

tion of before. In the extreme case of the substitution of the foot for the hand, I have myself seen a woman, born without hands, execute elaborate pieces of scissor-work, and write not only with neatness, but—to apply the term adapted to perfect handiwork,—with great dexterity.

But while such evidence shows a capacity of development of the human foot for manipulative purposes, it very slightly affects the manifest diversity of functions indicated in the separate movements of the radius on the ulna, as contrasted with the fixity of the tibia and fibula; the distinction in form and action of the thumb and great toe; and the diverse articulations of the hand and foot in relation to the arm and leg. The human hand, as an instrument of constructive ingenuity and artistic skill, stands wholly apart from all the organs applied to the production of analogous workmanship among the lower animals. Man only, in any strict sense, is a manufacturer. Where the constructive ingenuity of the lower animals brings them into comparison with him, the arts of the instinctive weaver or builder owe none of their approximation to human workmanship to the development of an organ of manipulation.

Nevertheless, though the *Quadrumana* claim no place among the instinctive architects, weavers, or spinners, their hands place them in some respects at a decided advantage over other mammals. Imperfect as they are, and unfitted for the delicate operations in which man's hand executes the conceptions of his mind, they suffice for all the limited requirements of the forest-dweller. In climbing trees, as in seizing a small stick, or any other object which he can grasp, the monkey uses the thumb and finger as man does. It thus accomplishes all needful manipulations in the search for food: gathering and shelling nuts or pods, opening shell-fish, tearing off the rind of fruit, or pulling up roots. In picking out thorns or burs from its own fur, or in the favourite occupation of hunting for each other's parasites, the monkey uses the finger and thumb; and in many other operations, performs with the hand, what is executed by the quadruped or bird less effectually by means of the mouth or bill.

At first sight, we might be tempted to assume that the four-handed mammal had the advantage of us; as there are certainly many occasions when an extra hand could be turned to useful account. But not only do man's two hands prove greatly more serviceable for all the higher purposes of manipulation than the four hands of the ape; but as he