

3. *German Retrospect.*

By WILLIAM W. IRELAND.

*(Continued from p. 311.)*

*On Salivation in the Insane.*—Dr. Reinhard ("Centralblatt für Nervenheilkunde," 1 November, 1879), states that he found excessive salivation to be present in six per cent. of the inmates of lunatic asylums. Those subject to it may be divided into three groups. The first group consists of idiots and demented of the lowest class having blueness and coldness of the extremities, and small pulse. He thinks the salivation depends upon some paralysis of the vessel. It also occurs in patients who imagine that injurious or poisonous subjects are being administered to them. The secretion of saliva is thus the result of a conscious reflex action; sometimes they imagine that they feel a taste in their mouths which excites secretion. Such patients secrete three times the usual quantity of saliva. It is principally from the parotid gland that this saliva comes. They are obliged continually to spit to get rid of the overflow; and the loss of saliva injures the digestive power.

Salivation in the third group seems to correspond with excitement or disease of the genital organs, especially in women. It is frequently accompanied with dilatation of the pupil, and smallness and jerking up of the pulse. The increase of saliva is one of all its constituents, and not of the watery element alone. In this third group, treatment has been most successful. While trying to calm the excited sexual system, Dr. Reinhard uses subcutaneous injections of morphia, sometimes with the addition of atropine. Where the salivation is accompanied by profuse or painful menstruation, he uses bromide of potassium in large doses, and in one case the subcutaneous use of camphor was followed by cessation of the excessive secretion. As a local application to the mouth, he uses carbolic acid 1 to 50 of water.

Dr. Reinhard cannot suggest any rational remedy, but he treats those cases resulting from delusions of taste or suspicions of having got poison in their food, by washing the mouth with solutions of salicylic acid and tannin.

*Aphasia caused by Mental Excitement.*—In the "Centralblatt für Nervenheilkunde" (December, 1879) there is a report from a Russian medical journal of a man who became aphasic from a cause which seems very clearly defined. His daughter, who had, or believed herself to have been, deserted by her betrothed, had married another man. The old lover suddenly came to her father's residence, and, as a proof of his dissatisfaction, after using violent language, set the house on fire. In consequence of this regrettable procedure the father lost his speech, and became, we are told, so much excited, that those about him could think of no better means of tranquilising him than giving him brandy to drink. When brought to the hospital at Kiev,

it was found that he could understand all the questions put to him, and could read and write, but he was unable to speak a word, though he gave a pantomimic description of the burning of his house.

The patient completely recovered after five days' residence in the hospital. He said that he had not lost knowledge for a moment of anything that was going on around him. Let us indulge the hope that he has no more daughters to get married.

*Insanity caused by Atropine.*—Dr. Paul Kowalewsky ("Zeitschrift" xxxvi. Band, 4 Heft) gives an account of a man who was apparently rendered insane by a large dose of atropine. This, though not a common circumstance, has occasionally been observed before. Schroff mentions the case of a woman who was rendered insane by belladonna, and Professor Adamjuk, an oculist, who has been in the habit of giving large doses of atropine, now and then sees instances at least of great excitement resulting from its use. It appears moreover that there is an idiosyncrasy which renders one more easily susceptible to the influence of this drug.

In the case described, the derangement appeared shortly after the use of atropine salt introduced into the eye during the treatment of an eye disease. The insanity declined in a marked degree under the use of morphia. It lasted ten days in all. The pulse was habitually high, varying from 80 to 96. The patient, a man who had well nigh lost his vision, now had a feeling of light and brilliancy. He felt as if he were surrounded by a halo of light, and things appeared on a large scale. He saw around him beasts, birds, crowds of people, uncommon kinds of trees, grasses and other plants. Everything burned, cried or sung. All objects were in continual motion and change; ants, flies, beetles, and other insects seemed to creep over his body. He saw beautiful furniture and rare jewels. He also said that he saw the tree of life, the knowledge of good and evil, the blessing of God, and other abstract ideas realised by visible figures.

The patient was so weighed down by fear that he was afraid to move about. Sleep deserted him, and he was suspicious of those around. Sometimes he forgot his distress, and became pleased with the visions that surrounded him; and sometimes he sank into a state of musing and absence of mind, from which only powerful motives could arouse him. The symptoms in many respects resembled those of delirium tremens, but the objects seen were generally of a large size, whereas as a rule they appear to be small in alcoholic delirium.

