Experiments on the Laryngeal Nerves and Muscles of Respiration, etc., on a Criminal Executed by Hanging.—Dr. W. W. KEEN read to the College of Physicians, of Philadelphia (Feb. 3, 1875), an account of these experiments.

Dr. George Johnson had expressed the belief that while pressure on one recurrent nerve will cause direct unilateral palsy of the larynx, but not bilateral spasm or palsy, pressure on the vagus involving its afferent fibres may cause both. The reason of this he supposes to be that the nerve-nuclei of both sides are so connected that each possesses bilateral activity. Dr. Mitchell having suggested the probability of a chiasm of the minuter fibres of the recurrenents in man, which, though not demonstrated anatomically, might be proved physiologically, the following experiments were undertaken upon a criminal recently executed by hanging. After hanging about half an hour, the body of the criminal was cut down, and immediately examined. The left vagus and recurrent laryngeal were dissected as low down as possible in the neck, and the vocal cords examined while the nerves were excited by electricity. Repeated faradization with weak and strong currents, and galvanization with from four cells up to forty, of the recurrent and also of the vagus, produced decided movements of the left cord only, and none of the right. The wires were applied directly to each nerve, and the irritating action of a tumour simulated as nearly as possible. Careful dissection showed that in all probability none of the fibres of the vagus were injured. The definite conclusion to be drawn from the experiment is that no chiasm of the inferior laryngeal nerves exists. No reflex motion was observed in the larynx, although the absence of this may have been due to violence done the parts by hanging.

Experiments upon the muscles of respiration were then undertaken. The left phrenic, having been insulated, was excited as in the previous experiments, but without result; no movements whatever of the chest were produced, nor was greater success obtained by one wire applied to the nerve while the border of the diaphragm was followed with a sponge, nor when both sponges were applied to the diaphragm.

The intercostals were then examined. Having been exposed from the median line to the line of the axilla, the interrupted current was applied to the intercartilaginous portion of the internal intercostals by means of small sponges, when it was found that they all raised the cartilage below them. The external intercostals were then faradized, when the upper rib was pulled down very markedly, while the lower one was just perceptibly raised; the movement increased from the first to the seventh, the last four not being examined. These experiments seemed to point to the conclusion that the internal intercostals are inspirators, and the external expirators.

The muscles of the face still retained their electro-muscular contractility; but one was examined carefully, the pyramidalis nasi, which appeared as a result of the electrical excitation to act as the direct antagonistic of the central portion of the occipito-frontal. Dr. Keen pointed out, in conclusion, the important results which this new method of investigation—the faradization of the muscles on the recently dead—promises to yield.—*Phila. Med. Times*, March 20, 1875.

Exstrophy of the Bladder.—An operation for this malformation was recently performed by Dr. CHEEVER, at the Boston City Hospital. The patient was a boy, six months old, well developed, and healthy. The opening through the abdominal walls is an inch above the pubes on the median line, and is about half an inch in diameter. When the child cries or strains, there protrudes from this aperture a bright red, velvety tumour, nearly an inch in diameter. A catheter passed into the bladder through the urethra finds an exit through the abdominal opening, and about half of the urine also comes out of the same opening. There is no umbilicus, nor scar indicating the remains of one. The penis is normal, the urethra terminates normally, without hypospadias, and both testicles are in the scrotum. The folds of skin in the groin usually seen in these cases are full and large. There is no hernia, nor any other deformity, except the one above described. Dr. Cheever dissected up the skin from the entire circumference of the orifice, and joined the freshened edges with six silver sutures on the median line. The opening was thus effectually closed.—*Boston Med. and Surg. Journ.*, Feb. 11, 1875.