who is desirous of securing for his patients such facilities as will favor the rapid and complete restoration of spinal function.

When all symptoms of paralysis have disappeared, and only weakness remains, then, with those unable to provide expensive, complicated braces, the employment of the Sayre jacket is indicated. It may be made light or heavy as required, and be renewed or dispensed with, as conditions indicate. In all cases of spinal infirmities requiring any sort of extension or support, the patient's bodily comfort is enhanced, besides, the state of the muscles and internal organs are all benefited by massage, judiciously applied.

EPILEPSY.

Read by title in the Section of Practice of Medicine, at the Forty-third Annual meeting of the American Medical Association, held at Detroit, June, 1892.

BY M. M. LEAHY, M.D.,

OF CHICAGO, ILL.

Admitting that from the time of Aristotle, when a knowledge of the structure and functions of the human body first began to be cultivated systematically, down to the present day the demonstrator of morbid anatomy has not lived who can point with unerring finger to the cause of epilepsy; admitting, too, that of more than eight millions of the world's people, whom statistics prove to be epileptics, perhaps less than one third are curable; yet we claim that in our thirty years' experience, both in Europe and in the United States, we have not been without some measure of success in the treatment of epileptics who continue to report themselves free from fits.

In response to a request for a chapter from our own experience in the treatment of epilepsy, leaving its etiology, pathology and history to the many able medical writers of the day, we purpose giving a brief history of a few selected typical cases and if this should prove helpful to one student or inexperienced young physician the mission of this paper will have been accomplished.

We have been asked our method of diagnosis and in reply would say, we use our educated senses.

It was our fortune throughout our entire European course of medical training to be a special student under a preceptor who, while he possessed one of the finest medical libraries in the kingdom, regarded all book knowledge as secondary to education of eye, ear and fingers. The student was put in a hospital with the understanding that no physician ever knew a thing that he could not see, hear or feel for himself. His text-books were the patient and the cadaver; there he staid and there he wrought under the most rigid task masters until he could tell almost instinctively, not only the ailment, but the treatment that should be used in battling with the disease. So while we have no wish to depreciate the many excellent instruments used as aids in detecting morbid conditions of the body, our own educated eye, ear and finger tips serve us with a fidelity that few manufactured instruments can equal or surpass.

It is said, if you place before a certain cultured lady, blind from her birth, a gorgeously embroidered cloth, that by passing lightly over it with the delicate tips of her educated fingers she can describe, not only the texture of the materials but every shade and tint of color used.

Now, one need not be born blind to detect the soft, mellow skin of phthisis or the dry, scaly skin of syphilis. Neither need he be bereft of other senses to hear an abnormal vesicular murmur or to read the history which every pain records upon the human countenance.

It is, then, with every sense on the alert, that we search for the break or obstruction in the physical economy of the epileptic; and when found, our entire energy is directed to the repair of the break or the removal of the obstruction.

Since no two constitutions require precisely the same medical and hygienic treatment we pay the greatest respect to the several idiosyncrasies of our patients. In fact the therapist has not lived who has dared pronounce upon the best "fit remedy" that ever issued from the door of a chemist's laboratory as even approaching infallibility, and the man who advertises a specific dose of a special nostrum as a cure for epileptic fits regardless of temperament or condition of the patient must be a fraud or a fool.

We have been asked our judgment with reference to the probability of cure in a case of genuine epilepsy. In our own practice we have found that if the predisposing cause be compression of the brain or lesion of the spinal cord, the chances are, at least one hundred to one, that the former will be followed by idiocy or softening of the brain and the latter by paralysis, both terminating fatally.

If the patient be the offspring of scrofulous, intemperate, phthisical, syphilitic or epileptic parents we may give relief for months and even years at a time, but the chances are against a permanent cure.

If, however, the predisposing cause be a simple disturbance of some part of the alimentary canal, the liver or the kidneys, an irritation of the pneumogastric nerve, the chances are decidedly in favor of a permanent cure.