*On Chronic Poisoning with Tobacco.*—Dr. F. M. Richter ("Archiv" x. Band, 1 Heft) had two patients who were suffering from the effects of inordinate smoking of cigars, one of whom died. The result of the examination of the body is given. The vessels of the pia mater and of the brain were found to contain unusually little blood, and the heart was in a relaxed and flaccid condition, and empty of blood. Nothing else of consequence was noticed.

The other patient recovered, on ceasing to smoke, under hydro-

pathic treatment, and the use of the galvanic current to the spine. The symptoms common to both cases were a feeling of tightness in the head, vertigo, a tendency to somnolence, incapacity for mental work, anomalies of disposition, symptoms of amblyopia, spinal irritation, neuralgia, ready liability to fatigue, uncertain motions, shuddering, contractions of the muscles, anxiety, weak or irregular pulse, and emaciation. Sometimes there was an affection like angina pectoris. In the patient who died the appetite and digestion were weak, with colic pains. In the man who recovered, these symptoms were absent, but he suffered from hyperæsthesia of the auditory nerves.

Dr. Richter has arrived at the conclusion that excessive smoking is attended with more dangerous effects than chewing. He considers that the injurious effects of chronic intoxication with tobacco is in part at least owing to narrowing of the vessels, and consequent derangement of the circulation. This explains the amblyopia which so frequently follows excessive smoking. Derangements of nutrition attend the narrowing of the capillaries; and it is supposed that there is undue stimulation of the sympathetic and vagus nerves, liable to end in collapse of the actions of the lungs and heart.

Dr. Richter considers that intoxication from nicotine may be treated very hopefully. In general the health improves, and the amblyopia disappears through simple cessation from smoking. The fatal result in the case recorded by himself was owing to his patient again commencing to smoke. Besides abstinence from tobacco, he recommends the use of iodide of potassium to help the elimination of the poison, and the combined application of hydropathic treatment and electricity, which he thinks causes important molecular changes in the body.

*Treatment of Locomotor Ataxia.*—Dr. Richter ("Centralblatt für Nervenheilkunde," October, 1879) doubts whether syphilis is as frequent a cause of tabes dorsalis as has been represented by some pathologists eminent in the knowledge of spinal disease. He considers that very hot and cold baths are attended with danger, and that the "Schmiercur," *i.e.*, treatment with baths and mercurial inunction is more likely to do harm than good. He has seen marked improvement in patients suffering from tabes who had also syphilis, without subjecting them to antisiphilitic treatment. Dr. Richter uses the constant current, baths of moderate warmth, and rubbing.

*Influence of Static Electricity and Passive Movements on Hysterical Paralysis.*—Dr. Erlenmeyer, in reply to Dr. Vigoureux, of Paris, gives some explanations about a case of hysterical paralysis which static electricity was found to remove after the interrupted and continuous currents had been used without effect. He gives us the following observations:—"That metals, magnets, and static electricity, under certain conditions, bring about in invalids marked alterations of sensibility is a fact which cannot be contested, but it has lost much of its importance since the enquiries of Rumpf have shown that in the transference of sensations we have to do with a physio-

logical phenomenon which can be produced in every healthy person. The conditions under which these appearances can be produced are found to be in a proportional relation between the intensity of the disease and the strength of the apparatus. An electric machine, like that in the Salpêtrière, which is driven with steam, is sufficient for all cases." In the production of motility in a paralysed limb, with a hysterical patient, he thinks that the action of the will of the patient plays an important part. This influence cannot be excluded from any remedy, especially when it is something new, wonderful, and unknown. Whether we give homœopathic doses of sugar, of milk, or use an amulet or reliquary, a twenty franc piece, or a magnet, or animal electricity, or mesmerism, we equally act upon the faith of the patient, and make his hopes conduce to recovery. A distrustful and unsympathetic doctor will never treat such cases successfully. Dr. Erlenmeyer states his conviction, derived from much experience, of the favourable influence of passive movements in order to restore the lost muscular power of a limb. He has several times succeeded in at once arousing active movements in a limb through energetic passive movements; and a long-continued course of such communicated movements is one of the best ways of restoring powers long lost.

