

into the Lower Cambrian conglomerates. The group is concisely described by him as consisting "for the most part of chloritic, talcose, feldspathic and micaceous schistose rocks, alternating with slaty and massive greenstones, dolomitic limestones, serpentines, lava-flows, porcellanites, breccias and conglomerates. It is also traversed frequently by dykes of granite, dolerite, etc."

The conglomerates at the base of the Huronian in Wales are largely made up of the masses derived from the Arvonian, with which "it is undoubtedly, at most of the points examined, unconformable." This Arvonian series, Hicks regards as identical with the great Hällefinta group of the Swedish geologists and with the Petrosilex series which the writer has made known in America. In addition to the localities already mentioned of it in the British Isles, Hicks notes its occurrence in the Harlech Mountains and the Orkneys, and probably also in the Western Islands, and in the Grampians of Scotland. Its strike in the regions examined by him is generally about N. and S.

As regards the gneissic Dimetian group, the strike of which is N.W. and S.E., or from this to N. and S., Hicks adds to the localities in Wales, already noticed, its occurrence in the Malvern chain, especially in the Worcester Beacon, and cites Dr. Callaway as authority for its existence in Shropshire. Hicks further notes its presence in several points in the northwest Highlands of Scotland. From this series of light colored gneisses, often very quartzose, with limestone bands, he separates, as we have seen, under the name of Lewisian, proposed by Murchison for the ancient gneisses of Lewis and others of the Hebrides Isles, these, and similar reddish and dark-colored hornblende gneisses which are found in parts of the Malvern chain, in the northwest of Ireland, and possibly also in Anglesey. This series, according to Hicks, is unconformably overlaid by the Dimetian, brecciated beds in which hold fragments of the older Lewisian gneiss. The strike in these older gneisses "is usually E. and W., or some point between that and N.W. and S.E."

Dr. Hicks concludes the above paper by remarking that the chief part of these ancient rocks in Great Britain "were until recently supposed to be either intrusive masses, or altered sediments belonging to tolerably recent times," and adds, "it is becoming more and more an acknowledged fact that the metamorphism of great groups of rocks does not take place so readily