trouble melted away. Though every restriction was removed not another case occurred. Enteric fever made its appearance, though to only a small extent. Water, milk, and drains being above suspicion, it was considered that ground air and damp at the basement might possibly be the source. The system of providing private nurses and of giving advice at an out-patients' department continues to be eminently satisfactory.

Yorkshire. Wadsley.—This asylum is being gradually choked up by chronic cases, each year's admissions becoming of a more unfavourable type. The general paralytics numbered 7·5 of the admissions and the alcoholics 18 per cent. Dr. Kay sent up 23 attendants and nurses for the Association's certificate, and all obtained it. He sees that the training not only improves the nursing, but leads to a better tone among the staff.

Yorkshire. Menston.—This asylum, which the Association visited as brand new but a year or two ago, is nearly full as to females, and overflowing as to males. Plans for "chronic" blocks to contain 600 more patients have been approved by the Home Secretary. The admissions were of an increasingly unfavourable nature, which accounts for a falling off in the recovery-rate and for a high death-rate. Cardiac disease carried off 20, or 16 per cent., of the total deaths. General paralysis was responsible for almost one-third of the deaths and nearly 15 per cent. of the admissions. Alcoholic intemperance was found in 69 and sexual intemperance in 15 of the 388 admissions. Touching this last item of sexual intemperance we note that in the three West Riding Asylums 31 cases are thus returned out of 1,116 admissions, or a ratio of 2·77 per cent. against a ten years' average for all England of ·7 (Blue Book, 1890).

(*To be continued.*)

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2. *German Retrospect.*

By W. W. Ireland, M.D.

Duboisin a New Sedative.

Dr. Nicholas Ostermayer, of Budapest, published in the "Allgemeine Zeitschrift" (xlvii. Band, p. 278) some experiments on the sedative and hypnotic properties of atropin and duboisin. Like atropin and hyoscyamin it belongs to the class of drugs which dilate the pupil, mydriatica. It comes from the sap of the duboisia myoporoides, a bush or small tree growing in Australia. The natives are aware of its stupefying properties, and put it in ponds to intoxicate the eels and make them rise to the surface. Gerrard discovered the alkaloid in 1878. Duquesnel showed how to crystallise it in 1880. It is a brownish substance,

sparingly soluble in water, but readily dissolved in alcohol, ether, or chloroform. It has a close resemblance to hyoscyamin. Ostermayer found that 1 milligramme of duboisin given in two separate doses to a man in two hours induced drowsiness, delirium starting in the limbs, hallucinations of vision, and increased rapidity of the pulse and respirations.

Dr. Ostermayer tried this drug on 30 insane patients in maniacal conditions. He arrived at the following conclusions:— That sulphate of duboisin is like hyoscin, a prompt and powerful sedative when used in the excited states of mental disease, without the accompanying disagreeable effects of hyoscin. This sedative effect appears in about ten or fifteen minutes. Duboisin is also a hypnotic, inducing sleep in most cases in from twenty to thirty minutes. When the excitement is very great, Dr. Ostermayer recommends a dose of from 2 to 3 milligrammes, but when there is simply sleeplessness from 1 to 1½ mg. are sufficient. No symptoms of intoxication or disagreeable after-effects were noticed to follow the use of this drug. Its influence is lessened after continued use, but on being discontinued for a time the susceptibility returns. Dr. Ostermayer thinks that duboisin might be advantageously substituted for hyoscin, especially when there are affections of the heart and vessels. It is also less expensive than hyoscin.

Further Observations.

Dr. Vladimir Preininger ("Allgemeine Zeitschrift," xlviii. Band, 1 and 2 Heft) publishes the result of his observations on 26 men and 23 women in the Asylum at Prague. He confirms the results arrived at by Ostermayer, as to the efficacy of duboisin in subduing excitement. To ensure sleep one must go up to 2 milligrammes. He found that the sleep seldom lasted more than two or three hours. After doses of from 0·0025 to 0·003 symptoms of intoxication were observed, motor restlessness, clonic spasms of the extremities, increased frequency of the pulse and respirations, headache, weakness and delusions of sight. Dr. Preininger is inclined to think that peculiarity of constitution has its influence in the patient becoming accustomed to the drug and the degree in which he is affected by it. The Italian patients on whom duboisin has been tried seem to require smaller doses than the Germans.