*Case of Loss of Speech cured by Galvanism.*—Dr. Mossdorf ("Centralblatt für Nervenheilkunde," January, 1880), gives a description of a youth of 17 affected with loss of speech, which had come on when he was six years of age, apparently owing to sudden fright. The patient was strong and well-made, and the power of moving the tongue and lips seemed normal, but whenever he tried to speak, the hyoid muscles, as well as those of the abdomen, were affected by tonic spasm, and the breathing was suspended for a moment. On opening the mouth the tongue was found to remain depressed. This condition was renewed at each effort to speak, and passed away when he abandoned the attempt. Telling him to repeat his name, Dr. Mossdorf waited for ten minutes. After many attempts he said, "I am called Boehmer," quite distinctly. One month was vainly spent in passing the constant current through the head and applying the interrupted current to the muscles of the abdomen. In the second month electricity was applied to the phrenic nerves, because Dr. Mossdorf suspected the action of the diaphragm had a good deal to do with the stammering; but finding this also ineffectual, he applied the positive pole of a galvanic battery to the occipital, and slowly descended with the negative pole to the tenth dorsal vertebra. After six applications a decided improvement was noticed. The treatment was much interrupted by the irregular attendance of the patient, but after fourteen months it ended in complete recovery.

Dr. Mossdorf tells us that he was induced at the end to apply the galvanism to the occipital region by the study of Kussmaul's work on "Derangements of Speech." This author traces the sensory

fibres necessary to the exercise of speech from the optic thalami to the occipital lobes.

*Curative Effect of Stretching of the Nerve Trunks in Tabes Dorsalis.*—A tradesman, forty years of age, was admitted into the Lazarus Hospital, at Berlin, on the 11th August, 1879. He was suffering from tabes dorsalis dolorosa. Besides the ataxia, there were intense darting pains in the legs and arms. Sensibility was much diminished in the lower extremities. The patient would allow his slippers to come off his feet without noticing them. The feeling of tightness round the body was sometimes present and sometimes absent. The reflex irritability was much increased; the tendon reflex of the patella could not be brought out, but there was great tenderness of the skin, especially in the femoral region. The arms were affected by the same symptoms, but in a less degree. All sedative drugs failing to afford relief, Dr. Langenbuch determined to try stretching of the sciatic nerve. The nerve, which was found to be red and swollen, was pretty stiffly stretched, and the incision was treated in the antiseptic manner. When the patient came out of the chloroform the pain was found to have disappeared, but there was motor and sensory paralysis of the parts supplied by the nerve, which, however, soon disappeared. Encouraged by the success of this treatment, the stretching was applied to the sciatic and right and left anterior crurals. When the patient came to walk again it was found that the sensibility had returned to the feet, and even the ataxia in the gait disappeared. Soon after he left the hospital, but Dr. Langenbuch heard that his patient had gained admittance to another one. It was, however, ascertained that the disorders in the legs had not returned, and that he had sought admittance in the hopes of getting relief from the symptoms in the arm.

*Koch's Statistics of Insanity.*—Dr. Koch has, in writing on the statistics of insanity in Wurtemberg, produced a quarto book of 230 pages. Like the "Almanach de Gotha"—which religiously commenced with the ducal family of Saxe-Cobourg Gotha, and then passed on to the other sovereigns of the earth—the doctor's treatise soon wanders beyond the little kingdom in which it begins its statistical career. Everything is compared with Wurtemberg, but then Wurtemberg is compared with everything; and so we have a perfect quarry of statistical matter about insanity, from which I can only select a few pieces.

Notwithstanding all his industry, Koch could arrive at no decided opinion as to whether the frequency of insanity is really greater than formerly. The increase in the returns seems general wherever we have statistics. In Prussia there was in 1867 one insane person to every 631 inhabitants; in the year 1871 there was one to every 448. In France, in 1835, one to 2,016; in 1872 one to 410. In Belgium, in 1835, one to 816; in 1868 one to 594. In the Netherlands, in 1825, one to 1,232; in 1876 one to 656. In Sweden, in 1855, one

to 985; in 1870 one to 464. In Norway, in 1825, one to 551; in 1865 one to 328. In England and Wales, in 1859, one to 536; in 1876 one to 373.

This increase is put down by some writers as the result of civilisation, a very complex term, including influences which heighten cerebral activity and create susceptibilities of its own, and also influences which help to set the mind at ease, diminish poverty, and banish starvation. Moreover, the statistics of a country always improve with its civilisation, and we have no reliable information as to the frequency of insanity in savage peoples. Dr. Koch shows that it may be fairly held that the increased number in the statistics of lunacy simply indicates an increased care and success in getting correct returns. Assuming that these new statistics are correct in indicating a real increase in the number of lunatics, we have two questions to ask: Do more individuals than formerly become insane? or do incurable lunatics live longer than they formerly did? No doubt they do.

