NATIONAL SECULAR SOCIETY



SPECTRAL ILLUSIONS.

N a state of ignorance persons are liable to numerous impositions; they are easily imposed on by rumours and reports which they have not the power of investigating, and still more easily imposed on by their own impressions or notions. Of all the impositions which

have vexed the ignorant, a belief in the reality of spectral appearances has been one of the most ridiculous, yet one of the longest and most zealously supported. This belief was once current even among men reputed for their learning—that is, a kind of learning, not founded on a correct knowledge of nature—but, by the progress of inquiry, it has gradually been abandoned by persons of education, and now is maintained only by those whose minds have not been instructed on the subject. Considering that this belief, like every other error, is injurious to happiness, and that, in a particular manner, the young require to be put on their guard against it, we propose, in the present paper, to explain the theory of spectral illusions—how they originate in the mind, and are in no respect supernatural in their character.

To obtain right ideas of this curious, and, to many, mysterious subject, it is necessary to understand, in the first place, what kind of a thing the human mind is, and how it operates in connection with the senses, or at least two of them—seeing and hearing. The seat of the mind is in the brain; in other words, the brain is the organ or mass of organs by which the thinking faculties act. Like

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an instrument finely tuned, the brain, when in a sound state of health, performs its part in our economy with fidelity. Shut up in the skull, however, it has no communication with external nature except through the medium of the senses. The senses are the channels of intelligence to the brain. When the eye receives the impression or picture of a thing presented to it, that impression is carried by a nerve to the brain, where the consciousness or mind recognises it: and the same thing occurs with the ear in the transmission of sound. The ordinary notion, therefore, that the eye sees, is scarcely correct. It is the mind, through the operation of the brain, the optic nerve, and the eye, which sees. The eye is only an instrument of vision and recognition. Such is the ordinary process of seeing, and of having a consciousness of what is presented to the eye; and we perceive that the outer organ of vision performs but an inferior part in the operation. There is, indeed, a consciousness of seeing objects, without using the eyes. With these organs shut, we can exert our imagination so far as to recall the image of objects which we formerly have seen. Thus, when in an imperfect state of sleep, with the imagination less or more active, we think that we see objects, and mingle in strange scenes; and this is called dream-Dreams, therefore, arise principally from a condition of partial wakefulness, in which the unregulated imagination leads to all kinds of visionary conceptions. In a state of entire wakefulness, and with the eyes open, unreal conceptions of objects seemingly present may also be formed; but this occurs only when the system is disordered by disease.

We are now brought to an understanding of the cause of those illusions which, under the name of ghosts, apparitions, or spectres, have in all ages disturbed the minds of the credulous. The disorder which leads to the formation of these baseless visions may be organic or functional, or a combination of both. Organic disorder of the body is that condition in which one or more organs are altered in structure by disease. Functional disorder is less serious in character: it is that condition of things where the healthy action of the organ or organs, in part or whole, is impeded, without the existence of any disease of structure. Lunacy, if not arising from organic disorder, hovers between it and functional derangement, in either case producing unreal conceptions in the mind. Functional disorder may arise in various ways, and be of different kinds. It may be said that violent excitement of the imagination or passions constitutes functional mental disorder: 'Anger is a short madness,' said the Romans wisely. As for functional bodily disorder, temporary affections of the digestive organs may be pointed to as common causes of such cases of physical derangement. All these disorders, and kinds of disorders, may appear in a complicated form; and, what is of most importance to our present argument, the nervous system, on which depend the action of the senses, the

powers of the will, and the operation of all the involuntary functions (such as the circulation of the blood, and digestion), is, and must necessarily be, involved more or less deeply in all cases of constitutional disorder, organic or functional. These powers of the nerves, which form, as we have seen, the sole medium by which mind and body act and react on each other, are clearly, then, connected with

the production of every kind of illusory impression.

In lunacy, from organic derangement, these impressions are usually the most vivid. Every lunatic tells you he sees spectres, or unreal persons; and no doubt they are seemingly present to his diseased perceptions. The same cause, simple insanity, partial or otherwise, and existing either with or without structural brain disease, has been, we truly believe, at the foundation of many more apparitioncases than any other cause. By far the greatest number of such cases ever put on record, have been connected with fanaticism in religious matters; and can there be a doubt that the majority of the poor creatures, men and women, who habitually subjected themselves, in the early centuries of the church, to macerations and lacerations, and saw signs and visions, were simply persons of partially deranged intellect? St Theresa, who lay entranced for whole days, and who. in the fervour of devotion, imagined that she was frequently addressed by the voice of God, and that St Peter and St Paul would often in person visit her solitude, is an example of this order of monomaniacs. That this individual, and others like her, should have been perfectly sensible on all other points, is a phenomenon in the pathology of mind too common to cause any wonder. We would ascribe, we repeat, a large class of apparition-cases, including these devotional ones, to simple mental derangement. The eye in such instances may take in a correct impression of external objects, but this is not all that is wanting. A correct perception by the mind is essential to healthy and natural vision, and this perception the deranged intellect cannot effect.

We should go further than this for a complete elucidation of spectral illusions. At the time the spectre makes its appearance, the mind may be neither altogether diseased nor altogether healthful; the perceptive powers may recognise through the eye all surrounding objects exactly as they appear, but, almost in the same instant of time, the mind may mix up an unreal object with them. How, then, is the unreal object introduced into the scene? There is the strongest ground for believing that the unreal object—the spectre—is an idea of the mind acting on the optic nerve, and impressing a picture on the retina, just as effectually as if the object were external to the person. The mind, as it were, daguerreotypes the idea—the flash of thought—on the retina, or mirror of the eye, where it is recognised by the powers of perception. That spectres are mental pictures, is forcibly stated as follows by Sir David Brewster: 'I propose to shew that the "mind's eye" is actually the

body's eye, and that the retina is the common tablet on which both classes of impressions are painted, and by means of which they receive their visual existence according to the same optical laws. Nor is this true merely in the case of spectral illusions. It holds good of all ideas recalled by the memory, or created by the imagination, and may be regarded as a fundamental law in the science of

pneumatology.

'In the healthy state of the mind and body, the relative intensity of these two classes of impressions on the retina are nicely adjusted. The mental pictures are transient, and comparatively feeble, and in ordinary temperaments are never capable of disturbing or effacing the direct images of visible objects. The affairs of life could not be carried on if the memory were to intrude bright representations of 'the past into the domestic scene, or scatter them over the external Handscape. The two opposite impressions, indeed, could not co-The same nervous fibre which is carrying from the brain to the retina the figures of memory, could not at the same instant be carrying back the impressions of external objects from the retina to The mind cannot perform two different functions at the same instant, and the direction of its attention to one of the two classes of impressions necessarily produces the extinction of the other. But so rapid is the exercise of mental power, that the alternate appearance and disappearance of the two contending impressions is no more recognised than the successive observations of external objects during the twinkling of the eyelids.'*

With these general observations, we proceed to an analysis of the different kinds of spectre-seeing, beginning with a short explanation of dreaming and somnambulism, with which apparitional illusions

are intimately associated.

DREAMS-SOMNAMBULISM.

Dreaming is a modification of disordered mental action, arising usually from some kind of functional derangement. In sound sleep, the functions of digestion, the circulation of the blood, and all others, may be said to be duly in action, and the mind is accordingly not disturbed. If, however, any of the bodily functions be in a state of derangement; if, in particular, the digestion be incommoded, which it ordinarily is in an artificial mode of life, the senses, the nerves, the mind, will also be probably affected, and an imperfect sleep, with an imperfect consciousness, is the result. According to the best writers on the subject, it has been ascertained that, in beginning to sleep, the senses do not unitedly fall into a state of slumber, but drop off one after the other. The sight ceases, in consequence of the protection of the eyelids, to receive impressions first, while all

the other senses preserve their sensibility entire. The sense of taste is the next which loses its susceptibility of impressions, and then the sense of smelling. The hearing is next in order; and, last of all, comes the sense of touch. Furthermore, the senses are thought to sleep with different degrees of profoundness. The sense of touch sleeps the most lightly, and is the most easily awakened; the next easiest is the hearing; the next is the sight; and the taste and smelling awake the last. Another remarkable circumstance deserves notice; certain muscles and parts of the body begin to sleep before others. Sleep commences at the extremities, beginning with the feet and legs, and creeping towards the centre of nervous action. necessity for keeping the feet warm and perfectly still, as a preliminary of sleep, is well known. From these explanations, it will not appear surprising that, with one or more of the senses, and perhaps also one or more parts of the body imperfectly asleep, there should be at the same time an imperfect kind of mental action, which pro-

duces the phenomenon of dreaming.

