movement in its more extended relations. To show, however, that it had become absolutely necessary to check the spread of drunkenness in France, we need only give a few facts mentioned in the first page of the Journal.

The consumption of alcohol, which was only 350,000 hectolitres in 1820, rose to 585,000 in 1850, and to 978,000 in 1869, not including the quantities which escaped payment of duty.

This augmentation, which must be chiefly attributed to the considerable increase in the manufacture of spirit from beetroot and grain, has produced most disastrous consequences.

From 1849 to 1869, the annual number of accidental deaths consequent upon alcoholic excesses increased from 331 to 587. Cases of suicide, due to the same cause, rose from 240 to 664 during the same period.

Crimes against the person, committed under the influence of drunkenness, have augmented in the same proportion.

Lastly, the increase in the number of cases of insanity due to intoxication has constantly followed, during twenty years, the increased consumption of spirits, notably in those departments which use chiefly spirits manufactured from grain and beetroot. In the majority of these departments it has attained the frightful proportion of 25 to 40 per cent.

PART IV.—NOTES AND NEWS.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico-Psychological Association was held on the evening of Wednesday, December 3rd, at Bethlem Royal Hospital. Dr. Harrington Tuke, President, occupied the chair. The following members and visitors were present:—Dr. Harrington Tuke, President; Dr. Wilks, Dr. Maudsley, Dr. Wood, Dr. Blandford, Dr. Boyd, Dr. Langdon Down, Dr. E. S. Willett, Dr. Paul, Mr. Richards, Mr. Byas, Dr. Mickle Dr. Rayner, Dr. Savage, Dr. Sutherland, Mr. Warwick, Mr. Hall, Mr. Wagstaffe, Dr. Stocker, Dr. Sabben. Dr. Balfour, Dr. Grant Wilson, Dr. Scofield, Mr. H. Manning, Dr. Hemming, Dr. Thompson Dickson, Mr. W. Williams, and Dr. Rhys Williams.

The PRESIDENT, on taking the chair, said—The custom at the quarterly meetings has always been to take the minutes of the previous quarterly meeting, as published in the Journal, as read. They are to be found in our Journal for April last. I may express a hope that as the secretaryship has now passed out of my hands these minutes may be reported more fully than they have been. If anyone has any objection to make to the report as printed, I must ask him to make it now, otherwise I must put it to the meeting that these minutes be confirmed. I would also as President ask the Secretary to preserve the MS. minutes.

The minutes were confirmed.

The PRESIDENT—We meet this evening under circumstances of great interest, from the number of eminent scientific men present; and I must congratulate you on meeting here in Bethlem Hospital, and in this old hall of medicine. There are several very interesting papers on the list, and a most important one by Dr. Blandford "On Auditory Hallucinations." It is the usual rule to spend the first

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half-hour in clinical discussion, but as the subject of Dr. Blandford's paper is of great importance, and as it is likely to be followed by an animated discussion, I think we had better proceed with it at once.

Dr. BLANDFORD then read his paper, which is to be found at page 507 of this Journal.

The PRESIDENT—I am sure you will most cordially agree with me that we should offer Dr. Blandford a vote of thanks, both for his paper and for the subject he has chosen for discussion this evening. It is not usual for the President to propose a vote of thanks, but I should be very happy to do so in this instance if the meeting will permit; and I should much like to speak myself on the subject of the paper. I beg to propose a vote of thanks, not for the purpose of stifling any discussion that might arise, but rather by way of encouraging discussion; and I should like to hear the views of the various members present upon the subject of hallucination of hearing.

The vote, "That the thanks of the meeting be given to Dr. Blandford for his able paper," was carried by acclamation.

Dr. WILKS—The subject of hallucination is, no doubt, one of great interest from a practical and clinical point of view, and therefore I should like to ask the author of the paper one or two questions respecting the diagnosis of a case where this symptom existed. Whether for example if a patient were able to correct his false impressions he would be called insane, and, therefore, whether it did not require a long and persistent belief in them to warrant a diagnosis of insanity. Herbert Spencer, I think, says that all our senses are imperfect except that of touch, and, therefore, they have to be interpreted into this before they can be relied on. This probably is so, for we find children and animals using the sense of touch to make themselves certain of the nature of an object, and the man who saw the ghost of his father sitting in his old arm chair could not get rid of the impression until he threw himself into the chair also. This is the common experience of mankind, as we find expressed by Shakespeare in Macbeth, when he has the vision of a dagger and says—

> Come let me clutch thee,
> I have thee not and yet I see thee still.
> Art thou not, fatal vision, sensible
> To feeling as to sight?

