

viated, should reappear in a distinct and intelligible manner."

The authors indicate as a striking point in two microcephalic brains the marked reduction of that part of the hemisphere which lies behind the fissure of Rolando. In some previous descriptions of such brains this fissure has been mistaken for the præcentral sulcus. The authors find the fissure of Rolando much more firmly marked in man than in the higher apes, and observe that this predominance of the fissure in man is "entirely due to a more exuberant growth of the two convolutions which bound it, and in all probability it has been brought about by the acquisition of the skilled movements of the upper limbs, by the increase in the power of facial expression, and perhaps to some extent by the great increase in the relative length and strength of the lower limbs. The stolid expression, the shuffling gait, and the clumsy action of the hands of an idiot may therefore to some degree be accounted for by the more feeble development of the two central convolutions."

But may not the stolid expression of an idiot be owing to his stupidity, and his awkward gait and action to his incapacity to direct the complex machinery of the human body?

The authors show that the theory of Klebs, who held that microcephaly was owing to an hour-glass contraction of the uterus, cannot hold good of many cases, for the deviation from the normal development of the brain generally takes place at a very early period.

There are many other interesting questions discussed in this treatise, which is made valuable not only by the interesting character of the materials studied, but by the skill, knowledge, and diligence brought to their examination.

PART III.—PSYCHOLOGICAL RETROSPECT.

THERAPEUTIC RETROSPECT.

By Harrington Sainsbury.

Epilepsy, Treatment of, by the Bromo-opiate Method of Flechsig.

In the "Revue de Thérapeutique," November 15th, 1894, mention is made of this method of Flechsig in the review by Dr. A. Sallard of a treatise by C. Salzburg (Leipzig, 1894) on the subject. Attention is drawn to the variable results obtained by prevailing practice in the treatment of epilepsy, these results ranging between 10 per cent. and 70 per cent. of cures. Flechsig's method consists in the administration of opium in the first

instance, commencing with doses of some $\frac{1}{4}$ grain *pro die* of powdered opium or of its extract; this dose is distributed over the day. The quantity of opium is then increased by $\frac{1}{4}$ grain each day till a maximum of four or five grains is taken each day. At the end of six weeks the opium treatment is completely suppressed, and the bromide administration is then begun. This is given in large doses, some 75-105 grains *pro die*, and it is continued for at least two months. The attacks generally yield to the first doses of the bromides.

Several hypotheses are put forward to explain the *modus operandi*, which, we must confess, do not appear to us very convincing. More important is it to note the contra-indications to this treatment which are stated to obtain. These are: The status epilepticus; plethora; the existence of focal cerebral lesions. Further, the treatment is only adapted to institutions or to those circumstances which permit of constant supervision, inasmuch as the primary opium treatment may cause hallucinations or even delirium, and also marked digestive disturbances.

The remarkable results claimed for this method would indicate its employment in all cases of epilepsy rebellious to the usual bromide treatment. It is important to note this qualification, for it is not suggested to make a routine treatment of this method of Flechsig, but to keep it in reserve.

Epilepsy, Oxide of Zinc Treatment, Method of Herpin.

Dr. J. Corton, Paris, 1894, claims good results for this method. He records seven cases, with four durable cures. The dosage for adults varied between the limits of four and 38 grains, the latter dose gradually attained by a weekly rise of four grains. The dose for children during the first week was some two grains, with a weekly rise of two grains till a maximum dosage of 9-10 grains had been attained.

The only objection to this method was the liability to the production of nausea. Dr. Corton states that he has in several cases substituted the valerianate of zinc for the oxide.

For fuller details the original treatise of Dr. Corton must be consulted; the above are taken from a short notice in the "Revue de Thérapeutique," November 15th, 1894.

Epilepsy, Treatment of, with Silver Nitrate ("Lancet," September 21st, 1895).

