and numbers of buffoons and jugglers exercised their talents for the delectation of the patients, and, as a recompense, these artistes were exempted from paying the fees exigible for permission to pursue their respective callings. The leading ulemas of the mosque gravely occupied themselves in ascertaining, according to the principles of demonology, which spirit it was, of the seventy thousand who dwelt in the air, that caused the excitement of the lunatic; and on this discovery being effected, the learned ulemas called to their assistance a spirit of a different order, whose beneficent influence would destroy the pernicious action of the malevolent spirit that annoyed or tormented the lunatic.

As time rolled on, the lunatics confined in the Asylum bccame neglected, and not many years before the appointment of the present energetic Physician-Superintendent, Dr. Mongeri, their condition was deplorable and their treatment most horrible. All regulations as to food, clothing, and amusements had been forgotten, and dirt and filth had taken the place of the former cleanliness. A *Timarkhanedji*, whose principal duty was to order the distribution of the soup prepared at the neighbouring *imaret*, or cook-shop of the poor, assisted by four brutal porters, constituted the entire Asylum staff. The Asylum precincts were the rendezvous of the vilest and most disreputable characters, and the scenes that took place there the pen refuses to describe. Government was at last forced to interfere, and institute a proper organization.

When Dr. Mongeri assumed the direction of the establishment, he had many difficulties and prejudices to contend with, but these have, in a great measure, been happily overcome by his unflagging energy and indomitable perseverance, and the patients now confined in the Timar-khane experience a judicious and humane treatment.

Automatism.

In the Union Médicale of July 21st and 23rd, 1874, Dr. E. Mesnet relates the particulars of an interesting case of automatic mental action. His paper is entitled De l'Automatisme de la Mémoirc et du Souvenir dans le Somnambulisme pathologique.

A sergeant in the French army, aged 27 years, was wounded at the battle of Bazeilles by a bullet, which fractured the left parietal bone. He had power enough to thrust his bayonet into the Prussian soldier who wounded him, but

almost at the same instant his right arm, and soon afterwards his right leg became paralysed. He lost consciousness, and only recovered it at the end of three weeks, when he found himself in hospital at Mayence. Right hemiplegia

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and only recovered it at the end of three weeks, when he found himself in hospital at Mayence. Right hemiplegia was then complete. By the end of a year he had regained the use of his side, a slight feebleness thereof only being left. Some three or four months after the wound peculiar disturbances of the brain manifested themselves, which have recurred since periodically. They usually last from fifteen to thirty hours, the sound intervals between them varying from These alternating phases of normal fifteen to thirty days. and abnormal consciousness have continued for four years. In his normal condition the sergeant is intelligent, and performs satisfactorily the duties of a hospital attendant. The transition to the abnormal state is instantaneous. There is some uneasiness or heaviness about the forehead, which he compares with the pressure of an iron band; but there are no convulsions, nor is there any cry. He becomes suddenly unconscious of his surroundings, and acts like an automaton. His eyes are wide open, the pupils dilated, the forehead is contracted, there is an incessant movement of the eye-balls, and a chewing motion of the jaws. In a place to which he is accustomed he walks about freely as usual, but if he be put in a place unknown to him, or if an obstacle is put in his way, barring his passage, he stumbles gently against it, stops, feels it with his hand, and then passes on one side of it. He offers no resistance to being turned this way or that, but continues his walk in the way in which he is directed. He eats, drinks, smokes, walks, dresses and undresses himself, and goes to bed at his usual hours. He eats voraciously, and without discernment, scarcely chewing his food at all, and devours all that is set before him without showing any General sensibility is lost; pins may be run into satiety. his body, or strong electric shocks sent through it, without his evincing the least pain. The hearing is completely lost; noises made close to his ears do not affect him. The senses of taste and smell are lost; he drinks indifferently water, wine, vinegar, or assafætida, and perceives neither good nor bad odcurs. The sense of sight is almost, but not quite, lost; on some occasions he appears to be in some degree sensible to brilliant objects, but he is obliged to call the sense of touch to his aid in order to apprehend their nature, form, and position; they produce only vague visual impressions, which require interpretation

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into the language of touch. The sense of touch alone persists in its integrity; it seems, indeed, to be more acute than normal, and to serve, almost exclusively, to maintain his relations with the external world. When he comes out of the attack he has no remembrance whatever of what has happened during it, and expresses the greatest surprise when told what he has done.

