often several yards. In the earthquake of Cutch, which I have mentioned, trees were seen to flog the ground with their branches, which proves that their stems must have been jerked suddenly away for some considerable distance and as suddenly pushed back; and the same conclusion follows from the sudden rise of the water of lakes on the side where the shock reaches them, and its fall on the opposite side; the bed of the lake has been jerked away for a certain distance from under the water and pulled back.

(24.) Now, suppose a row of sixty persons, standing a mile apart from each other, in a straight line, in the direction in which the shock travels; at a rate, we will suppose, of sixty miles per minute: and let the ground below the first get a sudden and violent shove, carrying it a yard in the direction of the next. Since this shock will not reach the next till after the lapse of one second of time, it is clear that the space between the two will be shortened by a yard, and the ground—that is to say, not the mere loose soil on the surface, but the whole mass of solid rock below, down to an unknown depth—compressed, or driven into a smaller space. It is this compression that carries the shock forwards. The elastic force of the rocky matter, like a coiled spring acts both ways; it drives back the first man to his old place, and shoves the second a yard nearer to the third; and so on. Instead of men place a row of tall buildings, or columns, and they will tumble down in succession, the base flying forwards, and leaving the tops behind to drop on the soil on the side *from* which the shock came. This is