time to come. Under such satisfactory conditions Dr. Macleod can give a placid and contemplative opinion on the vexed question of the increase in insanity. He allows, of course, that there are more lunatics in asylums, but does not consider that it is proved that lunacy is on the increase. The figures relating to the East Riding certainly do not show this to be so, and it is to be remembered that this is almost a purely rural county to which would apply the remarks made in connection with the Dorset Asylum.

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2. *German Retrospect.*

By William W. Ireland, M.D.

On the Dreams of the Blind.

There is a paper with this title in the "Zeitschrift für Psychologie und Physiologie der Sinnesorgane," 25th October, 1894, by Friedrich Hitschmann. He became blind in the third year of his life, but is still able to distinguish between light and darkness. He never dreams of seeing, and does not share the fancy of the poets that the spirit, freed during sleep from bodily restraint, can realize the gift of sight. He tells us that the blind in general have weaned themselves from their deficiency, and feel themselves in an accustomed and natural condition. They have not that painful longing for light which those who have all their senses sometimes poetically ascribe to them. Naturally their dreams are compounded of the other sensations, especially the impressions of hearing. The blind dream much of voices, by which the persons of their acquaintance are recognized, whereas the seeing often dream of faces and figures; sometimes animals, especially dogs and birds, seem to the sightless to have human voices, and to be gifted with speech. A blind man who travelled home once a year used to dream of the journey by rail. In this case the dreams were made up of the lumbering of the wheels, the whistle of the locomotive, the feeling of fresh air through the open windows, and the smell of the food sold at the station.

Mr. Hitschmann tells us that while the dream world of the blind is poor in sensory images, it is rich in abstract phenomena. It is characteristic of their dreams that the sleeper often feels himself a spectator as if he witnessed a play in a theatre. He seems to witness novels, dramas, or philosophical lectures. I suppose these appear to come through the ear, for he tells us that he never dreams of handling a book for the blind, or of using his writing apparatus. Seeing people, however, seldom dream of reading and scarcely ever of writing.

In the "Vierteljahrschrift für Wissenschaftliche Philosophie," Band. xvii., 3, Mr. Hitschmann considers the influence of art upon

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the blind. They enjoy music to the full, and also lyrical poetry. The blind take an especial interest in dialogues, novels, and dramas where the effect does not depend too much on the *mise-en-scène*. They have an especially good judgment on the effect of words and rhythms of poetry.

The Cortex Fibres in Idiocy.

Dr. Klinke has applied Vulpius' method of studying the cortex of the normal brain by counting the tangential fibres in the examination of twelve diseased brains ("Archiv. für Psychiatrie," Band xxv., Heft. 2). Seven of these were cases of idiocy, two of senile dementia, two of simple insanity, and one of general paralysis. Sections were taken from the first and third frontal and first temporal gyrus of the left hemisphere, and from the third frontal, the anterior median convolution, and the occipital lobe of the right hemisphere. The preparations were coloured by Weigert's method.

The principal conclusions given by Klinke are: General disorders of nutrition, such as are observed in idiots and after early epileptic attacks, keep back the development of the tangential fibres. The number of the fibres is somewhat diminished in age, but much more so in dementia senilis. In dementia paralytica the number of the fibres can be smaller than with some idiots. The diminution in the fibres in idiots' brains is dependent upon the age in which the injury to nutrition took place. The average number of fibres is not the same in different portions of the brain. They are most numerous in the median convolution of the right hemisphere, and next in number in the right occipital lobe. The frontal lobe is most affected by a diminution in the number of the fibres, and the outer tangent fibres suffer most.

Curious Case of Microcephaly.

Dr. Hermann Pfister has given ("Allgemeine Zeitschrift," L. Band, 5 Heft) a description of a case in which the brain was abnormally small, with rare variations in the convolutions. This was a woman who reached the age of 48 without attracting any particular attention. She led a regular life, and her intelligence does not seem to have been below the common. Towards the end of the year 1891 she was seized with restlessness, painful ideas, and delusions that she was being mocked and calumniated. She was admitted into the Psychiatric Clinic at Freiburg, in Baden, where she died in five months of typhus abdominalis and pneumonia. The head measurements were —

Circumference ...	...	...	470 m.m.
Longitudinal diameter...	...		160 „
Bi-temporal ...	...	...	135 „
Bi-parietal ..	...	...	125 „

The brain with the membranes were found to weigh 900 grammes. On examining the convolutions, the inferior pre-

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central sulcus was found to run into the ascending ramus of the sylvian fissure. This is especially marked in the left hemisphere, where there is a fissure which divides the brain from the first frontal gyrus to the base of the sylvian fissure. The second temporal sulcus ran into the occipital fissure. This abnormality is said to be rare. It does not, however, appear that there is any symptom, mental or otherwise, accompanying such abnormalities, and, indeed, unless the sulci were very deep, this could scarcely be expected.