In No. 3 of a series of contributions under the heading, "Rough Notes on Remedies," Dr. Wm. Murray, of Newcastle-on-Tyne, records two very interesting cases of epilepsy successfully treated with this drug. One, a confirmed epileptic, who had been fully treated with bromides with but very partial relief as to the fits, and, at "a great sacrifice of memory and general business alertness," was "face to face with the resignation of a valuable appointment." The case was put to him as to the staining of the

skin which a prolonged course of silver nitrate would involve and he elected to run the risk of this. He was put on a nine-months' course of silver nitrate. After the first month the fits ceased completely, and there was no recurrence afterwards. The other case of epilepsy was of thirty years' standing, and, beside the attacks of petit mal, with "occasional large fits," the patient suffered much from neuralgic headaches, muscular twitchings, lassitude, and other minor ailments, to which Dr. Murray thinks the bromides predispose by lowering vitality, and which greatly aggravate the burden of living. This patient also "deliberately accepted a course of silver nitrate, regardless of consequences," with the result that he is "seldom out of sorts, is comparatively free from headaches, has no twitchings, and has never had a trace of epilepsy, not even of petit mal." In both cases slight pigmentation resulted.

These cases may well remind us of an old therapeutic friend and of the common sense characterising the best of treatment, which here exchanges a heavy load for that which many would wisely regard as a mere trifle in comparison: a staining of the skin.

Epilepsy, Biborate of Soda in ("Lancet," October 12th, 1895).

This notice refers to an article by Dr. Féré in the "Revue de Médecine," in which an extensive series of trials with borax is recorded. The outcome is as follows: In the majority of cases the disadvantages of borax outweigh much the advantages; thus of 122 cases treated, in 87 no beneficial result obtained, in 24 the results were doubtful, whilst in 11 undoubted benefit occurred. Besides the small proportion of successful cases, numerous drawbacks in the shape of secondary effects contra-indicate. These drawbacks, classed under the heading Borism, include first alimentary tract disturbances, nausea, vomiting, anorexia—these, in certain cases, may be obviated by giving the borax along with glycerine. Other troubles are dryness of the skin and hair, and redness and inflammation of the mucous membranes; to the latter condition will probably be due the alimentary tract symptoms. Eczema may occur in papular or patchy form, but more commonly it is said to assume a seborrhœic type. General weakness is also present and is explained in part by the malassimilation due to the unhealthy state of the stomach and intestines, in part as a direct toxic effect. More important still was the occurrence in certain cases of albuminuria and general œdema; in one case death occurred with uræmia and hyperpyrexia, and post-mortem the kidneys were found inflamed.

However, in 11 cases undoubted benefit resulted, and these included some remarkable successes, even some which had resisted bromides.

Since the introduction of borax by Dr. Gowers in the treatment of epilepsy, much work on the subject has been done both in this

country and abroad. To this work Dr. Féré's will associate itself as a valuable contribution.

The position, then, which borax will occupy will be as a reserve agent for those cases intractable by bromides, and it will be essential during its administration, especially in large doses, to watch carefully its effects and more particularly to keep an eye upon the urine.

It will be clear from a consideration of the subject which these several references suggest, how large a part in the successful treatment of epilepsy *method* will play. It does so, of course, in all medicine, but it holds pre-eminently in conditions such as the epileptic, where the remedies are legion and the indications so few.

Locomotor Ataxy, Nitrate of Silver in ("Dublin Journal of Medical Science," July, 1895, p. 22).

