drilling through the ankylosis, and then dividing the bone by Langenbeck's long pointed saw.

In the following year, a further impulse was given to subcutaneous osteotomy in this country by the operation which I performed of dividing subcutaneously the neck of the thigh-bone within the capsular ligament, with a small saw rather more than a quarter of an inch in width, and with a cutting edge an inch and a half in length, at the end of a blunt shank three inches in length. This saw was passed through the track made by an enlarged tenotomy-knife a quarter of an inch in width. The operation was performed on December 1st, 1869, on a man aged 24, a case of bony ankylosis of rheumatic origin seven years previously; the thigh was flexed upon the pelvis at a right angle, and abducted.

I entered the tenotomy-knife a little above the top of the great trochanter, and, carrying it straight down to the neck of the thigh-bone, divided the muscles and opened the capsular ligament freely Withdrawing the knife, I carried the small saw along the track made—preserving this by pressure of the fingers of the left hand—straight down to the bone, and sawed through it from before backwards. The section was accomplished in five minutes. No hæmorrhage occurred; and a compress of lint with plaster and bandage was applied. The limb at once moved freely in all directions; but, before it could be straightened, the tendons of the abductor and rectus muscles had to be divided. No inflammation whatever followed; no swelling or redness of the skin, or any deep suppuration; only a few drops of pus escaped from the granulations at the orifice, which did not close by the first intention, or possibly from the track. Three weeks after the operation, he began to walk on crutches; and by swinging the leg about, as well as applying weight extension at night, I endeavoured to preserve motion; but this was gradually lost, and bony ankylosis in the straight position resulted. The man was enabled to follow his occupation, and now keeps a small general shop at Bath, where he was exhibited to the Surgical Section of this Association last year.

The decennial period which has now very nearly elapsed since the performance of this operation has been fruitful in the suggestions of other operations for subcutaneous osteotomy, and also for osteotomy with open wound under Lister's antiseptic method. The operation on the hip-joint has been adopted freely by surgeons in this country, and as freely by our enterprising brethren in America; it is now an established operation in surgery, and if the cases in which it is performed be carefully selected, and the operation executed with the requisite dexterity, its reputation will be maintained. In a paper read at the Royal Medical and Chirurgical Society, October 10th, 1876, I recorded twenty-two cases in which the operation had been performed. Cases of a rheumatic or pyæmic origin are the most favourable, because in these affections there is no loss of bone structure, and the head and neck preserve their integrity; but in the so-called strumous class—unfortunately much the largest—there is generally more or less destruction of the head of the bone, and other alterations in the anatomical relations of the joint; only the most favourable of this class should, therefore, be selected; but for the remaining cases in which my operation is not applicable, Mr. Gant's operation will be found to succeed. Mr. Gant proposed to divide the shaft of the femur subcutaneously, just below the small trochanter, using instruments similar to those employed by myself; but the saw had a longer cutting edge and a thinner blade; the width the same. Mr. Gant performed this operation December 10th, 1872, on a boy aged 6, who had ankylosis of the hip-joint, with extreme malposition of the limb upwards and inwards. Primary union of the wound occurred, and firm union of the bone with the limb in a straight position, giving an useful leg.

Mr. Gani has repeated this operation in several cases, and I have also performed it several times. In the same way, I have divided the shaft of the femur in the lower third; and the shaft of the humerus, a little above the elbow-joint, in two cases, for bony ankylosis in a straight position. In all the cases, the wound closed by the first intention, without any inflammation, swelling, or redness occurring. The local disturbance seemed to be no greater than in an ordinary tenotomy case.

The largest and boldest operation of subcutaneous esteotomy is that first performed by Dr. A. Ogston of Aberdeen, who applied the principle which I had adopted in the hip-joint to the cure of genu valgum, and used the same instruments, but with Lister's antiseptic precautions, which I have never adopted, as it has always seemed to me that we might absolutely rely upon the protective influence of the subcutaneous law. Dr. Ogston introduced the subcutaneous saw into the healthy knee-joint, through the track made by the enlarged tenotome, or subcutaneous knife, and then splitting the lower end of the femur detached the inner condyle, which in these cases is considered to be in an hypertrophical condition—at any rate, there is no doubt as to its relatively increased length. This operation was successfully performed by Dr. Ogston on May 17th, 1876, and an account of it was published in the *Edinburgh Medical Journal*. It has been repeated by many surgeons, both at home and abroad, with great success, and has already become an established operation in surgery. The testimony in favour of this operation by many surgeons is so ample and satisfactory, that it must be regarded as one of the greatest triumphs in subcutaneous osteotomy.

Other surgeons have preferred the use of the