the frequency of micturition was still more than natural during the night. She was seen in May 1873, and was very much improved, there being very little irritation now.

Possibly this may be nothing new to some present; but as it seems to be a very effectual mode of dealing with these troublesome little growths, I thought it not unworthy of the attention of the Society, as I am convinced it is not generally known, and it deserves a more extended trial.

The cases I have selected are only a few of those in which I have employed it; in many instances, the patients have attended some few times and then ceased to do so; it is, therefore, fair to conclude that they were relieved from their sufferings, otherwise they would have again presented themselves.

CASE OF TRAUMATIC TETANUS SUCCESSFULLY TREATED BY CALABAR BEAN.

By JOHN CUNNINGHAM, M.B., Campbelltown.

As the uses of the Calabar bean in the treatment of tetanus are at present engaging the attention of some of the members of our profession, I may be pardoned for giving the following notes of an interesting case which lately occurred in my practice.

Alexander C., aged 7, was on a visit to his grandfather, when he met with an accident on July 31st last. When I went to see him, I found a lacerated wound of the left foot. The tissues covering the great toe and first and second metatarsal bones were bruised, as was also the union between these bones, almost as far as their tarsal articulations. I cleaned the wound, and dressed it with a weak watery solution of carbolic acid. The injury proceeded, without an adverse symptom, towards recovery, until August 11th, when his friends told me that he had caught a cold in being carried from one room to the other. The patient complained that his throat was sore. There was nothing abnormal to be found about the throat; and I ordered that it should be kept warm, and that the patient must not be removed from his bedroom.

August 11th, 8 P.M. The patient could not open his mouth sufficiently wide. The muscles on the back of the neck were stiffer than normal. The patient was fretful and peevish, and refused food. As I had no confidence in the ability of those attending to carry out my instructions, I telegraphed for the little boy's mother to come with all speed. I left a mixture of bromide of potassium and hydrate of chloral. On the patient refusing it, the friends said "there is no use in tormenting him".

August 12th. I saw the patient in the forenoon and evening. He was very much worse; he took neither food nor medicine.

August 13th, 11 A.M. The patient's mother had come, and was determined that my directions would be strictly carried out. I left a bottle containing a grain of fresh extract of Calabar bean to an ounce of water, and a small graduated measure. I ordered twenty drops (*i.e.*, 1-24th of a grain) to be given every hour and a-half, unless symptoms of faintness should supervene, also sherry wine, milk, and chicken soup frequently.

August 13th, 8 P.M. He was much worse. The jaws were completely closed. The whole body was rigid. Clonic spasms occurred every fifteen or twenty minutes, and were almost immediately preceded by severe pain at the sternum. After every such attack, there were profuse perspiration and rapid pulse. The patient always cried to be lifted when he felt the clonic spasms coming. He lay in his mother's arms in a state of opisthotonos until the spasm relaxed. I ordered twenty-five drops of the medicine to be taken every hour.

August 14th, forenoon. The patient was slightly worse. He had taken wine, milk and soup abundantly. In the evening, he was slightly worse. Thirty drops were given every hour.

August 15th, forenoon. The symptoms were gradually becoming worse. I ordered thirty drops to be taken every hour. In the evening there was slight improvement. The clonic spasms did not occur every three or four minutes as this forenoon. A little sleep had been got, during which "he looked", the mother said, "as if nothing ailed him".

August 16th. There was slight relaxation of the masseters in the forenoon. In the afternoon there was no improvement. I ordered thirty-five drops every hour.

August 17th. There was no improvement. Forty drops of the mixture were given every hour.

August 18th. The clonic spasms of the body were not so severe; the tendons of the ham-strings were like bands of iron (the forearms and fingers had remained free throughout). He had had a short but refreshing sleep during the day.

August 19th. Improvement was not marked. Fifty drops were given every hour. In the evening, as he had had no motion from the bowels for two days, a simple turpentine enema was given. The bowels had

been perfectly regular previously, and I attributed the necessity for the enema to the use of brandy instead of sherry wine for the past few days, owing to the patient's desire.