A dream, then, is an imperfectly formed thought. Much of the imperfection and incoherency of such thoughts is from having no immediate consciousness of surrounding objects. The imagination revels unchecked by actual circumstances, and is not under the control of the will. Ungoverned by any ordinary standards of reason, we, in dreaming, have the impression that the ideas which chase each other through the mind are actual occurrences: a mereill-formed thought is imagined to be an action. As thought is very rapid, it thus happens that events which would take whole days or a longer time in performance, are dreamed in a few moments. So wonderful is this compression of a multitude of transactions into the very shortest period, that when we are accidentally 'awakened from a profound slumber by a loud knock at, or by the rapid opening of, the door, a train of actions which it would take hours, or days, or even weeks to accomplish, sometimes passes through the mind. Time, in fact, seems to be in a great measure annihilated. extensive period is reduced, as it were, to a single point, or rather a single point is made to embrace an extensive period. In one instant we pass through many adventures, see many strange sights. and hear many strange sounds. If we are awaked by a loud knock, we have perhaps the idea of a tumult passing before us, and know all the characters engaged in it—their aspects, and even their very names. If the door open violently, the flood-gates of a canal may appear to be expanding, and we may see the individuals employed in the process, and hear their conversation, which may seem an hour in length; if a light be brought into the room, the notion of the house being in flames invades us, and we are witnesses to the whole conflagration from its commencement till it be finally extinguished. The thoughts which arise in such situations are endless, and assume an infinite variety of aspects.

'One of the most remarkable phenomena attendant upon dreaming, is the almost universal absence of surprise. Scarcely any event, however incredible, impossible, or absurd, gives rise to this emotion. We see circumstances at utter variance with the laws of nature, and yet their discordancy, impracticability, and oddness never strike us as at all out of the usual course of things. This is one of the strongest proofs that can be alleged in support of the dormant condition of the reflecting faculties. Had these powers been awake and in full activity, they would have pointed out the erroneous nature of the impressions conjured into existence by fancy, and shewn us truly that the visions passing before our eyes were merely the chimeras of an excited imagination—the airy phantoms of imperfect sleep.'*

Dreams are in general connected with snatches of waking recollections, and assume a character from the dreamer's ordinary pursuits and feelings. Shakspeare has admirably described the effects of dreams of different classes of persons; and the subject has been also well illustrated by Stepney in the following lines:

'At dead of night imperial reason sleeps, And Fancy with her train her revels keeps. Then airy phantoms a mixed scene display, Of what we heard, or saw, or wished by day; For memory those images retains Which passion formed, and still the strongest reigns. Huntsmen renew the chase they lately run, And generals fight again their battles won. Spectres and fairies haunt the murderer's dreams; Grants and disgraces are the courtier's themes. The miser spies a thief, or a new hoard; The cit's a knight; the sycophant a lord. Thus Fancy's in the wild distraction lost, With what we most abhor, or covet most. Honours and state before this phantom fall; For sleep, like death, its image, equals all.'

Chaucer's description, versified by Dryden, is also worthy of being quoted:

'Dreams are but interludes which Fancy makes; When monarch reason sleeps, this mimic wakes; Compounds a medley of disjointed things, A court of cobblers, and a mob of kings: Light fumes are merry, grosser fumes are sad: Both are the reasonable soul run mad; And many monstrous forms in sleep we see, That neither were, or are, or e'er can be.

Sometimes forgotten things, long cast behind, Rush forward in the brain, and come to mind. The nurse's legends are for truth received, And the man dreams but what the boy believed; Sometimes we but rehearse a former play, The night restores our actions done by day; As hounds in sleep will open for their prey. In short, the farce of dreams is of a piece In chimeras all; and more absurd or less.'

In ordinary dreaming, the powers of voluntary motion are often exercised to a slight extent. A dreamer, under the impression that he is engaged in an active battle, will frequently give a bed-fellow a smart belabouring. Often also, in cases of common dreaming, the muscles on which the production of the voice depends are set in action, through the instrumentality of that portion of the brain which is not in a quiescent state, and the dreamer mutters, or talks, or cries aloud. Sometimes nearly all the senses, along with the muscles of motion, are in activity, while part of the cerebral organs are dormant, and in this condition the dreamer becomes a somnambulist, or sleep-walker. 'If we dream,' says Mr Macnish, 'that we are walking, and the vision possesses such a degree of vividness and exciting energy as to arouse the muscles of locomotion, we naturally get up and walk. Should we dream that we hear or see. and the impression be so vivid as to stimulate the eyes and ears, or more properly speaking, those parts of the brain which take cognizance of sights and sounds, then we both see any objects, or hear any sounds, which may occur, just as if we were awake. In some cases the muscles only are excited, and then we simply walk, without hearing or seeing.' In other cases we both walk and see. and in a third variety we at once walk, see, and hear. In the same way the vocal organs alone may be stimulated, and a person may merely be a sleep-talker; or, under a conjunction of impulses, he may talk, walk, see, and hear.

Cases of persons in a state of somnambulism rising from bed and walking to a distant part of the house, or of looking for some object of which they were dreaming, and so forth, are exceedingly common, and the seeming marvel is explained by the fact already noticed—only certain senses and portions of brain are asleep while others are waking. The boy who, according to the common story, rose in his sleep and took a nest of young eagles from a dangerous precipice, must have received the most accurate accounts of external objects from his visual organs, and must have been able to some extent to reason upon them, else he could never have overcome the difficulties of the ascent. He dreamed of taking away the nest, and to his great surprise found it beneath his bed in the morning in the spot where he only thought himself to have put it in imagination. The following case, mentioned by Mr Macnish, is scarcely less wonderful. It

occurred near one of the towns on the Irish coast. 'About two o'clock in the morning, the watchmen on the Revenue Quay were much surprised at descrying a man disporting himself in the water. about a hundred yards from the shore. Intimation having been given to the Revenue boat's crew, they pushed off, and succeeded in picking him up; but, strange to say, he had no idea whatever of his perilous situation, and it was with the utmost difficulty they could persuade him he was not still in bed. But the most singular part of this novel adventure was, that the man had left his house at twelve o'clock that night, and walked through a difficult and to him dangerous road, a distance of nearly two miles, and had actually swum one mile and a half when he was fortunately discovered and picked up.' The state of madness gives us, by analogy, the best explanation of the condition of these climbers and swimmers. With one or more organs or portions of his brain diseased, and the rest sound, the insane person has the perfect use of his external senses, yet may form imperfect conclusions regarding many things around him. The somnambulist, with one or more of his senses in activity, but with some of his cerebral organs in a torpid state, is in much the same position as regards his power of forming right judgments on all that he hears or sees.

A respectable person, captain of a merchant-vessel, told Sir Walter Scott the following story, in illustration of illusion from somnambulism. While lying in the Tagus, a man belonging to his ship was murdered by a Portuguese, and a report soon spread that the spirit of the deceased haunted the vessel. The captain found, on making inquiry, that one of his own mates, an honest, sensible Irishman, was the chief evidence respecting the ghost. The mate affirmed that the spectre took him from bed every night, led him about the ship, and, in short, worried his life out. The captain knew not what to think of this, but he privately resolved to watch the mate by night. He did so, and, at the hour of twelve, saw the man start up with ghastly looks, and light a candle; after which he went to the galley, where he stood staring wildly for a time, as if on some horrible object. He then lifted a can filled with water, sprinkled some of it about, and, appearing much relieved, went quietly back to his bed. Next morning, on being asked if he had been annoved in the night, he said: 'Yes; I was led by the ghost to the galley; but I got hold, in some way or other, of a jar of holy-water, and freed myself, by sprinkling it about, from the presence of the horrible phantom. The captain now told the truth, as observed; and the mate, though much surprised, believed it. He was never visited by the ghost again, the deception of his own dreaming fancy being thus discovered.

Had the mate burned his hand with the candle, and, by the same mode of reasoning which led him to believe in the banishment of the ghost by holy-water, formed the conclusion that the spectre had touched his hand to imprint on it a perpetual mark, what would have been said of the matter by his comrades and himself in the morning, supposing no watching to have taken place? They would assuredly have held the scar as an indubitable proof of the supernatural visitation, and the story would have remained as darkly

mysterious as could be desired.

The condition of nightmare, in which the sufferer is under the feeling of some terrible oppression, is one of the most afflicting kinds of dreaming. In the more simple order of cases of nightmare, the dreamer is only labouring under the influence of indigestion; but in the more severe, the cause is ascribed to cerebral disorder. A gentleman in Edinburgh was afflicted for years with a nightmare which rendered existence almost unsupportable. On falling asleep, he dreamed that he was chased by a bull; and frequently, in terror of being tossed by the horns of the infuriated animal, he leaped from the bed to the opposite side of the room, on one occasion doing himself a serious injury. At the death of this unhappy gentleman, his head was opened, and a portion of his brain found to be affected with a deep-seated ulcer. In cases of this kind, the spectral illusions of the dreamer are usually most vivid, and on awakening, it requires a strong effort of reason to be convinced that the appearances were nothing more than airy phantoms of the disordered brain.

