observation, might appreciate the relation of the physical sign to the morbid condition causing it.

After learning to recognize the more obvious signs of disease and the mechanism of their production the student would pass to the senior physician, who would have charge of the out-patient department. Here the student would study the early stages of disease—stages before the appearance of definite physical signs directly due to the disease. The symptoms here are more elusive—subjective mainly, or shown only by other organs secondarily affected.

The senior physicians only by their knowledge, acquired after long experience, are capable of duly appreciating and detecting these more subtle signs. To these physicians thirty beds would be allotted. A proportion of these beds would be used for the purpose of the more careful study of those cases the examination of which could not be completed in the out-patient department, and in which the assistance of accessory methods of diagnosis are required, as test meals, x-ray, blood, and bacteriological examinations, and cardiographic observations.

In the out-patient department careful records of all patients, even with trivial signs, should be kept, and arrangements made by which these patients should be systematically watched for long periods of time. When they do not come to the hospital, trained assistants, with students, should be told off to visit them at their homes, and reports should be made of the course of their complaint.

It is manifest that it is only by such methods that the progress of disease can be detected in hospital patients, while assistant and student will get an insight into the manner in which disease presents itself for diagnosis and treatment in general practice.

Teachers of clinical medicine should not be appointed until some ten years after qualification. During that time they will have had an opportunity of showing that they are capable of investigating disease. One-half of the teachers should have been engaged in general practice, while the others may have been engaged in laboratory work, with particular application to clinical investigation.

Each physician appointed should be expected to engage in some field of research, having particular reference to the more common forms of disease. As far as possible the subjects for investigation should not overlap, so that the student in passing through his curriculum should be brought into contact with the progress of medicine in as many different fields as possible. In this way the teaching will be more effective, for the teacher will be speaking from actual experience, and not be merely the mouthpiece of tradition or hearsay, while the student, participating in his teacher's research, will have his interest quickened and will learn how to investigate.

A certain number of beds allotted to the physician can be reserved for the particular line of investigation in which he is engaged.

There should be a constant intercourse between the physician and the heads of other departments in the school, as the surgeon, bacteriologist, physiologist, experimental pharmacologist, in the investigation and treatment of the patients.

THE Maharajah of Nepal has informed the Committee of Management of the Brompton Hospital that an anonymous donor is prepared to give £1,300 towards the endowment of the research work of the hospital. The hospital is appealing for a further sum of £5,000 for the purpose of maintaining and extending the research work, and the Maharajah, through whose munificence the hospital was enabled two years ago to extend the existing accommodation for such work, has expressed the hope that this new donation may serve as an incentive to others to come forward with a helping hand. The work is under the direction of Dr. A. C. Inman, who informed a representative of the *Times* that one of the problems proposed to be attacked was the evolution of a test similar to the Wassermann reaction in syphilis, which would be of use in recognizing the presence of the infection in early and latent stages.

A FAMILY WITH CEREBELLAR ATAXIA.

BY

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LUCKNOW.

A EURASIAN male (E. S. P.), aged 35, came to the out-patient department of King George's Hospital, Lucknow, complaining of tremors on standing and of giddiness. He resembled at first sight a case of disseminated sclerosis, but examination showed points of difference; he was admitted to hospital. There is nothing of importance in the previous history. The history of his present illness was that three and a half years ago he noticed that his head was often shaking. He continued in this condition for about a year, and then had an attack of intermittent fever, nature unknown, lasting a month. After this his gait became more staggering and he noticed general tremors of the body and limbs; he suffered from giddiness and felt often that he was about to fall. He managed to continue at his work as a proof reader for another two years, and then found his disease had advanced so far as to prevent him doing his work, and six months later he came to the hospital. Inquiry elicited that others of his family, including his father, had been and were similarly affected, and further investigation and examination of other members of the family has succeeded in producing the genealogy shown in the table.

1. G. P. Apparently the first in the family to show this disease. Said to have begun to show it at about 50 years and to have died at 68. When he died his condition was not so far advanced as that of his eldest son (Case No. 2) now is.

2. C. B. P. The second case seen and here described. His children were also seen and are apparently normal, but the eldest is only 8.

3. G. P. The only female in the family so far who is said to have had the disease. Is reported to have begun to show effects at about 40, and to have died after one year.