Dr. Näcke, who has made some careful experiments on the use of sedatives, especially chloral-amid, hyoscin, and hydrate of amyl, attracted by the papers of Ostermayer, Gellhorn, Lewald and Preininger, commenced to try duboisinum sulfuricum ("Allgemeine Zeitschrift für Psychiatrie," xlviii. Band, 6 Heft). Dr. Näcke had found hyoscin in small doses to have no effect, and in large doses to be dangerous. He made a number of methodical experiments upon the efficacy of duboisin with forty women

affected with chronic insanity; in all he gave 1,116 subcutaneous injections, and administered it in solution by the mouth 1,952 times. The doses used were from 1 to 2 milligrammes. In 71 per cent. of his cases sleep was induced in half-an-hour, and generally lasted from one to two hours. The pulse was unaffected. In some cases there was marked mydriasis which lasted for several hours. He found the appetite was often affected, which other inquirers had not noticed. Occasionally drowsiness, weariness, giddiness, or reeling followed the injection. He came to the conclusion that duboisin possesses at least as great sedative and hypnotic properties as hyoscin, and is much less dangerous. As its soporific effects do not last long, it is thus useful to subdue fits of excitement or exacerbations of short duration.

More Experiments with Duboisin.

Dr. Selvatico Estease Giovanni has made experiments on dogs, frogs, and rabbits to test the effects of this drug on the circulation ("Neurologisches Centralblatt," No. 18, 1892). He found that it had the same action upon the heart as atropin, but in a less degree. Duboisinum causes contraction of the peripheral vessels, and dilatation of the central vessels. He tried it with good effect upon insane patients with motor restlessness. The doses were small, 0·0005-0·0006. The highest given was 0·0015. He does not consider that we need fear to give it to patients who have heart disease, as it does not diminish the blood pressure to any considerable degree.

Dr. E. Belmondo has used 167 injections of duboisin in 32 patients. As a sedative in all kinds of physical and motor restlessness he prefers it to hyoscin. In some cases of acute mania the drug had a soothing effect upon the mental symptoms. The doses used were from $\frac{1}{2}$ to $1\frac{1}{2}$ of a milligramme. Larger doses injure the appetite.

Mendel on Duboisin.

After a summary of the results of other observers on duboisin, Dr. E. Mendel gives us his own experience of this remedy ("Neurologisches Centralblatt," No. 3, 1893). He has employed it in a considerable number of cases of insanity. He does not believe duboisin to be a hypnotic like chloral, morphia, or sulphonal, because he finds that it is powerless to induce sleep in healthy persons, though followed by muscular weakness. Neither had it any soporific effect in many cases of melancholia and paranoia in which he had tried it. On the other hand he finds it of great value in motor unrest not occasioned by delusions and hallucinations. Dr. Mendel thinks it has a sedative effect on the muscles. He considers that the giddiness and reeling which have followed the administration of large doses of duboisin are not signs of

sleepiness, but of affection of the muscular apparatus. In one case a dose of 1 milligramme caused great dilatation of the pupils, weak and rapid pulse, and difficulty of breathing, with a feeling of suffocation. The professor cannot recommend a higher dose than 1 milligramme by subcutaneous injection. In general he only uses from 0·0005 to 0·0008 of a gramme.

He thinks that in some cases of insanity duboisin is to be preferred to all other remedies. In one especially mentioned, delirium hallucinatorium, accompanied by great motor restlessness, both by day and night, chloral, morphia, and other narcotics were tried one after another without any effect, till it was found that duboisin brought rest and sleep for several hours. Its use was continued for months.

Dr. Mendel also tried duboisin in twelve cases of paralysis agitans. He found it a great benefit in causing the tremblings to cease, so that after the injection of duboisin the patients could execute movements which they could not do before. The doses used were from two to three decimilligrammes two or three times a day. After injection of duboisin in the evening they fell into a refreshing sleep. Thus, though he did not find duboisin to be a curative remedy, he found it of great use in treating the distressing symptoms of paralysis agitans.

