flammation followed the operation, in others a great deal. In one case which came under my observation, under the care of the late Mr. Jeffreys, suppuration followed, with a great deal of mischief, and the patient ultimately lost his limb. I suspect, however, when such ill consequences ensue, that very frequently it is the fault of the surgeon. The operation requires to be performed with the greatest caution. Get the cartilage fixed over the outer or inner condyle of the femur, and there let it be held, either by yourself or an assistant, to prevent it slipping into the joint. The skin, the cellular membrane, the fascia, the ligaments, and the synovial membrane, must be slowly divided one after the other; the knife being held with a light hand, as otherwise the cartilage will be pressed into the joint, and you will not be able to extract it. Having divided the parts carefully, and made room for the cartilage to escape through the synovial membrane, take hold of it with a tenaculum or some other sharp pointed instrument, withdraw it, and bring the edges of the wound together. If the cartilage should slip away, never grope for it, but bring the edges of the wound together, and no harm will happen, and there will be nothing to hinder the operation being performed on some other opportunity.

It has been supposed that an improvement might be made in this operation, by making a valvular opening; that is, by introducing a narrow sharp-pointed bistoury, puncturing the skin at some little distance, and then dividing the fascia and other parts down to the cartilage, on the principle of the subcutaneous operation performed for the division of tendons. I do not myself see why this method should be preferable to the other; it is not the wound of the skin, but that of the synovial membrane, that makes the danger; and I am satisfied from what I have seen that a principal source of danger is the anxiety of the surgeon to finish the operation, which leads him to grope for the cartilage in the joint when it happens to have slipped away from the wound, instead of waiting for a future day.

Fleshy tumors within the Knee-joint.

Fleshy tumors sometimes grow from the inner surface of the synovial membrane. I have seen two cases, one under the late Mr. Ewbank in this hospital, and the other in a patient of my own in private practice. In both cases the disease was mistaken, before the operation was performed, for a loose cartilage. In Mr. Ewbank's case he detached and removed it, and the patient recovered without any bad symptoms, but there was reason to believe that the excresence grew again. In my case the excrescence had a broad attachment, but I divided it and removed it. A good deal of inflammation supervened, but no real harm happened, and the patient recovered. This was upwards of 20 years ago, and he has continued well ever since. Still, I cannot but think that the operation is attended with a certain hazard to the limb; therefore I would not recommend it, except where the disease was productive of very great inconvenience.

Malignant diseases of the knee.

I have not met with a case of true scirrhous or carcinomatous disease of the knee; but many examples of that form of malignant disease to which the names of medullary disease, and *fungus hæmatodes*, have been applied, have fallen under my observation; and the appearances which this affection of the joint exhibits are well displayed in the preparations and drawings on the table.

The morbid growth, as far as my experience goes, always has its origin in the cancellous structure of the bone; sometimes of the femur, sometimes of the tibia. When it begins in the tibia it is likely to be detected at an earlier period than when it begins in the femur; for a plain reason, that this bone being less covered by muscles than the femur, any enlargement of it is more apparent.

Sometimes there is, in the first instance, a dull pain referred to the seat of the morbid growth; and this is followed by a slight enlargement of the joint. In other cases the enlargement is the first thing perceptible, there being no antecedent pain. In some instances the patient is not conscious of the existence of any disease until it is suddenly roused into action by some accidental injury. The patient whose limb, after amputation, furnished one of these preparations and drawings, while carrying a heavy weight, slipped with one foot in a hole in the ground; a severe pain in the knee was the consequence, and an enlargement of one of the condyles of the femur was observed for the first time immediately afterwards. In the early stage of the disease the diagnosis is always difficult, and indeed a certain diagnosis cannot be made. The tumor gradually increases, sometimes with much pain, sometimes with little; and, as it increases, the nature of it becomes sufficiently manifest. In some parts it is hard where the external shell of bone remains entire; in other parts, where the bone has disappeared, it is comparatively soft and elastic. In some parts the skin retains its natural appearance, in others it is of a dark red colour, and adheres to the morbid growth beneath. The superficial veins are seen in a dilated state ramifying over the surface of the tumor. For a long time the motions of the joint are not materially impaired; and you will perceive in the specimens before you how large a size the tumor may attain without the cartilage being affected by it. Of course ultimately all the textures of the joint become involved in the disease, and unless amputation be had recourse to the skin itself ulcerates.

As to the treatment of these cases there is little to be said. You have no remedy to offer with the exception of the removal of the limb by amputation. But will the operation produce a cure? I fear that we must answer the question by saying that it will not do so in the great majority of instances. I have, however, met with two cases in which the patients were alive and well many years afterwards, and, indeed, as far as I know, they remain so at the present time, although in one of them the operation was performed seventeen years, and in the other nearly eleven years ago. In each of these cases the morbid growth had begun in the condyles of the femur; it had attained a very large size, but had at its upper part a very abrupt termination; and in sawing through the bone, some way above it, both the bone itself, and the medulla and the medullary membrane, seemed to be in a perfectly healthy state. I own that I have entertained some doubts whether in these cases I had not been in error as to the real nature of the disease, and concluded too hastily that it was of a malignant kind. The amputated joints, however, were fortunately preserved, and on a close examination of them lately, I cannot in their present appearance find any thing to justify this suspicion, and I still feel myself bound to say, that however frequent the failures may be, amputation is occasionally successful. Of course, before you recommend such a proceeding you will satisfy yourselves that the boundaries of the tumor are well defined; that the glands in the groin are free from disease; that there are no signs of disease in any other organ, and that the general health is good. It is reasonable to suppose that there is a greater chance of ultimate recovery where the disease has originated in the head of the tibia, than where it has been seated in the condyles of the femur; as in the former, without having recourse to so hazardous an operation as that of amputation at the hip-joint, you may remove the whole of the bone in which the disease began.

Cartilages and bone of the knee worn away by friction.

Here is a specimen showing a condition of the knee-joint that is sometimes met with; the cartilage and even the bone are worn away by friction, as if they had been scraped by a chisel or some other hard instrument. This state of things occurs in old cases of inflammation of the synovial membrane where the patients have been liable to the disease for many successive years, and generally in gouty persons; there being in many instances a deposit of lithate