And then concludes that it is a dagger of the mind, a false creation, proceeding from the heat-oppressed brain, and that his eyes are made the fools of the other senses. I take it that this false impression, if remaining and not corrected by the other senses, would have gone on to madness. In the same way if a man sees a ghost, it is evident that there is no impression on his retina, and therefore his brain, for the time being, must be in a morbid state. What is the condition of people who, at a spiritualistic séance, see Mr. Home float out of a window and in again, and who are not anxious to correct their visual impressions by the sense of touch? As regards the auditory hallucinations which is the subject of the author's paper, a far greater difficulty must exist in the attempt at correction. I should have liked Dr. Blandford to have made a more marked distinction between hallucination and illusion, for to my mind they are as different as subjective is from objective. I daily feel that we ought to fix more precisely the meaning of these terms, as the distinction is one of practical importance. For example, if in an amputated leg the nerve in any part is irritated, and the patient becomes conscious of his toes being touched, I should not regard this feeling as subjective, but I should do so if the sensorium were impressed with such an idea when no irritation of the nerve had been induced. If one could draw a distinct line between the nerve which enters a grey centre and the centre itself, that line, I take it, would mark the division between the objective and subjective sensation, according as the grey centre was impressed through the nerve or independently of it. Physiologically there must be some precise distinction of this kind. Indeed the very essence of the author's paper is based on this. It is possible that both the visual and auditory centres might be impaired or in a morbid state, together with the special nerves proceeding to them, and I think I have read of cases of patients who had hallucinations of sight through one diseased eye, and hallucinations of hearing through a deaf ear.

Dr. MAUDSLEY—As no one seems disposed to speak now, I will take the opportunity of making a few remarks which have been suggested to me by the paper.

