

which lasted till the death of the patient. In the central papilla the power of vision remained normal, though a small portion of its under border seemed to become paler in the course of years. Towards the close of the patient's life the action of the pupil to light thrown upon the temporal side of the retina became less marked. After the wound healed the man returned to his business. He noticed that the feeling in the left hand was somewhat diminished. He sometimes felt warm in the head, otherwise there were no cerebral symptoms.

The man died in September, 1887, of consumption. On examination after death there was a tight cicatrix at the posterior portion of the right temporal bone, under which there was some wasting of the convexity of the brain implicating the cortex, and at one place some of the white substance, so that the greater portion of the temporal convolutions were destroyed or had become grey and sclerotic. The right optic nerve where it passed through the foramen was pale white at the one side, and grey in the rest of its calibre. On microscopic examination the tissue was found to be atrophied more or less throughout its whole extent of the nerve. A very attentive study of the atrophied and sound portions of the optic nerve confirmed views already laid down by previous observers of the position of the nerve fibres. In the neighbourhood of the eye the fibrous bundle lies at the temporal side of the nerve trunk. The fibres of the temporal side of the retina lie at its upper and under circumference. The fibres of the nasal side of the retina occupy the centre and middle third of the inner circumference. These bundles afterwards change their position during the backward course of the optic nerve. The assertion that the fibres which do not cross lie upon the right side of the nerve was not borne out by this case. The author explains the gradual diminution in the reaction of the pupil by the consideration that at first the optic nerve fibres remained healthy up to the corpora quadrigemina, but in time became degenerated.

4. *Therapeutic Retrospect.*

By HARRINGTON SAINSBURY, M.D., M.R.C.P., Physician to the Royal Free Hospital.

Spermin and Piperazidin.

Brown-Séquard asserted, in 1889, that testicular extracts (from young animals) exerted marked stimulating powers on the nervous system when injected subcutaneously. His statements were confirmed by numerous observers. No bad effects resulted, but certain local manifestations suggested the separation of the base spermin, present in the testicular extract, and the use of the base

alone. Parke, Davis, and Co., in America, and Prof. Poehl, in St. Petersburg, have prepared this spermin. It is an organic base which forms a well-defined crystalline salt with phosphoric acid. The crystals of this salt appear to be identical in form and composition with the crystals found by Charcot in the spleen and in the blood of leukæmia; in the marrow of bones in the same disease (Neumann); and in the expectoration of asthmatics (Leyden). Schreiner, in 1878, separated these same crystals from semen and from various organs of the body, and determined the chemical formula of the salt. Kobert, experimenting with spermin, declared it to be non-poisonous. Prof. Tarchanow, however, experimenting with the hydrochlorate of spermin, prepared by Prof. Poehl, found an increased force of the heart's contraction and a rise of blood pressure; other observers have confirmed his results. Kobert, objecting, maintains that in those diseases in which spermin is found in excessive quantity, the stimulant effects described are lacking. The firm of E. Schering has of late introduced a preparation to which they gave the name spermin in the first instance, but have now replaced it by "Piperazidin." This body has been investigated by A. W. V. Hofmann, who finds it to be diethyl-diamine. Experiments with this body give very divergent results as compared with those of Tarchanow, for no stimulant action can be recognized after subcutaneous injection in rabbits. Piperazidin, therefore, does not suggest usefulness as a nervine or cardiac stimulant, though it remains to be seen whether this body is identical with that previously experimented with under the name of spermin. One interesting property belongs to piperazidin; it has a great solvent action on uric acid, far surpassing that of lithia. Failing, then, its use as a nervine tonic, piperazidin may yet prove serviceable in another way.—"Therap. Monatsh.," p. 88, Jan., 1891.

The Treatment of Sitiophobia amongst the Insane by Washing out the Stomach. By AUGUSTE VOISIN, Médecin à la Salpêtrière. "Bulletin Général de Thérapeutique," Jan. 30, 1891.

The author refers to previous statements respecting this treatment by Régis, in Dec., 1880 ("Annales Médico-Psychologique"), and by Moreau, in the same year ("Inaugural Thesis"), also to a further more recent notice by Marie, in the above annals, on a case treated by M. Mabit. M. Voisin urges that the simple soft rubber nasal tube of Faucher is all that is required. After washing out the stomach the patient may be fed by the same tube without any removal. The soft tube can do no damage to the stomach and œsophagus, and, if sufficiently large to just pass with ease along the nose, it does not move about in the nasal passage and cause an unpleasant tickling, nor, when used of this size, is there the danger of its passing unperceived through the rima glottidis.

The patients treated were mostly cases of melancholia, in all 15 cases. The author concludes, from the results obtained, that it is in cases of insanity, chiefly of melancholia associated with gastric troubles, that the treatment is indicated. He thinks that a catarrhal state of the alimentary tract is at the bottom, in most cases, of the hallucinations in respect of food, and of the refusal of the same, and that this condition is met directly by the washing out of the stomach.