Loc. cit. Dr. H. C. Tweedy reports a very interesting case in which a patient presenting well-marked symptoms of tabes dorsalis was quite cured by a prolonged treatment with silver nitrate. The patient in 1871 showed the following group of symptoms: Pronounced girdle pains, lightning pains, characteristic gait, requiring the assistance of a stick to steady the balance, sensation of numbness in the feet so that he could scarcely feel the ground, staggering when made to stand erect and close the eyes, also when made to turn quickly. He was put on gr. $\frac{1}{2}$ of nitrate of silver in pill thrice daily. This treatment was continued for a fortnight, then stopped for a week, then resumed for a fortnight. Hospital treatment was suddenly interrupted after six weeks, but the patient continued the use of the drug on the same lines with "tolerable regularity" for two years. In 1873 he was seen and found much better. At intervals the drug was continued till 1876, when he reappeared "with some return of the ataxy." Potassium iodide was then tried, but so unsuccessfully that the silver nitrate was resumed. Lost sight of for six years, till 1882; the patient reappeared this time on account of eczema of the legs. All ataxic symptoms had disappeared, but the patient suffered occasionally from pains in the back and loins, coming on acutely with vomiting; these symptoms, he stated, were each time relieved by a course of silver nitrate. At this time a slaty-blue colour of face and hands was noted, and to a less degree of the rest of the body, but the general health was excellent. In 1894 again seen with scarcely any change except such as was due to age. Off and on he had been taking the silver nitrate for 23 years, and Dr. Tweedy computes the quantity taken, at a very moderate estimate, as 2,000 grains. The discoloration of the skin was not noticed at the end of five years, but was well-marked at the end of eleven.

The writer then considers the question of the total quantity of

silver required to produce argyria and the length of administration necessary, and he concludes:—

1. That no precautions can guard against the staining during prolonged administration.
2. That in this particular case the patient's general health did not suffer.
3. That upon the malady the beneficial effect of the treatment was remarkable, which, speaking in 1894, had disappeared for more than ten years.
4. And, finally, that the discoloration of the skin was not an extravagant price to have paid for the benefits received.

We may, perhaps, take note, for practical purposes, of the smallest quantity of silver salt which, according to Krahmer, has produced argyria, viz., 450 grains. Dr. H. C. Wood (Therapeutics) puts down three months as the longest period of administration permissible without a protracted interruption.

Tabes dorsalis and Serum Therapy.

In the August number of the "Therapeutische Monatshefte," 1895, we find a brief note to the effect that the *serum therapy* of tabes, in spite of many encomiums, does not make way. Subjective experiences of benefit obtained are not denied, but that these depend on suggestion are indicated by the occurrence of similar effects with control injections of distilled water. Actual objective improvement was not observed in any case (Fürbringer and Senator, "Deutsche Med. Wochenschr.," 13 ff.; Wood and Whiting, "Lancet").

Case of Acute Sulphonal Poisoning ("Therap. Monatsh.," January, 1895).

It can hardly be said that we have quite abandoned the search for the philosopher's stone, inasmuch as we are in present hot pursuit of the soporific which shall bring sleep only in its substance, no other gift, certainly no evil one. The like may be said of anæsthetics, and of a long list of therapeutic agencies. Each new drug comes forth flawless—no evil secondary effects attend it. Sulphonal has long been driven from the pedestal upon which it was speedily upreared, and of its occasional poisonous effects we have many instances on record, but these for the most part are slowly brought about. Dr. Karl Hirsch, *loc. cit.*, records a case of acute sulphonal intoxication from a single massive dose. The patient, a young woman, æt. 28-30, swallowed at one dose 25 grammes (380 grains about) of sulphonal in a wine-glass of water. Immediately upon the taking she felt giddy, with fulness in the head, but she retained sufficient self-possession to inflict upon herself a wound of the left wrist. So long as she retained her faculties she did not vomit. She was found unconscious and pulseless. The contents of the stomach had been to some

extent rejected, but this must have occurred after the loss of consciousness. The symptoms calling for special notice were— 1st. Somnolence, complete for two days and two nights, it being impossible to rouse the patient, followed by a great drowsiness for four more days; 2nd. The presence of gastro-intestinal disturbances, epigastric pain, with very foul tongue and complete anorexia, but no vomiting, except at the onset and once again on the sixth day. Further, a constipation which resisted all efforts for five days; 3rd. The occurrence of a nephritis (albumen, casts, red and white cells), which first appeared on the fourth day, and lasted three days; 4th. Analgesia, probably present from the commencement, but only observed on the fifth day, when the faculties were sufficiently regained to test this point. The analgesia lasted for two more days; it was specially noted in the legs, and was accompanied by slight anæsthesia (touch).