With these explanations on the subject of dreaming, we are prepared for a consideration of those unreal impressions made on the

mind while in a wakeful condition.

ILLUSIONS FROM CONGESTION OF THE BLOOD-VESSELS.

One of the more simple kinds of functional disorder producing false impressions on the mind, is an overfulness of blood in the circulatory vessels. Persons who have followed the discommendable practice of blood-letting periodically, and have neglected it for more than the usual length of time, are the most liable to this species of illusion. Upwards of seventy years ago, Nicolai, a celebrated bookseller in Berlin, experienced the feeling of seeing spectres from this cause. According to an interesting account he has given on the subject, it appears that he was a man of a vivid imagination and excitable temperament, who, some years previous to the occurrences he relates, was troubled with violent vertigo, which he relieved by periodical bleeding with leeches. It became with him a custom to be bled twice in the year; but at length having on one occasion neglected this means of relieving the system, his mind became depressed, and apparitions began to be seemingly present to his eyes. The following is his narration of this painful condition:

'My wife and another person came into my apartment in the morning in order to console me, but I was too much agitated by a series of incidents, which had most powerfully affected my moral feeling, to be capable of attending to them. On a sudden I perceived,

at about the distance of ten steps, a form like that of a deceased person. I pointed at it, asking my wife if she did not see it. It was but natural that she should not see anything; my question, therefore, alarmed her very much, and she immediately sent for a physician. The phantom continued about eight minutes. I grew at length more calm, and being extremely exhausted, fell into a restless sleep, which lasted about half an hour. The physician ascribed the apparition to a violent mental emotion, and hoped there would be no return; but the violent agitation of my mind had in some way disordered my nerves, and produced further consequences which deserve a more

minute description.

'At four in the afternoon, the form which I had seen in the morning reappeared. I was by myself when this happened, and, being rather uneasy at the incident, went to my wife's apartment, but there likewise I was persecuted by the apparition, which, however, at intervals disappeared, and always presented itself in a standing posture. About six o'clock there appeared also several walking figures, which had no connection with the first. After the first day the form of the deceased person no more appeared, but its place was supplied with many other phantasms, sometimes representing acquaintances, but mostly strangers; those whom I knew were composed of living and deceased persons, but the number of the latter was comparatively small. I observed the persons with whom I daily conversed did not appear as phantasms, these repre-

senting chiefly persons who lived at some distance from me.

'These phantasms seemed equally clear and distinct at all times and under all circumstances, both when I was by myself and when I was in company, as well in the day as at night, and in my own house as well as abroad; they were, however, less frequent when I was in the house of a friend, and rarely appeared to me in the street. When I shut my eyes, these phantasms would sometimes vanish entirely, though there were instances when I beheld them with my eyes closed; yet when they disappeared on such occasions, they generally returned when I opened my eyes. I conversed sometimes with my physician and my wife of the phantasms which at the moment surrounded me; they appeared more frequently walking than at rest; nor were they constantly present. They frequently did not come for some time, but always reappeared for a longer or shorter period, either singly or in company; the latter, however, being most frequently the case. I generally saw human forms of both sexes; but they usually seemed not to take the smallest notice of each other, moving as in a market-place, where all are eager to press through the crowd; at times, however, they seemed to be transacting business with each other. I also saw several times people on horseback, dogs, and birds.

'All these phantasms appeared to me in their natural size, and as distinct as if alive, exhibiting different shades of carnation in the

uncovered parts, as well as different colours and fashions in their dresses, though the colours seemed somewhat paler than in real None of the figures appeared particularly terrible, comical, or disgusting, most of them being of an indifferent shape, and some presenting a pleasing aspect. The longer these phantasms continued to visit me, the more frequently did they return, while at the same time they increased in number about four weeks after they had first appeared. I also began to hear them talk: these phantoms sometimes conversed among themselves, but more frequently addressed their discourse to me; their speeches were commonly short, and never of an unpleasant turn. At different times there appeared to me both dear and sensible friends of both sexes, whose addresses tended to appease my grief, which had not yet wholly subsided: their consolatory speeches were in general addressed to me when I was alone. Sometimes, however, I was accosted by these consoling friends while I was engaged in company, and not unfrequently while real persons were speaking to me. These consolatory addresses consisted sometimes of abrupt phrases, and at other times they were regularly executed.

Having thus suffered for some time, it occurred to him that the mental disorder might arise from a superabundance of blood, and he again had recourse to leeching. When the leeches were applied, no person was with him besides the surgeon; but during the operation his apartment was crowded with human phantasms of all descriptions. In the course of a few hours, however, they moved around the chamber more slowly; their colour began to fade; until, growing more and more obscure, they at last dissolved into air, and he ceased

to be troubled with them afterwards.

ILLUSIONS FROM DERANGEMENT IN DIGESTION.

Any derangement of the digestive powers acts on the brain; when the derangement is excessive, and the health otherwise impaired, the mind becomes affected, so as to deceive the senses and to produce spectral illusions. Sir David Brewster, in his *Letters on Natural Magic*, narrates the case of a lady of high character and intelligence, but of vivid imagination, who was so affected from only simple derangement of the stomach. The facts were communicated by the husband of the lady, a man of learning and science, and are as follow:

'I. The first illusion to which Mrs A. was subject was one which affected only the ear. On the 26th of December 1830, about halfpast four in the afternoon, she was standing near the fire in the hall, and on the point of going up stairs to dress, when she heard, as she supposed, her husband's voice calling her by name: "————; come here! come to me!" She imagined that he was calling at the door to have it opened; but upon going there and opening the

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door, she was surprised to find no person there. Upon returning to the fire, she again heard the same voice calling out very distinctly and loudly: "——, come; come here!" She then opened two other doors of the same room, and upon seeing no person, she returned to the fireplace. After a few moments, she heard the same voice still calling: "———, come to me! come! come away!" in a loud, plaintive, and somewhat impatient tone. She answered as loudly: "Where are you? I don't know where you are;" still imagining that he was somewhere in search of her: but receiving no answer, she shortly after went up stairs. On Mr A.'s return to the house, about half an hour afterwards, she inquired why he called to her so often, and where he was; and she was of course greatly surprised to learn that he had not been near the house at the time.

'2. The next illusion which occurred to Mrs A. was of a more alarming character. On the 30th of December, about four o'clock in the afternoon, Mrs A. came down stairs into the drawing-room, which she had quitted only a few minutes before, and on entering the room she saw her husband, as she supposed, standing with his back to the fire. As he had gone out to take a walk about half an hour before, she was surprised to see him there, and asked him why he had returned so soon. The figure looked fixedly at her with a serious and thoughtful expression of countenance, but did not speak. Supposing that his mind was absorbed in thought, she sat down in an arm-chair near the fire, and within two feet at most of the figure, which she still saw standing before her. As its eyes, however, still continued to be fixed upon her, she said, after the lapse of a few minutes: "Why don't you speak, ---?" The figure immediately moved off towards the window at the farther end of the room, with its eyes still gazing on her, and it passed so very close to her in doing so, that she was struck by the circumstance of hearing no step nor sound, nor feeling her clothes brushed against, nor even any agitation in the air. Although she was now convinced that the figure was not her husband, yet she never for a moment supposed that it was anything supernatural, and was soon convinced that it was a spectral illusion. The appearance was seen in bright daylight, and lasted four or five minutes. When the figure stood close to her, it concealed the real objects behind it, and the apparition was fully as vivid as the reality.

'3. On these two occasions Mrs A. was alone, but when the next phantasm appeared her husband was present. This took place on the 4th of January 1831. About ten o'clock at night, when Mr and Mrs A. were sitting in the drawing-room, Mr A. took up the poker to stir the fire, and when he was in the act of doing this, Mrs A. exclaimed: "Why, there's the cat in the room!" "Where?" asked Mr A. "There, close to you," she replied. "Where?" he repeated. "Why, on the rug to be sure, between yourself and the coal-scuttle." Mr A., who had still the poker in his hand, pushed it in the direction

"Take care," cried Mrs A.; "take care, you are hitting her with the poker." Mr A. again asked her to point out exactly where she saw the cat. She replied: "Why, sitting up there close to your feet on the rug: she is looking at me. It is Kitty—come here. Kitty?" There were two cats in the house, one of which went by this name, and they were rarely if ever in the drawing-room. At this time Mrs A. had no idea that the sight of the cat was an illusion. When she was asked to touch it, she got up for the purpose, and seemed as if she were pursuing something which moved away. followed a few steps, and then said: "It has gone under the chair." Mr A. assured her it was an illusion, but she would not believe it. He then lifted up the chair, and Mrs A. saw nothing more of it. The room was then searched all over, and nothing found in it. There was a dog lying on the hearth, which would have betrayed great uneasiness if a cat had been in the room, but he lay perfectly quiet. In order to be quite certain, Mr A. rung the bell, and sent for the two cats, both of which were found in the housekeeper's room.

