fanaticism and superstition (involving psychic weakness) to be found in that town.

It may be added that Dr. Batut, an army surgeon, has recently published a paper of considerable length on tattooing as it exists in France and in Algeria, and also summarises some of the more recent studies of the subject ("Du Tatouage exotique et du tatouage en Europe," "Archives d'Anthropologie Criminelle," Jan., 1893).

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3. *German Retrospect.*

By W. W. Ireland, M.D.

On the Amount of Hæmoglobin and Specific Weight of the Blood in the Insane.

Dr. Vorster ("Allgemeine Zeitschrift für Psychiatrie," L. Band, 3 and 4 Heft.) details his experiments on the quantity of hæmoglobin and the specific gravity of the blood of the insane. He refers to the previous experiments of Macphail, Smyth, and Winkler, with which his own results are in general agreement. He observes it has been found in ordinary medicine that the appearance of the patient affords no criterion as to the amount of hæmoglobin in the blood. Schmalz found that there was a parallel relation between the quantity of hæmoglobin and the specific gravity of the blood, though not between the specific gravity and the number of the blood corpuscles. Dr. Vorster's experiments were made upon 128 patients, 104 of whom were males and 24 females. He considers the normal specific gravity of the blood to range from 1,055 to 1,062 for males, and from 1,051 to 1,058 for females. Anything under 90 per cent. of the hæmoglobin in males or 85 per cent. in females he holds to be pathological. Vorster's method of research allowed him to experiment on a small quantity of blood.

He used what he calls a capillary pyknometer, in which he took up 0·1 gr., or about two drops of blood. This minute quantity was weighed in a very fine scale, and the specific gravity was obtained by comparing the weight with that of the same quantity of pure water. In ascertaining the amount of hæmoglobin he used Fleischl's hæmometer.

After a laborious inquiry Dr. Vorster arrived at the following results:—

1. The specific gravity of the blood and the amount of hæmoglobin is diminished in states of excitement along with great motor restlessness.

2. When there are symptoms of venous stasis in the course of insanity, especially with patients suffering from melancholia or apathetic dementia, the specific gravity and the quantity of hæmo-

globin is frequently increased. In such patients, even when they are anæmic, the solid constituents of the blood are sometimes found to be normal.

3. If the specific gravity of the hæmoglobin become lower in the course of the stage of excitement or depression, when the patient begins to recover and the bodily weight again increases the specific gravity and hæmoglobin also increase.

4. Sometimes there is an increase of the specific gravity of the hæmoglobin after epileptic and paralytic attacks.

5. Epileptics who have used the bromides for years have in the blood a higher specific gravity and a greater quantity of hæmoglobin than those epileptics who have not taken much of the bromides.

Dr. Vorster does not think that the increase in the solid constituents of the blood after epileptic fits is owing to motor excitement, for there is a rapid diminution in delirium tremens and general paralysis; nor has he found any relation between the rise of bodily temperature and the increase of the blood constituents. He is inclined to think that this increase is owing to the difficulty of respiration and the cyanosis attending the epileptic attacks.

The Ætiology of General Paralysis.

Dr. Emil Hougberg, assistant physician in the Asylum of Lappvik, near Helsingfors, in Finland, has made an important contribution to the question whether general paralysis is caused by syphilis ("Allgemeine Zeitschrift für Psychiatrie," L. Band, 3 and 4 Heft).

Dr. Hougberg remarks that one group of psychiatric physicians, including most of the French, do not give any high importance to syphilis as a cause of paralytic dementia, laying more stress upon the abuse of alcohol, excess in venery, and injuries to the head.

Dr. Hougberg objects that those who support this view do not take sufficient pains to make sure whether their patients really have had syphilis or not. On the other hand the psychiatric physicians of Scandinavia and Finland hold that general paralysis is a disease entirely caused by an earlier infection of syphilis. The German alienists with Mendel for the most part take a middle position. Though they admit that syphilis is an important factor in the production of so-called paralytic dementia, they do not consider it to be its sole cause.

Dr. Hougberg's own observations were made upon 107 patients, 98 of whom were males and nine females. The details are given at length in a paper of 82 pages. He found syphilis to have been undoubtedly present in 81 per cent. of his cases, and probably so in 11·2 per cent., thus raising the proportion to 92·2 per cent. This is the highest ratio recorded by any observer save Dengler, who found syphilis in 28 out of 30 cases, equal to 93 per cent.

Dr. Hougberg arrived at the following conclusions:—

1. General paralysis is a disease which especially affects the town population of Finland. It does not affect women of the better classes.