Through the tactile sense trains of ideas may be aroused in his mind, which he immediately carries into action. On one occasion, when walking in the garden under some trees, he dropped his cane, which was picked up and put into his hand. He felt it, passing his hand several times over the curved handle, became attentive, seemed to listen, and suddenly cried out, "Henri," and a little while afterwards, "There they are, at least twenty of them; we shall get the better of them !" He then put his hand behind his back, as if to get a cartridge, went through the movements of loading his musket, threw himself full length upon the grass, and concealing his head behind a tree, after the manner of a sharp-shooter, followed, with his cane to his shoulder, all the movements of the enemy whom he seemed to see. I his performance, provoked in the same way, was repeated on several occasions. It was probably the reproduction of an incident in the campaign in which he was wounded. "I have found," says Dr. Mesnet, "that the same scene is reproduced when the patient is placed in the same conditions. It has thus been possible for me to direct the activity of my patient in accordance with a train of ideas which I could call up by playing upon his tactile sensibility at a time when none of his other senses afforded me any communication with him."

All the actions of the sergeant when in his abnormal state are either repetitions of what he does every day, or they are excited by the impressions which objects make upon his tactile sense. Arriving once at the end of a corridor where there was a locked door, he passed his hands over the door, found the handle, took hold of it, and tried to open the door. Failing in this, he searched for the keyhole, but there was no key there; thereupon he passed his fingers over the screws of the lock, and endeavoured to turn them, with the evident purpose of removing the lock. Just as he was about to turn away from the door Dr. Mesnet held up before his eyes a bunch of seven or eight keys; he did not see them; they were jingled loudly close to his ears, but he took no notice of

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them; they were then put into his hand, when he immediately took hold of them, and tried one key after another in the keyhole without finding one that would fit it.

Leaving the place, he went into one of the wards, taking on his way various articles with which he filled his pockets, and at length came to a little table which was used for making the records of the ward. He passed his hands over the table, but there was nothing on it; however, he touched the handle of a drawer, which he opened, taking out of it a pen, several sheets of paper, and an inkstand. The pen had plainly suggested the idea of writing, for he sat down, dipped it in the ink, and began to write a letter, in which he recommended himself to his commanding officer for the military medal on account of his good conduct and his bravery. There were many mistakes in the letter, but they were exactly the same mistakes in expression and orthography as he was in the habit of making when in his normal state. From the ease with which he traced the letters, and followed the lines of the paper, it was evident that his sense of sight was in action, but this was placed beyond doubt by the interposition of a thick screen between his eyes and his hand; he continued to write a few words in a confused and almost illegible manner, and then stopped without manifesting any impatience or discontent. When the screen was withdrawn he finished the uncompleted line and began another.

Another experiment was made: water was substituted for When he found that no letters were visible he the ink. stopped, tried the tip of his pen, rubbed it on his coat sleeve, and then began again to write-with the same results. On one occasion he had taken several sheets of paper to write upon, and while he was writing on the topmost sheet it was withdrawn quickly. He continued to write upon the second sheet as if nothing had happened, completing his sentence without interruption, and without any other expression than a slight movement of surprise. When he had written ten words on the second sheet it was removed as rapidly as the first; he finished on the third sheet the line which he had begun on the second, continuing it from the exact point where his pen was when the sheet was removed. The same thing was repeated with the third and fourth sheets, and he finished his letter at last on the fifth sheet, which contained his signature only. He then turned his eyes towards the top of this sheet, and seemed to read from the top what he had written, a movement of the lips accompanying each word;

moreover, he made several corrections on the blank page, putting here a comma, there an e, and at another place a t; and each of these corrections corresponded with the position of the words that required correction on the sheets which had been withdrawn. Dr. Mesnet concludes from these experiments that sight really existed, but that it was only roused at the instance of touch, and exercised only upon those objects with which he was in relation through touch.

After he had finished his letter the sergeant got up, walked down to the garden, rolled a cigarette for himself, sought for his match-box, lighted his cigarette, and smoked it. When the lighted match fell upon the ground he extinguished it by putting his foot upon it. When the cigarette was finished he began to prepare another, but his tobacco pouch was taken away, and he sought in vain for it in all his pockets. It was offered to him, but he did not perceive it; it was held up before his eyes, but he took no notice of it; it was thrust under his nose, but he did not smell it; when, however, it was put into his hand he took it, completed his cigarette directly, and struck a match to light it. This match was purposely blown out, and another lighted one was offered to him, but he did not perceive it; even when it was brought so close to his eyes as to singe a few eyelashes he did not notice it, neither did he blink. When the match was applied to the cigarette he took no notice, and made no attempt to smoke. Dr. Mesnet repeated this experiment on several occasions, and always obtained the same results. The sergeant saw his own match, but saw not the match which Dr. Mesnet offered to him. There was no contraction of the pupil when the lighted match was brought close to the eye. He had once been employed as a singer at a café. In one of his abnormal states he was observed to hum some airs which seemed familiar to him, after which he went to his room, took from a shelf a comb and looking glass, combed his hair, brushed his beard, adjusted his collar, and attended carefully to his toilet. When the glass was turned round, so that he only saw the back of it, he went on as if he still saw himself in it. On his bed there were several numbers of a periodical romance; these he turned rapidly over, apparently not finding what he wanted. Dr. Mesnet took one of these numbers, rolled it up so as to resemble a roll of music, and put it in his hand, when he seemed satisfied, descended the stairs, and walked across the court of the hospital towards the gate. He was turned round, when he started off in the