'4. About a month after this occurrence, Mrs A, who had taken a somewhat fatiguing drive during the day, was preparing to go to bed about eleven o'clock at night, and, sitting before the dressing-glass, was occupied in arranging her hair. She was in a listless and drowsy state of mind, but fully awake. When her fingers were in active motion among the papillotes, she was suddenly startled by seeing in the mirror the figure of a near relation, who was then in Scotland, and in perfect health. The apparition appeared over her left shoulder, and its eyes met hers in the glass. After a few minutes, she turned round to look for the reality of the form over her shoulder; but it was not visible, and it had also disappeared

from the glass when she looked again in that direction.'

Passing over from the fifth to the ninth cases, we come to the tenth. 'On the 26th of October, about two P.M., Mrs A. was sitting in a chair by the window in the same room with her husband. He heard her exclaim: 'What have I seen!' And on looking at her, he observed a strange expression in her eyes and countenance. A carriage and four had appeared to her to be driving up the entrance road to the house. As it approached, she felt inclined to go up stairs to prepare to receive company, but, as if spell-bound, she was unable to move or speak. The carriage approached, and as it arrived within a few yards of the window, she saw the figures of the postilions and the persons inside take the ghastly appearance of skeletons and other hideous figures. The whole then vanished entirely, when she uttered the above-mentioned exclamation.

'11. On the morning of the 30th October, when Mrs A. was sitting in her own room with a favourite dog in her lap, she distinctly saw the same dog moving about the room during the space of about

a minute or rather more.

'12. On the 3d December, about nine P.M., when Mr and Mrs

A. were sitting near each other in the drawing-room, occupied in reading, Mr A. felt a pressure on his foot. On looking up, he observed Mrs A.'s eyes fixed with a strong and unnatural stare on a chair about nine or ten feet distant. Upon asking her what she saw, the expression of her countenance changed, and upon recovering herself, she told Mr A. that she had seen his brother, who was alive and well at the moment in London, seated in the opposite chair, but dressed in grave-clothes, and with a ghastly countenance, as if scarcely alive!

'From the very commencement of the spectral illusions,' observes Sir David in conclusion, 'both Mrs A. and her husband were well aware of their nature and origin, and both of them paid the most minute attention to the circumstances which accompanied them, not only with the view of throwing light upon so curious a subject, but for the purpose of ascertaining their connection with the state

of health under which they appeared.'

ILLUSIONS FROM DELIRIUM TREMENS.

A bodily disorder, which in itself ought to afford a solution of nearly all apparitions, is that called *delirium tremens*, or vulgarly blue devils. This is most commonly induced, in otherwise healthy subjects, by continued intemperance in intoxicating liquors. It is a disorder intimately connected with a derangement of the digestive functions. So long as the drinker can take food, he is comparatively secure against the disease, but when his stomach rejects common nourishment, and he persists in taking stimulants, the effects are for the most part speedily visible, at least in peculiarly nervous constitutions. The first symptom is commonly a slight impairment of the healthy powers of the senses of hearing and seeing. A ringing in the ears probably takes place; then any common noise, such as the rattle of a cart on the street, assumes to the hearing a particular sound, and arranges itself into a certain tune perhaps, or certain words, which haunt the sufferer, and are by and by rung into his ears on the recurrence of every noise. The proverb, 'As the fool thinks, so the bell tinks,' becomes very applicable in his case. His sense of seeing, in the meanwhile, begins to shew equal disorder; figures float before him perpetually when his eyes are closed at night. By day also, objects seem to move before him that are really stationary. The senses of touch, taste, and smell are also involved in confusion. In this way the disturbance of the senses goes on, increasing always with the disorder of the alimentary function, until the unhappy drinker is at last visited, most probably in the twilight, by visionary figures as distinct in outline as living beings, and which seem to speak to him with the voice of life. At first he mistakes them for realities; but, soon discovering his error, is thrown into the deepest alarm. If he

has the courage to approach and examine any one of the illusory figures, he probably finds that some fold of drapery, or some shadow, has been the object converted by his diseased sense into the apparition, and he may also find that the voice was but some simple household sound, converted by his disordered ear into strange speech: for the senses, at least in the milder cases of this sort, rather convert than create, though the metamorphosed may differ widely from the real substance. The visitations and sufferings of the party may go on increasing, till he takes courage to speak to the physician, who, by great care, restores his alimentary organs to a state of health, and, in consequence, the visions slowly leave him. If, however, remedies are not applied in time, the party will probably sink under the influence of his disorder. The spectral figures and voices being solely and entirely the creation of his own fancy, will seem to do or say anything that may be uppermost in that fancy at the moment, and will encourage him to self-murder by every possible argument—all emanating, of course, from his own brain. The whole consists merely of his own fancies, bodied forth to him visibly and audibly in his seeing and hearing organs. His own poor head is the seat of all; there is nothing apart from him—nothing but vacancy.

Dr Alderson, a respectable physician, mentions his being called to a keeper of a public-house, who was in a state of great terror, and who described himself as having been haunted for some time with spectres. He had first noticed something to be wrong with him on being laughed at by a little girl for desiring her to lift some oystershells from the floor. He himself stooped, but found none. Sooh after, in the twilight, he saw a soldier enter the house, and, not liking his manner, desired him to go away; but receiving no answer, he sprang forward to seize the intruder, and to his horror found the shape to be but a phantom! The visitations increased by night and by day, till he could not distinguish real customers from imaginary ones, so definite and distinct were the latter in outline. Sometimes they took the forms of living friends, and sometimes of people long dead. Dr Alderson resorted to a course of treatment which restored the strength of the digestive organs, and gradually banished the

spectres.

ILLUSIONS FROM SEVERE DISORDERS.

Among the other varieties of bodily ailments affecting either structure or function, which have been found to produce spectral illusions, fevers, inflammatory affections, epileptic attacks, hysteria, and disorders of the nerves generally, are among the most prominent. As regards fevers and inflammatory affections, particularly those of the brain, it is well known to almost every mother or member of a large family, that scarcely any severe case can occur

without illusions of the sight to a greater or less extent. In hysteric and epileptic cases also, where fits or partial trances occur, the same phenomena are frequently observed. But we shall not enlarge on the effects produced by the influence of severe and obviously existing maladies, as it is in those cases only where the spectre-seer has exhibited apparent sanity of mind and body that special wonder has been excited. It is so far of great importance, however, to notice that these diseases do produce the illusions, as in most cases it will be found, on inquiry, that the party subject to them, however sound to appearance at the time, afterwards displayed some of these complaints in full force; and we may then rationally explain the whole matter by supposing the seeds of the ailments to have early existed in a latent state. A German lady, of excellent talents and high character, published an account some years back of successive visions with which she had been honoured, as she believed, by Divine favour. The case of this lady throws so much light on delusions arising from deranged temperament and kindred maladies. that we take the liberty of extracting it from the interesting work of

Dr Hibbert.

'The illusions which the lady experienced first came on in the fourth year of her age, while she was sitting with her little doll upon her knees; and, for the greater convenience of dressing and undressing it, resting her feet upon a large folio Bible. scarcely taken my place," she observes, "above a minute, when I heard a voice at my ear say: 'Put the book where you found it;' but as I did not see any person, I did not do so. The voice, however repeated the mandate, that I should do it immediately; and. at the same time, I thought somebody took hold of my face. I instantly obeyed with fear and trembling; but not being able to lift the book upon the table, I called the servant-maid to come quickly and assist me. When she came, and saw that I was alone and terrified, she scolded me, as nobody was there." It may be remarked of this part of the account, that the voice which the narrator heard can only be regarded as a renovated feeling of the mind, resulting from some prior remonstrances that she might have incurred from her protectors, whenever she treated with unbecoming irreverence the holy volume; while the impression of a person taking hold of her face, may be referred to some morbid sensation of touch, incidental to many nervous affections, which would easily associate itself with the imaginary rebuke of her mysterious monitor, so as to impart to the whole of the illusion a certain degree of connection and consistency. The patient (for such I shall call her) next describes the extreme diligence and the peculiar delight with which, as she grew up in years, she read twice over, from the beginning to the end, the pages of the Scriptures; and she likewise dwells upon her constant endeavour to render the Bible more intelligible, by often hearing sermons and reading religious books.