In some cases, too, the number of the insane appears to have diminished, as in Lombardy, where, in 1824, there was one lunatic in 1,555, while in 1854, there was one in 1,612. In Brunswick, too, the last four census have given a decrease in the number of the insane.

In some states the number of idiots is greater than that of lunatics, and this even in countries in which cretinism does not prevail. Thus in Prussia, there are 3,740 idiots, and 2,103 insane; and in Saxony, 3,763 idiots to 2,328 insane. Dr. Koch shows that in the Canton of Berne the number of idiots has diminished, which is also the case in Constance, and Sulzheim in Bavaria, in Aigle in France, and in the Hartz; but this is really a decrease in cretinism, a disease confined to well-defined areas, and which can be escaped by avoiding these localities and other precautions.

According to Dahl there has been a diminution of idiocy of other forms in Norway, and this both in the town and country, though Koch, I believe erroneously, says that there was no decrease in the idiocy of the land population in the census of 1865. According to Neumann, a decrease in idiocy appeared in Silesia in the census of 1862. In most other countries idiocy appears to have increased. In France, as I have elsewhere shown, there are grounds for believing that the number of idiots and cretins is about three and a half times as large as that given in the census of 1872.

The table which Dr. Koch gives of the relative number of the insane to the idiot is worth re-producing:—

For to a hundred lunatics there are—

In Prussia	.	.	.	158	idiots.
„ Bavaria	.	.	.	154	„
„ Saxony	.	.	.	162	„
„ Austria	.	.	.	53	„
„ Hungary	.	.	.	140	„



In the Canton of Berne	.	.	.	117 Idiots.
„ France	.	.	.	66 „
„ Denmark	.	.	.	58 „
„ Sweden	.	.	.	22 „
„ Norway	.	.	.	65 „
„ England and Wales	.	.	.	74 „
„ Scotland	.	.	.	68 „
„ Ireland	.	.	.	69 „
„ America	.	.	.	79 „

It appears that in Germany at least there is a great majority of idiots over lunatics, while in most of the other countries of Europe the reverse is the case. These statistics, however, are open to question, though it is likely that the number of idiots is generally rather under than over-stated. In Wurtemberg, from the census in 1853, there were 195 idiots for every 100 lunatics; but in 1875 the proportion stood as 97 idiots to every 100 lunatics. Are we to believe that there was such a very great change in the proportion of congenital and acquired insanity, or was it simply owing to some error in the statistics? By the census of 1875, out of every 1,000 males there were 2·18 insane, and out of every 1,000 females 2·17 insane. Of male idiots the proportion was 2·18; of females, 1·98; and this predominance of male idiots is true of every country of Europe. In the Canton of Berne, there is a slight majority of male idiots, probably constituted by cretins.

In idiots, Dr. Koch observes, we find almost always a majority of males, in the insane always a majority of females; but so much greater is the majority of male idiots than the majority of insane females, that when the insane and idiots are classed together there remains a majority to the male sex. Dr. Koch finds that male idiots are more subject to epilepsy than female ones.

It has long been believed that idiots are a short-lived class, and this is borne out by Dr. Koch's statistics, though not in such a marked degree as one might have supposed. He finds that the duration of the life of epileptic idiots is shorter than that of the others.

The statistics presented in this book do not bear out in a decided manner the presumption that illegitimate children are more disposed to idiocy than children born in wedlock. Dr. Koch quotes the statement that, in eight counties in Scotland, a country in which natural children are in the ratio of 10·9 to all births, among 632 idiots (he calls them cretins), 108, *i.e.*, 17 per cent. were illegitimate, but idiots when illegitimate are more likely to turn up to official notice than if borne by married women. On the other hand, it was found that there was only 2 per cent. of illegitimate idiots in Wurtemberg, and though this may be owing to faults in the returns, he found double the number (8·66 per cent.) of illegitimate idiots to illegitimate lunatics (4·79). The author adds, "I do not believe that on a large percentage there is really displayed a greater influence of illegitimate births on the pro-

duction of idiocy. In some cases idiocy in the child is the result of imbecility or extreme simplicity on the part of the mother."

