rather a fanciful cause of imperfect descent,* but it may here be pointed out that, in infants and children, strong action of this muscle may occasionally draw the testicles up to the external ring, or even to a still higher level. This action is only temporary, but it must be remembered that, in a child, absence of the testicle during an examination may be due to this cause; the true condition will be obvious if further observations are made.

The Anatomy of the Imperfectly Descended Testicle.

The examination of pathological preparations and the observations made in the course of operations show that, in many ways, the anatomy of the undescended differs from that of the normally descended testicle. As these anatomical facts have an important bearing upon the operative treatment, it will be necessary to briefly consider them.

The tunica vaginalis is always present, and is often remarkably large and baggy. It commonly extends to a much lower level than the testicle; for instance, it may fully occupy the scrotum while the testis itself is arrested in the inguinal canal. This agrees with the mode of development, for we have seen that the processus vaginalis of the fœtus is neither pushed

* Mr. Jacobson, "Diseases of the Male Organs of Generation," p. 41, mentions several cases in which a normally descended testicle has been drawn up into the inguinal canal, presumably as the result of a strong action of the cremaster and has then permanently remained in the abnormal position, becoming, clinically, cases of imperfect descent.

I have recently had under my care the following case in which a normally placed testicle appears to have been permanently retracted into the inguinal canal:—D. W., aged nineteen years, was admitted into Guy's Hospital with the following history: In June, 1918, while engaged in his work as a sawyer, he strained himself severely while lifting the trunk of a tree weighing about eight hundredweight; he felt something slip up into his groin, and, on examining himself, found that the left testicle had disappeared from the scrotum. At the same time, or shortly after, a swelling appeared in the left groin. The patient states that until this time both testicles had been present in the scrotum, and that they were of equal size; also that he had never suffered from hernia, and had never had any swelling in the groin. His father and mother both confirmed this history, and were emphatic that nothing abnormal had ever been noticed before the accident. The retracted testicle had never since the accident returned to its normal position. On admission there was a small hernia, and the testicle, which could be felt in the inguinal canal, could be manipulated just through the external ring; the left side of the scrotum was well developed. At the operation the anatomical condition found was that of an imperfectly descended testis; there was a large tunica vaginalis, which connected with the peritoneal cavity by means of a patent processus vaginalis, and the testicle was smaller than the normally placed right testicle.

Here the same strain which drew the testicle up into the inguinal canal appears to have forced some abdominal viscus into the hernial sac for the first time. The pain produced was slight, and on admission to hospital the sensation in the displaced testicle was diminished.