August 20th. From this date the improvement was rapid and permanent. Day by day the relaxation increased, the spasms became fewer and less violent, the pulse lower, and the perspiration less. The dose was reduced by degrees (the effect of the reduction being noticed) to fifty drops every hour and a half on August 23rd, the same dose every two hours on the next day, and so on. The symptoms gradually diminished in severity, until I considered the patient so far recovered as to permit his removal home on September 2nd. At that date, he could stand with a little assistance. I have since heard that he is quite well.

It would be illogical to deduce that a cure resulted in this case from the medicine employed; but so many cases have been successfully treated within these few years by means of the Calabar bean, that I think it should be preferred in the treatment of this dangerous malady to any of those empirical remedies formerly recommended. If the Calabar bean exercised any beneficial influence in this case, I think that it was by means of constantly increasing doses as long as the symptoms shewed no abatement in severity. Large quantities of warmed milk, wine, and soups were, I have no doubt, powerful adjuvants.

I may mention, as adverse to the theory of the entozoic origin of all cases of tetanus, that the stools were carefully watched for worms, but none were found, and that not a single symptom of their presence was present before the accident occurred or during the convalescence.

ACUTE TETANUS ENDING IN COMPLETE RECOVERY.

By CHARLES D. ALLEN, M.B., Glenarm.

ON June 11th, 1872, I was called to see a boy, aged 11, who had met with an accident in a flax-scutching mill, his left hand having been caught between two cogged-wheels, which crushed and lacerated to a great extent the fingers and palmar surface of the hand. I found it necessary at once to amputate the second, third and fourth fingers, the former at the first phalangeal, and the latter two at the metacarpophalangeal articulation. On visiting the boy each day, I found all going on most satisfactorily.

On the seventeenth day after the operation, the wound was nearly healed. On the eighteenth evening (June 29th), the child's father came in haste to say his son was very ill, had rested badly the previous night, refused his food, and all that day had been unwilling to leave his bed, although hitherto he had been going about enjoying perfect health and strength; indeed, he was a peculiarly robust lad. He now complained of severe pain and stiffness along the back and side of the neck, and experienced slight difficulty in opening and shutting his mouth; and before I left the house that evening, his jaws were firmly clenched upon a piece of wood inserted by myself to guard against the complete closure of the teeth. The patient apparently had caught no cold, nor was he exposed in any way that could account for these symptoms—they appear to have been the result directly of the injury. The wound at this time was healthy looking, and had almost completely cicatrised. These tetanic warnings came on late on the evening of June 29th, and the following morning, at ten o'clock, he was violently affected with general tetanus; the trismus was excessive, and opisthotonos very marked. The pulse now was 120; temperature, 100.2 deg.; respirations, 30. The face had the tetanic grin, and the abdominal and flexor muscles of the lower extremities were most violently affected under spasm. The treatment noted below was at once commenced, and with apparent utility. There was no intermission of the tonic contractions, and every ten or fifteen minutes these were increased by fits of painful spasmodic action of entire frame, the face assuming a terrific aspect and the jaws almost breaking the wedge of wood. The most trivial noise or movement in the room brought about a renewal of the worst symptoms, the approach of them being indicated by the boy crying out in fear. The body during the severest moments rested on the back of the head, the elbows, and the heels. I made it to be understood that he must be lifted out of bed and brought to the door for air. On these occasions, the dyspnoea was great, and the lividity of countenance showed that the struggle for breath was intense. Night and day this was the routine. I could not persuade the boy to remain in bed.

On July 2nd, the symptoms became aggravated. The pulse rose to 140; temperature, 103.2 deg.; respirations, 40. Abundant perspiration broke out over the entire body, and the urine passed two or three times involuntarily. On July 3rd, the pulse came down to 134; temperature, 102 deg.; respirations, 34.

For some days, things remained in much the same fearful condition,