he apparently began to grow very near-sighted. This was first noticed by his teacher at school, and it had reached such a degree that he held his book so near his face that what he read could not be understood. He even stated that he could not see to read unless his nose actually touched the paper. With the near-sightedness there had come a marked change in his temperament. While he was formerly tractable, and his earlier teachers remembered him as a good boy, he had in the last two years become obstinate and troublesome. He continued at school till the last fall; then had a "row" with the teacher, and ran out of the school. For a year his appetite had been failing. For the past three months vomiting had been a prominent symptom, occurring nearly every other day before breakfast, and he was never able to eat his breakfast until he had been out into the air. At one time, three or four weeks before I saw him, he had gone two days without food. Of late he had had bad dreams; that he was being killed, etc. He was waked every morning at three or four o'clock by a sharp pain in his eyes. He said that his sight was worse at night, and that one reason why he did not wish to go to school was that other boys called him "blind" in the evening, and also "color-blind." His sister stated that he stumbled over objects at home, where he was familiar with the locality, as if he did not see them, yet he always wanted a hat with a broad brim to protect his eyes.

He was of good height for his age, but slightly built, pale and anæmic in appearance, thin in flesh, his manner somewhat apathetic. The eyes were externally normal; the pupils reacted well. With the right eye he read X at 2' to 2½'; with the left eye XII at the same distance. No glasses improved his vision. There was no abnormal decrease of vision when the light was diminished. With the right eye he distinguished green, red, pink, and blue, but could not tell yellow. With the left eye he recognized red, pink, and blue, but neither green nor yellow. A few minutes later he told yellow, as well as the other colors, with the right eye; still neither green nor yellow with the left.

The field of vision was much and concentrically contracted; it extended nearly equally in all directions from the fixation point, having at the distance of a foot a diameter of 6" to 6½"; it was very nearly alike in the two eyes. The ophthalmoscope showed the refraction to be emmetropic, the media clear, the fundus everywhere quite normal in appearance. Even when the pupils were dilated by atropine careful examination detected no anomaly. This condition, a perfectly normal fundus, was repeatedly found so long as the case was under observation.

Cod-liver oil was prescribed, and general hygienic directions given.

January 7th his sister reported that before taking the cod-liver oil he would say there was a fish in the tumbler, and insist upon rinsing it repeatedly. His vision was not as good as on the 3d; he now read VIII at 10" with difficulty. The field of vision also was smaller, averaging about 3" at a distance of one foot. It was also measured at a distance of three feet, and the results corresponded fairly well.

January 14th he read IV at 7"; told all colors with either eye, but required several seconds to recognize them. The field of vision, tested by the moving hand while the eye of the observer served as the object of fixation, seemed a little smaller than on the 7th.

January 21st pills of sulphate of strychnia, one

twelfth grain three times a day, were ordered, but as he showed the physiological effect after taking the second pill they were reduced to two per diem.

January 23d he told all colors at 1', but could recognize none at 2', even against a white background.

January 30th the field of vision, measured on the blackboard, was only 2" in diameter at 1'. When he fixed my eye while I moved my hand slowly toward the line of vision, giving it at the same time a constant lateral motion, the hand often reached or even crossed the line of vision before he admitted that he saw it. This phenomenon was observed several times at later dates, and he sometimes even asserted that he could not see the hand when it was kept in motion in a position directly between his eye and mine. The strychnia was now omitted and iron given.

By March 20th the boy's color was improved. His vision the same.

April 24th he had a fair color, and his general appearance was better; his sister said he had never looked so well. He read III at 7"; his field of vision was 3" in diameter at 1'; he told colors correctly at 2'. Though measurement on the blackboard showed so contracted a field, it was noticed while testing his color sense that when a bit of colored paper fell from my hand to the ground, the hand being at the time much outside the asserted field, the boy's eyes turned down to follow the paper, as if the size of the field were normal.

