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EDITORIALS AND ANNOTATIONS

HER MAJESTY THE QUEEN

Six years ago, when the *Journal of Bone and Joint Surgery* first became fully representative of the British Commonwealth of Nations as well as of the United States of America in "recording scientific progress and publishing new discoveries by all English-speaking peoples for the welfare of mankind" we had the very great privilege of receiving from His late Majesty a message from which these words are quoted.

To-day we acclaim with homage and devotion the coronation of our Queen, and we acclaim it with an assurance even greater than before that the English-speaking peoples are dedicated to the welfare of mankind. Indeed we are determined to show evidence of it in a reign that surely will be long and happy. Our responsibility is not light and our duty is not easy—but it can still be happy. May we therefore pay allegiance to Her Majesty the Queen in her year of coronation by saying that we too will try to accept responsibility with joyfulness.

SPINAL FUSION

It is interesting and perhaps useful to review procedures that are an accepted part of the stock-in-trade of the orthopaedic surgeon. Spinal fusion has become a relatively frequent operation in major orthopaedic centres during the last twenty-five or thirty years. Even so, not many individuals do the operation often enough in the course of a surgical career to produce a statistically significant series of long-term results. This being so, there is a natural tendency to establish a hospital or clinic technique, and to practise it whenever spinal fusion is required; this factor is also to some extent responsible for a healthy reluctance to give up accepted methods for new and untried procedures.

Ollier in 1867 described a method of bone transplantation using an osteoperiosteal graft. This was the beginning of attempts to join segments of the spine to arrest disease and to alleviate pain. Since then many distinguished surgeons have made their contribution to the subject. The most notable, in relation to the original nature of their contributions, were Albee—for the motor saw which permitted cutting and shaping of cortical grafts, and Hibbs—for the method in which "ankylosis" could be obtained without the introduction of any "outside" bone. In 1921, when the first Commission was appointed by the American Orthopaedic Association to investigate "the results of ankylosing operations on the spine" the only two methods in common use were those introduced by Albee and Hibbs, and the only condition for which the procedure had been carried out in sufficient numbers to merit investigation was Pott's disease. The method of posterior spinal fusion has been modified in various ways since then, but the modifications have been matters of detail rather than of principle. Methods of fusion of the vertebral bodies had been suggested by others, but the procedure was first carried out by Burns in 1933 for spondylolisthesis.

Modification of methods of fusion has naturally been accompanied by exploration of alternative materials to autogenous bone as an aid to the process. The materials worthy of mention are beef bone, os purum and os novum, and homogenous bone. Though these other