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The subject is a difficult one to discuss, and I fear I may not succeed in expressing very clearly what I wish to say. No doubt, as Dr. Wilks has said, a false perception of sight is corrected directly by the sense of touch, but it would seem that a false perception of hearing cannot be corrected by touch—at any rate directly. It would be corrected first by sight, and in the ultimate event by touch. Perhaps that may be a reason why auditory hallucinations are more persistent than visual hallucinations. But the main object which I had in rising was to express my doubt of, or dissent from, Dr. Blandford's suggestion, that the morbid seat of hallucination of voices was in the medulla oblongata. From a physiological consideration of the nature of perception, as well as from a pathological consideration of the character of the hallucination, I should hold their morbid seat to be in the supreme centres of the brain. When a person hears voices which have no existence out of him, and cannot correct his false perceptions, and is insane—for, of course, he is not insane if he recognises their real nature—it seems to me that higher nerve-centres than the auditory ganglia in the medulla oblongata must be affected. There can be no doubt that there is a difference between sensation and perception—between the impression which an external object makes upon the sense, the feeling, and the perception of the object as the cause of the affection of sense; the former taking place probably in the sensory ganglia, the latter in the higher cerebral centres. Take, for example, the sense of vision. When I have a perception of this chair, the perception is not simply the impression which the chair makes upon my sense of sight, but it is a complex result to the formation of which the sense of touch has mainly contributed, an acquired perception. When I see it, I have not only the visual impression, but the impression of solidity, form, size, and position, which vision alone could never give me originally; in fact, I see, so to speak, all the impressions which my other senses have given in regard to the chair. Three parts out of four of this perception, as of any perception, are really inference, and so far imply reasoning. How is it possible then, that all this can take place in the ganglionic centre of the sense of sight? It must take place in the higher centre in which the deliverances of the particular sensory centres are co-ordinated into a complex perception—in the perceptive centres. And these are probably the supreme centres of the convolutions. The same considerations apply to the phenomena of the other intellectual sense—to the auditory perceptions of voices, and to their probable localization. I have taken for illustration the sense of vision, because the matter is more obvious in its case. When a person hears voices which have no objective cause speaking evil of him, or suggesting painful ideas to him, and cannot be persuaded that they are not real, I should certainly hold his supreme cerebral centres to be disordered. If the auditory ganglia only were disturbed, supposing that such morbid phenomena might be produced by disturbance limited to those centres, there would seem no reason why he should not correct his false perception by the sane evidence of his other senses. In illustration of the influence of the ideational centres on the production of hallucination, I may adduce the instance of children, and of grown-up persons, too, sometimes, who, on awaking suddenly from a dream, actually see the persons about whom they have been dreaming, or hear their voices for a moment. Or, again, take the instances of men who have been able to produce an hallucination at will by thinking intensely of the object. It is related of Goethe, who was the first to propound the opinion that all the parts of the flower, its sepals, petals, &c., were modified leaves, that he could, by an effort of will, produce a vision of the flower undergoing this development. One remark made by Dr. Blandford, in his paper, which is, no doubt, true, struck me as interesting in this relation—namely, that the particular hallucinations accord with the patient's particular temper or mental disposition. This would seem to indicate that the highest centres are involved in the phenomena. The case, too, which he quoted from Sir Henry Holland, is a particularly interesting one. The patient being an acute observer, capable of introspective analysis, was able, after a time, to recognise the morbid nature of his hallucinations, partly from not discovering any person in the place from which the voices seemed to proceed, and partly - and this is the point to which I would draw attention—by observing his mental states, and discovering that what he fancied the voices said were really the thoughts in his own mind. The morbid ideas he thus perceived to be present in consciousness before the hallucinations; instead of being the effect, they were really the causes of them. On pathological grounds, therefore, as well as on physiological grounds, I cannot but think it a mistake to suppose that the morbid seat of these auditory hallucinations is in the medulla oblongata.

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Dr. SAVAGE—It has been said that disease of the eyeball may give rise to hallucinations; if this be true, may not disease of the nervous ganglia, or of the cerebrum connected with these nervous ganglia also give rise to hallucinations? On the whole, I think in the majority of cases that the cerebral expansion is the most common seat of the disorder. As to its appearance and the chance of recovery, I have seen hallucinations occur in many acute cases; as a rule such cases have not done well. In regard to the age of the patients, I quite agree with Dr. Blandford that it is most common in youth and from that to middle life, and that it is more frequent in women than in men. There are some good cases now in the hospital, one in particular of a man who constantly declares, "I hear the voice of God addressing me with the words 'Beware! Beware!'" I asked him "how he heard this voice?" and he answered, "I hear the voice of God vibrating through me. I hear it in my muscles." This is proof that there is more in the cause than is to be found in the auditory centre. In the female wards I have noted that two-thirds of the patients suffer from aural impressions, that is from hallucination of sound.

Dr. DOWN—Although I did not hear all of the paper, the portion I did hear was very interesting, and the subject is of considerable interest to all, and to those who do not see cases of hallucination in those who are not actually insane some observations upon cases may be useful. I have observed two or three cases in which there was hallucination of hearing, only that it was primary; in several it was associated with sexual irritability, and in two or three cases under my notice it was associated with the practice of masturbation. In two cases in the female the auditory hallucination had reference to the male sex: one case, that of a lady, who came to consult me lately, and who has since convinced herself that the sounds were unreal. But she was tormented with the idea that either the butler or the footman in her brother's house spoke to her. When she imagined that the butler spoke to her at the table and asked if he should give her wine, she would answer and become very angry. But she had entirely convinced herself that the supposed speaking to her was an illusion. If such a person can convince herself that the impression is unreal, I should like to ask if we can sign a certificate and place her in an asylum, or treat her as an insane person? For my own part, in this case I should not feel justified in signing a certificate.

