

to prove that his system of observation possessed great practical utility.

In the year 1799, his connection with the Canal Company came to an end. He was thereafter compelled to put his geological knowledge to commercial use, and to undertake the laborious duties of an engineer and surveyor on his own account. Eventually he found considerable employment over the whole length and breadth of England, and showed singular shrewdness and originality in dealing with the engineering questions which came before him. He was a close observer of nature, and his knowledge of natural processes stood him in good stead in his professional calling. If he had to keep out the sea from low ground, he constructed his barrier as nearly as possible like those which the waves themselves had thrown up. If he was asked to prevent a succession of landslips, he studied the geological structure of the district and the underground drainage, and drove his tunnels so as to intercept the springs underneath. His nephew and biographer tells us that his engagements in connection with drainage and irrigation involved journeys of sometimes 10,000 miles in a year.

Such continuous travelling to and fro across the country served to augment enormously his minute personal acquaintance with the geological structure of England. He made copious notes, and his retentive memory enabled him to retain a vivid recollection even of the details of what he had once seen. But the leisure which he needed in order to put his materials together seemed to flee from him. Year after year passed away; the pile of manuscript rose