2. The importance of syphilis as a factor in progressive paralysis seems to be very great, especially when we consider that venereal disease plays no large part in the causation of other forms of insanity.

3. General paralysis, which comes on most frequently between the ages of 30 and 45 years, makes its appearance from four to five years after the syphilitic infection.

4. The symptoms of constitutional syphilis which precede general paralysis are of a mild character.

5. Compared with syphilis, the other assigned causes, such as hereditary predisposition, affections of the mind, abuse of alcohol, and excess in venery, play but a subordinate part.

6. In paralytic dementia known to have followed syphilis there were no distinctive symptoms from the cases in which syphilis was presumed to be absent. No benefit was derived from anti-syphilitic treatment, nor were any alterations of a specially syphilitic character found on examination *post-mortem*.

Surgical Treatment of Microcephaly.

There are four operations on the heads of microcephales recorded in the "Allgemeine Zeitschrift für Psychiatrie," xlix. Band, 6 Heft, and the "Centralblatt für Nervenheilkunde," Mai, 1894. The first was a male child of eleven months, a microcephale. Size of head not given. No trace of sutures or fontanelles could be felt. He was subject to convulsions, and gave no marks of intelligence. The operation performed by Dr. E. Kurz consisted in removing a strip of bone one centimetre broad and 16 centimetres long. The dura mater was left intact. Eight weeks after the operation, besides healing of the scalp wound, there was complete regeneration of the bone tissue which had been removed, so that the cranium seemed to be equally hard everywhere. The circumference of the head had increased by one centimetre. The convulsions in the limbs were less marked. The facial expression had less of an animal character, and there were some traces of mimicry and voluntary motion.

The "Centralblatt" reports another case of microcephaly operated upon by Professor Gersuny, of Vienna: a child, twelve months old, in whom the fontanelles had closed in the third month. In the fourth epileptic fits began in the left arm and leg, with deviation of the head and eyes to the left. The measurements of the head were:—Circumference, 355 millimetres; from glabella to occipital protuberance, 128 mm.; transverse, 115 mm.

Dr. Gersuny's object was to remove a hoop of bone from the whole circumference of the cranium. To accomplish this bold project he made twelve radiating incisions downwards of six centimetres long, crossing the circular incisions on the skull. The scalp was separated from the bone, and a strip of the cranial wall three millimetres in breadth was removed in two operations. Healing was by the first intention. After three months the depression in the bone could still

be felt. A short time after the operation the epileptic attacks ceased, to appear again in greater number, but after a time they became less severe and less frequent. There was a favourable alteration in the deportment of the child.

At a meeting of the Northern Surgical Society at Copenhagen Akermann reported that he had operated upon a boy two years old. The circumference of the head was forty centimetres. There was atrophy of the optic nerves and epileptic attacks. After the first craniectomy the circumference increased by two centimetres, and the epileptic attacks became less frequent. Ten months later craniectomy was again performed, but without any apparent benefit.

Dr. Tscherning agreed with Bourneville, who holds the operation to be dangerous, and not based upon a proper knowledge of the pathology of microcephaly, as the sutures are frequently found open in the skulls of microcephales. Tscherning performed craniectomy in a boy of fourteen months old, the circumference of whose head was 385 millimetres. The child died nine hours after the operation, with a high bodily temperature. On examination of the brain the central gyri were found atrophied and sclerosed.

In reference to this operation Dr. Jules Voisin tells us in his book entitled "L'Idiotie," Paris, 1893, that Dr. Lannelongue has performed craniectomy a score of times. He cut away a strip of the cranial bones longitudinally on both sides, or on one side, without incising the dura mater. The operation was followed by no inflammatory accident, which showed that it could be safely performed with careful antiseptic precautions. But the intellectual improvement so earnestly expected did not come.

A Three Hundred Years History of a German Asylum.

Under the title of "Die Psychiatrie in Würzburg, von 1583 bis 1893," we have a history of the Julius Hospital of Würzburg for more than 300 years. The foundation was laid by the Prince Bishop, Julius Echter, on the 12th March, 1576, as an almshouse and hospital. In 1583 the first insane person was admitted. The regulations for nurses throw a gleam of light upon the nature of the treatment given in those days to the insane. She is to have charge of the fetters and foot-irons, and keys of the presses, to take care of the dishes, and to give the lunatics their bread, drink, and food daily. She must try as much as possible to learn their peculiarities, whether they chatter or rage, or rave, and not exasperate them to further anger. She is ordered to bathe them and give them newly-washed clothes, and to spread clean straw in the prison. In winter, "when it is pretty cold," she is to make a "small fire," but care is to be taken not to put clothes or straw near the stove. The first entry by name in the admissions is Erhardus, Count of Mellerstadden, a poor scholar somewhat out of his mind. The first four patients received

are stated to have gone out recovered or improved; but after studying the records printed, we doubt whether a correct ratio of recoveries and deaths can be made out of them.