The author considers the question how far the intellectual activity is connected with the size of the brain. He gives the normal weight in German brains as 1,375 grammes for men and 1,245 grammes for women, and observes that the brains which weigh from 150 to 300 grammes less than these standards generally belong to weak-minded persons. On the other hand, some very heavy brains have been found which belonged to persons not distinguished for superior mental capacity. He mentions a Berliner named Rustan whose brain weighed 2,222 grammes, and that of a mulatto 45 years old which weighed 1,830 grammes; but it is doubtful whether either of these brains was healthy. According to Krause, Rustan's brain, judging from the cranial capacity, should not have weighed more than 1,885 grammes. On the other hand, there have been men who have shown great intellectual energy and power with brains of moderate weight. We must not forget that we cannot separate these portions of the brain which regulate motor or vegetative functions from the intellectual ones. It thus seems hopeless to measure intellectual or moral power by the difference of a few grammes of brain tissue.

Dr. Pfister has collected a large number of statistics about the size of the brain in race, sex, and age, but he does not appear to lay much stress upon them.

Weakness of the Heart in Idiots.

Dr. Wulff, of Langenhagen ("Allgemeine Zeitschrift für Psychiatrie," li. Band, 2 Heft), tells us that atrophy or hypoplasia of the heart has been frequently observed to attend chronic diseases, such as tuberculosis, cancer, dysentery, and chlorosis, but that the only case which he has found in literature in which the smallness of the heart has been noticed in the weak-minded, and its significance pointed out, has been published by Hagen. If Dr. Wulff will do me the honour to look at pp. 44 and 72 of my book on "Idiocy and Imbecility" he will find reason to modify this statement.

Dr. Wulff himself has made an important contribution to the subject in showing the comparative smallness of the heart in idiots in a precise and scientific form. He observed this condition in 123 cases which he examined. In weighing hearts he cuts off the great arteries as closely as he can, as these vessels within

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the pericardium make up about 10 per cent. of the weight of the organ. Dr. Wulff's paper is illustrated by diagrams and tables which bring out the general truth that the heart in imbeciles is smaller in proportion to the weight and height of the body than in insane persons. He asks, Is the smallness of the heart the result of a common cause, or is the heart deficiency in some cases the cause of the brain weakness? He observes that the smallness and weakness of the heart in idiots is general, and not the result of atrophy or degeneration following disease. With idiots the brain is also, in proportion to the weight and height, smaller than in sane people, but the diminution of the heart does not go parallel with the diminution of the brain. The diminished size of the heart is greater in proportion than the diminished size of the brain, hence Wulff supposes that in some cases, although the blood supply may be sufficient to afford nourishment to the brain so as to enable it to grow to a certain size, the heart does not send enough for the development of the finer nerve elements, or for the excitement and maintenance of normal mental activity.

Singular Case of Nocturnal Epilepsy.

Under this heading Dr. Lehmann describes ("Allgemeine Zeitschrift für Psychiatrie," li. Band, 2 Heft) a young woman, the child of a drunken father. Weakly in general health, she had been subject to epileptic attacks from the third year. Her education had been defective. At school she was ill-behaved and addicted to stealing. When fifteen years old she had been punished for theft, and at the age of sixteen was sent to the asylum at Werneck. She was found to be of deficient intelligence, idle, rude, dirty, and given to stealing worthless things, but full of promises of amendment and lavish in religious professions. In her physical appearance it was noted that the left half of the face seemed to have more nervous power than the right. She was subject to epileptic fits, which only came on during sleep. She opened her eyes with a fixed stare, and stretched one arm or one leg stiffly out. This attack did not last longer than from five to ten seconds, after which she awoke. According to her statement the fits were always preceded by a dream. She thought that a man lay beside her and asked her to lie farther back as he wished to lie in the place where she was. After this she awoke, knowing that she had a fit. Sometimes it appeared as if there were several men. The female attendants, thinking this a case of demoniacal incubus, advised her to repeat a prayer, which, however, failed to avert the attack. Finding her readily hypnotized, Dr. Lehmann threw her into this condition, and suggested the hallucination of a man lying beside her, but this failed to bring on a fit. Dr. Lehmann tells us that he has searched the neurological literature of the last five years without being able to find a similar case. He will find some cases cited in

