the mechanism of the animal frame; one set of powerful muscles being employed for the larger movements, and another set provided for the accurate regulation of the more delicate inflections and nicer positions. This we shall find exemplified in the movements of the fingers, and of many of the organs of the finer senses.

In general, however, we may observe that the mechanical expedients devised by Nature for effecting each particular purpose are characterized by the most admirable simplicity. In this respect, also, as well as in all others, we cannot fail to recognise their infinite superiority over every corresponding invention of man.

> " In human works, though labour'd on with pain,
>   A thousand movements scarce one purpose gain:
>   In God's, one single can its ends produce,
>   Yet serves to second; too, some other use."—Porz.

We may generally observe, in the mechanism of the joints, that the muscles are made to act, either directly or by means of their tendons, at a point much nearer to the axis of motion than the resistance to be overcome. With regard to the direct force, therefore, it is evident that they must act with a great mechanical disadvantage; and this disadvantage is still farther increased by the obliquity of the action with reference to the direction of the motion. But the contractile power, which is inherent in the muscular fibre, is so enormous, as amply to afford these losses, great as they necessarily are; while, on the other hand, full compensation is made by the greater freedom and velocity of motion thereby obtained. Strength is sacrificed without scruple to beauty of form or convenience of purpose; and that disposition of the force is always adopted, from which, on the whole, the greatest practical benefit results. Every where do we find the wisest adaptation, of muscular power to the objects proposed, whether it be exerted in laborious efforts of the limbs and trunk; whether employed in balancing the frame, or urging it into quick progression; or whether it be applied to direct the delicate evolutions of