It is certainly of importance to know the subject of her incessant and anxious studies, as it is well calculated to explain the nature of her visions, which, as we might expect, were generally of a religious description. We are, in the next place, told by the lady, that after she had reached her seventh year, she saw, when playing, a clear flame which seemed to enter through the chamber door, while in the middle of it was a long bright light about the size of a child of six years old. The phantasm remained stationary for half an hour near the stove of the room, and then went out again by the roomdoor; the white light first, and the flame following it. After this vision, we hear of no other until the lady is married, when, unfortunately, her husband made her life so bitter to her, that she could think only of death. Hence must have necessarily arisen the combining influence of strong mental emotions, which could not but act as powerful exciting agents upon a frame the mental feelings of which, from constitutional causes, were of the most intense kind. Spectral illusions would of course become very frequent. Thus, on one occasion, when she had received some ill-treatment from her husband, she made a resolution to desist from prayer, thinking the Lord had forsaken her; but, upon further consideration, she repented of this purpose, and, after returning thanks to Heaven. went to bed. She awakened towards the morning, and then, to her astonishment, found that it was broad daylight, and that at her bedside was seated a heavenly figure in the shape of a man about sixty years of age, dressed in a bluish robe, with bright hair, and a countenance shining like the clearest red and white crystal. He looked at her with tenderness, saying nothing more than "Proceed, proceed, proceed!" These words were unintelligible to her, until they were solved by another phantasm, young and beautiful as an angel, who appeared on the opposite side of the bed, and more explicitly added: "Proceed in prayer, proceed in faith, proceed in trials." After this incident, a strange light appeared, when she immediately felt herself pulled by the hairs of her head, and pinched and tormented in various ways. The cause of this affliction she soon discovered to be the devil himself, who made his début in the usual hideous form under which he is personated, until at length the angel interfered and pushed away the foul fiend with his elbow. "Afterwards," as the lady added, "the light came again, and both persons looked mournfully at it. The young one then said: 'Lord, this is sufficient;' and he uttered these words three times. Whilst he repeated them, I looked at him, and beheld two large white wings on his shoulders, and therefore I knew him to be an angel The light immediately disappeared, the two figures vanished, and the day was suddenly converted into night. heart was again restored to its right place, the pain ceased, and I arose."

Dr Crichton, author of an able work on insanity, found that this

unfortunate lady was always affected with the aura epileptica during the prevalence of the illusions; or, in other words, that she was labouring under slight attacks of epilepsy. Thus simply was explained a series of phenomena which, from the high character for veracity of the subject of them, astonished a great part of Germany.

ILLUSIONS OF THE IMAGINATION.

Persons in a desponding or gloomy state of mind are exceedingly liable to be deceived by their fancies. The morbid imagination catches at every seemingly mysterious appearance, and transforms it into a spectre, or warning of approaching dissolution. 'A man who is thoroughly frightened,' observes a popular American writer,* 'can imagine almost anything. The whistling of the wind sounds in his ears like the cry of dying men. As he walks along trembling in the dark, the friendly guide-post is a giant; the tree gently waving in the wind is a ghost; and every cow he chances to meet is some fearful apparition from the land of hobgoblins. Who is there that cannot testify, from personal experience, of some such freaks of imagination? How often does one wake up in the night and find the clothes upon the chair, or some article of furniture in the room, assuming a distinctly defined form, altogether different from that which it in reality possesses!

'There is in imagination a potency far exceeding the fabled power of Aladdin's lamp. How often does one sit in wintry evening musings, and trace in the glowing embers the features of an absent friend! Imagination, with its magic wand, will there build the city with its countless spires—or marshal contending armies—or drive the tempest-shattered ship upon the ocean. The following story, related by Scott, affords a good illustration of

this principle:

""Not long after the death of a late illustrious poet, who had filled, while living, a great station in the eye of the public, a literary friend, to whom the deceased had been well known, was engaged, during the darkening twilight of an autumn evening, in perusing one of the publications which professed to detail the habits and opinions of the distinguished individual who was now no more. As the reader had enjoyed the intimacy of the deceased to a considerable degree, he was deeply interested in the publication, which contained some particulars relating to himself and other friends. A visitor was sitting in the apartment, who was also engaged in reading. Their sitting-room opened into an entrance-hall, rather fantastically fitted up with articles of armour, skins of wild animals, and the like. It was when laying down his book, and passing into this hall, through

which the moon was beginning to shine, that the individual of whom I speak saw right before him, in a standing posture, the exact representation of his departed friend, whose recollection had been so strongly brought to his imagination. He stopped for a single moment, so as to notice the wonderful accuracy with which fancy had impressed upon the bodily eye the peculiarities of dress and position of the illustrious poet. Sensible, however, of the delusion, he felt no sentiment save that of wonder at the extraordinary accuracy of the resemblance, and stepped onward towards the figure, which resolved itself, as he approached, into the various materials of which it was composed. These were merely a screen occupied by greatcoats, shawls, plaids, and such other articles as are usually found in a country entrance-hall. The spectator returned to the spot from which he had seen the illusion, and endeavoured with all his power to recall the image which had been so singularly vivid. But this he was unable to do. And the person who had witnessed the apparition, or, more properly, whose excited state had been the means of raising it, had only to return into the apartment, and tell his young friend under what a striking hallucination he had for a moment laboured."

'Most persons under such circumstances would have declared unhesitatingly that the ghost of the departed had appeared to them, and they would have found great multitudes who would have believed it. When the imagination has such power to recall the images of the absent, is it at all wonderful that many persons should attribute such appearances to supernatural visitations? Had the poet himself been in the place of the screen, he probably would not have been more vividly present. How many, then, of the causes of vulgar fear are to be attributed to the effect of imagination! A lady was once passing through a wood, in the darkening twilight of a stormy evening, to visit a friend who was watching over a dving child. The clouds were thick—the rain beginning to fall; darkness was increasing; the wind was moaning mournfully through the trees. lady's heart almost failed her as she saw that she had a mile to walk through the woods in the gathering gloom. But the reflection of the situation of her friend forbade her turning back. Excited and trembling, she called to her aid a nervous resolution, and pressed onward. She had not proceeded far, when she beheld in the path before her the movement of some very indistinct object. It appeared to keep a little distance in advance of her, and as she made efforts to get nearer to see what it was, it seemed proportionably to recede. The lady began to feel rather unpleasantly. There was some pale white object certainly discernible before her, and it appeared mysteriously to float along at a regular distance, without any effort at motion. Notwithstanding the lady's good sense and unusual resolution, a cold chill began to come over her. She made every effort to resist her fears, and soon succeeded in drawing nearer the mysterious object, when she was appalled at beholding the features of her friend's child, cold in death, wrapped in its shroud. She gazed earnestly, and there it remained distinct and clear before her eyes. She considered it a monition that her friend's child was dead, and that she must hasten on to her aid. But there was the apparition directly in her path. She must pass it. Taking up a little stick, she forced herself along to the object, and behold, some little animal scampered away. It was this that her excited imagination had transformed into the corpse of an infant in its winding-sheet. The vision before her eyes was undoubtedly as clear as the reality could have been. Such is the power of imagination. If this lady, when she saw the corpse, had turned in terror and fled home, what reasoning could ever have satisfied her that she had not seen something supernatural? When it is known that the imagination has such a power as this, can we longer wonder at any accounts which

are given of unearthly appearances?'

The numerous stories told of ghosts, or the spirits of persons who are dead, will in most instances be found to have originated in diseased imagination, aggravated by some abnormal defect of mind. We may mention a remarkable case in point; it is told by the compiler of Les Causes Célèbres. Two young noblemen, the Marquises De Rambouillet and De Precy, belonging to two of the first families of France, made an agreement, in the warmth of their friendship, that the one who died first should return to the other with tidings of the world to come. Soon afterwards, De Rambouillet went to the wars in Flanders, while De Precy remained at Paris, stricken by a fever. Lying alone in bed, and severely ill, De Precy one day heard a rustling of his bed-curtains, and turning round, saw his friend De Rambouillet in full military attire. The sick man sprung over the bed to welcome his friend, but the other receded, and said that he had come to fulfil his promise, having been killed on that very day. He further said that it behoved De Precy to think more of the afterworld, as all that was said of it was true, and as he himself would die in his first battle. De Precy was then left by the phantom; and it was afterwards found that De Rambouillet had fallen on that day. De Precy recovered, went to the wars, and died in his first combat. Here, after a compact—the very conception of which argues credulousness or weakness of mind-we not only have one of the parties left in anxiety about the other, but left in a violent fever, and aware that his friend was engaged in a bloody war. That a spectral illusion should occur in such a case, is a thing not at all to be wondered at, as little as the direction and shape that the sick man's wanderings took. The fulfilment of the prophecy is the point of interest; and regarding it we would simply use the words of Dr Hibbert, in referring to the story of Lord Balcarras and Viscount Dundee. Lord Balcarras was confined as a Jacobite in the castle of Edinburgh, while Dundee was fighting for the same cause; and on one occasion the apparition

of the latter came to the bedside of Balcarras, looked at him steadfastly, leaned for some time on the mantel-piece, and then walked away. It afterwards appeared that Dundee fell just about the time at Killiecrankie. 'With regard to this point,' says Dr Hibbert, 'it must be considered that, agreeably to the well-known doctrine of chances, the event [of Dundee's death] might as well occur then as at any other time; while a far greater proportion of other apparitions, less fortunate in such a supposed confirmation of their supernatural origin, are allowed quietly to sink into oblivion.' This observation applies equally as well to the case of De Precy as to that of Balcarras, each of whom knew that his friend was then hotly campaigning, and could most probably even guess, from the latest bulletins, on what day the hostile armies would decisively meet. We are not told whether or not Balcarras, like De Precy, was in ill health, but the Scottish lord was confined on a charge of high treason, and on Dundee's life or death, victory or defeat, the fate of the prisoner must have been felt by himself to rest. This was enough to give his lordship a vivid dream, and even to give him a waking portraiture of Dundee, after the fashion of the bust of Curran case.