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the "Centralblatt für Nervenheilkunde," No. 13, 1883. He considers the singular feature of the case to be a complex hallucination taking the place of an aura. To me it seems stranger that the girl should be aware that she had been visited by an epileptic attack.

Forms of Lunacy Treated as Sorcery.

Dr. Snell, in a learned paper on this subject ("Allgemeine Zeitschrift," 1. Band, 3 and 4 Heft), tells us that the prosecution of witches commenced about the second half of the thirteenth century in the South of France, whence it spread over Europe. The search for witches gained its highest fervour in Germany about the end of the sixteenth and first half of the seventeenth century. It seemed to be dependent on the belief that people could make a league with the devil and thus gain the power to cause storms, drought, disease, and death to men and cattle. This notion took a very deep hold upon the popular mind, and is not yet entirely eradicated in some rural districts. Pushed on by their fears accusers gave voice to their suspicions, and the wretches named were dragged before prejudiced tribunals and sent to the stake. Dr. Snell tells us that as many men suffered as women. No station and no age were spared. An old man of ninety-five and a child of one year old perished at the stake under this dismal superstition. In some cases a confession was extracted by torture; in others the sorcerer made a voluntary confession. These were, naturally, people deranged in mind. Dr. Snell gives one instance of a girl in Altmark, who confessed in the year 1671 that she had met with a man clothed in silk, but very much deformed in the feet. This person, whose name need not be mentioned, induced her to renounce God and give herself to him. He brought her a great knife, and told her to kill a man with whom she had a quarrel. As she refused to do this the tempter threatened to strangle her. She was brought before the faculty of law at Helmstedt, and as she persevered in her confession the learned men sentenced her to imprisonment for life, with such keeping as was necessary. From the details of the process there appears to be no doubt that this poor girl was subject to melancholy and hallucinations, and was inclined to commit suicide. The witch hunters were suspicious of all peculiarity, and people had to be very careful of their conduct. Women who avoided men, and lads who avoided the company of girls, were in danger of being suspected of sorcery.

The following atrocity was perpetrated in Spain before the institution of the Inquisition. In the year 1359 Martin Goncalez asserted that he was the brother of the Archangel Michael, the first truth, and the ladder of heaven—that the place which Lucifer had lost was destined for him. He mounted daily into heaven and descended into hell. The end of the world would soon come, then he would fight with and overthrow the Antichrist, whereby he would hold in his hand the cross and crown of thorns of Christ.

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The Archbishop of Toledo made vain efforts of conversion, and finally caused the lunatic to be burned alive.

A physician called Dr. Eugen Toralba was brought before the Inquisition in 1528. He stated that he had communicated with a spirit called Zekiel, who was like a blonde boy. He said that they had ridden together upon a stick from Valladolid to Rome in about an hour's time. He pointed out Zekiel to other people, but no one could see him. The Inquisition thought Zekiel must be a bad spirit, whereas the doctor was inclined to think more favourably of him. The unfortunate physician was put upon the rack, under which he was induced to declare that perhaps Zekiel was a bad spirit. After being confined for three years he was ordered to be imprisoned during the pleasure of the Inquisitor-General, but he was set free at the instance of the Admiral of Castile.

It was generally melancholiacs or paranoiacs who got into trouble with the witch searchers, but sometimes maniacs were laid hold of. The judges and inquisitors were of course aware of the existence of lunacy, though their differential diagnosis was sometimes defective. As may be supposed they often failed to distinguish the subtler forms of hysteria. Some hysterical women were thus condemned as witches, but more of them were treated as possessed and allowed themselves to be exorcised. I am inclined to think that sometimes persons were seized upon the statements of lunatics and of hysterical women. In some cases the accusations were the outcome of simple malice. Once accused it was difficult to escape.