Mr. WARWICK—From the cases I have collected, and the observations I have made, I would judge the impression in hallucination to be much more frequently one of vision than of hearing. In the parallel case of dreaming we have the impression much more commonly affecting sight than sound, and in dreaming the vision is to the mind a present reality. The eye is the great gateway of the mind, and it is the visual impression that makes the thing of more force, or the impressions most vivid. I was twice the subject of violence, and in both instances from patients suffering hallucinations from visual impression. In the first case, a lady made a violent attack upon me, rushing upon me and pulling my hair; and she explained to me afterwards that she was impelled to do so whilst labouring under the impression that I was wearing a large yellow wig. The other instance was that of a gentleman who knew me well enough, and who afterwards expressed deep contrition, but stated that he mistook me for a Dr. Adams, to whom he attributed his incarceration.

Dr. WILLETT—I have a patient suffering from visual hallucination, who assures me that his delusion is entirely gone, and who has often said that whilst speaking to me he has convinced himself that his beliefs were delusion, but when he is alone he is depressed; he will then go back to his past life, and although highly connected he believes from his vision of himself that he is an outcast. He is a thin and spare man, and I believe losses in business whilst in an ill-state of health were associated with the origin of this delusion. Whilst you speak to him his appearance is animated and cheerful, but he relapses into the same morbid state when left alone.

Dr. SABBEN—I have followed the remarks made by various speakers, and have noted those of Dr. Maudsley. He has stated the condition in association with hallucination, but he has not stated the result. In regard to the permanency of hallucination, I may relate the following case:—I had the honour to be an old pupil of Sir James Simpson, and he had an old servant who used to hear the service in the parish church on Sundays. Whilst she was about her work, and on one occasion when he went into the drawing-room, he saw her standing upon the hearth-rug, and putting out her hand said "Stop." He did stop, and afterwards asked her what she

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had called upon him to stop for, and she said that she was listening to the service in the church. During the whole of the week she had no illusion, but it returned every Sunday.

The PRESIDENT—Could she hear the service?

Dr. SABBEN—No, for the house is some distance from the Church.

The PRESIDENT—But she thought she heard it?

Dr. SABBEN—Yes.

The PRESIDENT—Cases of this kind are most common in persons who have only one delusion.

Dr. SABBEN—I saw one case in a gentleman who stated that whilst under a tree and picking some apples he heard the voice of a woman. He was under my care for 18 months, and it then became necessary to place him under restraint. He was afterwards allowed to be at large, and has since got married, but when I saw him the other day he still had the delusion.

The PRESIDENT—What is the pathology; and what is the result of the study of the pathology of this state?

Dr. SABBEN—I have taken great interest in this subject, for this is the great class which fills the lunatic asylums and workhouses. I have discussed this subject with Professor Laycock, and he agrees with me in the belief that it occurs in morbid states of the brain, from imperfect nutrition. I have seen many cases, and found them with various pathological conditions.

The PRESIDENT—Atheroma is connected with this state, and we know that atheroma may begin before old age. Is there anything by which we can determine the presence of atheroma?

Dr. SABBEN—I believe there is. I am under the impression that patients with atheromatous vessels are subject to small vascular spots on the skin, by which the presence of atheroma may be with certainty diagnosed.

The PRESIDENT—Can anything be done for treatment of these cases? Can anything be done in the early stages? The patients often get much better.

Dr. SABBEN—You may get them better, and much is to be done with nutrition. They will improve so as not to hear the voice, and then they will be able to sleep, and this shows the cause to be dependent upon ill-nutrition, but the condition I believe to be permanent.