4. P. P. Died, aged 31, of some other disease. Never showed signs of cerebellar ataxia.

5. S. P. Died, aged 32, of some other disease. Never showed signs of cerebellar ataxia.

6. E. S. P. The first case seen and described here.

7. T. W. P. Also seen. Aged 30 and appears well. Is a railway guard.

8. C. B. P. Not seen. Is aged 28, and is reported to have begun showing the characteristic tremors within the last two years, but is still at work on the railway.

9. The grandfather. Said to have been healthy, but to have been killed in the Mutiny at a comparatively early age.

10 and 11. Not seen. Said to be healthy, but aged only 18 and 15 years respectively.

It will be noticed that of the present generation only three have reached adult life without being affected; of these three two died at 31 and 32 respectively of other diseases. It remains to be seen what will happen to the third, No. 7.

In E. S. P. the nervous system alone shows any abnormality. Except when at rest the whole body is shaken with coarse, irregular tremors, especially marked on voluntary movements of the upper or lower limbs. The gait is unsteady and resembles that of disseminated sclerosis, with the addition that he spreads his legs apart. There is no loss of power; the muscles are well developed, and the hand-grasps are strong. Inco-ordination is very marked, and is not increased by making the patient shut his eyes. He has difficulty in touching his nose, and in drinking a glass of water he raises the glass with one hand to his face and steadies the rim against the bridge of his nose. In removing the glass there is much shaking, and some of the water is invariably spilt. He can, however, button his shirt and perform fine movements without

much difficulty. He sways much on standing and feels giddy, but does not fall even with his eyes shut. There is no rigidity of any muscle.

There is no nystagmus; the pupil reactions and ophthalmoscopic appearances are normal. The fields of vision are nearly normal, but there is a certain amount of limitation, equal in all directions, on the left side. There is slight ptosis on each side. Speech is somewhat explosive and at the same time scanning. It was this defect in speech more than anything else that made him give up his work. There is no affection of sensation in any part.

The knee-jerks are exaggerated. There is no ankle clonus. The plantar reflex is flexor. There is no affection of the sphincters, but some frequency of micturition—about twelve times in the twenty-four hours, including once or twice at night, when he is compelled to get up for that purpose. The quantity of urine in the twenty-four hours is only about 60 oz., and it appears to be normal.

C. B. P., the eldest brother of the family, was also examined. He showed a more advanced stage of the same disease. He first noticed signs of it nine years ago at the age of 43. He is now almost bedridden. In his previous history there is nothing of note. His first symptom was pain in the legs on walking, soon followed by coarse tremors of his hands, which at the end of a year prevented him from following his occupation as a clerk. He also suffered from a prolonged fever of unknown nature and was left much worse at the end of it. Since then his disease has steadily progressed, and now he cannot move about without support on each side. He complained much of vertigo; when at rest he felt all right, but on sitting up or after any movement everything appeared to be going round.

On examination the nervous and urinary systems alone appeared affected. The signs were like those of his younger brother described above, but much more marked. The hand-grasps were strong and the limbs muscular. Inco-ordination was extreme; he took two hands to a glass of water and then spilt half of it. He could, however, button up his shirt. There was no spasticity. There was no nystagmus, nor anything abnormal about the eye, except that the pupillary reaction to light was slow. Speech was very explosive and indistinct, and it was difficult to understand him. When he attempted to stand his general ataxia combined with his explosive speech gave him very much the appearance of a drunken man. There was no affection of sensation. The knee-jerks were present, somewhat exaggerated on the left side. There was no ankle clonus and plantar reflex was extensor on both sides. The mental condition was normal. There was much polyuria; he micturated every twenty minutes during the day and every hour or so at night. He appeared to have a little difficulty in starting the act. Each time he voided about 8 oz., and the total was nearly 300 oz. in the twenty-four hours. The urine (sp. gr. 1002) was clear and of very pale colour, neutral in reaction, and contained neither albumin nor sugar. Thirst was correspondingly great, and he always had a glass of water by him.