new direction given to him, entering the lodge of the doorkeeper, which opened into the hall. At this moment the sun shone brightly through a window in the lodge, and the bright light evidently suggested the footlights of the stage, for he placed himself before it, opened the roll of paper, and sang a When he had patriotic ballad in an excellent manner. finished this he sang a second and a third, after which he took out his handkerchief to wipe his face. A wine glass containing a strong mixture of vinegar and water was offered to him, of which he took no notice, but when it was put into his hand he drank it off without exhibiting any sign of an unpleasant sensation. Dr. Mesnet propounds the question whether in this perfect rendering of the three ballads he heard his own voice, or whether the singing was purely as automatic as his other actions. The attack came to an end before they could make an experiment to test this question.

When the sergeant is in his abnormal state it is impossible to awaken him to his normal state, whatever efforts may be made. No effect is produced either by stimulation of the skin or by strong electrical currents. On one occasion he was seized suddenly by the shoulders and thrown violently upon the grass; he manifested no emotion, but, after feeling the turf with his hands, raised himself again, calm and impassive.

A remarkable feature in the case is that the sergeant becomes a veritable *kleptomaniac* during the attacks. He purloins everything that he can lay his hands on, and conceals what he takes under the quilt, the mattress, or elsewhere. This tendency to take and hide has shown itself in each attack. He is content with the most trifling articles, and if he finds nothing belonging to some one else to steal, he hides, with all the appearance of secresy, although surrounded at the time by persons observing him, various things belonging to himself, such as his knife, watch, pocket-book. His other actions during an attack are repetitions of his former habits; these acts of stealing are not so.

If we understand Dr. Mesnet correctly, he is acquainted with another individual who contrives means for committing suicide when he is in an abnormal somnambulistic state. "I have been present," he says, "at two attempts at suicide, one by poisoning, the other by hanging, which I have allowed to proceed to the extreme limit of an experiment, having cut the cord at the moment of asphyxia." He surmises that

another person might in the same way perpetrate homicide or become an incendiary, not knowing what he was doing at the time, and not remembering, after the attack had passed off, what he had done.

The resemblance between the sergeant's abnormal states and those transitory attacks of epileptic unconsciousness, during which the patient, unconscious of surrounding objects, continues automatically the act which he was engaged in at the time of his seizure, will be apparent to our readers. In this relation it is interesting to note that Dr. Darwin, the distinguished author of the *Zoonomia*, called attention long ago to the affinity between epilepsy and somnambulism.

CLINICAL NOTES AND CASES.

Aphasia and Chorea in General Paralysis. By T. S. CLOUSTON, M.D.

The general progressive disease in the structure of the nervous centres, and the steady deterioration of their functions, that constitute by far the chief part of general paralysis, are attended in their course in some cases by various nervous symptoms that closely imitate many of the neuroses of sensibility and motion; such as neuralgia, amaurosis, locomotor ataxy, glosso-pharyngeal paralysis, hemiplegia, apoplexy and epilepsy. Indeed, it is not uncommon for cases of the disease to be diagnosed as epilepsy and glossopharyngeal paralysis. I have lately had three cases of the disease under my care, in two of which the ordinary symptoms of aphasia were present for a short period in one stage of the disease, and in the third the symptoms of unilateral chorea were well marked.

In the first case, that of a man, the aphasic symptoms came on at two periods of the disease, once soon after its commencement, when the motor and mental symptoms were very mild indeed. He was not excited or exalted at the time they came on, and had not had any congestive or epileptiform fits. He had been a hard working, anxious man who had suffered much from bleeding piles, was married, and the first signs of the disease were headache, dulness, depression, stupidity, causeless fear and suspicion, with easily excited emotionalism. About eight weeks after the