

must be considerably less. The statue of an elephant, placed upon a level surface, would stand without danger of oversetting; but the statue of a man, resting on the feet, in the usual attitude of standing, would be thrown down by a very small impulse. It is evident, indeed, that in the living body, if the centre of gravity were at any moment to pass beyond the base, no muscular effort which could then be made, would avail, to prevent the body from falling. But the actions of the muscles are continually exerted to prevent the yielding of the joints under the weight of the body, which tends to bend them. In quadrupeds, less exertion is requisite for that purpose; and standing is in them, as we have seen, a posture of comparative repose: in man it requires nearly as great an expenditure of muscular power as the act of walking. Soldiers, on parade, experience more fatigue by remaining in the attitude of standing, than they would by marching, during an equal time. Strictly speaking, indeed, it is impossible for even the strongest man to remain on his legs, in precisely the same position, for any considerable length of time. The muscles in action soon become fatigued, and require to be relieved by varying the points of support, so as to bring other muscles into play. Hence, the weight of the body is transferred alternately from one foot to the other. The action of standing consists, in fact, of a series of small and imperceptible motions, by which the centre of gravity is perpetually shifted from one part of the base to another; the tendency to fall to any one side being quickly counteracted by an insensible movement in a contrary direction. Long habit has rendered us unconscious of these exertions, which we are, nevertheless, continually making; but a child learning to walk finds it difficult to accomplish them successfully. It is one among those arts which he has to acquire, and which costs him, in the apprenticeship, many painful efforts, and many discouraging falls. But whenever nature is the teacher, the scholar makes rapid progress in learning; and no sooner have the muscles acquired the necessary strength, than the child becomes an adept in ba-