have demonstrated the true fulcrum. The following quotation will show that he was still in much doubt as to the principle involved in this dislocation, when he says:

"There is no doubt a constant mechanical principle upon which the reduction is effected, in such cases and one which, perhaps, would succeed in nearly all cases, if we knew how to employ it understandingly and with precision and did not avail ourselves of it by mere haphazard—this frequent failure of art and success of accident satisfy me that there is some important principle relative to the mechanism of these dislocations (dorsum ilii) which is not yet understood;" and, again, he says, "Accident ought not to accomplish the reduction of a bone with more ease than art. When it does, such an accident should be our instructor and teach us the mechanism by which it operated and this we should repeat in similar cases."

Again, he says, "There was a mode which would, perhaps, succeed in nearly all cases if we only knew how to employ it understandingly."

Truthfully acknowledging the incompleteness of this mode of procedure.

It would seem by the following quotations, that in his method the reduction was entirely effected by the abductor muscles becoming the fulcrum.

If this is true, we should not only have to overcome the resistance of the rotary muscles situated about the head of the bone, but also the friction of the pelvis as the head becomes firmly impacted against the ilium in attempts to abduct the limb—while on the contrary, adduction with the semi-circular sweep and flexion, lifts the head of the bone from the dorsum, streatches the capsular ligament and thereby allows the bone to fall or glide into its normal position.

If the hip is dislocated upward and backward, he says. "We grasp the knee and *powerfully* abduct the member: we put powerfully on the stretch, the adductor muscles—now the muscles drag the head of the bone directly toward the natural position. In abduction we regard the hand of the surgeon as the power. The tense adductor muscles furnish the fulcrum and the head of the bone the resistance. The hand of the surgeon acts upon the longest arm of a lever of the first kind, and therefore with great mechanical advantage in throwing the head of the bone toward theacetabulum."

Note his expression where he says, "the glutei muscles are most effectually relaxed; the adductor muscles are put powerfully on the stretch by the member being powerfully adducted."

Now, the reverse of this is true in the Reid method; the adductors and flexors of the thigh are relaxed while the glutei are made tense, and absolutely assist in the reduction by supporting the head of the bone and guiding it to the acetabulum.

On the contrary, forced abduction before flexion is sure to lacerate the adductor muscles. Reason—the farther the head of the bone is placed from the socket and particularly on the dorsum, the more obtuse will be the angle formed by the adductor muscles with the bone, and hence, of necessity, the more easily they will be torn.

On the other hand, lift the head of the bone from its confined position, and then the muscles will have full power to act with advantage.

Prof. Smith's general directions for reduction with the exception of adduction, were very correct, and with a little more knowledge of the laws governing this form of dislocation, would have made the plan of reduction complete; but his frank confession that it was applicable only to dislocation on the dorsum ilii, and no other, coupled with a want of proper confidence in the knowledge of a proper plan, as expressed through the whole essay, and from a want of sufficient practical demonstrations of the principles involved, the plan was abandoned without being fully illustrated to the profession; hence, it was inferred that this plan was not practical; that it lacked the proper guides and rules of application.

In searching the journals I can find no record of reduction of hip joint dislocation by his method—manipulation—until the time of Reid—while since the publication of Reid's article, I find several cases reported, the reduction of which involved nearly