The PRESIDENT—As I ventured to predict, the able paper of Dr. Blandford has led to a very animated and valuable discussion. There is no more important symptom in brain disorder than hallucination, either of sight or hearing. I am not prepared to agree with Dr. Maudsley that hearing is one of the inferior senses, or to ascribe so much value as he does to the touch, as a means of correcting sensation, if by hearing is only meant that function which enables us to appreciate sound. I do not differ from him, but the subtle powers of the auditory nerves, shewn by the finest discrimination of language on intonation is one of the highest gifts to man, and this sense it is we find perverted in hallucination of hearing. I was surprised to hear from Dr. Blandford that his experience led him to believe hallucinations to be uncommon, and not often curable. My own experience is exactly the reverse, and I consider the aphorism of Dr. Mullinger, which boldly states that such hallucination is never recovered from, is entirely founded on error. Hallucination of hearing may be broadly divided into two great divisions: in the one the reason is not lost, and self-control remains; in the other, hallucination becomes absolute delusion, and leads to acts of violence or folly. Of the first of these divisions, the case of Dr. Samuel Johnson, as quoted by Dr. Wilks, is a remarkable instance; the idea that he heard his mother calling to him from Lincoln, he being in London, was a pure hallucination, but he did not answer or act upon the hallucination, and he was not therefore insane. I saw to-day, for the first time, a remarkable example of this form of hallucination: a gentleman, who gives me permission to refer to his case this evening, complains that he hears people he meets in the street distinctly say "this man is a nervous lunatic," and women say equally disagreeable things. He is quite aware that his ears deceive him, and asks for treatment to meet the difficulty. As Dr. Maudsley has already observed, such cases frequently arise from sexual excess. With regard to the chances of recovery, I have not found insanity associated with hallucinations of hearing more difficult to manage than other recent forms. I saw two cases of this affection with Dr. Boyd, during the last twelve months; one, the worst case of the kind I ever saw, imagined that his dead brother's voice told him

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to commit all kinds of dangerous absurdities. This gentleman, after six months' illness, is perfectly well. In the other case the hallucination of hearing has passed away, while other delusions remain. The cause of this disorder seems to be congestion in or about the nervous centres of either sight or hearing; an overdose of quinine will produce the sounds of bells in the ears—thus arise the hallucinations of sight so common and so curable in delirium tremens. In the case to which I first referred, I found the patient had been in India, exposed to isolation, and had showed congestion of the brain by falling into heavy sleep in the midst of his judicial work.

Dr. BLANDFORD, in reply, said—Mr. President and gentlemen, I have to thank you for the honour you did me in according me a vote of thanks for my paper. The various remarks that have been made are so numerous that to reply to them fully would occupy as much time as another paper. In regard to Dr. Wilks' inquiry, many of these hallucinations may be traced to the sense of sight. I wished to confine my paper to hallucinations of sound, because I think the hallucinations of sight want to be worked out by themselves. To go into the subject would amply fill another paper. With reference to the subject of the words hallucination and illusion, I am inclined to think that they are words with certain meaning, but that in all discussions it is necessary, before using them, to define what we mean by them. Various authors regard them differently, and Dr. Pritchard, in his learned work, never uses the term hallucination at all, but uses illusion to express what I have been speaking of as hallucination. In reply to Dr. Maudsley, I would say that I by no means think myself authorised to say that the seat of hallucinations is in one part more than in another. We are far from determining the seat. I have certain reasons for making me think that they are not seated in the highest centres. I think with Dr. Maudsley that the higher centres are involved, and I think the case I have quoted, as given by Sir Henry Holland, confirms my view that the centres of the medulla are the seat of the lesion, for in this man the higher brain centres were healthy, by which he was able to correct aural impression. The higher centres may become diseased, and then the condition of hallucination will become permanent. I may give the same answers to Dr. Savage. To Dr. Down I would reply that I think the person should be detained, but much must undoubtedly depend, in the determination of such a question, upon the particular case. The two cases I have mentioned both persisted in the hallucination, and have sufficiently recovered to be at large; they are able so to restrain themselves that they can now pass their lives in ordinary society. In reply to Dr. Warwick, I must repeat that I avoided alluding to visual hallucinations for the reasons already given. Dr. Willett's case is interesting; as a rule more cases commence in early life than in advanced age. Dr. Sabben's case seems to partake more of delusion than of hallucination; and as for the pathology, I must defer to gentlemen who have more opportunity than I have of performing *post-mortem* examinations. I know that atheroma of the vessels is not unfrequently found, particularly in the middle cerebral artery, where it is sometimes to be seen solidifying the artery till it looks like a branch of coral; but more observations are wanted, and valuable service may be done by those gentlemen who have the opportunity of making the observations, if they will tell us what they find in association with these conditions. The President spoke of some cases in which the hallucination had passed away, but I think it would be interesting to know if this was a permanent case or only a temporary one. I will not detain you further.