Ferric Bromide.—Treatment by iron finds its place in all sections of medicine, and the alienist, not less than the general physician, has recourse to it; hence we may here refer to the above-named compound of iron, which Dr. Hecquet, formerly physician to the Abbeville Hospital, recommends as of value in all those cases in which it is desirable to soothe without depressing, and to strengthen without exciting. The compound is well borne by even irritable stomachs. It is administrable either in solution or in lozenge, and the dose is from 3 to 5 grains. Its hæmatinic action is said to be more rapid than that of most iron compounds. Dr. Hecquet gives preference to the ferric salt Fe_2Br_6 , over the ferrous salt FeBr_2 , ("Lancet," Feb. 14, 1891).

The value of iron in the treatment of epilepsy is, as is well-known, a moot point, many authorities condemning its employment, as liable to increase or aggravate the fits. It would be of interest to know whether this compound, the ferric bromide, could be given without fear of such result; from its structure we might expect that it might.

Whilst on this subject of iron we would draw attention to Clifford Allbutt's letter in the "Brit. Med. J.," for Feb. 14th, in which he maintains that the very favourite iron preparation—Blaud's pill—does not owe any of its virtues to the carbonate of potash present. A statement like this would require very definite proving, but we feel convinced of the truth of Dr. Allbutt's further statement that the failures in the treatment of anæmia by iron result from its insufficient dosage. The sulphate is, according to Dr. Allbutt, the best preparation of iron—the most efficient—and it should be given, according to him, in doses of one grain thrice daily at the start, and then increased till from nine to twelve grains are given each day. He refers to the *dried* sulphate of iron. In obstinate cases of anæmia he adds gr. $\frac{1}{30}$ of strychnine or gr. $\frac{1}{4}$ of zinc phosphide, and finds these additions invaluable. In most cases gr. $\frac{1}{3}$ of the extract of aloes must be included in the pill to avoid the constipating effect of the iron.

On the subject of hypnotics and sedatives, we find, in the February number of "The Therapist," a journal recently started, some interesting records of the total consumption of this class of remedies. "In the year 1880," so it is stated, "the only standard sedatives in use were the bromides and chloral hydrate. The

approximate yearly consumption of these two products then stood as follows:—

Bromides	...	Average number of doses	43,000,000
Chloral hydrate...	"	"	12,000,000 "

In the year 1890, with a much longer list of sedative remedies, the following is the computation of the consumption of individual members of the group:—

Chloralamide	...	Average number of doses	224,000
Sulphonal	...	"	1,400,000
Paraldehyde	...	"	765,000
Chloral hydrate...	"	"	8,500,000
Bromides	...	"	92,000,000
Total ...			102,889,000

It would be interesting to learn how these figures have been arrived at, and it must be noticed that the results are given in *doses*, and not in bulk, and that hence we can only use the figures as very rough statements of, say, bromide *treatment* as compared with chloral hydrate and other *treatment*. In this comparison it is at once apparent that the bromides take the lead so strikingly, not simply because of a superior efficacy and safety, but because they hold a position quite distinct from the others. They, the bromides, are the sedatives *par excellence*, and their use in the treatment of one disease alone, epilepsy, is on a huge scale. At the same time, it must be admitted that the bromides do owe much of their prominence to their undoubted harmlessness, and to the fact that their use does not lead up to the production of a habit. Comparing the other members of the above group together, we may say that the use of sulphonal will probably grow still further and seriously rival chloral. Paraldehyde *would* probably distance both its competitors, for it is one of the safest of drugs, and in hypnotic doses does not impair the working of the respiratory and cardiac centres, but just as the dropping of the aspirate is reckoned unpardonable in polite society, so the taste of paraldehyde, and its offensive persistence will ever prevent its fashionable use. It is to be observed, moreover, that it is alienists who are loudest in its praise, *i.e.*, those who practise amongst a class less sensitive in this respect.

Will chloralamide replace chloral hydrate? This it is impossible to forecast. The drug has been introduced because of the presence of the group NH (CHO), a replacement derivative of amidogen, NH₂, and because of the reputed stimulant action belonging to it in virtue of this amido-compound. Its more correct name is chloral-formamide. The drug has already been considerably used, as is shown by the above table, and so far as the trial goes, the results are favourable. There are some points to remember in administering

it—1. Alkalies decompose it. 2. It is decomposed by hot water, and is only slowly soluble in cold water. 3. It is more soluble in spirit, and the best vehicle is a weak alcoholic solution. Strahan, among English observers, has especially testified to the value of chloralamide. He reckons it equal to paraldehyde, but in no way superior, except in taste and in not imparting a disagreeable odour to the breath. It acts in about $\frac{1}{2}$ -2 hours, on an average in about one hour. The dose is 30-45 grs. Other drugs advancing the same claims as chloralamide are chloral ammonium, in which the group NH (CHO) is replaced by NH₂ (Nesbitt, in the "Therap. Gazette," 1888, speaks favourably of this compound); chloral-imide, containing the group (NH); chloral urethane, etc. The doses of all these are about the same as the dose of chloralamide, viz., 15-30-45 grs., beginning with the lowest dose.