He continued the iron and cod-liver oil till June, and then went into the country, where he stayed till September. At the end of September he stated that he had improved in sight and in general condition, but still was troubled by night-blindness. He had a scar across his nose, the result of a fall over something in the dark, and by his sister's statement he fell in the dark frequently. He told letters of VIII at 12" with difficulty, soon after at 18". The field, at 1', had a diameter of 6" to 8" in either eye.

He was lost sight of till July, 1880, when he came on account of a slight conjunctivitis. He was said to have improved in general health, but in other respects to have changed little. His field of vision, tested with the hand, was only 1" to 2" in diameter. Yet he had now for six weeks been serving as a messenger boy in a district telegraph office, liked the employment, and found no difficulty in going about. In fact, from the first, whenever he was under my observation he had shown plainly from the manner in which he moved about that no very great actual contraction of the field could exist. How much of the simulation was conscious, how much unconscious, it is difficult to say.

About a year later I met the boy in the street; he had grown, and looked in good health; he told me that his sight had become normal in all respects.

A SUCCESSFUL CASE OF TETANUS NEONATORUM TREATED WITH BROMIDE OF POTASSIUM.

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RECOVERY in cases of tetanus of the newly born is rare. Bad as the prognosis of this disease is in adult life, it is even worse in the young child. The most frequent cause of death at all ages being exhaustion, it

is easy to see why the child of a few days readily succumbs.

The earlier writers upon tetanus neonatorum held it to be absolutely fatal. More recent ones hold out but little encouragement from their experience in its management. Thus Vogel lost all of his cases. Of twenty-four observed by Finkh none survived. In Stockholm, where the disease is very common, Cederchjoeld saw forty-four cases with but two recoveries. Every one of one hundred and eighty-five cases occurring on the Island of Heimacy about the beginning of this century died. Dr. J. Lewis Smith in his excellent article on this subject in the last edition of his *Diseases of Children* states that only one instance of recovery has come under his observation; though he mentions eight cases collected from various sources.

Among the negro children at the South the disease was formerly very prevalent, and Nailer¹ says that it was so uniformly fatal that a physician was never called.

The following case is published, not with the idea of proposing bromide of potassium as a specific for the disease, but as furnishing an instance of very prompt and very decided improvement under its use, and also illustrating the remarkable tolerance of this drug in young infants.

Katie M., aged seventeen days, was brought to the dispensary by the mother September 27, 1882. She gave the following history: The child was born at full term, the labor being very easy, and of only two or three hours' duration. The cord fell off on the fourth day, but the umbilicus has not yet quite healed. There had been no hæmorrhage from this source. Except this condition of the umbilicus, and quite a severe eczema which had developed about the genitals and inner surfaces of the thighs, nothing abnormal had been observed about the child until it was twelve days old. Then the mother noticed that it would occasionally straighten back while nursing and become very rigid for a few moments. Sometimes it would get black in the face at these attacks. Soon after it was seen to open the mouth with difficulty and not to the full extent. Since that time these paroxysms had become gradually more frequent and more severe, and even between them the body was very stiff. Nursing had become impossible, and the child had been fed with a spoon for four days. Urine and bowels were reported regular. There had been no fever noticed. The hygienic surroundings, it was afterwards learned, were about as unfavorable as they could well be in a tenement house, though the child showed no evidence of neglect in its person.

On examination I found a tolerably well-nourished child. It lay upon the back, the body being slightly arched in opisthotonos. The upper extremities could be moved somewhat, though the fingers were tightly flexed and the thumbs held between the first and middle fingers on each side. The lower extremities were almost completely extended and perfectly rigid, no motion being allowed at hips or knees. The skin was loose and flabby, and the hard contracted muscles beneath gave the limbs a peculiar feeling. There was an eczema over thighs, genitals, and lower part of abdomen, for the most part dry, but in places still exuding moisture. The whole integument of this region was greatly reddened. The umbilicus itself was a little pouting, and presented a small excoriated surface, hardly amounting to an ulcer. There was no sign of

suppuration. The face presented a singular aspect; the muscles of the jaws stood out rigidly. The jaws could be separated barely enough to admit the little finger between the gums. The eyes were closed and lips pouting.