In 1590 a woman was received as possessed. Another was exorcised by a priest, but nothing found save natural disease. In 1617 a girl of eight years was brought to the hospital as bewitched. There is a frankness about some of the entries which indicates that the analogue of the superintendent of those days had a mind untroubled by committees. Of one patient, a melancholiac, it is recorded that he was turned out for his insolence. It would appear that some of the patients at least were not detained against their will. Some are noticed as not quite insane, *e.g.*, *melancholicus fere ad insaniam.* Perhaps the chains were used simply as a means of restraint while in the asylum. There are entries of patients escaping with their chains.

In 1617 an inveterate hypochondriac and melancholiac *noluit manere et discessit;* another *abüt sponte.* Escapes seem to have been common during the twelve years beginning in 1600. *Clam abüt* or *furtim discessit* is the laconic entry. In 1628 there were 169 persons in the asylum. In 1631 Würzburg was occupied by the Swedes, who for three years used the hospital for their soldiers. In 1743 a portion of the hospital was assigned for the treatment of lunatics. This establishment has now lasted 150 years. Fifty years ago a psychiatric clinique was begun by Professor Marcus, which has gone on in connection with the famous university of Würzburg ever since.

Sclerosis of Hippocampus in Epilepsy.

Dr. Fischer ("Neurologisches Centralblatt," No. 1, 1893) has carefully studied two cases in which alterations of the hippocampus major was observed in epileptics. The first patient had suffered from fits from his seventh year till he became demented, and died at the age of fifty of phthisis. On examining the brain there was noted an extensive atrophy of the convolutions of the frontal and occipital lobes on both sides. This atrophy, however, was more extensive on the left side, and involved the left cornu ammonis. This supports the view of Wundt, who regards the atrophy and hardening of the hippocampus in epileptics as dependent upon the asymmetrical enlargement of the lateral ventricle. This he regards as the result of the disturbance of the circulation which accompanies all epileptic fits. The left cornu ammonis is more often atrophied than the right. Both are rarely affected at once. The second case described was a weak-minded patient, who suffered from epilepsy from the fourteenth till the twenty-second year of his life. The brain was infiltrated with serous fluid, especially on the left side. There was softening of the left hippocampus. The lateral ventricles were also full of fluid and both of them enlarged; the left ventricle was larger than the right.

Dr. Fischer regards this as a further confirmation of Wundt's views.

Hæmatoma Auris.

Dr. W. P. Tischkow, working in the laboratory of Dr. Mierzejewsky ("Allgemeine Zeitschrift," xlix. Band, 4 Heft), made a study of hæmatoma auris in five cases of general paralysis and one case of hebephrenia. He holds that there are several kinds of swelling of the ears distinguishable from the form peculiar to insanity (othæmatoma verum). Tischkow describes four stages in this affection: The period of effusion of blood, which lasts only some hours; that of absorption, which is often retarded by new effusions of blood; the period of degeneration; and that of contraction of the new deposit attended by contraction of the whole ear. The course of the hematoma when treated on the expectant method lasts about six weeks. He considers the appearance of the affection of the ear in general paralysis as a bad symptom. In such cases a remission of the general symptoms is not to be counted on. Tischkow observes that the effusion of blood is preceded by a new growth of vessels, beginning from the perichondrium and invading the body of the cartilage. The giving way of these vessels is the cause of the effusion of blood. The nutrition of the cartilage then becomes affected, the elastic fibres take a dull colour, there is fatty degeneration of the cells, and partial necrosis of the cartilage. As the effused blood lies in the dilated cavity of the cartilage, the conditions are unfavourable to absorption, hence this period lasts long. In two cases of general paralysis Tischkow observed the formation of new vessels without any effusion of blood. In another case he noted the disappearance of the elastic fibres also without any effusion. Tischkow thus considers that the cause of othæmatoma lies in a peculiar affection of the cartilage, which is especially found in general paralysis. The view that the hæmatoma may be caused by external injury he regards as quite unfounded; even as an exciting cause, external injury plays but a small part.

Dr. Pellizzi (quoted in "Neurologisches Centralblatt," No. 14, 1893), in five cases of hæmatoma auris, found a kettencoccus which bears much resemblance to the streptococcus of erysipelas and the streptococcus pyogenius. He was able to cultivate this microbe and to inoculate it on the ear of the rabbit. He considers the disease infectious, and recommends a speedy clearing out of the abscess with antiseptic precautions.