The Systematic Use of Sulphonal in the Treatment of Insanity. By Dr. VORSTER, of Königslutter.

Fifty-six patients were treated with sulphonal, to the extent of 9,000 grammes (139,500 grs.) in all. Dr. Vorster praises the treatment highly. The drug causes motor depression, and it produced quiet in cases of violence and restless activity and shouting. In several cases dirty patients became clean in their habits. Motor quiet was obtained in the following states: the stages of excitement in secondary delusional insanity (Wahnsinn), whether acute or chronic; of acute, periodic, and chronic mania; of senile dementia; of general paralysis; of idiocy; of epilepsy. In most cases 30 grs. sufficed; in a few cases 45 and 60 grs. were given for a short time (we presume this means *pro die*); the individual dose was 7.75-15.5 grs. In periodic excitement, sulphonal given uninterruptedly rendered the attacks milder and shortened them; it proved of special value in acute melancholia and acute insanity; it rendered the attack of epilepsy milder, but did not cure severe cases. Toxic effects were of two kinds—motor and sensory; in each class depression was witnessed. Motor depression showed itself in some cases as a paresis, first of the legs, subsequently of the tongue and arms. Sensory depression appeared as a somnolence, and this symptom preponderated in cases of continued dosage, a soporific state ensuing, in which general sensibility was much impaired, and the superficial reflexes abolished. The motor stage is unimportant; the late sensory stage requires careful watching. On lessening the dose the symptoms will soon depart. Pulse and respiration did not suffer. Digestive troubles of various kinds were observed; in two cases there was a skin eruption. No habituation occurred.—"Therap. Monatsh.," Jan., 1891, extracted from "Allgem. Ztschr. f. Psych.," B. 47, H. 1, 1890.

Observations on the Employment of Chloralamide, Hyoscin, and Amylene Hydrate. By Dr. P. NÄCKE (Hubertusburg).

Chloralamide was found very useful as a hypnotic in doses of 15-45 grs. It acts well, not merely in agrypnia, but also in excitement. It is much less valuable when there is pain as the cause of insomnia. It is best given soon before bedtime. Habituation frequently obtains. It is quite as sure as chloral hydrate, though rather less rapid in action; it is certainly safer. (These results are confirmatory of previous experience of the investigators).

Hyoscin the author found of no use.

Amylene hydrate is spoken well of by Dr. Näcke in the treatment of epilepsy, even of long standing; and he says it does not produce dangerous bye-effects. The dose given was 2-5 dessert-spoonfuls of a 10 per cent. watery solution. Unfortunately the author has to append to this account the results of further treatment, viz., failure in 35 cases!—"Therap. Monatsh.," *loc. cit.*, extracted from "Allgem. Ztschr. f. Psych.," *loc. cit.*

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A quarterly meeting of this Association was held on Thursday, February 19th, at Bethlem Hospital, London, Dr. Yellowlees, President, in the chair. There was a large attendance.

The following gentlemen were elected members of the Association:—Charles Edward Saunders, M.D., M.R.C.P.Lond., Medical Superintendent Haywards Heath Asylum; John Alfred Ewan, M.A., M.B., C.M.Edin., Assistant-Medical Officer Dorset County Asylum; Charles Caldecott, M.B., B.S.Lond., M.R.C.S.Eng., Assistant-Medical Officer, Holloway's Sanatorium, Virginia Water; John Brooke Ridley, M.D., C.M.Edin., Assistant-Medical Officer Darenth Asylum, Dartford; Algernon Wilson Lyons, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Assistant-Medical Officer City of London Asylum, Dartford; Harry Corner, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Assistant-Medical Officer Bethlem Royal Hospital.

The PRESIDENT—There are two sections under the microscopes of interest exhibited by Dr. Hyslop. One shows the condition of the nerve after amputation; it is a section of the left anterior crural nerve six months after amputation of the leg, showing the degenerated nerve fibres. The second is a section of the nerve of the arm three years after amputation, showing the generation of nerve fibres and increase of connective tissue in the perineurium. I have now to call upon Dr. Savage to read his paper on "The Plea of Insanity." (*See Original Articles.*)

Dr. ORANGE—I am sure that everyone present will join with me in expressing our thanks to Dr. Savage for his very instructive paper. I wish to occupy the attention of the meeting only a very few moments to speak upon one point which was particularly mentioned by Dr. Savage, but which perhaps has not hitherto attracted as much attention as it deserves, and that is with respect to a