The child cried with a low whine much of the time. Every few minutes a paroxysm would come on; then the muscles of the face became more rigid, the respiration ceased for the time, the face was cyanotic, and the extremities even more rigid than before. This passed off in a few moments, and nothing but the tonic rigidity remained, but this was enough to enable the child to be balanced upon the hand like a piece of wood. Rectal temperature $99\frac{1}{4}^{\circ}$ F.

Ordered ten drops of brandy every two hours, and potass. bromid., four grains, every three hours; the umbilicus to be dressed with simple cerate.

September 28th. By mistake double the dose of bromide was given each time, but as the child seems to have suffered no bad effects the larger doses are ordered to be continued. The breast milk, given with a spoon, was taken well and retained, as was also the brandy. Condition about the same as yesterday.

September 29th. There is decided improvement in the symptoms. The medicine has been given regularly night and day. There is not so much rigidity of the lower extremities, and the mouth can be opened a little better. The cry is stronger. The child nursed three or four times during the past night, this being the first time for a week. The bowels are a little loose, and vomiting took place once to-day. The child sleeps most of the time. Rectal temperature $99\frac{3}{4}^{\circ}$ F. The treatment is continued. The umbilicus has been dressed with ungt. zinc. oxidi. It is healing.

September 30th. Nurses so well that hand feeding is discontinued. Has been more restless and worrying a good deal to-day, but the paroxysms are not so frequent. Temperature $99\frac{1}{4}^{\circ}$ F.

October 2d. The umbilicus has about healed. Has slept most of the past twenty-four hours, and during this time has been almost completely relaxed. The rigidity has almost gone. Temperature $101\frac{1}{4}^{\circ}$ F. The bromide is reduced to five grains every three hours. Brandy continued as before.

October 3d. Only a few mild paroxysms during the night, but high fever is reported to have been present. Temperature $100\frac{1}{2}^{\circ}$ F.

October 4th. The child is not quite so well to-day. The paroxysms have become more frequent and more severe than for several days. It has scarcely slept at all. Quite a severe paroxysm is witnessed to-day; this is almost as marked as at any time during the disease. Relaxation in the interval seems complete, however. Bromide again increased to first doses of eight grains every three hours.

October 5th. A few mild paroxysms between two and four this morning, otherwise quiet.

October 18th. No paroxysms have occurred since the 5th instant. The bromide has been gradually diminished, and is now stopped altogether. The child is gaining flesh, and the eczema is very much alleviated. A small hernia has formed at the umbilicus, but otherwise everything here is normal.

Discharged cured.

February 10, 1883. I saw the child to-day, and learned there had been no further manifestations of the disease since it was dismissed from treatment.

Remarks. I have before me notes of fifteen other

¹ New Orleans Medical Journal, 1846.

cases of recovery from tetanus neonatorum, reports of which I have found scattered through medical literature. The following are the methods of treatment so far as they have been given: "Castor oil and local sedatives;" quinine and morphia endermically, nothing by the mouth; Cannabis Indica in full doses, that is, one half ounce of the tincture per diem; ipecac and quinine in small and frequent doses; atropia hypodermically; sulphate of zinc in five-grain doses every three hours, and "a little opium;" chloral in doses of one grain or two grains four or five times a day; postural treatment alone, no medication.

From this array of facts it is evident that we must not be too ready to draw conclusions with regard to the action of drugs in this disease. Hasty conclusions from insufficient data are among the most serious obstacles to progress in therapeutics. We Americans are especially open to this charge.

It seems to us that we may divide the cases of tetanus into three groups:—

(1.) Those acute severe cases which prove fatal in from one to three days in spite of all treatment. This class includes, unfortunately, the great majority of the cases.

(2.) The very mild ones, which tend to a spontaneous recovery. In this class, it would seem from the histories, that several of the fifteen cases referred to belong.