But though explanations may thus be given of the common run of apparition cases, it may seem to some that there are particular cases not to be so accounted for. Of this nature, such readers may say, is the well-warranted story of the Irish lady of rank, who, having married a second time, was visited in the night-time by the spirit of her first husband, from whom she received a notification of the appointed period of her own death. The lady was at first terrified, but regained her courage. 'How shall I know to-morrow morn,' said she boldly to the spectre, 'that this is not a delusion of the senses—that I indeed am visited by a spirit?' 'Let this be a token to thee for life,' said the visitant, and, grasping the arm of the lady for an instant, disappeared. In the morning a dark mark, as if of a fresh burn, was seen on the wrist, and the lady kept the scar covered over while she lived. She died at the time prophesied.

This story is told with great unction by some memoir writers, and the circumstances are said to have been long kept secret by the lady's family. For argument's sake let us admit the most striking points of the case to be true. As for the circumstance of her death at the time foretold, it is well known how powerful imagination is in causing fulfilment in these cases; and at all events, one instance of such a fulfilment is no great marvel amid hundreds of failures. But the black mark—what of it? We confess to the reader, that if we had actually seen the scar upon the wrist of the lady, we should not have been one step nearer to the admission of supernatural agency. Supposing, however, that the mark actually existed, could it not have been explained by somnambulism? The lady may readily have risen in her sleep, burnt her hand against the bedroom grate, and, conscious of an unpleasing sensation, though not awakened by

it, her fancy may have formed the whole story of the preternatural visitation, precisely as the Irish mate of the merchant vessel invented the circumstances connected with the holy-water. When we find that such an explanation of the matter is accordant with observed and unquestionable facts, it would be irrational to overlook it, and seek a solution in a supposed breach of the laws of nature.

In some instances, it may be difficult to decide whether spectral appearances and spectral noises proceed from functional derangement or from an overwrought state of mind. Want of exercise and amusement may also be a prevailing cause. A friend mentions to us the following case. An acquaintance of his, a merchant in London. who had for years paid a very close attention to business, was one day, while alone in his counting-house, very much surprised to hear, as he imagined, persons outside the door talking freely about him. Thinking it was some acquaintances who were playing off a trick, he opened the door to request them to come in, when, to his amazement, nobody was there. He again sat down at his desk, and in a few minutes the same dialogue recommenced. The language employed was now very alarming. One voice seemed to say: 'We have the scoundrel safe in his counting-house; let us go in and seize him.' 'Certainly,' replied the other voice; 'it is right to take him; he has been guilty of a great crime, and ought to be brought to condign punishment.' Alarmed at these threats, the bewildered merchant rushed to the door; and there again no person was to be seen. now locked his door and went home; but the voices, as he thought, followed him through the crowd, and he arrived at his house in a most unenviable state of mind. Inclined to ascribe the voices to derangement in mind, he sent for a medical attendant, and told his case; and a certain kind of treatment was prescribed. This, however, failed: the voices menacing him with punishment for purely imaginary crimes continued, and he was reduced to the brink of despair. At length a friend prescribed entire relaxation from business, and a daily game of cricket; which, to his great relief, proved an effectual remedy. The exercise banished the phantom voices, and they were no more heard.

In bygone times, when any kind of nonsense was believed without investigation, the Lowland Scotch, as they alleged, occasionally saw wraiths, or spectral appearances of persons who were soon to quit this mortal scene; the Irish were also accustomed to the spectacle of fetches; and the Highlanders had their second-sight; the whole, be it observed, being but a variety of mental disease or some kind of delusion. In some instances the appearances were a result of atmospheric refraction, but generally they were nothing more than the phantoms of a morbid and overexcited fancy. The progress of education and intelligence has almost everywhere

banished such delusions.

ILLUSIONS FROM DERANGEMENT OF THE EYES.

In our preliminary observations, it was shewn that spectral appearances produced by mental disorder were really formed or daguerreotyped on the eye; but an unsound state of the eye itself may also cause these phantoms. Dr Abercrombie mentions two cases strikingly illustrative of this fact. In one of these, a gentleman of high mental endowments, and of the age of eighty, enjoying uninterrupted health, and very temperate in his habits, was the person subject to the illusions. For twelve years this gentleman had daily visitations of spectral figures, attired often in foreign dresses. such as Roman, Turkish, and Grecian, and presenting all varieties of the human countenance, in its gradations from childhood to old age. Sometimes faces only were visible, and the countenance of the gentleman himself not unfrequently appeared among them. One old and arch-looking lady was the most constant visitor, and she always wore a tartan plaid of an antique cut. These illusory appearances were rather amusing than otherwise, being for the most part of a pleasing character. The second case mentioned by Dr Abercrombie was one even more remarkable than the preceding. 'A gentleman of sound mind, in good health, and engaged in active business, has all his life been the sport of spectral illusions, to such an extent that, in meeting a friend on the street, he has first to appeal to the sense of touch before he can determine whether or not the appearance is real. He can call up figures at will by a steady process of mental conception, and the figures may either be something real, or the composition of his own fancy.' Another member of the family was subject to the same delusive impressions.

These very curious cases indicate, we think, a defective condition of the retina, which may be held as one distinct and specific source of spectral deceptions. That defective condition seems to consist in an unusual sensitiveness, rendering the organ liable to have figures called up upon it by the stimulus of the fancy, as if impressed by actual external objects. In ordinary circumstances, on a friend being vividly called to one's remembrance, one can mentally form a complete conception of his face and figure in their minutest lineaments. 'My father!' says Hamlet; 'methinks I see him now!' 'Where, my lord?' 'In my mind's eye, Horatio.' In Hamlet's case, an apparition is described as having followed this delineation by the memory, and so may a vivid impression of any figure or object be transferred from the mind to the retina, where the latter organ is permanently or temporarily in a weak or peculiarly sensitive state. In this way the spectral illusions seem to have been habitually caused in the two cases described. There the defect in the retina was the fundamental or ultimate cause of their existence, and the fancy of the individual the power which regulated their

frequency and character. Slighter cases of this nature are of comparatively common occurrence—cases in which the retina is for a short time so affected as to give the impression of an apparition. Every one is aware that a peculiarly bright or shining object, if long gazed upon, does not leave the retina as soon as the eye is withdrawn from it. It remains upon the nerve for a considerable time afterwards, at least in outline, as may be observed by closing the eyelids on such occasions. This retentive power, when aided by the imagination, and perhaps by a little bodily derangement with which the senses sympathise, may be carried so far as to produce an actual and forcible spectral illusion. A gentleman who had gazed long and earnestly on a small and beautiful portrait of the Virgin and Child, was startled, immediately on turning his eye from the picture, by seeing a woman and infant at the other end of his chamber of the full size of life. A particular circumstance, however, disclosed in a moment the source of the appearance. The picture was a three-parts length, and the apparitional figures also wanted the lower fourth of the body, thus shewing that the figures had merely been retained on the tablet of the eye. But the retina may retain an impression much longer than in this case; or rather may recall, after a considerable time, an impression that has been very vividly made at the first. A celebrated oculist in London mentioned to us that he had been waited on by a gentleman who laboured under an annoying spectral impression in his eye. He stated that, having looked steadfastly on a copy of the Lord's Prayer, printed in minute characters within a circle the size of a sixpence, he had ever since had the impression of the Lord's Prayer in his eye. On whatever object he turned his organs of vision, there was the small round copy of the Lord's Prayer present, and partly covering it.

It appears, then, from the cases described, that the eye, through defectiveness of its parts, or through the power of the retina in retaining or recalling vivid impressions, may itself be the main agent in producing spectral illusions. From one particular circumstance, we may generally tell at once whether or not the eye is the organ in fault on such occasions. In Dr Abercrombie's cases, the spectral figures never spoke. This is equivalent to a positive indication that the sense of hearing was not involved in the derangement; in short, that the eye, and not the whole of the senses, or

general system, constituted the seat of the defect.

ILLUSIONS EXPLAINED BY PHRENOLOGY.