Apparently Dr. Snell has not read Dr. W. T. Gairdner's instructive pamphlet, in which the learned Professor has described "The Case of a Modern Witch Medically Investigated."* In her were noted many of the symptoms on which the witchfinders laid so much stress--a weird appearance, unsociable ways, mental despondency, and extreme dulness of the mucous and cutaneous surfaces, so that the prick of a pin could scarcely be felt.

Self-Accusations.

Those who have studied the original records of the trials of witches do not find it easy to account for all the prosecutions by simply treating the accused as insane. In Scotland the parties sometimes appear as having come forward with a voluntary confession made to the Kirk Sessions or Presbyteries, and which they attested with their signatures. Torture was never used by these Church Courts, nor did all of these self-accusers seem insane in other ways. Probably we find the analogue of some such wretches in those deranged persons who make accusations against themselves to the police or magistrates. It occasionally happens that persons in whom no mental derangement had been previously noticed have

* "Insanity: Modern Views as to its Nature and Treatment." Glasgow, 1885.

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a fixed idea, and accuse themselves of some crime with many appearances of probability.

Dr. W. N. Ergolski has described two such cases ("Archiv. Psychiatrie," Bd. xxi., Heft 2, quoted in "Zeitschrift," Band 1., Heft 6).

The first was a man 26 years old. He worked in a spirit shop, and drank heavily. He was troubled with depression, fear, and mental anguish, and had hallucinations of sight and hearing. He accused himself of having embezzled a hundred roubles belonging to his employer. After a searching inquiry it was found that nothing of the sort could have happened. He was sent to an asylum, and the melancholy and hallucinations soon disappeared, but he persisted in the idea that he had embezzled money.

In the second case, a countryman, 47 years old, accused himself before the Court of having killed his wife. The investigation and examination of the body showed no traces of a violent death. It was evident that she had died of a strangulated and grangrenous inguinal hernia. The man said that he felt relief after making this confession. He was sent to an asylum, but nothing was found unsound in his mental condition, save this one fixed idea. It appeared that about the time of his wife's death the man had been troubled with alcoholic melancholia. MM. Séglas and Brouardel have an instructive paper on this subject, entitled "Persécutés Auto-accusateurs et Persécutés Possédés," in the "Archives de Neurologie" (No. 82, December, 1894.)

Suicide in the Prussian Army.

In the "Allgemeine Zeitschrift für Psychiatrie," li. Band, 1 Heft, there are some statistics about the prevalence of suicide in the Prussian Army. The writer observes that the number of such acts rises with the development of the culture of nations, while race, descent, religion, and the seasons of the year are not without influence. In winter the number of suicides is at the lowest, and in June it is at the highest. These generalizations hold good in the military as well as in the civil populations. The Austrian and Prussian armies lose more through self-murder than those of other nations. In the German army, from 1876 to 1890, the number of suicides was 6·33; in the Austrian, 12·53; in the Italian, 4·07; in the French, 3·3; in the Belgian, 2·44; in the English, 2·09. The writer observes that the number of suicides in the British army in India and the Colonies is not reckoned. I do not know why this should be, but I venture to say that if the number of suicides amongst the Mussulman soldiers in India, or any Mahomedan State be counted, it will be found to be very much smaller than in the European armies mentioned. The nature of religious belief has more effect upon the frequency of suicide than any other factor, and if an increase of culture be accompanied by acts of self-murder, this is no doubt owing to the tendency of modern education to increase scepticism. How far the restraints of

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discipline and other hardships of military service may tend to increase self-destruction is not made clear. Suicide is twice as common amongst the non-commissioned officers as amongst the common soldiers. We are told that only 1·5 per cent. of the suicides in the Prussian army can be traced to harsh treatment. I have seen the contrary asserted in a German Socialistic paper.

The writer in the "Zeitschrift," however, observes that since 1880 the proportion of suicides in the Prussian army has sunk from 7·6 in the 1,000 to 4·52, whilst suicides have at the same time steadily increased in the civil population. This diminution of voluntary deaths in the army has been accompanied by a marked improvement in military hygiene. We are also told that the German military surgeons are better instructed in psychiatry, and are more careful to keep out of the ranks weak-minded young men, or those who show proclivity to insanity. And no doubt, if such neurotic recruits be excluded, or be promptly invalided, this will diminish the tale of suicides in the army.