Of the reflexes, the plantar was slightly lessened at the beginning. No ataxy was observed.

Dr. Hirsch refers to two other cases on record, in which respectively 30 grammes and 100 grammes (Neisser's case) were taken, in each without permanent bad effect. That which we would ourselves accentuate is the *immediate* effect, subjective (giddiness, fulness in the head), which the patient reported, for it is difficult to understand how so insoluble and slowly-acting a drug could produce this, but perhaps in the excited frame of mind which possessed the patient at the time of taking the drug we must discount these subjective sensations, or regard them as reflex disturbances, since in the presence of the vomited stomach-contents there was evidence of a local irritant action. How much of the sulphonal was actually absorbed it is impossible to guess, for not only did the patient vomit up an unknown quantity, but within three or four hours of the taking of the drug the stomach was washed out. Finally it must be noted that hæmatoporphyry, so frequent as a urinary effect in cases of chronic sulphonal poisoning, was not present here.

Trional.

Since the employment of sulphonal, perhaps more particularly since the occasional toxic effects produced by the latter, trional and tetronal, closely allied to sulphonal, have been introduced. Already a considerable amount of experience has been gained with these drugs, but more is needed to establish their precise value. In the "Therap. Monatsh." for May 1895, we find a reference to Dr. Svetlin's trials at his asylum at Vienna (quoted from "Wiener Klin. Wochenschr.," 1895, No. 14). Dr. Svetlin has made use of trional during a period of some two-and-a-half years, and he speaks from an experience of over 3,000 separate doses. His dosage varies from one to three grammes (15 to 45 grains). The administration is at bedtime in a wine-glassful of hot drink, containing one teaspoonful of brandy and one teaspoonful of syrup of

orange. This makes a very pleasant punch, which is readily taken. Sleep sets in from one half to three-quarters of an hour, and lasts from five to eight hours. He records no unpleasant by-effects, and he regards it as a prompt and sure means in simple nervous agrypnia, in the restlessness of neurasthenia, and in melancholy without delirium; also in the lighter forms of maniacal and delusional excitement. He does not find it effective in the nocturnal restlessness of paralytics, or in the severer forms of mental excitement. In some cases of sleeplessness, especially in chronic cases, trional was found useful, in combination with $\frac{1}{7}$ - $\frac{1}{8}$ grain of morphia, or $\frac{1}{4}$ - $\frac{1}{2}$ grain of codeia, and in this combination it proved effective when separately the ingredients were useless. Dr. Svetlin places trional after chloral and opium in strength, but it had the advantage of not showing habituation, though given for two or three months at a time.

Prof. Obersteiner ("Therap. Monatsh.," May, 1895) thus expresses himself as to the value of trional: It is an excellent hypnotic. Fifteen grains is often enough to cause excellent sleep, and Prof. Obersteiner does not exceed the dose of 30 grains. He gives it two advantages over sulphonal—a speedier action and either absence of after effects or the presence of these in much smaller degree. He thinks these differences are to be explained—1st. By the more ready absorption of the drug, trional is less insoluble than sulphonal; 2nd. By a less stability of the molecule, which being hence more easily broken up, is more readily separated from the body. Prof. Obersteiner's results were gained at his private asylum at Oberdöbling, Vienna.

