

a thickness of 600 feet in the counties last mentioned. Besides red and green shales and red sandstones, it comprises much soft white quartzose sandstone, in which the trunks of silicified trees have been met with at Allesley Hill, near Coventry. Several of them were a foot and a half in diameter, and some yards in length, decidedly of coniferous wood, and showing rings of annual growth.* Impressions, also, of the footsteps of animals have been detected in Lancashire and Cheshire in this formation. Some of the most remarkable occur a few miles from Liverpool, in the whitish quartzose sandstone of Storton Hill, on the west side of the Mersey. They bear a close resemblance to tracks first observed in a member of the Upper New Red Sandstone, at the village of Hesseberg, near Hildburghausen, in Saxony, to which I have already alluded. For many years these footprints have been referred to a large unknown quadruped, provisionally named *Cheirotherium* by Professor Kaup, because the marks both of the fore and hind feet resembled impressions made by a human hand. (See fig. 435.) The footmarks at Hesseberg are partly concave and partly in relief; the former, or the depressions, are seen upon the upper surface of the sandstone slabs, but those in relief are only upon the lower surfaces, being in fact natural casts, formed in the subjacent footprints as in moulds. The larger impressions, which seem to be those of the hind foot, are generally 8 inches in length, and 5 in width, and one was 12 inches long. Near each large footprint, and at a regular distance (about an inch and a half),

Fig. 435.



Single footprint of *Cheirotherium*. Bunter Sandstein, Saxony; one-eighth of nat. size.

Fig. 436.



Line of footsteps on slab of sandstone. Hildburghausen, in Saxony.

before it, a smaller print of a fore foot, 4 inches long and 3 inches wide, occurs. The footsteps follow each other in pairs, each pair in the same line, at intervals of 14 inches from pair to pair. The large as well as the small steps show the great toes alternately on the right and left side; each step makes the print of five toes, the first or great toe being bent inwards like a thumb. Though the fore and hind foot differ so much in size, they are nearly similar in form.

The similar footmarks afterwards observed in a rock of corresponding age at Storton Hill, were imprinted on five thin beds of clay, superimposed one upon the other in the same quarry, and separated by beds of sandstone. On the lower surface of the sandstone strata, the solid casts of each impres-

* Buckland, Proc. Geol. Soc. vol. ii. p. 439; and Murchison and Strickland. Geol. Trans. Second Ser. vol. v. p. 347.