More about Duboisin.

Dr. S. Rabow, of Lausanne (quoted in "Neurologisches Centralblatt," November 20th, 1893) has made extensive observations on the use of this drug in nervous and mental diseases. He does not think much of it as a hypnotic, but he finds it very useful as a sedative in states of excitement of insane patients. In subduing such symptoms the drug acts promptly without having any durable influence on the insanity. When often used the patient becomes accustomed to its action. Take it all in all, Dr. Rabow prefers duboisin to hyoscin, and hopes through increase of our knowledge of its chemical nature and increased constancy in its preparation that this drug will become an important addition to our materia medica. He prefers it to be given by the mouth instead of by subcutaneous injection.

Trional.

Dr. H. Koppers (quoted in the "Neurologisches Centralblatt," November 20th, 1893) has tried the new hypnotic, trional, on twelve patients. He states the following conclusions:—

1. Trional is a very serviceable hypnotic which acts quickly and surely in various cases in doses of from one to two grammes.

2. It is especially useful for the excited states of insane patients.

3. Its administration is sometimes followed by dulness and heaviness, weariness and sleepiness. These effects are not marked,

nor do they last long; are increased by a higher dose, on which account it is seldom advisable to give more than two grammes.

4. Disorders of the digestive organs are seldom observed; the respiratory organs do not appear to be affected, but the use of trional causes unpleasant and even serious symptoms in heart disease, with hypertrophy. On this account it must be given to such patients with much caution. It has a pretty constant action in suppressing the perspiration. This effect is observable in doses of from 0·5 to 0·25 of a gramme.

Böttiger ("Centralblatt für Nervenheilkunde," März, 1893) has tried trional on 75 patients. He found it of no use in sleeplessness caused by pain; of most use in uncomplicated sleeplessness. The doses given were from one to four grammes. He found that one gramme of trional was equal to three of chloralamid, or three of hydrate of amyl. Brie, who tried chloral in forty-two cases ("Neurologisches Centralblatt," November 24th, 1892), considers it to be the best hypnotic, destined to take the place of sulphonal. He found it successful both in simple sleeplessness and in the excited condition of insanity. He gives it dissolved in warm water, with a little cold water added, in doses of from one to two grammes.

Dr. Hammerschlag, in an inaugural dissertation (quoted in "Neurologisches Centralblatt," November 14th, 1893), has published observations taken in Jolly's clinique, in Berlin, upon trional as a hypnotic. This was tried on 60 patients, some of them insane, others affected with alcoholism and morphinism. He confirms the favourable judgment given by other writers, and in opposition to the statements of Barth, Rumpel, and Böttiger he affirms that he has seen favourable results in the excited stages of delirium tremens in as many as 60 per cent. of the cases, though never in the worst form. Dr. Hammerschlag thinks favourably of the remedy in morphinism. It also answered in a case in which the abuse of morphia was combined with that of cocaine.

Treatment of Status Epilepticus.

Dr. Kernig ("Petersburg Med. Wochenschrift," No. 18, quoted in "Allgemeine Zeitschrift für Psychiatrie," xlix. Band, 4 Heft), in treating a little girl whose life was in danger from the status epilepticus, used subcutaneous injections of pilocarpine, 0·02 gramme pilocarpine mur., giving at the same time emulsion of camphor, 1·5 gramme, in a case of status epilepticus. The patient broke into a perspiration, and the convulsions ceased at once, but the œdema of the lungs and the depression of the pulse lasted an hour longer. Gradually all threatening symptoms disappeared, and the patient fell into a deep sleep with a good pulse.

Injection of Healthy Nerve Substance.

Professor V. Babes, of Bucharest ("Neurologisches Centralblatt," No. 1, 1893), has treated a number of cases of epilepsy,

melancholia, and neurasthenia with subcutaneous injection of healthy nerve substance. In this way he claims to have cured several cases of epilepsy and to have improved others. He finds this injection very efficacious in overcoming sleeplessness and to have removed inveterate headache and sciatica.

Treatment of Cerebral Anæmia.