Dr. Koch found that 33·68, that is about one-third of the insane, had a hereditary tendency. In 20·47 per cent., that is one-fifth of the cases, hereditary tendency did not occur; while in 45·85, about half of the cases, heredity could neither be decidedly proved nor disproved. If we take only the cases in which the hereditary tendency could be certainly proved or disproved, in 62 per cent. there was such a heredity, and in 37 per cent. no such heredity existed. It is, however, much easier to prove hereditary insanity in a family than the absence of it. Czerniack found in the census of the insane for 1857, in Moravia and Silesia, 37·47 per cent. of insanity, which could be traced to hereditary tendencies.

Enquiries in Oldenburg showed only 13 per cent. of heredity; in Hanover, about 16 per cent.; in Nassau, 17 per cent.; in Mecklenburg Schwerin, 22 per cent.; in Brunswick and in the Canton of Berne, 23 per cent.; and in the Department of the Lower Rhine, 20 per cent. was made out. If one put down heredity as the cause in one-third of all the cases of insanity, it would not be too high. He finds that 24 per cent. of idiots have brothers or sisters who are abnormal, while the insane have only 16 per cent., hence he is inclined to the belief that heredity is a more powerful cause of disease amongst idiots than amongst the insane, all the more so that, if we believe that in families where idiots are born, the number of children are fewer. This, Dr. Koch does not prove, and I believe it to be a mistake. He gives some other figures which show how high hereditary connection must count in the production of idiocy.

Amongst others, Dahl, in some inquiries made in Norway, in the year 1860-61, found the hereditary cause in 43 per cent. of the idiots whom he examined. Dr. Koch ascertained that in the collateral relations of idiots, 7·8 per cent. showed a neurosis, and that in the collateral relations of the insane, the proportion was 5·74. Here is his opinion on the question of consanguineous marriages:—"I am convinced that marriages between near blood-relations exercise a prejudicial influence upon the nervous system of their descendants only when there are already abnormalities in the family from which both the married people came. In that case there is an accumulation of the baneful influences." From his tables, Dr. Koch makes out the tendency of consanguineous marriages to be greater in producing idiocy than insanity.

In examining the question whether a hereditary tendency to insanity acts more strongly through the father than through the mother, Dr. Koch differs from the majority of authors, who seem to have accepted the view of Esquirol and Baillarger. These physicians thought that insanity comes upon the children oftener through the mother than through the father, and that when it does so, the female children are in greater danger than the males. "My statistics," Dr. Koch observes,



“do not bear out this view, for they show that the hereditary tendency is most powerful towards the same sex. The hereditary tendency is more often transmitted to the male children than to the female, while the same neurosis transmitted through the mother, is somewhat more apt to affect the female children. Both insanity and idiocy seem more frequently transmitted through the male parent than through the female.”

Much of this the author traces to the bad effects of drunkenness.

*B. Danilewsky.*—A method of estimating the proportions of white and grey matter in the brain. (“*Centralblatt, f. d. Med. Wissenschaften,*” No. 14, 1880).

Danilewsky’s method is founded on the Archimedean principle:—Given the specific gravities of the whole brain ( $p$ ) of the grey ( $a$ ) and white ( $b$ ) substances, and the weight of the whole brain ( $P$ ), calculate the quantity ( $x$ ) of white or grey matter by the formula  $x = \frac{Pb(p-a)}{p(b-a)}$

By carefully avoiding such sources of error as variations of temperature, moisture, &c., Danilewsky found that his results were satisfactorily uniform.

Thus, one set of results is given by the figures:

*Human cerebrum.*

Grey matter,	39·0—38·7—38·2—37·7	per cent.
White	61·0—61·3—61·8—60·3	”

He further finds that of the total 39 p.c. of grey matter, 33 p.c. is contributed by the convolutions and 6 p.c. by the basal ganglia. With these data we can calculate easily the square surface of the brain, if we ascertain the depth of the grey matter of the convolutions. Assuming this latter to be on the average 2·5 mm., Danilewsky finds 1,588 square centimetres in one brain, and 1,692 in another.

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#### 4. *Retrospect of Mental Philosophy (Periodical Literature.)*

##### *Psychology No. II.*

By B. F. C. COSTELLOE, B.Sc. and M.A., Glasgow, B.A., Oxon.

*Mind: A Quarterly Review of Psychology, Nos. xviii. and xix.*  
(April and July, 1880.)

Our English philosophical quarterly amply maintains its interest, although the number of papers devoted to our more special subject is not great. The April number contains a sketch by Prof. Croom Robertson, the Editor, of the contents of Prof. Goltz’s third Memoir on brain-localisations, in opposition to the recent work of Hitzig and Ferrier. The main point of Prof. Goltz’s criticism, which will not be