period of six or eight weeks if a permanent benefit is to be achieved. Electricity is often of signal service as an addition to the other details of a rest cure. Its success is perhaps mostly due to its suggestive influence on the patient's mind, but it also undoubtedly promotes metabolism, stimulates muscular activity, and exerts a soothing and pleasant influence on the nervous system. When the rest cure is finished, the improvement gained will be made more lasting if the patient pays a short visit to the country, seaside, or a suitable spa before re-entering the field of his daily labour. Though drugs play a secondary part, they ought not to be wholly neglected. When there is much restlessness, and particularly when the sleep at night is broken, the bromides in suitable doses will be found of advantage. It is often a successful plan to order one or other of them in combination with arsenic or strychnine during the day, and, should insomnia still persist, to provide for it separately by 20 gr. of sulphonal, trional, or chloral-amide, or 5 gr. of chloralose at bedtime. As soon as the sleep habit has been re-established the hypnotic should be dropped, and on disappearance of the restlessness the bromides also may be withdrawn. When the simple hypnotics fail to induce refreshing sleep the question of the eligibility of narcotics arises. Much has been written against the use of morphine, on account of the risk of creating an unconquerable habit, but if care is taken not to extend its employment beyond the immediate necessities of the case, it will be found that a few small doses, given hypodermically on successive nights, will have the desired effect without the least subsequent risk of habitual dependence on its influence. If anaemia is present iron in one of its milder preparations should be administered; and when vasomotor instability is a prominent symptom, there is no drug which exerts a better steadying influence on the circulation than ichthyol. It may be given in doses of from 5 gr. to 10 gr., and is often usefully combined with cannabis indica and one or other of the nerve tonics. A combination of 5 gr. of ichthyol, 5 gr. of reduced iron, $\frac{1}{2}$ gr. of arsenious acid, and $\frac{1}{4}$ gr. of extract of cannabis indica will be found to meet successfully the requirements of a large proportion of cases. As soon as the digestion is strong enough to deal with it, cod-liver oil should be added to the daily regimen. It is best given in one dose of half an ounce at bedtime, and it may be advantageously combined with a like quantity of maltine.

The bowels must be carefully regulated by a simple aperient, if such be required, and the activity of the liver will be promoted by an occasional dose of calomel or blue pill. When there is much discomfort from flatulence valerian fulfils a useful rôle; its nauseous taste may best be obviated by choosing the zinc salt and giving it in the form of a pill or capsule. If headaches are severe and persistent they will be relieved by the exhibition of one of the numerous analgesics so much in vogue nowadays. The most dependable is probably antifebrin, which should be ordered in doses of not less than 5 gr. Alcohol must always be used sparingly, if at all. A tumblerful of well-matured stout taken with luncheon is often enjoyed, but in many cases a light Burgundy or claret is preferred, and agrees better. In traumatic cases, if there is much complaint of spinal tenderness, the use of a Paquelin cautery often affords marked relief to the pain.

Measures of prophylaxis ought not to be neglected. Children born of neuropathic parents should be safeguarded from the risks of their heredity by strengthening, as far as possible, the energy and resistance of their nervous centres. This can best be done by employing every hygienic means, during their developmental period, to ensure such a physical and moral education as shall substitute an acquired stable individual habit for an inborn unstable tendency without risk of over-pressure. An adult who has once suffered from neurasthenia may do much to lessen the risk of recurrent attacks by careful regulation of his daily habits of life.

He must arrange his work so as to avoid undue fatigue. He should have long nights in bed, observe regularity in regard to his meals and exercise, and make a point of seeking periodically a short respite from the daily routine of duty by a change of scene and surroundings. He ought to decline all responsibilities involving prolonged worry or anxiety, and every slight ailment should be treated with more than ordinary care, so as to lessen the risk of strain on his nervous system.

THE Fifth International Congress of Applied Chemistry will be held at Berlin from June 2nd to 8th. Communications should be addressed to the office of the Congress, 21, Marchstrasse, Charlottenburg.

CASE OF MIGRAINE WITH OPTHALMOPLÉGIA.

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S. J., aged 13, was admitted into the Birmingham General Hospital on August 11th, 1902. In the absence of Dr. Saundby, to whom I am indebted for permission to publish the case, he came under my own care. He complained of periodical attacks of headache and sickness, to which he had been subject since birth, and of a more recent paralysis of certain muscles of the left eye. For the latter affection he had been admitted into the Birmingham and Midland Eye Hospital, under the care of Mr. Jameson Evans, by whom he was transferred to the General Hospital.

History.—The family history presented little of interest. Both father and mother were alive and well, as were three younger brothers. The father, however, had suffered from rheumatism. The maternal grandfather died suddenly from heart disease. There was no history of headache, epilepsy, or other nervous disorder in the family, nor had the patient suffered from any nervous complaint other than that for which he was admitted. The attacks dated from birth, which lasted four days, and ended in delivery by forceps. A fortnight later he had an attack of sickness, and similar attacks have recurred from that time with great regularity, being accompanied by complaint of severe headache since he has been old enough to make himself understood. The interval between the attacks has generally been about a fortnight, and has never exceeded a month; and it has been noticed that the ensuing attack has always been worse after an unusually prolonged interval. On the other hand, a second headache occurring after a few days' interval has generally been mild, and of short duration. For the last six years the attacks have been accompanied by drooping of the left eyelid and strabismus, which at first passed off in the intervals, but has become persistent during the last two years.

Fig. 1.