(3.) Those which are less acute than the first series, but still severe, in which recovery seems to be due to the treatment employed.

We should class our own case among the last mentioned.

Up to the beginning of the treatment the case had been growing steadily worse. Eight grains of the bromide were taken every three hours, night and day, for five days. Inside of thirty-six hours there was such improvement that the child took the breast for the first time in a week. At the end of five days, when the child was so much better that the dose was reduced, a decided exacerbation in the symptoms followed, which lasted until the larger doses were resumed.

The brandy, no doubt, contributed to the favorable result, and is to be advised as an accessory to all modes of treatment.

The view advocated by Dr. Marion Sims in 1846, that this form of tetanus is frequently, if not always, due to pressure from displaced cranial bones, has not been sustained by subsequent experience. Latterly almost all forms of treatment have been abandoned except that by motor depressants of the spinal cord. Among these drugs chloral undoubtedly holds the first place in the minds of the majority of observers. Any drug to be of service must be pushed to its full physiological effect. Since this principle has been appreciated recoveries in tetanus have multiplied quite rapidly.

That the bromides are safer than chloral needs no argument here. This case shows that they are tolerated in young infants to a remarkable degree. I have been unable to find that they have ever been thoroughly tried in tetanus neonatorum in the doses indicated.

This case is submitted with the hope that others may be led to test the drug in future cases to see whether after all we have not in the bromide of potassium a remedy fully as efficient as chloral, and much safer.

Reports of Societies.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. W. SWAN, M. D., SECRETARY.

NOVEMBER 11, 1882. DR. MINOT read a paper on the

HYGIENE OF THE LYING-IN ROOM.¹

DR. INGALLS remarked upon the impossibility, in many cases, of carrying out the regulations proposed by Dr. Minot, admirable and clearly stated as they are. It was important, no doubt, that the room, etc., *should* be so arranged, but in what proportion of cases *could* it be done? The moment the physician began to propose this beneficial arrangement he was met by the statement "Well, I'll do the best I can," and this means that many of the behests are looked upon as unnecessary, therefore unattempted.

DR. MORRILL WYMAN remarked that the slip of board placed on the inside of the sash (not under it), and held by the window frame, so that it can turn on one of its long sides, gives an upward or downward direction to the incoming air, and prevents direct draughts, while the amount of air is controlled by raising or lowering the sash outside the board. It can be fitted to the bottom or top of the window, when both sashes are movable, as they ought always to be in a sick room.

Change of clothing, the introduction of fresh air and sunlight, he said, had more effect in securing the results of disinfection of a sick room than the diffusion of carbolic-acid vapor.

According to the investigations of Sternberg, carbolic acid was of no use as a disinfectant (except as occasioning a free use of water) unless used with caustic strength.

DR. J. STEDMAN reported, in connection with this subject, a case illustrating the necessity of the arrangements suggested by Dr. Minot. The patient had hired a large house for the summer. As the patient had chronic trouble with the kidneys and her general health was not good, the precaution was taken to investigate the plumbing, and a leak was found in the bath-room. This room opened into the dressing room, and that into the lying-in room. It was further found that the main soil-pipe was of lead and completely honeycombed, and the connections so broken that the foul air from the cess-pool had complete access to the lying-in room. The necessary repairs were made, and the patient was confined at term and did well.

The following year a student at the Harvard Medical School occupied a room over a brick drain in another part of the same house, and had typhoid fever, with severe hæmorrhage, and died in consequence.

Dr. Stedman further reported the case of a lady living in a modern house, whom he attended in confinement. She was delivered without accident. Dr. Stedman noticed that the bath-room door opened into the patient's bed-room, and accordingly had the door locked and the key put away. At the end of a week the patient had a severe chill, with copious vomiting of dark grumous blood, and in three days she died. She had been seen by Dr. Ellis in consultation, and on the same day an investigation showed that the sewerage was very defective, that the pipes from this and the

¹ See page 343, JOURNAL of October 11, 1883.