Dr. Carl Laker ("Allgemeine Zeitschrift," xlix. Band, 4 Heft) observes that the ordinary treatment of faintness caused by sudden anæmia of the brain is to make the patient assume the horizontal position. He considers that the filling of the brain with blood is more rapidly accomplished by the use of Kessel's air douche. This when applied to the nasal cavity produces great flushing of the face. Dr. Laker introduces the instrument, a bent metal tube, through the mouth behind the soft palate, the nostrils being closed; a powerful stream of air is then blown into the nasal passages. This causes the glottis to shut, which arrests the current in the veins of the neck, causing a retardation of the return of the blood from the brain. This procedure has been found valuable in cases of fainting connected with anæmia of the brain.

Recovery from General Paralysis.

Dr. Kusnetzow ("Wratsch," No. 10, quoted in "Allgemeine Zeitschrift," xlix. Band, 4 Heft) describes a case of recovery from general paralysis. The patient, forty-three years old, presented marked alterations in his behaviour with affection of speech. In December, 1884, he had all the mental and bodily symptoms of general paralysis with maniacal excitement. In the beginning of 1885 his strength had much failed. He was dirty in his habits, and the left ear was affected with othamatoma. In April the bodily condition improved, and he became quieter. In May the excitement had passed away, his mind was clear and logical and the memory good. In June the improvement still continued, and all bad symptoms disappeared. In a few months more the man returned to his usual employment, which he has discharged till 1891 apparently as well as he was before the attack.

Aphasia in Children.

Cases of mutism in children uncomplicated with deafness or idiocy are extremely rare. We learn from a report in the "Neurologisches Centralblatt," No. 16, 1893, that Dr. Leopold Treitel has collected several instances from medical literature, to which he adds six observations of his own. After carefully analyzing the mental symptoms, Dr. Treitel is of opinion that this want of speech power is in most of his cases owing to a deficient development of memory, in others owing to an incapacity to concentrate the attention which is necessary for the attainment of language. This, of course, implies a low development of the

mental faculty. Acquired aphasia in children sometimes follows neurosis, such as hysteria, chorea, or epilepsy, and sometimes it comes after fevers. Dr. Treitel observes that the prognosis is more favourable in aphasia following cerebral affections in children than in grown-up people, as the vicarious action of the right hemisphere comes in more easily at an early age. This is, perhaps, the reason why uncomplicated aphasia is so extremely rare in young children. I have never seen a case of mutism in children in which the intelligence was intact.

Stupidity through Obstruction of the Nasal Passages.

Dr. Victor Lange, of Copenhagen ("Centralblatt für Nervenheilkunde," März, 1893), has observed cases in which the mental capacities of children have been much checked by adenoid growths in the nasal passages. The principal symptoms of this affection are imperfect respiration through the nostrils, causing the child to breathe with the mouth open, a thick pronunciation, and dulness of hearing. Children thus affected have a stupid face, a vacant expression, and a wandering gaze. Sometimes in addition to these symptoms there is a feeling of tightness across the forehead, headache, earache, giddiness, or bleedings at the nose; sometimes there is a deficient capacity to collect the thoughts, as has been indicated by Prof. Gay, of Amsterdam, in the affection which he calls *aprosexia nasalis*. The removal of these adenoid growths has sometimes a wonderful effect; from being apathetic and of backward growth both in body and mind, the child becomes awakened to a new life, and the bodily and mental development take a fresh start.

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3. *Pathological Retrospect.*

By Edwin Goodall, M.D., West Riding Asylum, Wakefield.

Nissl's Staining Method.

This is a method to which considerable importance has been and is attached in Germany. Nissl's original description appeared in 1885, and in this magenta is recommended as the staining agent. In 1890 he described a modification which has superseded the older process. In this country but little seems to be known of the method, of which the following is a brief description:— Have ready (1) a 0·5 % aq. sol. methylene blue (methylenblau patent B, from C. Buchner and Sohn, Fabrik pharmaceut. chem. Producte, Munich); (2) a mixture of anilin oil 20, alcohol 96 % 200 parts (this must not be too old); (3) origanum oil; (4) benzine; (5) a balsam made by dissolving colophonium in benzine, and of the consistence of ordinary chloroform-balsam. Portions of tissue as fresh as possible, in size 1-2 ccm., are placed for