From the County Asylum at Osnabrück, on the other hand, we have the report of a case of chronic poisoning by trional. Dr. Reinicke, under whose care the patient was, makes reference to three cases of chronic poisoning thus far published, viz., those of Schultze, Herting, and Hecker. Of these three, two were fatal. In his own case a point of much importance was that the administration was cautious from the beginning, and the use of the drug interrupted by long intervals. The patient, a well-nourished woman, *æt.* 26, suffered from acute delusional insanity. The treatment extended from October 15th, 1894, to January 29th, 1895, and, with the exception of two days, the patient kept her bed the whole time. She received 15 grains every second evening. From the 1st of December to the 22nd there was an interval, and again from the 14th to the 22nd of January. The total quantity taken was 600 grains. The last dose given was on January 29th. On the 30th there appeared some feverishness and headache, with gastro-intestinal upset. There was diarrhoea, with some blood in the stools. The urine was also bloody, and contained much albumen, a few red and white cells were found, and some bladder epithelia, hyaline and granular casts, and granular detritus. This condition of urine persisted from the 1st to the 10th of February, though there was gradual improvement. The urine had

been last tested, before the attack, on January 23rd, and was then free from blood and albumen. Considerable cardiac depression co-existed with the alimentary and renal symptoms; the pulse was quiet and small.

The patient ultimately recovered, but she was much weakened and remained very anæmic.—("Therap. Monatsh.," May, 1895, from "Deutsche Med. Wochenschr.," 1895, No. 13.)

Dr. M. Steiner ("Therap. Monatsh.," June, 1895, p. 319) speaks in the highest terms of trional as a hypnotic, notwithstanding the occasionally recorded evils resulting from its use. He agrees with Goldmann that in cases of its prolonged administration if care is taken to meet the constipation and oliguria, which, for the most part, precede dangerous symptoms, and if at the same time carbonic acid water be administered, the dangers may be averted. He orders one to two bottles daily of an artificial seltzer water. Thus prescribed he has never seen harm result.

It is quite clear from the position already reached that trional is an efficient hypnotic, but that it possesses real advantages over sulphonal is not proven. Trional will add itself as another shaft to a very full quiver.

Benzacetin as a Sedative.

Dr. Frank ("Cbl. f. Gynæcologie") recommends this compound in doses of 8 to 15 grains in those cases where hypnotics proper do not seem advisable.—("Therap. Monatsh.," August, 1895).

Chloralose ("Therap. Monatsh.," June, 1895).

This substance is obtained by introducing the chloral grouping into the molecule of glucose, and to describe its composition it has been named *anhydro-gluco-chloral*. It was first described by the chemists in 1889, and first introduced into medicine as a hypnotic in 1893. It is extremely bitter, freely soluble in warm, but very sparingly in cold water (*cf.* Merck's "Jahrbuch"). Dr. Lad. Haskoves, Assistant Physician in the Psychiatric Clinic at Prag, reports thus of its employment:—Eighty-two patients were treated, 39 women, 43 men. In doses of three to six grains it acted as a nerve sedative; of $7\frac{1}{2}$ to 15 grains as a hypnotic. Sleep sets in in from half to one hour, and it lasts from three to seven hours, this result depending upon the dose, the nature of the disease, and the age of the patient.

The doses to begin with should always be small—3-6 grains. Suitable cases are those of mania, especially in youthful objects, of epilepsy and of alcoholism. Unsuitable cases are those with organic disease of the brain and elderly patients. These are liable to show poisonous effects, convulsions general or partial.

Chloralose does not affect the respiration, the pulse is increased somewhat in force and frequency; the temperature tends to rise about half a degree.

The drug shows some cumulative action, but at the same time

patients are said to grow accustomed to it; this is somewhat contradictory.

The administration is best in solution in warm or hot water, with some strong flavouring added to conceal the bitterness, *e.g.* :

Chloralose, gr. iij-xii.
 Cumarin, gr. ʒ.
 Saccharin, gr. iij.
 Hot distilled water, ʒiij-ʒiv.

Cumarin is the aromatic principle of the sweet scented woodruff and of the Tonka bean—some other strong aromatic principle might be substituted. Chloralose might be given in cachet or wafer paper. The dose should not exceed 15 grains.

Lactophenin, poisonous symptoms during administration of.

