

tures and Dislocations." Amongst other arguments, Dr. Hamilton draws attention to the fact that in a very large proportion of persons whose legs have been uninjured one is longer than the other, and that the difference is generally in favor of the left. Upon this fact some practitioners have based an opinion that there is no use in measurements. I have heard one very well read and skilful gentleman, a member of our Association, express this opinion. Now I think it a pity that this opinion should prevail. I consider that in the measurement of limbs we have, to say the very least, what may prove a very valuable corrective in many cases. And on again looking up Hamilton's remarks, I see that he expresses the same view, and thinks that if we abandon measurement we abandon one of the diagnostic means which has led to such vast improvements in the treatment of fracture of the femur.

Believing that every contribution, however slight, to the data of surgical knowledge may be of some service, I measured last week the legs of fourteen boys in the News-boys' Lodging. Of these I found only two deficient, and in one I could only discover about one-sixth of an inch difference, and in the other the difference was half an inch. From neither could I obtain any history of accident.

I believe that in the upper extremities greater differences are often found than in the lower. I have myself noticed this in persons who have been round-arm bowlers in cricket during boyhood and youth.

The errors in measurement to which I have made reference occur from the pelvis being drawn down on one side, and the legs not being placed at the same angle to the outer surface of it. If we look at the skeleton we will observe that two lines, drawn respectively from the anterior superior spinous process of the ilium to the hip joint, and from the hip joint to one of the malleoli will meet at an obtuse angle, and if we now abduct the whole leg we shall find that the angle becomes less obtuse. Hence by a well-known geometrical rule, the subtending line from the anterior superior spinous process to the malleolus will be greater in the former than in the latter case. This will be rendered far more evident if we continue to ab-

duct the leg till the femur is brought close up to the spinous process. It is, of course, impossible to get that degree of abduction in ordinary living men, but this exaggerated form illustrates very forcibly to the eye what takes place to a less extent in life.

Now this tilting down of the pelvis on the affected side is what actually takes place in practice when traction is made by the weight and pulley, especially in young persons, the flexible lumbar spine on which the pelvis is hinged allowing it to be deflected from the right angle which they usually make with each other.

I was very much struck with this in treating a boy some twelve years ago. I had shortening as I supposed—more than half an inch—and I added pound after pound to the heavy weight already on, and continued to do this for three or four days; and without improving the length of the limb, I added very much to his discomfort. At last I began to be suspicious of the reason, and I made a paste-board square of the T form, which I now produce. I applied the ends of the horizontal portion of the T to the spinous processes of the ilium, and found that the leg was abducted to a marked degree. I now drew the other leg out to the same angle, and on measuring could not discover that the affected limb was in the slightest degree shorter than the other. I took off the excess of my weights gradually and got a good result.

Some time afterwards I happened to mention the matter to Dr. Aikins, and found that he had passed through a similar experience. I do not mean to say that he was as long discovering his error.

I have no doubt that many here have noticed similar facts, but as I have never seen the matter referred to in print, I have thought it well to draw attention to it.

The upper arm of the square is made of paste-board or other flexible material, so as to allow of its being bent down over the abdomen on to the spinous processes.

The same error would occur if the one limb were more flexed towards the abdomen than the other; but the malposition is less likely to be overlooked.