

cases present all three in a very marked degree, as in the case of the youth I shall present to you. But before doing so shall consider for a moment the frequency of the first and most serious deformity.

Drachmann examined in 1884, 28,125 school children in Denmark (16,789 boys and 11,386 girls), finding curvature in 368 cases. No examination on a large scale has ever been conducted in Canada, as far as I am aware, but judging from the position taken by the majority of the female pupils in our schools, this deformity must be comparatively frequent. Girls are more frequently affected than boys. Drachmann found four girls to one boy. Many other observers agree in this matter. In the hospital for the crippled in New York, with perhaps the largest attendance of out-door patients in the world, on the staff of which I had the honor of serving for over a year, there were great numbers with curvature, but I never recollect seeing one boy. All the cases seen by me were in girls of school age. In the report of the hospital for 1892 I find there were 233 cases, forty-seven of which were males.



Photo No. 3.

This young child (photograph 3) I now present to you, who was quite straight when he went to school, shows the first deformity in a very striking manner. You will observe that not only does the body and spinal column present a marked curve with its convexity to the right, but that the spine is twisted on its axis, so that the transverse processes, instead of projecting sideways as they ought, project forward and backward, the whole of the upper part of the body also is twisted considerably in relation to the pelvis, causing one shoulder to project backward in a very unpleasant manner (photograph 3). He also illustrates very well the bowing back of the upper part of the spine, which causes round shoulders and the bowing forward of the lower spine, causing the abdomen to project.

The cause of this deformity is chiefly the superincumbent weight of the body falling on a spinal column held in an improper position.

It is sufficient to look at a room of children engaged in writing to see the improper position most of them assume (photograph 2, front figure). It is only necessary that this position should become fixed to have a most serious deformity, and this, in fact, is just what does occur in many cases.

It is not necessary to go into the other two deformities as they are not so serious as the one already mentioned, and it is a matter of common knowledge that sitting in a stooped and constrained position will produce the round shoulders so often seen, and the projection of