

in Bavaria another remarkable deposit of crystalline limestone, included in the Hercynian primitive clay-slate series on the south and south-east border of the Fichtelgebirge, in the vicinity of Wunseidel. This clay-slate formation, as we have already shewn, overlies the Hercynian gneiss and mica-slate series, and is immediately beneath the primordial zone of the Lower Silurian strata met with in the Fichtelgebirge. It would thus seem to correspond with the Cambrian rocks of Wales, and with the Huronian system of Canada, as Sir Roderick Murchison has already suggested. This view is confirmed by Fritzsch's discovery of traces of annelids in the grauwacke of Przibram, and by the occurrence of crinoidal stems and foraminiferal forms, according to Reuss, in the limestone of the primitive clay-slates of Paukratz, near Reichenstein. Thus our Hercynian mica-slate, with certain hornblendic strata and chloritic schists belonging to the same horizon, would occupy a stratigraphical position similar to the Labrador series, or Upper Laurentian, of Canada.

The crystalline limestone of the Fichtelgebirge forms in the primitive clay-slate two nearly parallel bands, which I conceive to be the outcrops of one and the same stratum, on the opposite sides of a trough. It presents several parallel beds separated by intervening beds of the conformable clay-slate.

The limestone strata near Wunseidel dip from 50° to 75° S.E., and sometimes attain a thickness of 350 feet. They are in many places dolomitic. * * * * Spathic iron, in nests and disseminated, characterizes this rock, and by its decomposition gives rise to the valuable deposits of brown hematite, which are worked along the outcrop of the limestone band. Among the other minerals may be mentioned graphite, in crystalline plates, and also in small round grains and rounded compact masses in the limestone; besides which it frequently enters into the composition of the adjacent clay-slate, giving rise to a plumbaginous slate. Fluor-spar, chondrodite, tremolite, common hornblende, serpentine, cubic and magnetic pyrites, are among the minerals of the limestone. Quartz secretions are also met with, but are evidently of secondary origin. The hornblende forms rounded patches, remarkable twisted stripes, and banded parallel layers, often of considerable dimensions, as in the specimens from Wunseidel, which exhibit sheets of hornblende of from five to fifteen millimeters, separated by limestone layers of from fifteen to twenty millimeters in thickness. My examinations of the specimens