Along their western margin, these rocks are so little altered that they do not in any way deserve the name of metamorphic. Eastward, however, they pass under various schists and gneisses (8, 9, 10), which form a vast overlying, thoroughly crystalline series. It was believed by Macculloch and Hay Cunningham that the fossiliferous beds truly underlie, and are older than, the eastern gneiss. This view was adopted and worked out in some detail by Murchison, who extended his generalization over the whole area of the Highlands, which he regarded as composed essentially of metamorphosed Silurian rocks (see Book VI., Part I. "Pre-Cambrian," § ii. "Local Development"). Other geologists supported Murchison, whose opinions met with general acceptance. Nicol, however, contended that the overlying or "newer gneiss" is merely the old gneiss brought up by faulting. Later writers, particularly Prof. Lapworth, Dr. Callaway and Dr. Hicks, advanced somewhat similar opinions; but the difficulty remained of explaining how, if the "newer gneiss" is really older than the fossiliferous strata, it should overlie them so conformably as to have deceived so many observers. The problem was subsequently attacked independently by Prof. Lapworth and by the Geological Survey, especially by Messrs. B. N. Peach, J. Horne, W. Gunn, C. T. Clough, L. Hinxman and H. M. Cadell, and I believe it has now been solved. I fully shared Murchison's belief in a continuous upward succession from the fossiliferous Lower Silurian strata into the overlying schists, but the subsequent detailed investigation of the ground convinced me that this belief could no longer be entertained.

Tracing the unaltered Cambrian strata eastward from where they lie in their normal position upon the Torridon sandstone and old gneiss below, we find them begin to undergo curvature. They are thrown into N.N.E. and S.S.W. anticlinal and synclinal folds which become increasingly steeper on their western fronts until they are disrupted, and the eastern limb of a fold is pushed over the western. By a system of reversed faults (t t in Fig. 311), a single group of strata is made to cover a great breadth of ground and actually to overlie higher members of the same series. The most extraordinary dislocations, however, are the Thrust-planes. These have so low a hade that the rocks on their upthrow side have been, as it were, pushed horizontally westward, in some places for a distance of at least ten miles. But for the evidence of the clear