of vision or hearing ;" and he goes on to say, that the ideas derived from an examination with the sense of touch, "often afford the very means by which we ascertain whether an apparition is true or false." In confirmation of his remarks, the authority of Shakspeare is brought

forward, when Macbeth, catching at the air-drawn dagger, and finding that it eludes his grasp, exclaims—

"Art thou not, fatal vision, sensible
To feeling, as to sight? Or art thou but
A dagger of the mind?"

And again—

"Mine eyes are made the fools o' the other
^{senses,}
Or else worth all the rest."

But this is merely the high-wrought imagery of a poetical fiction, and cannot, therefore, be allowed the force of argument in a grave and philosophical discussion. It may, however, be urged, that the writings of Shakspeare are so consonant to the truth of nature, that illustrations derived from them are entitled to more than common consideration. This will, however, form no objection, when it is considered that the ideas formed of the supposed unsubstantial nature of these aerial shades, are such as to lead to the supposition that they must necessarily elude the grasp of mortal hand. Thus, Virgil, in the meeting of Æneas with the shade of Anchises, describes the spirit as eluding the attempted embrace of his son.

"Ter conatus ibi collo dare brachia circum;
Ter frustra comprehensa manus effugit imago,
Par levibus ventis, volucrique simillima somno."

And again, Shakspeare makes Marcellus, speaking of the Ghost in Hamlet, exclaim—

"We do it wrong, being so majestical,
To offer it the show of violence;
For it is, as the air, invulnerable,
And our vain blows malicious mockery."

These, however, are not actual occurrences, but the opinions of Shakspeare and Virgil, and are too refined for those who are commonly the subjects of spectral appearances; and the nature of the illusion in such

persons as are unacquainted with, or uninfluenced by them, will, I conceive, always partake of the circumstances under which it occurs.

The sense of touch, then, may be less frequently subjected to illusory sensations, than the senses of sight and hearing; but there is no reason to believe that it is not equally liable to be acted upon; and the sole reason why the illusion less frequently takes place, appears to be, either the original idea formed of the nature of phantasms, or the unwillingness of those who believe in apparitions, to come in close contact with the creations of their own disordered imaginations. When, however, in this last case, the contact has been supposed to take place by the subject of an apparition, the sense of touch, in the instances with which I am acquainted, has been equally the sport of illusion with the other senses.

Lord Byron seems to have felt the full force of this, when, in the siege of Corinth, he describes the apparition of Francisca standing by the side of Alp, the Renegade, and pleading with him to return to the creed of his fathers.

"Upon his hand she laid her own—
Light was the touch, but it thrill'd to the bone,
And shot a chillness to his heart,
Which fix'd him beyond the power to start.
Though slight was the grasp so mortal cold."

The case of E. R. remarkably illustrates this view of the subject, the illusions having affected the sense of touch, as well as the senses of sight and hearing. When she conceived herself to be grasped by the death-cold hand of her deceased parent, the illusion appears to have been complete. In the celebrated apparition which is reported to have

occurred in the B——d family, there was the same affection of the three senses ; in connection, however, with other circumstances, which, whatever explanation they may admit of, can hardly be accounted for upon Dr. Hibbert's theory of past feelings renovated.

The sense of smell, also, under appropriate circumstances, becomes the subject of illusion ; witness the sulphureous odor commonly experienced, or, at least, said to be experienced, in the narrated apparitions of the inhabitants of the lower world, whether of the powers of darkness themselves, or of the spirits of those supposed to be subjected to their domination.

To extend these remarks to a greater length, would be unsuitable in this place, and foreign to the objects of the present paper. But this subject is one of great interest, and presents many points well worthy of consideration by those who have time and inclination for the pursuit.—*Midland Med. & Surg. Rep.*

II.

ON THE ACTIVE PRINCIPLE TO BE OBTAINED FROM NATIVE PLANTS.

THE following remarks, published in a valuable contemporary, point to a species of investigation which we should like to see pursued with more vigor and enterprise than it now is.

As the season is now advancing when the votaries of Flora are again about to resume their delightful pursuit, permit me once more to call the attention of your readers to the harvest of medicinal resources, which await the analytical laborer in investigating the active principle of some of our indigenous plants.

Already has this active system been detected in the humulus, hyoscyamus, conium, and some other native plants ; and from the few imperfect experiments I have attempted, I feel satisfied that, to the operative chemist, who shall possess the time and means for that nicety of manifestation so essential to success, a rich mine of valuable materials to the medical art, will be the reward of his labors. In this age of research, it is not too much to hope, that a greater simplicity in separating the active principle of vegetables, may render the task of analysis much more economical than it now is, and may open a wider field of discovery. The measure of success, however, must depend not a little on the choice of proper native plants. Every one's own judgment will point out those parts of a plant most likely to yield successful results, but experience will be the best guide in this selection. My examination for the present has been but very superficial, of such plants, e. g., as the pyrola minor, solidago, fumaria, bistorta, achillea, and a few others ; yet, in most of these, it was obvious that a much more concentrated principle was attainable by the agency of chemistry, than we have ever yet been able to extract by the ordinary means. These, therefore, I recommend to future experimentalists. Some, indeed, are of opinion, that medicinal substances are more efficacious as they are presented to us by the hand of nature, than when administered in their isolated form, or modified by the hand of man. Yet, that this is not universally true, is shown in the instance of the sulphate of quinine, and some others ; and without presuming, as some have done, that nature has, in every climate, provided appro-