In previous sections, it has been stated that maladies of various kinds are capable of producing spectral illusions by their effects on the brain and nervous system. In some cases, it was stated that the brain is directly diseased; in other cases, that the perceptions made

by that organ are only indirectly deranged by sympathy with some bodily malady. Madness, for example, having its origin in diseased cerebral structure, may be attended with spectral illusions; and disorder of the alimentary organs, caused by dissipation, may be an indirect source of them; the senses, and the brain which forms perceptions through their reports, being functionally disordered from sympathy. That a peculiar temperament of body, and, in part, a particular mental constitution, are requisite to give a predisposition to the affection, there can be little doubt. Some mental philosophers go a great way further. The phrenologists hold that it is chiefly on a particular development of one portion of the brain, which they describe as the seat of the sentiment of Wonder, that the tendency to see visions depends. It is observed by them that this 'sentiment, when in a state of extreme exaltation (great development and high excitement), may stimulate the perceptive faculties to perceive objects fitted to gratify it; and that spectres, apparitions, spirits, &c. are the kind of ideas suited to please an inordinate Wonder.' They class pretenders to supernatural messages and missions, the seers of visions and dreamers of dreams, and workers of miracles, among such patients. Separating the remark just quoted from its reference to the organology of the phrenological science, we may hold it to signify that the sentiment of wonder, when predominant in an individual's mind, will stimulate those faculties which take cognizance of the forms, colours, sizes, &c. of material existences, to such a pitch of activity, that illusory perceptions of objects, characterised by qualities fitted to gratify wonder, will be formed in the brain. The following case, contributed by Mr Simpson to the Phrenological Fournal, No. 6, affords an interesting example of the manner in which spectral illusions are accounted for by the strict rules of this science.

'Miss S. L., a young lady under twenty years of age, of good family, well educated, free from any superstitious fears, and in perfect general health of body and soundness of mind, has, nevertheless, been for some years occasionally troubled, both in the night and in the day, with visions of persons and inanimate objects, in numerous modes and forms. She was early subject to such illusions occasionally, and the first she remembers was that of a carpet spread out in

the air, which descended near her, and vanished away.

'After an interval of some years, she began to see human figures in her room as she lay wide awake in bed, even in the daylight of the morning. These figures were whitish, or rather gray, and transparent like cobweb, and generally above the size of life. At this time she had acute headaches, very singularly confined to one small spot of the head. On being asked to point out the spot, the utmost care being taken not to lead her to the answer, our readers may judge of our feelings as phrenologists when she touched with her forefinger and thumb each side of the root of the nose, the com-

mencement of the eyebrows, and the spot immediately over the top of the nose—the ascertained seats of the organs of Form, Size, and Individuality! Here, particularly on each side of the root of the nose, she said the sensation could only be compared to that of running sharp knives into the part. The pain increased when she held her head down, and was much relieved by holding her face upwards. Miss S. L., on being asked if the pain was confined to that spot, answered, that 'some time afterwards the pain extended to right and left along the eyebrows, and a little above them, and completely round the eyes, which felt often as if they would have burst from their sockets. When this happened, her visions were varied precisely as the phrenologist would have anticipated, and she detailed the progress without a single leading question. Weight, Colouring, Order, Number, Locality, all became affected: and let us observe what happened. The whitish or cobweb spectres assumed the natural colour of the objects, but they continued often to present themselves, though not always, above the size of life. She saw a beggar one day out of doors, natural in size and colour, who vanished as she came up to the spot. Colouring being overexcited, began to occasion its specific and fantastical illusions. Bright spots, like stars on a black ground, filled the room in the dark, and even in daylight; and sudden and sometimes gradual illumination of the room during the night seemed to take place. Innumerable balls of fire seemed one day to pour like a torrent out of one of the rooms of the house down the staircase. On one occasion the pain between the eyes, and along the lower ridge of the brow, struck her suddenly with great violence—when instantly the room filled with stars and bright spots. On attempting on that occasion to go to bed, she said she was conscious of an inability to balance herself, as if she had been tipsy; and she fell, having made repeated efforts to seize the bedpost, which, in the most unaccountable manner, eluded her grasp, by shifting its place, and also by presenting her with a number of bedposts instead of one. If the organ of Weight, situated between Size and Colouring, be the organ of the instinct to preserve, and power of preserving equilibrium, it must be the necessary consequence of the derangement of that organ to overset the balance of the person. Overexcited Number we should expect to produce multiplication of objects, and the first experience she had of this illusion was the multiplication of the bedposts, and subsequently of any inanimate object she looked at, that object being in itself real and single: a book, a footstool, a work-box, would increase to twenty, or fifty, sometimes without order or arrangement, and at other times piled regularly one above another. Such objects deluded her in another way, by increasing in size, as she looked at them, to the most amazing excess—again resuming their natural size—less than which they never seemed to become—and again swelling out. Locality, overexcited, gave her the illusion of objects, which she had been

accustomed to regard as fixed, being out of their places; and she thinks, but is not sure, that on one occasion a door and window in one apartment seemed to have changed places; but, as she added, she might have been deceived by a mirror. This qualification gave us the more confidence in her accuracy, when, as she did with regard to all her other illusions, she spoke more positively. She had not hitherto observed a great and painful confusion in the visions which visited her, so as to entitle us to infer the derangement of Order. Individuality, Form, Size, Weight, Colouring, Locality, and Number

only seemed hitherto affected.

'For nearly two years Miss S. L. was free from her frontal headaches, and-mark the coincidence-untroubled by visions or any other illusive perceptions. Some months ago, however, all her distressing symptoms returned in great aggravation, when she was conscious of a want of health. The pain was more acute than before along the frontal bone, and round and in the eyeballs; and all the organs there situated recommenced their game of illusion. figures of absent and deceased friends were terribly real to her, both in the day and the night, sometimes cobweb, but generally coloured. She sometimes saw friends on the street, who proved phantoms when she approached to speak to them; and instances occurred where, from not having thus satisfied herself of the illusion, she affirmed to such friends that she had seen them in certain places, at certain times, when they proved to her the clearest alibi. The confusion of her spectral forms now distressed her. (Order affected.) The oppression and perplexity was intolerable when figures presented themselves before her in inextricable disorder, and still more when they changed—as with Nicolai—from whole figures to parts of figures, faces and half faces, and limbs-sometimes of inordinate size and dreadful deformity. One instance of illusive disorder which she mentioned is curious, and has the further effect of exhibiting what cannot be put in terms, except those of the derangement of the just perception of gravitation or equilibrium. (Weight.) One night, as she sat in her bedroom, and was about to go to bed, a stream of spectres, persons' faces, and limbs, in the most shocking confusion, seemed to her to pour into her room from the window, in the manner of a cascade! Although the cascade continued apparently in rapid descending motion, there was no accumulation of figures in the room, the supply unaccountably vanishing after having formed the cascade. Colossal figures are her frequent visitors. (Size.)

'Real but inanimate objects have assumed to her the form of animals; and she has often attempted to lift articles from the ground, which, like the oysters in the pothouse cellar, eluded her

grasp.

'More recently, she has experienced a great aggravation of her alarms; for, like Nicolai, she began to hear her spectral visitors speak! (The organs of Language and Tune, or Sound, affected.)

At first her crowds kept up a buzzing and indescribable gibbering, and occasionally joined in a loud and terribly disagreeable laugh, which she could only impute to fiends. These unwelcome sounds were generally followed by a rapid and always alarming advance of the figures, which often on those occasions presented very large and fearful faces, with insufferable glaring eyes close to her own. All self-possession then failed her, and the cold sweat of terror stood on her brow. Her single figures of the deceased and absent then began to gibber, and soon more distinctly to address her; but terror has hitherto prevented her from understanding what they said.

'She went, not very wisely, to see that banquet of demonology, Der Freischutz; and of course, for some time afterwards, the dramatis personæ of that edifying piece, not excepting his Satanic majesty in person, were her nightly visitors. Some particular figures are persevering in their visits to her. A Moor, with a turban, frequently looks over her shoulder, very impertinently, when she uses

a mirror.

'Of the other illusive perceptions of Miss S. L., we may mention the sensation of being lifted up, and of sinking down and falling forward, with the puzzling perception of objects off their perpendicular; for example, the room, floor, and all, sloping to one side.

(Weight affected.)

'Colours in her work, or otherwise, long looked at, are slow to quit her sight. She has noises in her head, and a sensation of heat all over it; and, last of all, when asked if she ever experienced acute pain elsewhere about the head than in the lower range of the forehead, she answered that three several times she was suddenly affected with such excruciating throbbing pain on the top of the head, that she had almost fainted; and when asked to put her finger on the spot, she put the points of each forefinger precisely on the organ of Wonder, on each side of the coronal surface!'

In the same paper Mr Simpson adduces the singular illusive perceptions suffered occasionally by Mr John Hunter, the great anatomist, several of which are identical with Miss S. L.'s. In the eighteenth and other numbers of the *Phrenological Journal*, other cases of spectral illusions are mentioned, several with local pain, which are held to corroborate the inferences drawn from that of Miss S. L. But the case of that lady seems to us the most comprehensive

on the subject.

