CHAPTER XIII.

AN UNDERGROUND EXCURSION.

FOUR hundred feet beneath the foundations of the city, with its piles of brick, and marble, and iron—beneath the roots of the oaken forest and its Dodonean colonnades—beneath the bed of the flowing river and its freight of animated hulls—down four hundred feet beneath the light of the nineteenth century, guided only by the glimmer of the oil lamp suspended from his smutty cap, the miner works the coal which blazes in the cheerful grate, or wakes the slumbering energy which drives the monster steamer on the stormy wave. Let us enter the yawning avenue to this subterranean world. [See Appendix, Note V.]

Armed each with a miner's lamp, and clad in a miner's garb borrowed for the occasion, we step upon a platform, or "cage," six feet square, suspended by iron rods connected with machinery moved by an engine, and, at the word, begin to sink into the gulf of blackness beneath us. This perpendicular hole, perhaps eight feet square, is called the "shaft." By the light of the outer world thrown into the mouth of the chasm, we perceive that the shaft passes at first through a few feet of sand and gravel. Lower down the darkness of the pit enshrouds us, but we learn by the gleam of the lamps that we are passing through fifty feet of coal-black shales, which, like the sandy beds above, are held in their places by a frame of planks. We next find ourselves in the middle of an aperture through a bed of limestone perhaps twenty-five feet thick. The walls are