

projected further than the other. No definite cause was known, and not much inconvenience experienced, except that there was frequently aching in the back and a sense of weariness after exertion. Has worn shoulder braces without benefit. Some deformity was noticeable, even to an ordinary observer, in spite of the aid afforded by the dressmaker. In September, 1888, Dr. Gibney, of New York, was consulted, by whom the case was referred to me.

On inspection there is found a marked lower dorsal spinal curve to the right, rotation of the vertebrae, displacement of the right scapula, drooping of the tip of the right shoulder, the angle of the right scapula about one inch further from the tips of the spinous processes and about one inch higher than that of the left, marked bending outward of the ribs of the right side, deficiency of the muscles at the left posterior aspect of the neck, and compensatory curvature to the left in the lumbo-sacral region. Extremities of equal length. By no effort could the spinal curvature be entirely overcome, though it could be lessened considerably by extending the left arm strongly upward and keeping the right by the side.

Exercises, chiefly after Roth's method, were commenced at once and continued for about half an hour daily for about three months, under my own supervision. These were also repeated at home. During the Xmas holidays the patient's father, who is a physician, could notice a distinct improvement.

Feb. 21st. Exercises have been assiduously performed, but little or no improvement in the spinal curvature can be claimed. The manner of holding the shoulders, the carriage in walking and the general poise of the body, however, have very much improved, and the group of muscles at the left posterior aspect of the neck is much more developed.

June 12th. The patient's father called to see me, and reported the exercises being faithfully continued, the muscles of the back largely developed, the attitude and carriage in standing and walking much improved, and the actual curvature lessened.

Case 2; April 3rd, 1889. Referred to me by Dr. Edwards of London. Miss S., 22 years, of nervous temperament, rather poorly nourished. Previous to March, 1886, was much

stouter than at present, but had never been robust. Three years ago, after a few weeks of unusual work and anxiety, was taken ill with intense dragging pain in the spine, worse in the lumbar and sacral regions. Trouble in walking developed, the ankles would turn outward. Was soon confined to bed, and incomplete paralysis supervened. The legs could be drawn up but could not be extended, could not lift food to her mouth, could not turn over in bed. Bladder and bowels were in the same paretic condition. After about two months, gradual improvement commenced, and before the end of the year she was able to move about the house. No delirium or loss of consciousness at any time. No diagnosis was made. In the last two years there has been some improvement, but has never ventured to walk alone on the street.

Inspection shows fair development of the muscles of the arms, marked atrophy of those of the back, and a long curve of the spine. This curve can be entirely corrected by an effort, and is due to the wasted condition of the erectores spinæ. The muscles of the legs are much atrophied, especially those of the anterior tibial and peroneal groups. Inability to rise upon the heels or to raise the heels from the ground. Greatest stress is laid by the patient upon her inability to walk securely, being liable to fall, because her "legs give way," or her "ankles turn out." Because of aching in her back and weariness she lies down several hours during each day.

Treatment—cold salt bathing, massage, and carefully graduated exercises. Movements were devised calling into play the muscles of the spine and legs more particularly, and exercise had to be commenced and graduated with the greatest caution, as any slight exertion caused marked tremor. Under my own supervision the exercises were continued daily.

June 18th. Can raise the heels from the ground, and can walk without bringing them to the ground when aided by keeping the hands on a stationary object, thus contracting the calf-muscles so as to support the weight of the body upon the anterior portion of the feet. Can also raise the anterior portion of the right foot from the ground while resting on the heels, but can scarcely do so with the left. Can walk on the