In addition to the number of severe convulsions, as given above, many light attacks occurred from September to November, but these ceased by December and all were again of the former, very severe, kind. The beneficial effects of the toxin having disappeared by this time, December, the patient was again placed on the routine bromide treatment.

The remarkable results obtained led to the application of this method of treatment, in May, 1896, to three other cases, all of whom were benefited, but on account of the cost of the remedy its administration was finally abandoned.

No evil effects were observed at any time; the injections were made under strict aseptic precautions and were almost painless. The cases receiving treatment were all of the kind ordinarily regarded as hopeless.

This method of treatment may be worthy of a more thorough trial, especially in recent or acute cases of epilepsy. There seems to be no literature on the subject.

A UNIQUE CASE OF EPILEPSY. By Dr. Michael Campbell.

H. H., a youth of 17 years of age, well-grown, well-nourished and apparently sane, was brought to the Lyon's View Hospital, Knoxville, Tenn., Dec. 15, 1893. He had an attack of malarial fever in the preceding August and was ill for two weeks, and when the fever passed away he had (according to the description given by his parents) an epileptic seizure, following which he was "wild" as they expressed it for three days and nights. He had a scar on the frontal bone to the right of the median line in the edge of the hair caused by a blow from the handle of a windlass received three years before. He was unconscious for several hours at the time of the injury but had subsequently seemed in good health. His maternal grandfather was insane and a paternal aunt was an epileptic.

He remained in the hospital two weeks, in good general health, sensible, good tempered and docile, when it was reported that he was not well, I found on visiting him that he was listless and stupid, and that he spoke, and in fact made any movement, with difficulty. Eight or ten hours afterwards, he was unconscious, and required to be held by two attendants to prevent self-injury. He had general convulsions which were not of the violent char-

acter usual in epilepsy, but slow and rather rhythmical, resembling the movement of a man using heavy dumb-bells; the movements being more violent on the left than on the right side, and stronger in the left arm than in the left leg. When his left wrist was free, there was a slow and rhythmical contraction and relaxation of the biceps and pectoral muscles, causing him to strike himself in the face with considerable violence. The pupils were normal, the pulse full and strong, the skin moist, the veins of the face and neck full, like a man undergoing severe labor. One pole of a faradic battery was placed over the fissure of Rolando, on the right side, and the other applied on the sole of the left foot; in a few minutes his movements became feebler, and at the end of a quarter of an hour, he looked like one asleep; but when the hand was applied to the muscles of the left side, feeble rhythmical contractions were felt; at the end of several hours, the spasmodic state again becoming violent, he was given, through a nasal tube, xx grs. of chloral hydrate, when he became again quiet, for three or four hours, but the undercurrent, as it may be called, of convulsions continued perceptible to palpation, just as when he was quieted by the faradic current. This condition of unconsciousness with spasms continued for eight days. He was fed with a tube, and the convulsive action kept within bounds with electricity and chloral. His approach to the normal state was gradual and, when consciousness returned, he had no recollection of what had happened, but complained of soreness of the muscles, and was very much exhausted. He, however, had a good appetite, and rapidly gained strength. He continued well and sane for twenty-three days, when he was attacked as before, and was convulsed for six or seven days.

The patient continued to have such attacks regularly, every twenty or twenty-five days, for six months, and I was unable to do more than mitigate the severity of his symptoms during the seizures. Nothing that I did seemed in the least to influence the onset of the attacks, which recurred with fateful precision. The bromides were given, of course, but were as impotent to prevent the seizures as they were to control the symptoms. For the latter, much benefit was gotten from electricity, chloral and ergot.

I will insert a few notes of the case, which will fill in the details of the picture I have just roughly sketched:

June 19th, 1894, 11.45 A. M.—Pulse, 75 per minute, rather feeble, and equal in both arms, (this was not always the case, as marked inequality was frequently observed), respiration, 15 per minute, temperature, 98°; patient complaining of pain in his stomach and over left eyebrow. In walking he drags his right leg; mouth drawn to left side; left upper eye-lid drooping, with inability to raise it; tongue furred, and hiccough. He also complained of difficulty of swallowing, which he referred chiefly to the left side. His two hands were not equally sensitive to heat, water at 80° seemed warm to the right hand and cold to the left. Tactile sensibility was impaired on the left side of the face, the right side of the trunk, and right arm and leg, as compared with the opposite regions.

The sense of taste was impaired on the left side of the tongue, the patient not recognizing sugar when it was applied to that part. Salt was appreciated alike on both sides. In the afternoon of the same day, he was placed in bed, at which time, his left eye-lid was drooping and tremulous; left arm rigid, from shoulder down, it being impossible to flex the elbow joint; right arm flexible, with proneness on part of patient, to keep the forearm across the chest. All the muscles of the lower limbs tense. Right eye more sensitive to the light than the left.

There was no special change in the condition of the patient for the next seven days, the pulse, respiration and temperature, on the whole, being rather below normal. He was fed regularly with milk through a nasal tube, care being taken to avoid overloading the stomach.

On the seventh day after his seizure he took his milk from a feeding cup. The next day, he sat up in bed and talked, but rather inaudibly, from stiffness of the tongue and lips. The sense of feeling was still less acute on the right than upon the left side, as in the beginning of the attack.

On July 1st he was trephined over the site of the old injury. No depression or fracture of the bone was found. He had no rise of temperature from the operation, and was allowed to get up and walk about on the fifth day.

Notwithstanding the rigid asepsis used and the application of antiseptic dressing from the beginning, the wound healed slowly, discharging an abundance of pus.

He missed his usual attack and was discharged from the hospital, and remained well for five months, when he had another seizure of the same sort, but much lighter.

His father wrote me thirteen months after the operation, that with the exception of the period of five months of immunity, he had an attack every month, but the seizures were much lighter. He did not become unconscious, got up in the morning, dressed himself without assistance, and usually took one meal a day, but could not talk.

I thought this case worthy of record because, so far as I know, it is unique in the literature of epilepsy; also, when the slight nature of the operation of trephining is considered, and the material benefit that the patient received from it in this case, it seems that it would be well to resort to it more frequently in selected cases.