The history of the following selected cases may serve to explain our general plan of treatment:

About five years ago while conversing with a friend in one of the public buildings of Boston, Massachusetts, we observed an employee, a finely built, robust, young man approaching. Just before he reached us he uttered a harsh scream and fell, bruising his face upon the stone where we stood. Instantly placing him upon his back, with a coat for a pillow, and a block of cork between his teeth, and loosening his neck-wear we watched the progress of the fit. With eyes fixed, pupils dilated, head drawn down toward the left shoulder, face and eyes directed toward the right, breathing and sensibility suspended, left arm and leg extended and twisted, left foot arched, fingers and toes flexed, he was as stiff as a board for nearly a minute. Then began exaggerated muscular relaxations and contractions of the entire body. The breathing now resumed was loud and jerky, the color changed from deathly pale to dark purple while the veins of the neck became much distended. Of a sudden every muscle was forcibly stretched to its full length and instantly relaxed and the patient gave a long, loud sigh, thus ending a fit of not more than three minutes duration. This was followed by a lethargic sleep and a dull, confused awakening, lasting but a few moments, during and after which we made a careful diagnosis of his general physical condition. We discovered ecchymoses on the face and neck, a stomach distended with gas and undigested food, a gorged liver, the lower bowel distended with gas and feces, a clear case of *le grand mal*, induced by irritation of the pneumogastric nerve. As he had the strength to bear rather heroic treatment, we gave both emetic and cathartic to clear out the alimentary canal. We stimulated the liver, kidneys and lymphatics, opening up nature's channels, giving her a chance to rid herself of all morbid matter. We then gave bromides in an infusion of belladonna leaves, commencing with a small dose and increasing the quantity until we reached the maximum dose his constitution would bear. We gave a hydragogue to prevent venous congestion, using

iodide of potassium or Fowler's solution upon any appearance of bromidism. When last heard from, a few months ago, there had been no return of the fits.

A young lady of Augusta, Maine, may serve as another typical case. The approach of her attack was indicated by a fancy that she heard the most enchanting music, and in her effort to catch the tune which seemed very familiar she lost consciousness in an epileptic fit. Being a sufferer from anemia our aim was to build up the system, mentally and physically. We prescribed whites of fresh raw eggs, beaten in plenty of fresh milk to make blood, baths and massage to stimulate the capillaries, rubbing the entire body with good olive oil once or twice a week, gentle out-of-door exercise and entertainment adapted to her taste and capacity. We then gave bromide of lithium and tonics with gratifying success.

We had, not long ago, a patient whose severe epileptic attacks were followed by mental derangement. At times he would hunt in the bed, under the carpet, in the garret and in the cellar for something he fancied he had lost. At other times he would break and destroy everything that came within his reach, even attempting to kill those he met. In such cases we have observed that bromides are decidedly harmful, tending to increase the irritation. In this instance we found the fluid extract of water hemlock alternate with borax, ergot and phosphates, very efficacious in the way of soothing the patient and checking the convulsions. In the course of a few months he died of softening of the brain.

While in charge of a dispensary in Kinnare, county of Kerry, Ireland, a patient, whose case resisted all remedies, died in *status epilepticus*. The autopsy pointed directly to *phthisis renalis* as the predisposing cause.

At the same time we had under our care a young girl afflicted with violent epileptic seizures who was a sufferer from retention of urine. An examination revealed tubercles and albumen. Our treatment was directed exclusively to the local troubles and when their cure was effected the fits departed and we have never heard of their return.

We have at present under our care a girl aged 10, whose father, an epileptic, died at forty of softening of the brain. Naturally of tractable temper, she took spells, when for days she was irritable, morose and stubborn, culminating in an attack in which the face paled, the pupils dilated, the eyes became fixed and the muscles rigid, lasting but a few seconds. She did not fall and lost consciousness for a few seconds only, but was stupid and forgetful for several days before returning to her normal condition. As is common among epileptics she is a gourmand. We purged her thoroughly, afterwards administering fluid extract of belladonna, 10 drops daily. She has had no return of the fits for five months; but, being inherited, her case must needs be closely watched, especially as she is likely at any time to bring on intestinal irritation by over-eating.