In a subsequent paper by Mr Simpson (in No. 7), the most brief and satisfactory explanation of the illusions of the English Opium-Eater is given. The forms and faces that persecuted him in millions (Form diseased)—the expansion of a night into a hundred years (Time)—his insufferable lights and splendours (Colour)—his descent for millions of miles without finding a bottom (Weight or Resistance, giving the feeling of support, diseased)—all described by him with an eloquence that startled the public—are only aggravated illusions,

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due to his irregularities. It is extremely probable that the intoxicating gas affects the same organs.

ILLUSIONS FROM ARTIFICE.

Illusions from the use of phantasmagoria, magic lanterns, mirrors, and other means of deception connected with professed jugglery, need not here be more than alluded to. Illusions arising from the alleged appearance of, and intercourse with, spirits, are of a different kind, and a regular notice of such would form a dark chapter in the history of our popular superstitions. In all ages, there have been persons who lived by imposing on the vulgar, and pretending to possess supernatural powers. Others, either through heedlessness or a wanton spirit of mischief, have inflicted scarcely less injury on society by terrifying children and weak-minded persons with tales of ghosts and other spectral appearances. It is little more than a century since the metropolis was thrown into a state of extraordinary excitement by the Cock Lane ghost; and as the history of this affair will best illustrate the absurdity of this class of illusions, we may be allowed to add it to our list of apparition anecdotes.

About the year 1759, Mr Kempe, a gentleman from the county of Norfolk, came to reside with the sister of his deceased wife, in the house of a Mr Parsons in Cock Lane, near Smithfield. The lady, it appears, slept with a girl, the daughter of Parsons, and complained of being disturbed with very unaccountable noises. From this or some other cause, Mr Kempe and his sister-in-law removed to another lodging in Bartlett Street. Here, unfortunately, the lady, who passed by the name of Mrs Kempe, was attacked with small-pox, and died; and on the 2d of February 1760, her body was interred in

a vault in St John's Church, Clerkenwell.

From this event two years elapsed, when a report was propagated that a great knocking and scratching had been heard in the night at the house of Parsons, to the great terror of all the family; all methods employed to discover the cause of it being ineffectual. This noise was always heard under the bed in which lay two children, the eldest of whom had slept with Mrs Kempe, as already mentioned, during her residence in this house. To find out whence it proceeded, Mr Parsons ordered the wainscot to be taken down; but the knocking and scratching, instead of ceasing, became more violent than ever. The children were then removed into the two pair of stairs room, whither they were followed by the same noise, which sometimes continued during the whole night.

From these circumstances, it was apprehended that the house was haunted; and the elder child declared that she had, some time before, seen the apparition of a woman, surrounded, as it were, by a blazing light. But the girl was not the only person who was favoured with a sight of this luminous lady. A publican in the neighbour-

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hood, bringing a pot of beer into the house, about eleven o'clock at night, was so terrified that he let the beer fall, upon seeing on the stairs, as he was looking up, the bright shining figure of a woman, which cast such a light that he could see the dial in the charity school, through a window in that building. The figure passed by him, and beckoned him to follow; but he was too much terrified to obey its directions, ran home as fast as possible, and was taken very ill. About an hour after this Mr Parsons himself, having occasion to go into another room, saw the same apparition.

As the knocking and scratching only followed the children, the girl who had seen the supposed apparition was interrogated what she thought it was like. She declared it was Mrs Kempe, who about two years before had lodged in the house. On this information, the circumstances attending Mrs Kempe's death were recollected, and were pronounced by those who heard them to be of a dark and disagreeable nature. Suspicions were whispered about, tending to inculpate Mr Kempe; fresh circumstances were brought to light, and it was hinted that the deceased had not died a natural death; that,

in fact, she had been poisoned.

The knocking and scratching now began to be more violent; they seemed to proceed from underneath the bedstead of the child, who was sometimes thrown into violent fits and agitations. In a word, Parsons gave out that the spirit of Mrs Kempe had taken possession of the girl. The noises increased in violence, and several gentlemen were requested to sit up all night in the child's room. On the 13th of January, between eleven and twelve o'clock at night, a respectable clergyman was sent for, who, addressing himself to the supposed spirit, desired that, if any injury had been done to the person who had lived in that house, he might be answered in the affirmative, by one single knock; if the contrary, by two knocks. This was immediately answered by one knock. He then asked several questions, which were all very rationally answered in the same way. Crowds now went to hear the ghost; among others, Dr Johnson, 'the Colossus of British literature,' who was imposed on like the rest. Many persons, however, would not be duped. Suspecting a trick, with the sanction of the lord mayor, they set themselves carefully to watch the movements of the girl. The supposed ghost having announced that it would attend any gentleman into the vault under St John's Church, in which the body of Mrs Kempe was entombed, and point out the coffin by knocking on the lid, several persons proceeded to the vault accordingly, there to await the result. On entering this gloomy receptacle at midnight, the party waited for some time in silence for the spirit to perform its promise, but nothing ensued. • The person accused by the ghost then went down, with several others, into the vault, but no effect was perceived. Returning to the bedroom of the girl, the party examined her closely, but could draw no confession from her; on their departure, however,

towards morning, they arrived at the conviction that the girl possessed the art of counterfeiting noises. Further examinations took place, and ultimately it was discovered that she was a finished impostor. They found that she had been in the habit of taking with her to bed a thin and sonorous piece of wood, on which she produced the noises that had deceived such crowds of credulous individuals. Parsons, who had been privy to the plot for injuring the reputation of Mr Kempe, with his daughter and several accomplices, were now taken into custody; and after a trial before Lord Mansfield, were condemned to various terms of imprisonment; Parsons being, in addition, ordered to stand in the pillory. Such was the termination of an affair which not only found partisans among the weak and credulous, but even staggered many men reputed for possessing sound understandings. worthy clergyman, whose faith was stronger than his reason, and who had warmly interested himself in behalf of the reality of the spirit, was so overwhelmed with grief and chagrin, that he did not long survive the detection of the imposture.

CONCLUSION.

A word of advice may now be given in conclusion to those who are subject to illusions of a spectral kind. If hysteria, epilepsy, or any well-marked bodily affection be an accompaniment of these illusions, of course remedial measures should be used which have a reference to these maladies, and the physician is the party to be applied to. If, however, no well-defined bodily ailment exists, a word of counsel may be useful from ourselves. We believe that, in general, spectral illusions are caused by disorders originating in the alimentary system, and that the continued use of stimulating liquors is to be most commonly blamed for the visitation. If the patient is conscious that this is the case, his path to relief lies open before him. The removal of the cause will almost always remove the effect. At the same time, the process of cure may be slow. The imagination becomes morbidly active in such cases, and many maintain the illusions after the digestive system is restored to order. But this will not be the case long, for the morbidity of the imagination does not usually survive, for any length of time, the restoration of the sanity of the body. To effect a cure of the fundamental derangement of the alimentary system, aperient medicines may be used in the first instance, and afterwards tonics-nourishing food, in small quantities, at the outset-and gentle but frequent exercise in the open air. Last, but not least, for the cure of the sufferer from spectral illusions, the indulgence in cheerful society is to be recommended. Solitude infallibly nurses the morbidity of the imagination. The notion that the use of ardent spirits should only be dropped by degrees, is found to be a mistake. Even in instances of the most inveterate drunkards, no harm follows from instantaneous

abstinence. Therefore, as a little too often leads to much in the matter of drinking those who would break off the practice should not be over-indulgent to themselves, through fear of the consequences of change. If opium have been the cause of the illusions, a gradual cessation from its use may be advisable.

Should the sufferer from spectral illusions be conscious of no error as regards the use of stimulants or narcotics, some affection of the brain may be suspected, and headaches will corroborate this suspicion. Local or general blood-letting will prove in most cases the best remedy. Leeches or cupping may be tried in the first place,

and, if tried ineffectively, the lancet may then be employed.

With respect to the demonstrable truthfulness of stories of apparitions, we consider that the whole may be referred to natural causes. Let us think of the apparent reasons for the majority of spectral communications, supposing them to be supernatural. Can we deem it accordant with the dignity of that great Power which orders the universe, that a spirit should be sent to warn a libertine of his death? Or that a spiritual messenger should be commissioned to walk about an old manor-house, dressed in a white sheet, and dragging clanking chains, for no better purpose than to frighten old women and servant-girls, as said to be done in all hauntedchamber cases? Or that a supernatural being should be charged with the notable task of tapping on bed-heads, pulling down plates, and making a clatter among tea-cups, as in the case of the Stockwell ghost, and a thousand others? The supposition is monstrous. If to any one inhabitant of this earth—a petty atom, occupying a speck of a place on a ball which is itself an insignificant unit among millions of spheres—if to such a one a supernatural communication was deigned, certainly it would be for some purpose worthy of the all-wise Communicator, and fraught with importance to the recipient of the message, as well, perhaps, as to his whole race.



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