Lactophenin is closely allied to phenacetin; in fact, if the acetic grouping in phenacetin is replaced by the lactic acid grouping lactophenin is the result. From experiments on animals by Schmiedeberg this compound has been found to possess hypnotic, analgesic, and antipyretic powers. These results have been confirmed for man by numerous observers (*cf.* "Merck's Annual Report," 1895). Among these observers Dr. Hermann Strauss now records in the "Therap. Monatsh.," Sept., 1895, p. 469, three cases in which catarrhal jaundice appeared in patients who were taking lactophenin. Up to the present time few by-actions have been reported, and these have been comparatively unimportant, *e.g.*, sweatings and mild degrees of cardiac arrhythmia. Dr. Strauss himself has also noted two cases of rash. His present cases developed well-marked jaundice, with symptoms of dyspepsia, after nine, fourteen, and twenty-one days respectively of lactophenin dosage, 15½ grains four times daily. In each case the drug was given as an antineuralgic, and there was nothing in the cases to throw any light upon the jaundice, except the possible toxic influence of the drug. No other cases of jaundice occurred in the hospital during the nine months which included these cases, and since all three had this one element in common it seems difficult to escape the conclusion that we have here cause and effect.

Dr. Strauss made two experiments upon rabbits with lactophenin, and developed a pronounced gastro-duodenal catarrh but no jaundice. Lewin had previously shown that phenacetin, so closely allied to lactophenin, may produce a like gastro-duodenal catarrh. So far, therefore, as these not very extensive experiments upon animals go, they favour the conclusion that the jaundice in these cases was a toxic drug action.

Dietetic therapeutics we all believe in, and most of us would prefer to take our medicine, if possible, in this form. Iron and phosphorus are favourite remedies for recruiting or building up the depressed powers of the body, and accordingly we shall learn with pleasure that M. Chatin has not only demonstrated that oysters are rich in the halogens, iodine and bromine, but that they

also contain appreciable quantities of phosphorus and of iron. The phosphorus is present as phosphate in organic combination; the iron is present in diatoms, which are in sufficient numbers to impart to the oyster its brown colour. It would seem that the oysters of Portugal are richest in phosphate, each one of them containing a little more than a grain of phosphate.

M. Gautier draws attention to the fact that all aliments of marine origin are rich in phosphorus; cod-liver oil furnishes a good example since it contains glycerophosphoric acid.

On these grounds we may, perhaps, accord to oysters a special nutritive value. All departments of medicine will rejoice at this, though it will occur to many that the action of phosphorus as phosphate is very far from that of free phosphorus or of phosphorus in its lower forms of combination with oxygen, viz., as phosphite or hypophosphite.

M. Chatin's observations are from the "Gazette des Hôpitaux," May, 1895, No. 61.

Alcoholism is a familiar trouble in special and general medicine, and it may, therefore, not be out of place to refer here to a treatment for the gastritis of drinkers mentioned in the "Gazette des Hôpitaux," March, 1895, No. 38. Prof. Zdekauer orders for this gastritis chlorinated water, according to the following formula:—

Chlorinated water, 8 grammes	} Of this a teaspoonful is given every two or three hours.
Decoction of althea, 165 grammes	
Cane sugar, 8 grammes	

Under this treatment the craving disappeared completely, the appetite returned, the hypochondriasis departed. In four-tenths of the cases this was the result. For poorer patients Prof. Zdekauer recommends fifteen drops of chlorinated water in some mucilaginous decoction.

In the "Lancet" of October 26th, 1895, we notice a treatment for vomiting by Lasègue by means of tincture of iodine, five to ten drops in sweetened water; this is obviously very much on the same lines as is the above-mentioned treatment of alcoholic gastritis.

GERMAN RETROSPECT.

By William W. Ireland, M.D.

The Methodical Examination of Ear-forms in Lunatics and Criminals.

Finding that there is a difficulty in describing abnormal forms of the ear, Prof. Schwalbe, of Strasbourg ("Archiv. für Psychiatrie," xxvii. Band, 3 Heft), has arranged an exact method by which variations in the external ear may be tabulated. His articles are illustrated by 19 woodcuts of ear forms. Dr. Schwalbe cites a number of papers from German, French, and Italian