A Chicago boy, aged 9, had violent seizures of *le grand mal* for which we treated him with bromides in an infusion of belladonna leaves without a return of the fits for one year, when not we, but his parents pronounced him cured. All went well until he had an attack of pneumonia after which he became a victim of *le petit mal*. Many times a day he caught hold of his mother with both hands and with violent grimaces uttered a hoarse cry as if in great pain. The attacks lasted but a few seconds after which he seemed dazed and entirely unconscious of what had happened. He had constant and extreme nausea. We gave as strong cathartic and emetic doses as his debilitated constitution would bear, with the result of bringing away from both stomach and bowels an incredible amount of matter having the appearance of strips of sheep skin, with a stench that was almost unendurable. To quiet and soothe we gave sulphate of atropine 1-120 gr. with sulphate of morphia 1-10 gr. and in a few days resumed the bromide and belladonna treatment. There has been no return of the fits since resuming the treatment.

There are a number of other cases illustrative of stages intermediate between *le petit mal* and *le grand mal* in which we are greatly interested; but we refrain from a description feeling that the promised short chapter has already grown sufficiently long.

In conclusion we will say that the greatest obstacle in the way of permanent relief on the part of those who are curable is the unwillingness of the patient and his friends to continue the treatment, medical and hygienic, sufficiently long.

After the fits are stopped and the patient looks

and feels first rate, both he and his friends seem to regard any effort to induce him to continue treatment as a collusion of doctor and druggist to defraud him of his money.

Before commencing treatment we aim to secure a promise that the patient will continue one, two, or three years as his case may require. Oh, yes, he is ready to promise a five years' trial if we ask it; but four out of five fail to keep a one year promise. The fits return, of course, and the doctor is expected to shoulder the blame.

Is it Utopian to hope that we as honest, earnest physicians whose object is the greatest good to the greatest number of suffering humanity, may, at no distant day succeed in convincing the State at large, of the necessity for special hospitals where all epileptics may be carefully and scientifically treated and where the curable may be kept until they are cured?

OBSTRUCTION OF THE CYSTIC DUCT, WITH A CASE.

Read in the Section of Surgery and Anatomy, at the Forty-third Annual Meeting of the American Medical Association, held at Detroit, Mich., June 7, 1892.

BY W. H. MYERS,
OF FT. WAYNE, IND.

I will invite your attention for a few moments to obstruction of the cystic duct, a region only recently invaded by the surgeon; a subject not alluded to in Mutter's Syllabus of 1883, nor found in Cheyne's of 1892.

That the treatment of hepatic disease remained in the field of medicine until within a recent period is proven by the fact that the surgical treatment of the liver by cholecystotomy was first performed by Dr. Bobbs, of Indianapolis in 1867.

In obstruction of the cystic duct there is occlusion, or stenosis. In the first the closure is complete: in the latter less complete. These conditions are dependent on foreign bodies within the duct, or upon some disease or thickening of the walls, or the presence of pressure from a tumor without. The most common cause is an impacted gall-stone in the cystic duct. If the cystic duct alone is obstructed, the office of the gall-bladder is destroyed; this leads to various changes. The bile in the gall bladder is absorbed and its place is supplied by a glairy fluid of the consistency of mucus or synovia, often so abundant as to fill the gall-bladder, and sometimes greatly distend it; it becomes a thin walled cyst holding several pints. It is now completely cut off and no longer available as a receptacle for bile; its nutrition impaired, changes in structure follow, with the phenomena inflammation and ulceration. These changes are local, for a stone lodged in the cystic duct can by no possibility produce jaundice; its presence will only prevent the bile from passing in or out of the gall bladder.

How are we to know whether or not the cause of obstruction is an impacted gall-stone? The diagnosis is positive when the patient passes a calculus; before this occurs our data are probabilities. If the following symptoms are present in a case—violent pains in the right hypochondrium, shooting through the whole abdomen up to the chest and right shoulder, nausea and vomiting seldom absent, these symptoms occurring at longer or shorter intervals, with an