not reappear for three months. From time to time, until the end of the year, it was administered with complete success, the excitement being replaced by semi-stupor. The epileptic attacks are diminished in intensity.

Obs. 7—Michel S. Aged 45. Became epileptic twenty years ago, during the year of his marriage. He is tall, well-made, and demented. During three days of the week his attacks were frequent, severe, and accompanied by great excitement; the rest of the week was spent in quietude. Every two or three months an attack of increased intensity was observed. Digitalis at once substituted a semi-stupor for the excitement, and diminished the intensity of the attacks of epilepsy.

Obs. 8—Louis P. Aged 29. Epileptic for ten years. The attacks, rare at first, appear every three or four days, from four to six attacks per day. Dangerous excitement existed for twenty-four hours before the first attack. Administration of digitalis, at first successful, failed on a second occasion, notwithstanding the reduction of the pulse from 110 to 56. A third trial was successful, but eventually atropine was substituted for the digitalis with the result of diminishing the number of attacks without reducing the excitement.

Obs. 9—Louis G. Aged 46. Epileptic from youth; powerful, somewhat demented, and very dangerous during excitement. For some months atropine was given, but without reducing the excitement. Atropine and digitalis were then given together, with the result of quelling it before, during, and after the attacks.

In concluding, Dr. Bigot dwells on the importance of the treatment by which the dangerous form of excitement which accompanies epilepsy may be calmed.

## Idiotism and Consanguinity.

## By Dr. MAURICE BINET.

Are marriages of consanguinity always followed by a tendency to degeneration in the offspring? or are they only so when contracted by unhealthy individuals? These questions, important as they are, are yet unanswered; it is, therefore, well that all cases bearing on the subject should be investigated and published.

In the following cases the injurious action of consanguine marriage appears to be evident. There lives in the town of Ch. (Nièvre) a family composed of husband and wife, both well-made and intelligent, and three idiot children, who, on reaching a certain age, suffered from arrested physical development. The physical constitution, the mental state, or the habits of the parents, failing to account for the condition of the children, a careful investigation of the family history revealed the following facts:—

1st.—The grandmothers of the parents were sisters. They married men having no relationship to them or to each other.

2nd.—From these marriages were born—from the elder, two sons and five daughters; from the younger, two sons and two daughters.

One of the sons of the younger married one of the daughters of the elder, his cousin-german. (1st marriage of consanguinity.) His brother married a woman who was not a relative.

3rd.—The father and mother of the degenerated offspring were children of these two brothers. They are then cousins-german. (2nd marriage of consanguinity.)

There exists two marriages between near relatives on the side of

the father, and one on the side of the mother.

It is affirmed that in these families no hereditary taint, such as epilepsy, insanity, idiocy, or scrofula, has been observed. Further, it has been ascertained that the direct progenitors have been healthy, moderately intelligent, and not short-lived. The father of the idiots is an only son, and lost his father by an accident. The mother has married sisters and brothers who have healthy children. On marriage the father was twenty-six years of age, the mother thirty; they are sober and regular in their habits, and in tolerably good circumstances.

The history of the children is as follows:—

A. The first, a boy, was born at the full period, twenty-seven months after marriage. Up to the fifth month of pregnancy the mother suffered from vomiting and loss of appetite, after which she regained flesh. A normal labour of three hours was followed by rapid recovery. The child was healthy for five weeks, after which it began to suffer from vomiting, loss of flesh and strabismus, maladies from which it continued to suffer, more or less, until death. Its weight, clothed, never exceeded 7 kil. 500, but when about a year old the arrestment of growth became more apparent. It suffered from hernia, and from constipation up to the last month of its life, when chronic diarrhea supervened. It could not stand. Its intelligence was not less feeble, never having been seen to laugh or to recognise anyone, or heard to cry, except when suffering from colic. It died at twenty months in a state of complete marasmus, being unable to take any food. It was never seen to be convulsed, but it coughed, and was generally drowsy.

B. The second child was a girl, born twenty months after her brother. The confinement and pregnancy, in all respects, were similar to the former, but with the view of placing the child under more favourable circumstances, it was sent to a wet nurse. After five weeks the same vomiting appeared, and at two years the same arrest of development is evident. The child is uneasy in any posture but that of lying, being too feeble to preserve any other. She weighs

5 kil. 500; her height is 63 centimetres.

The diameters of her head present the following measurements:-

Bi-parietal .		•	•	0 m115
Bi-temporal .	•	•		0 ,, .087
· Occipito-frontal.	•	•	•	0 ,, .228
Mento-occipital.	•			0 , .160
Mento-frontal .		•	•	0 ,, .180

Sensibility is obtuse, and intelligence wanting.

C. The third is also a girl. The phenomena of pregnancy and delivery resemble those of the two former cases. The history of the child is also precisely similar. At ten months and a half she weighs five kilogrammes, that is only five hundred grammes less than her sister, not yet having reached the period when arrested development became more marked in the two other children.

The diameters of her head are as follows:-

Bi-parietal .	•			0 m110
Bi-temporal ,	•		٠.	0 ,, .100
Occipito-frontal.		•		0 , .140
Mento-occipital.				0 ,, .177
Mento-frontal .				0 ,, .109

In all particulars she resembles her brother and sister.

This observation is interesting in the highest degree. Thus, on one side, are three children whose lives intra- and extra-uterine are precisely similar, in whom at the same periods the same phenomena are observed, and whose constitutions, physical and mental, are singularly feeble. They carry in their behaviour and appearance the stamp of an idiocy so similar that it is difficult to distinguish one from the other. Again, on the other side, are parents healthy, moderately intelligent, of regular habits, without privation, and free from vice, hereditary or acquired.

The facts appear to indicate the cause of degeneration in the offspring to be consanguineous marriage, the effects of which become startlingly manifested after successive unions in the same family.

On the Condition of the Eyes in General Paralysis. By Dr. Mobeche.

At considerable length the author points out that early writers on general paralysis have either quite omitted, or but casually dwelt on, the eye symptoms of the disease. Thus in the works of Esquirol, Bayle, Calmeil, Delaye, Foville père, Daveau, Thore, &c., but little importance is attached to these symptoms. In 1849 M. Baillarger observed that many patients have one pupil larger than the other, the difference in some cases being so great that it is astonishing that this observation had not been made sooner. This symptom sometimes exists from the beginning of the disease, and may now, in doubtful cases, aid in diagnosis; generally, however, it is not seen till an advanced period.

Attention being thus attracted to the symptom, nearly all subsequent observers have noted the state of the pupils. In 1853 M. Lasèque observed inequalities of the pupils in one-third of his cases, and, in the last stages, rapid enfeeblement of vision, often more advanced in one eye than the other. In 1853, also, M. Moreau (de Tours) published the result of his researches into the peculiarities