The PRESIDENT then asked Dr. Balfour, who had given notice of a paper "On Pathological Appearances observed in the Brain of the Insane," how long his paper would take to read, as only twenty minutes remained, and there were numerous microscopical specimens to be exhibited; and suggested that Dr. Balfour's paper should be taken as read.

Dr. BALFOUR replied, however, that he could read his paper in a short time, and accordingly it was proceeded with.

(The Paper is unavoidably postponed until the next No. of this Journal.)

The PRESIDENT said—I think a vote of thanks should be accorded to Dr. Balfour for his paper, whilst we must regret that time prevents us discussing the many interesting points contained in it.

Dr. MAUDSLEY—I beg leave to second the vote of thanks to Dr. Balfour for his

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valuable paper, and I regret that time will not allow us to discuss it now. In reference to the effect on character produced by disease or injury of brain, I may say that Dr. C. Skae has sent us for publication in the forthcoming Journal the interesting report of a case of mania arising from injury caused by the falling of a piece of coal on his head. The man's character underwent a remarkable change; he became morose and sullen; at first morose, surly, and irritable towards his wife and children, and afterwards violent towards them. Dr. Skae had him trephined, and he perfectly recovered.

The vote of thanks was carried unanimously.

Dr. WILLIAMS said - When Dr. Blandford gave notice of his paper, I did not know how much time would be occupied by it, or by the discussion upon it, and I endeavoured to secure some specimens, and Dr. Savage, Dr. Bage, and Dr. Thompson Dickson offered to exhibit some. At the close of the meeting this room will still be open, and, therefore, any gentlemen wishing to see these specimens will have the opportunity of doing so.

Dr. MAUDSLEY proposed a vote of thanks to Dr. Williams, which was carried by acclamation, and

Dr. WILLIAMS thanked the members, and the meeting adjourned.

The following Specimens and Drawings were exhibited :—

Dr. SAVAGE—Section of Spinal Cord; section of Diffused Sclerosis; case of Inflammation of Cord, and General Paralysis.

Mr. WAGSTAFFE- Sections through the Pons.

Dr. BOYD—Portraits in pencil of Insane Patients.

Dr. J. THOMPSON DICKSON—Sections of Brain showing Inflammation, Sclerosis; sections of Spinal Cord, showing Inflammation, Sclerosis, and the conditions associated with Paralysis Agitans, Progressive Locomotor Ataxy, and Progressive Muscular Atrophy; Litho-Photographs of the Insane, and Drawings illustrating Morbid Nerve Tissue.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of the Medico-Psychological Association was held in the hall of the Royal College of Physicans, Edinburgh, on Thursday, 27th November. Professor Laycock presided. There were present :—Professor Laycock, Drs. Smith, Fairless, Fraser, Campbell, Thomas Howden, Batty Tuke, Ireland, Grierson, Lyall, Clouston, H. Hayes Newington, Smith, Sibbald, McBean (R.N.), and Rorie.

PATHOLOGICAL SPECIMENS.

Dr. IRELAND, who acted as Secretary in the absence of Dr. Fred. Skae, exhibited the brain of a man who had died in the Stirling Asylum, and read the notes of the case* from a manuscript sent by Dr. Fred. Skae.

The CHAIRMAN said that the specimen was a very interesting one, and the notes by Dr. Skae would have been exceedingly valuable if details had been fuller.

CHARTS OF THE BRAIN.

Dr. TUKE exhibited a set of charts of the brain published by Messrs. McLachlan and Stewart, South Bridge, Edinburgh. He said that the object of the charts was to assist in pathological operations. The charts exhibited a series of representations of the brain in its various aspects. They had been suggested by Dr. Howden and himself as in their opinion very useful in the *post-mortem* room in regard to marking down the exact position on which there was a lesion, and they suggested that the diagram which shows the lesion should be cut out and pasted in the pathological book along with the verbal description. He himself, with Dr. Fraser and Dr. Howden, had been in the habit of taking the diagrams from Professor Turner's work, and they had found them very useful in denoting the particular point of a lesion. Messrs. McLachlan and Stewart had resolved to publish these charts at

* It will appear in our Clinical Notes in the April No.

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