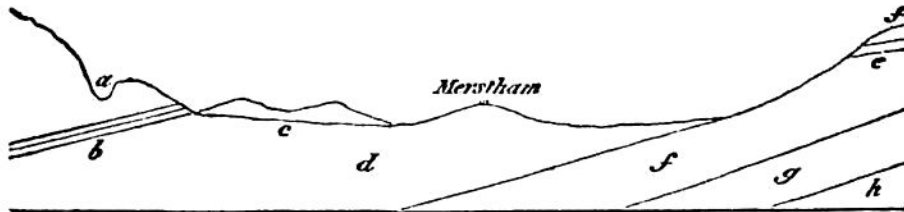


These beds dip on an average nine inches in every yard to the north, and together furnish a never-failing supply of water, which then filled the quarry, owing to a circumstance presently to be detailed. The water finds its way not only between the beds, but also in great quantity through nearly vertical fissures in the beds themselves, wide enough for the admission of the hand.

The following diagram describes the whole series of beds near Merstham.



*a.* hollow in which the limekilns are situated; *b.* fire-stone beds; *c.* tunnel; *d.* blue marle; *e.* fullers' earth beds; *ff.* green sand; *g.* probably Weald clay; *h.* probably iron sand.

To drain the quarry at the upper part of the fire-stone beds *b*, a tunnel, *c*, was some years ago driven up from the lowest land near Merstham, and in a very nearly horizontal direction, through the blue marle *d*; which marle immediately underlies the fire-stone beds, but at the actual contact is of a yellowish colour.

The draining of the beds by means of the tunnel, diverted a stream of water, which formerly issued from another place, and turned a mill; but as the tunnel has lately been stopped, the water has resumed its old course, and issuing from beneath the picturesque mound on which Merstham church is built, and flowing into the lower land, it again supplies the mill. The water appears to find its way through the upper part of the blue marle, where it contains layers of somewhat compact calcareous sandstone, inclosing green particles and mica.