

thence southward to join the Tweed. Of the Dee, also, some of the tributaries have their sources not three miles from the edge of the table-land on the north side, but nearly fifty miles from sea on the opposite side. There is no example of a river rising near the southern edge of the uplands and flowing across them to the north.

But not only do most of the large streams begin close to the north-western flank of the uplands; two of them, the Lyne water and the river Nith, actually take their rise beyond the Silurian belt altogether, and flow completely across it. The Lyne has its source among the Pentland Hills, from which it descends into a broad plain between Linton and Romano. It then strikes right into the Silurian hills, and joins the Tweed. The Nith takes a still more singular course. Its springs well out of the north flank of the uplands, and the infant river descends northwards, as if to make its way into the Firth of Clyde. But wheeling abruptly round, it plunges into the uplands again and flows right across them into the Solway. These heights cannot have existed as a range of high grounds when the valley of the Nith began to be traced. We know, indeed, from the evidence of the Sanquhar coal-field (*ante*, p. 285) that they must there have been buried under Carboniferous rocks, and it was doubtless on a wide Carboniferous platform, stretching far over the Silurian region, that the infant Nith chose its pathway across what is now the site of a range of hills. Many geological changes have since taken place, but none of them have been potent enough to make the river loosen its grip of the channel which it originally took; at least, it has been able to resume that channel in spite of them.

Again, the Tweed and its tributaries wander across the edges of the sharply-tilted Silurian rocks in such a defiant manner as to indicate that these rocks could not have been