

drove seventy-nine feet, and on the 2nd we got down one hundred, using all the stand-pipe without reaching the rock formation, but the deposits of tough, marly clay at the bottom seemed to indicate we were not far from it. The casing pipe was again resorted to, and by careful handling we succeeded in reaching the rock surface at a depth of one hundred and six feet. The uppermost strata consisted chiefly of a fine, bluish, arenaceous shale, with thin layers of fine-grained very micaceous sandstone. Boring with the diamond bit was at once commenced, and by the 5th a depth of one hundred and twenty-one feet was reached, and several cores taken up. Owing to the soft, shaly nature of the rock pierced, much of it was ground to a fine powder and washed away. We continued boring till the 28th, with occasional interruptions to effect repairs, re-set diamonds, ream the hole when caves in occurred, etc.

We had now reached a depth of three hundred and thirty-five feet, three hundred of which was through the solid rock, the general character of which clearly indicated that we were below the true coal-bearing part of the formation, and that it was useless to penetrate further at this particular point. The angle of inclination, as ascertained from the cores taken up, averaged 50° , but the direction of the dip remained an uncertainty, though there is reason to believe it corresponds pretty nearly with that ascertained previously in the section exposed on Coal Brook, a mile further south, which is S. 10° E. magnetic.

The following is a detailed section of this bore-hole, distinguished by the letter F from those already reported upon, which range from A to E:—

SECTION OF BORE F, KELVIN BROOK.

<i>From.</i>	<i>To</i>	<i>Strata</i>	<i>Formation.</i>
....	8	8	Sand and gravel.
8	70	62	Sand.
70	94	24	Gravel
94	100	6	Clay.
100	106	6	Clay.
106	115	9	Clay and shale.
115	120	5	Sandstone.
120	130	10	Arenaceous shale.
130	151	21	Arenaceous shale.