Auto-Intoxication as a Cause of Insanity.

Dr. D. E. Jacobson ("Allgemeine Zeitschrift," lv. Band, 2 Heft) begins his paper by observing that the human body is a laboratory of poisons, from whose effects it is continually being saved by the activity of the physiological secretions and excretions. When these are hindered, or when the poison stuffs are produced in unusually large quantities, there results what has been styled by Bouchard an auto-intoxication. Dr. Jacobson inquires how the accumulation of such products in the blood may be the cause of insanity. He finds that an uræmic condition, following on diseases of the kidney, may be the cause of delirium and convulsions. Several authors have already described a "folie Brightique." This may be owing either to the altered blood supply acting upon a brain already predisposed to insanity, or to a long continued action of the blood charged with a poison upon the brain. The delirium may accompany the usual symptoms of uræmia, or the insanity appears as a species of vicarious symptom replacing the others. Dr. Jacobson finds in all the cases which he has examined the same type of insanity. There is acute delirium, with hallucinations, but sometimes the patient is stupid and depressed, or melancholy. The insanity subsides along with the improvement in the renal symptoms. The first case described he regards as typical. The patient, a young man of nineteen, suffered from chronic nephritis. He had symptoms of uræmia whenever he tried to depart from the milk diet. On the 28th of November he fell into a somnolent condition, followed in the evening by strong convulsive fits, which implicated the whole body. During these attacks he remained conscious, but felt no pain. Next day he felt much mental anguish, and began to be delirious. There were at the same time startings in the muscles of the face. During the course of the night the delirium increased. The

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patient raised himself in bed, shouted, had hallucinations, and did not seem to know where he was. From this time there was a maniacal delirium, with hallucinations, which lasted three weeks, after which his condition improved in every way, and in four weeks he was discharged as a convalescent. Two years after he reappeared, troubled with the renal symptoms, but there was no return of the insanity.

Dr. Jacobson next considers auto-intoxication from liver disease. The ancient Greek physicians noted the effects of bile in the blood upon the disposition, the slow pulse, the depressed irritable character, and sleeplessness. The writer then details a case of insanity, lasting for above a month, which was met with in the Asylum of St. Ann's, the principal symptoms being depression, unceasing murmuring, and restlessness. Dr. Jacobson then considers those derangements of the mind which result from abnormal processes of fermentation in the digestive canal. They often cause headache, depression and sleeplessness. Some physicians have described dyspeptic coma. A disordered state of the digestive organs is sometimes the cause of melancholia, instead of being merely associated with it. In such cases the defective action of the kidneys, diminishing their eliminative power, sometimes goes along with the morbid condition of the blood, the diseased products of digestion acting deleteriously upon the brain.

Dr. Jacobson describes the case of a "48 year old married cheesemonger" affected with catarrh of the stomach for several years. This ended in insanity. The most prominent symptoms were acute delirium, with hallucinations. Dr. Jacobson finds these toxic insanities dependent upon agents of chemical or organic origin to have all a common type, characterized by acute mental confusion (Verwirrtheit) in one of its many forms.* This is a somewhat vague expression, and to my mind he has not clearly made out the type, nor is he helped by the observations of others. In British Guiana Bright's disease is very common, and it has been observed that many patients admitted into the asylum at Berbice with albuminuria are demented, with no history of an acute stage, "as if the functions of the brain were gradually impaired by the altered condition of the blood, in such a manner as to produce a state of dementia without any previous acute mental disorder."†

* Recent German writers on insanity make use of three expressions, *Wahnsinn*, *Verrücktheit*, and *Verwirrtheit* to denote three stages of mental disintegration which are especially met with in progressive paranoia. In the first, Wahnsinn, there are delusions, perhaps accompanied with hallucinations, which take more or less systematized form, and abide in the mind. In Verrücktheit the relation of the ideas or mental images is less rational, and mental impression is fleeting. In Verwirrtheit the incoherency of word and action is much increased, and the relation of ideas and hallucinations to one another is still more incongruous. There is a crowd of words destitute of any rational association. *Cf.* "Dict. of Psychological Med."

† See "British Guiana Medical Annual and Hospital Reports," Demerara, 1891, p. 104.

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