limit of the reflection of the synovial membrane of the joint. The crural muscles are wasted and rather pale about the articulation; some portions of them at their attachments to the shaft, where it becomes continuous with the tumor are much altered in structure, being dense, indurated, semi-transparent, and infiltrated with a serous fluid; they cut as if they had undergone lardaceous degeneration. At two or three points, where in contact with the anterior surface of the tumor, the muscle to the depth of $\frac{1}{4}$ to $\frac{1}{2}$ an inch has been transformed into a pulpy detritus of a pale brick color, all trace of fibre being lost. A good deal of very dense fat in the popliteal space. On removing all the soft parts, a globular tumor is exposed, occupying the lower end of the femur, its condyles, and a portion of the shaft. This tumor, of a reddish brown hue on its anterior aspect, and a dark bluish colour on its posterior, is composed almost completely of a thin shell of bone anteriorly, a thin, firm membrane posteriorly, with the healthy looking articular cartilage and a layer of the adjacent osseous tissue forming its lower boundary. At several points besides the posterior aspect, the bony shell is replaced by membrane, and this is most remarkable over the lateral aspect of the external condyle, where two moveable plates of bone, continuous with the thickened periosteum, forms about a third part of the outer wall of the tumor. The trocar had penetrated the tumor upon this aspect, and the probe introduced during life had here entered the cavity of the tumor, instead of the joint. The growth had not implicated the joint; the articular surfaces of which are free of ulceration and caries; the synovial membrane, however, is somewhat thickened, and covered by a pinkish, tolerably firm, though easily broken down exudation, which has produced adhesion of the patella to the femur, and the other opposed surfaces forming the articulation to each other. No fluid exists in the joint, indeed there is no place for any.

Circumference of the tumor above the condyles $12\frac{5}{8}$ inches, around the condyles, including the adherent patella, $12\frac{1}{8}$ inches.

A longitudinal section of tumor exposed the shaft of the femur terminating abruptly, as though broken off, half an inch within the osteo-membranous tumor. It now appears that the walls of the tumor are continuous with the periosteum of the bone, and apparently formed by or covered with it. Along the upper and anterior aspects of the internal half of the tumor there, is unequally distributed bony matter, evidently consisting of the expanded condyle, and perhaps of bone, newly formed from the inner surface of the periosteum; the latter, occupied the surface of the tumor, and the former, the lower extremity (articular). Besides three or four osseous laminæ projecting inwards from the walls, the contents consisted chiefly of a deep-red, soft substance, generally of consistence of soft butter, but interspersed with irregularly branched lines of tougher and firmer consistence; various shades of redness exist in this material, and it is streaked here and there with opaque yellowish white lines and spots, so as to remind one of a hepatized portion of lung traversed here and there by bronchi. This material, save where mottled by whitish streaks, resembles very much the spleen pulp in color and consistence when that organ is slightly softened. Besides this red material, there is another of the colour of the *marrow* in the shaft, but softer;