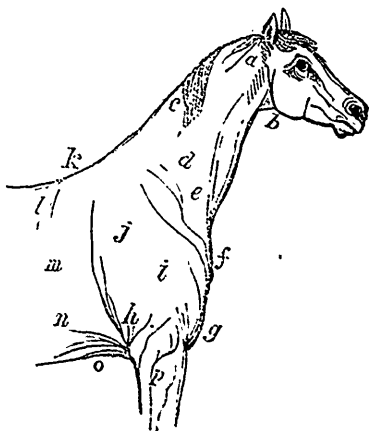


raising and lowering of the head and turning it in various directions, make a complicated system. Two of the most important of them are the *splint-like* muscle and the large complicated muscle. The splint-like muscle constitutes the bulk of the neck on its upper side and is attached to all the bones of the neck except the upper one, called the *atlas*, nearest the head. From this muscle a tendon goes to and attaches itself to the atlas and the bones of the temples. Its office is to elevate the head and neck, and for this it is very powerful, as it must needs be; upon it depends the beauty of the neck. As it is more or less arched, but it should be light above, and large below and at the junction of the neck with the shoulder. From it arises the thickness and muscularity of the neck, and if full at the lower part and light at the upper part of the neck, the neck itself when joined well to the head, will be perfect. Clumsy necks arise from too much cellular substance or fat, and not from this muscle, as also do lofty crests. Mares and geldings rarely have clumsy necks or lofty crests.

The large complicated muscle is the largest and most powerful in the neck. It arises from the five lower bones of the neck, *d, e*, at its upper part, as it nears the head, it lessens its bulk and unites in part with the same tendon as the splint-like muscle, but is principally joined to the bone of the back of the head. It assists to raise the head and neck, and it is particularly concerned in raising and thrusting forward the nose. When too powerful, it makes the nose *stick out*, and deforms the horse. The martingale is used to counteract the force of this muscle. When this muscle is very large and the splint-like one quite small, the horse will be ewe-necked hollowed (or at least straight) above and projecting below. In such a neck the nose protudes and can hardly be got down.



*The Muscles of the Neck.*—The *small* complicated muscle, the *straight*, and the *oblique* muscles of the upper part of the neck, attached mainly to the two upper bones of the neck, are also employed in raising the head.

One of the muscles used to lower the head is attached to the breast bone, and lies next to the skin; it proceeds up the neck, and near the head changes into a tendon, and is inserted into the lower jaw near its angle, *b*. It is used to bend the head towards the chest. Another muscle concerned in lowering the neck, springs from the back of the head, and the first or four upper bones of the neck, and the pack-wax proceeds downward, mixes with the muscles of the shoulder, and attaches itself to the lower shoulder bone; it also assists in raising the shoulder.

The muscles of the neck are all double (in pairs,) one on each side of the neck. To raise or depress the head they must act together. To turn the head and neck to one side, one only must act, on the side to which the head and neck are to be turned; if an elevating muscle, then they will be turned at the same time; if a depressing muscle then lowered and turned. Thus is provision made for every kind of motion of the head and neck.

*Muscles of the Breast.*—The muscles of the breast are very important. They are largely concerned in the expansion of the chest; and are the power by which the arm in rapid motion is confined to the side, and thus keep the leg in a straight line before the horse. The chief of these is the pair of *transverse muscles* of the breast. They form two full points in the front of the upper and front part of the breast, consisting of the four first bones of the breast and are attached to the lower end of the lower bone of the shoulder, extend backward between the legs, pass across the inside of the arm, and reach from the elbow almost to the knee. These muscles act to place the fore legs in that position, which will allow them to receive the weight of the body in the easiest manner, and with the least shock.

The *great* and *small muscles* of the breast lie above and behind the transverse muscles; they extend from the breast bone to the arm of the shoulder. Their office is to draw back the point of the shoulder and bring it into the upright position. There is still another muscle which goes from the breast bone to the shoulder blade. It assists in the same office as the great and small breast muscles. It is less in size than either of the others. A horse not well developed in the muscles of the breast will be deficient in power. He will not have the power to expand perfectly the chest, so that the lungs must suffer, taxed by