

the probable effect of such Tunnels upon the health and feelings of those who may traverse them.

The Tunnel is carried through clay, and is lined with brickwork. Its dimensions, as described to us, are as follows: height 22 feet, width 22 feet, length 3,750 feet. It is ventilated by five shafts, from 6 to 8 feet in diameter, their depth being 35 to 55 feet.

The experiment was made under unfavourable circumstances. The western extremity of the Tunnel being only partially open, the ventilation is less perfect than it will be when the work is completed. The steam of the locomotive engine also was suffered to escape for twenty minutes, while the carriages were stationary near the end of the Tunnel; even during our stay near the unfinished end of the Tunnel, where the engine remained stationary, although the cloud caused by the steam was visible near the roof, the air for many feet above our heads remained clear, and apparently unaffected by steam or effluvia of any kind; neither was there any damp or cold perceptible.

We found the atmosphere of the Tunnel dry, and of an agreeable temperature, and free from smell or perceptible effluvia of any kind; the lamps of the carriages were lighted; and, in our transit inwards and back again to the mouth of the Tunnel, the sensation experienced was precisely that of travelling in a coach by night, between the walls of a narrow street. The noise did not prevent easy conversation, nor appear to be much greater in the Tunnel than in the open air.

Judging from this experiment, and knowing the ease and certainty with which thorough ventilation may be effected, we are decidedly of opinion that the dangers incurred in passing through well-constructed Tunnels are no greater than those incurred in ordinary travelling upon an open railway or upon a turnpike-road; and that the apprehensions which have been expressed that such Tunnels are likely to prove detrimental to the health, or inconvenient to the feelings of those who may go through them, are perfectly futile and groundless.

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### *Russian Column.*

A Column has recently been erected to the memory of Alexander I. in Petersburg, in the Place —, of which the following are the dimensions:— Shaft of the pillar, in one piece of granite, length, 84 feet; diameter,  $12\frac{1}{2}$  feet; weight 350 or 400 tons. The bronze figure on the top is 15 feet high, independent of the cross, or 23 feet with the cross; weight, 13 tons. The bas-reliefs are in four plates, and the length of each  $17\frac{1}{2}$  feet; the height being  $10\frac{1}{2}$  feet. Some of the figures stand out nearly 2 feet. The weight of the four plates is 44 tons; entire height of the monument, 154 feet; weight of brass, 158 tons. The erection of this monument cost 10,000,000 of roubles, or £400,000 sterling; and it was erected in two years and a half. The stone pedestal on which the whole stands is 28 feet square, and 7 feet high.

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