riegated, veined, and spotted. It may be stated generally, that transition limestones are seldom so perfectly crystalline as primary limestones, and they have rarely the compact and earthy texture of secondary limestones.

Transition limestone occurs in beds alternating with slate, greywacke, greywacke-slate, and coarse gritstone. Some of these beds are of considerable thickness, and form mountain masses. The lowest beds alternate with slate; they contain few organic remains. The variegated limestone of Devonshire is of this kind. Sometimes numerous thin strata of slate and transition limestone alternate, and are much bent and contorted. A very remarkable instance of this occurs at Drewsteignton, near Moreton, in Devonshire, where a series of thin strata of dark limestone alternate with strata of indurated slate, and are bent and folded in various directions. Were we to take a number of alternating sheets of black and brown paper, and fold them nearly round a wine decanter, and then bend them back over the lower folds, we should have a not unapt representation of the singular contortions of the strata in this place, where they are exposed to view by extensive quarries cut in the rock.

The remarkable contortions of the beds of transition limestone and slate, imply the operation of a cause that could not only bend but soften the strata; and were we to admit that granite has once been in a state of fusion, and been protruded through the outer crust of the globe, the immediate contiguity of these bended strata to the granite of Dartmoor, might indicate the agent by which the effects were produced. Near Dudley, in Staffordshire, we have another remarkable instance of the bending of beds of transition limestone; but this is in the vicinity of basaltic rocks, which are now admitted to be of igneous origin.

The limestone at Wren's Nest, near Dudley, consists of two beds —one ten, and the other fourteen yards thick, resting upon beds of soft and imperfect limestone and shale, called *wild measures*. The two beds of limestone are separated by similar strata of wild measures, thirty-eight yards in thickness; they are raised up together in a position approaching to vertical, are folded round the hill, and enclose a space of about fifty acres, with a double wall of limestone rising above the country, like an oval tower widening at the lower part.

If two sheets of pasteboard were separated by a quire of blue paper and laid flat, and a blunt metallic rod were thrust through the whole from beneath, it would force the lower sheet of pasteboard through the upper sheets, and represent the present position of the strata at Wren's Nest Hill. At Dudley Castle Hill, about a mile distant, the beds of limestone are bent, and dip on each side of the hill. (See a section of this hill, Plate III. fig. 4.)

A, Wren's Nest Hill; *a a*, *b b*, the two beds of limestone enfold the hill, as represented in the small compartment E, above the sec-