State on Admission.—The patient was a healthy-looking lad, of good intelligence. Examination of the various organs showed nothing abnormal, and the urine was free from albumen and sugar. The right eye was normal in movement and reaction. On the left side there was a slight degree of ptosis, marked external strabismus, and extreme dilatation of the pupil, with complete loss of reaction to light and accommodation. The external rectus and superior oblique acted normally. The internal rectus contracted with considerable effort, but the eye failed to reach the inner angle of the lids, and quickly fell back to its position of external rotation. All upward movements were entirely abolished, and the inferior rectus appeared to be paralysed, the eye being drawn downwards and outwards on any attempt at downward movement. The optic discs were normal. There was no paresis of the face, tongue, or limbs, and Romberg's sign was absent. Both knee-jerks were somewhat exaggerated. Fig. 1 shows the condition at this stage of the disorder.

Progress.—On August 15th, at 7.45 a.m., he complained of sharp pain over the left half of the forehead, and of a feeling of fullness in the left eye, which was aggravated by light. The pain was temporarily relieved by vomiting, which, however, was scanty, and not very frequent. He also complained of pain in the epigastrium, and there was slight tenderness in this region. The action of the heart was quick and somewhat irregular, and the pulse feeble; there was no rise of temperature, and the urine remained free from albumen. Beyond a slight increase in the degree of ptosis and some congestion of the conjunctiva there was no change in the ocular condition at this time. During the course of the day the headache continued unabated, and paresis of the left eye muscles steadily increased. Next morning there was absolute ptosis, and the whole of the muscles supplied by the third nerve were completely paralysed, the eye being strongly everted and the pupil dilated to its utmost extent. The fourth and sixth nerves were unaffected. The exaggeration of the knee-jerks was more marked than before, and there was just a trace of to-and-fro movement on testing for ankle clonus. The plantar reflexes were of the flexor type. The urine was still free from albumen and the temperature remained normal. By the following evening the pain had nearly subsided, the eyelid could be partially opened, and there were signs of some return of power in the paralysed muscles. On August 17th the patient was free from pain and felt well; the eye had returned to its original condition, except for some remaining congestion of the conjunctiva. Figs. 2 and 3 show the con-

Fig. 2.

dition of complete paralysis. The next attack began with headache at 7.30 p.m. on August 25th, and was followed by vomiting at 9 p.m. The attack took exactly the same course, and on August 28th recovery had taken place. Since that time I have had the boy under observation in the out-patient room, but I have only seen him in one further attack, when I was inclined to think that there was some little paresis of the left superior oblique, in addition to the third nerve paralysis. During the three months following his discharge from the hospital attacks occurred on September 18th, October 1st, 14th, and 30th, and November 9th and 20th. Latterly there has seemed to be a slight increase in the length of the interval, but I should hesitate to attribute this result to the effects of treatment, which has seemed to be quite powerless to influence or relieve the condition. Diet, regulation of the bowels, stomach treatment, salicin, potassium iodide, mercury, bromide, and citrate of caffeine have all been tried, but the result has been equally disappointing in each case. The patient was at one time of opinion that doses of nitrite given on the first appearance of symptoms tended to shorten the attack, but he no longer holds that view, and I fear that we have both lost hope of improving the condition.

The association of persistent ocular paralysis with migraine is probably somewhat more common than would be gathered from the small number of cases on record. In English medical literature I have only succeeded in finding reports of the following six cases: Dr. Saundby¹ records the case of a girl, aged 19, whose attacks dated from her 12th year, and were accompanied by paralysis of the left third nerve. In the

intervals there remained complete paralysis of the superior rectus, with some paresis of the other recti. The pupil was also persistently dilated. Dr. Saundby recorded another case² of migraine with ophthalmoplegia, but in this there was complete recovery in the intervals between the attacks. Mr. Simeon Snell brought two cases before the Ophthalmological Society.³ In the first, a girl aged 8, had been liable to attacks of migraine with third nerve paralysis from the age of 18 months. There remained persistent external strabismus and slight ptosis, with marked enfeeblement of both upward and downward movement; but the power of convergence was only slightly impaired. In the second, a man aged 27, had suffered from attacks of migraine from his 12th year, complicated for the last seven years by third-nerve paralysis. Recovery was incomplete. In discussing the former of these two cases, Mr. Ernest Clarke mentioned a similar case under his own care. Dr. Suckling⁴ reported a case in which the attacks dated from infancy, and Dr. Colman⁵ showed a patient at the Neurological Society in whom the first attack occurred at the age of 11, and was followed by persistent paralysis. In the Index Catalogue of the Surgeon-General's Library of the United States army, I have found no reference to the condi-

Fig. 3.

tion in foreign medical literature, but Dr. Saundby quotes a case recorded by Horner,⁶ and in the discussion of one of Mr. Snell's cases Dr. Ormerod also mentioned a case published by Thomsen of Berlin. I have not been able to refer to either of these reports.

REFERENCES.

¹ *Lancet*, September 2nd, 1882. ² *Ibid.*, January 10th, 1885. ³ *Ophthalmic Review*, 1885, p. 181; and 1893, p. 219. ⁴ *Brain*, vol. x, p. 241. ⁵ *Ibid.*, vol. xxiii, p. 348. ⁶ *Monats. f. Augenheilk.*, 1869.

CASE OF CEREBELLAR ABSCESS FOLLOWING MIDDLE-EAR DISEASE.

FAILURE OF RESPIRATION DURING ADMINISTRATION OF ANAESTHETIC: TREPHINING: RESTORATION OF RESPIRATORY FUNCTION FOR NEARLY THIRTY HOURS: DEATH.

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THE following case of cerebellar abscess presents some features of interest which appear to justify its publication:—

History and State on Examination.—The patient, a man, aged 26, had had for several years a purulent discharge from his left ear, but so small in amount as to cause little or no inconvenience. About the middle of June of last year he sickened, but with no definite symptoms. On June 30th