The children of C. B. P., of E. S. P., and of T. W. P. were seen and are apparently healthy, but as they are all under the age of puberty it is impossible to say yet whether they may not be affected later. So far the disease has shown the phenomenon of "anticipation"—that is to say, whereas the father, G. P., did not show signs of it until the age of 50, his eldest son, C. B. P., began to show signs at 43, and the daughter at 40; the next son, E. S. P., at 32; and the next son affected at 28. It remains to be seen whether the next generation will develop the defect earlier, if at all. If so the stock will thus naturally be eliminated.

Similar families have been previously reported, notably by Sanger Brown; that family showed no fewer than 21 cases in four generations. In those and other cases where *post-mortem* examinations have been obtained the cerebellar structure appeared normal, but there was degeneration of the dorsal and spino-cerebellar tracts of the spinal cord. Cases described by other authors, however, have shown either the existence of a small cerebellum or of degeneration of that organ.

Marie described a series of cases under the name "hereditary cerebellar ataxia"; but critical examination of his cases since has shown a lack of unity in their symptoms

and pathology. Without a *post-mortem* examination on one of the affected of the family now reported, it is impossible to state the limitation of the lesion.

The symptoms produced so strongly resemble those we associate with experimental cerebellar lesions that we are justified in thinking that the cerebellum or the spino-cerebellar tracts, or both, must be at fault.

I am indebted to my clinical clerk, Mr. V. D. Saksena, for notes on the history and genealogy of these cases.

A CASE OF WOODY PHLEGMON OF THE NECK (PHLEGMON LIGNEUX).

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THIS condition is worth noting because of its remarkable resemblance to a malignant or tuberculous growth and its exceedingly slow progress, ending generally in a complete recovery. Such a case might easily be mistaken for a cancerous one, and if treated with "Mr. Polypody's pills" or some elixir or other, the results would be considered most convincing.

Reclus first described it in 1893, and a number of instances have been observed on the Continent and in America, though I have not found any recorded in this country. It generally occurs in males over 50 who are in low health, but usually no kidney or constitutional troubles are present. A slowly growing swelling due to infiltration of the subcutaneous cellular tissues appears over the lower jaw, in the neck, or in the lower part of the scalp. Occasionally such a mass has occurred in the abdominal wall after an attack of appendicitis. The tissues become as hard as a board. The skin darkens, and may be cyanosed or violet coloured in places. The surface may be nodular or smooth, and after some weeks slight fluctuation is found at several points and a little pus is evacuated, more or less blood stained and granular. In many cases there is no pain, tenderness, or fever, and the indurated mass may remain unaltered by the discharge of pus. Fresh sinuses form, and the process goes on for months, but when final absorption does take place, it is remarkably perfect and very few scars remain. Lang and Smincke tried to show that the tumour was cancerous, but this view has found no support, and usually it disappears entirely. The inflammatory infiltration may be leucocytic or lymphocytic. Perhaps the most common organism found is a staphylococcus, but a streptococcus, a pneumococcus, a diphtheroid bacillus, and others have been noticed in different cases. Reclus thinks it may be caused by any organism of weak virulence acting in highly resistant tissues. There may be patches of oedema along the margin, due to obstruction of the lymph channels. One patient died from oedema of the glottis, but the majority get perfectly well. Operative treatment has had little effect. The incisions discharge for a time, then heal up and fresh sinuses form. Vaccines have not been much more successful, but in any case the hard infiltrated areas slowly diminish and pass away. The history of my case is as follows:

A gentleman, aged 74, of strong physique and leading a regular and abstemious life, with hardly any records of previous illness, suffered in March, 1912, from toothache, for which he consulted Mr. Perry, a dental surgeon. A swelling in the cheek appeared about April 14th, and a necrosed lower molar tooth was extracted on April 18th. Considerable swelling of the face and gum took place and went on increasing. The mouth became closed from infiltration of the masseter, and could not be opened for eight months. During this time the front teeth were so closed together that often a knife blade could hardly be inserted, but occasionally there would be a gap of a quarter of an inch. On May 2nd an incision was made in the gum down to the bone and a drainage tube inserted. The tissues over the jaw were thickened and hard. Hot fomentations were employed for months. A sinus in the neck began to discharge about May 22nd, and others followed from various nodules on the surface, but very little change took place in the dense mass which covered the greater part of the right side of the neck from about 2 in. above the clavicle to a little below the level of the