

tise on Asiatic Cholera," wherein he states that (p. 104) "the bladder does *not* contract in *all* directions," as popularly supposed; but that "the base lies against floor of pelvis, between pubis and rectum, in the male, where it is *tied down* (anatomically) to this floor, and is *never removed thence*, however much the viscus may be distended with urine; here it forms a *flat, adherent disc*, about 2 or 2½ inches in diameter, from side to side and from before backwards, between pubis and rectum; in *the very centre of this disc* the urethra opens [I go on transcribing the whole paragraph as it is necessary to do). When the bladder EXPANDS by accumulation of urine, it is *the sides and summit* that expand, and a portion of the base also stretches to some extent, but *the base never leaves its attachment to the floor of the pelvis* (this is different to what our books say), to which it is affixed by pretty close cellular tissue. When bladder is EMPTY all contracts, summit and sides, as far as lateral limits of the 'base disc.' and in this state the summit forms *another disc*, of *equal dimensions* to the base (lower) one, and comes into immediate *flat contact* with the lower disc."

My comments will come afterwards, in speaking of the passage of instruments.

My father's remark, that the internal meatus urethrae opens in the *very centre* of the bladder disc, certainly staggers me, as we are led by our pictures to believe that it opens into what we call the "lower end" of the bladder; however, he examined post-mortem many cholera patients in Montreal.

#### PASSAGE OF INSTRUMENTS.

I have just measured the central portion of the pubis of my skeleton, and ascertained the following diameters: vertical, 1¾ in; transverse, 2½ in.; oblique, 2¼ inches; antero-posterior diameter, sacrum to back of pubis (symphysis), 4 inches, so that, if the rectum is empty, consequently easily flattened against sacrum, when bladder is greatly distended,—for the bladder to contract (according to Wilson and others) it would have to traverse the entire pelvic cavity, four inches across. From the anatomical relation of the parts in the *female* this question need not be discussed.

According to Dr. R. Nelson the diameter of the "bladder disc" is (say) 2½ inches every way, that is *more* than the vertical diameter of the symphysis pubis; it would therefore rise above upper border of pubis, so that it can hardly be

said to be flattened (vertically?) against the pubis.

A great deal of trepidation is manifested by operators puncturing bladder supra pubem, on account of possibly wounding the peritoneum, and, consequently, passing the trocar into that cavity; Mr. James Lane, a celebrated London surgeon, assured his class that when the bladder was distended this accident could not possibly take place, as the bladder *lifted* the peritoneum up before it, as it became distended.

*Passing the Catheter.*—I believe it was Baron Heurteloup who travelled over Europe, showing medical men the easy, deft, and marvellous way in which he passed the instrument, in the most difficult cases. Most beginners suppose it is very easy to do, but in reality it requires a great deal of skill—witness the false passages that are often made by the attendants. After warming and oiling, the general mistake is that they "turn" *too soon*, which brings the beak strong against upper wall of urethra; if the attendant through "mauvaise honte," *persists* in pushing, likely false passage and abscess may supervene.

#### EXPLORING BLADDER WITH SOUND OR LITHOTRITE.

The curve of a catheter being too large, we (through habit) explore all around, *top*, &c., although we know the calculus can only be on the bottom; this differing where the man lies down or stands, the beak soon gets arrested against the sides, as the transverse diameter (Wilson) is smaller than the vertical. If a doctor will take his catheter or sound, place end in a small bowl, and keep turning it round in different directions, he will see how utterly futile his efforts may be for some time, before he hits it again a pebble placed in the bowl; but we do a rather singular thing: after exploring all around we turn the beak *downwards* to make sure of *that* direction; according to some pictures, and according to Dr. R. Nelson's statement, there can be *no downwards*, unless by that you term pressing the beak on to the floor of bladder, which of course will *give* to a certain extent. When examining floor of bladder, I turn sound right round upside down, exploring with the beak; as the other way it is impossible to detect a calculus.

#### THE SUPPOSED TRIANGULAR OR PYRIFORM SHAPE OF THE BLADDER.

I should rather be inclined to state, or think, that the shape of the human bladder resembles that of a flat cake, or, more scientifically expressed