

and vice versa, it is just as rare to meet with a case requiring the free removal of the ends of the bones, and not calling for the removal of the synovial structures. To-day complete excision of the knee-joint is a novelty, that is, opening the joint, sawing off the ends, and coapting the parts as in the days of Professor Geo. Fenwick, of McGill, whose name is handed down as one of the most celebrated surgeons Canada has produced. Why these changes or modifications as to treatment of such cases? First, the more accurate recognition of the vast importance of early and vigorous treatment of tuberculous disease, has arrested much, which formerly progressed to complete destruction of the ends of both the tibia and femur; and on the other hand, when operation is decided upon, it is at a stage when disease of the bones can be removed without complete excision of the ends, although the bone tissue is conserved as much as possible, the removal of the synovial tissue is now particularly free. In fact, Treves states it is not an uncommon procedure to dissect out the entire synovial membrane, whether visibly affected or not. In general terms, in a case of tuberculous joint, the first principle is to remove all tissues in which we believe the bacilli are deposited and to spare all structures, except the synovial membrane, not charged with the tubercle bacillus. It must be admitted that this is after all, a complex problem, not only in theory, but also in practice. In adults exsection is truly the shortest and safest way of eliminating the tedious morbid process and substituting ankylosis for a comparatively useless joint. To adult cases, orthopaedic treatment is rarely applicable, while in children, mechanical and general treatment frequently are attended with the most practical results. In the child, the growth of the thigh and tibia, depends so much on the epiphyses adjoining the knee, that exsection is liable to be followed by very considerable shortening, and consequently is to be avoided as much as possible. The antiseptic treatment in such operations, as defined by Gerster, requires no comment. To be truly progressive is to be truly antiseptic in treatment, the results of which certainly mark the present as a progressive era in surgery. In the older operations on the knee-joint, in which an absolutely stiff knee was the object in view, it was not looked upon as important, whether the ligamentum patellæ was divided or not, in such a case the action of the extensor muscles not being considered. More recent operations, however, tend to the preservation intact of the ligamentum patellæ, in order to preserve, as far as possible, some of the movements. Treves recommends that if the patellar ligament has been divided, it should be stitched together again with silk, which remains buried. He considers it better not to include the capsule.