

CHAPTER XXII.

THE ANIMAL BODY AS AN INSTRUMENT.

IN all my researches, medical or experimental, the one ideal presented to me has been that the body, whether of a man or of a lower animal, is an instrument played upon by nature, and can only be accepted as such—as distinctly so as a violin, or a steam engine, which latter it wonderfully resembles, because a steam engine has a kind of stomach from whence its work emanates. Everything points out what the body is. It is not the body that lives, but the soul or life with which it is endowed. Nothing proclaims this last fact better than the inspection of the body while it is endowed, and when it ceases to be endowed, with life.

Still more curious it is that the body in all its various parts is mechanical in build: all parts fitted to obey the prime and working outside power. The eye is purely instrumental; the ear is an instrument—so is the heart and other muscles. The quality evinced is according to the instrumental capacity: thus I found that the pulmonary artery, which carries the blood of the lesser circulation, is exquisitely proportioned to the aorta, which carries

the blood charged with the vital oxygen over the body.

There are also in the body the two kinds of oxygen which it wants—the free and the condensed. The free oxygen is in the vital blood, transfusing in all directions and supplying vitalising energy; the condensed is locked up in every organ, giving a considerable weight of matter, and perhaps seizing and fixing hydrogen, so as to constitute water, but acting as a condensed thing, and having no relation with that free spirit with which it is combined when inhaled—adding to the mass, but losing its energy.

Sometimes the structure of the body is purely instrumental—as it is in a valve like the mitral—there is no escape from the conviction concerning it, except on the supposition that man has invented valves out of the body in imitation of those found within the body. In a course of lectures I delivered before the Society of Arts on “Mechanisms of Nature and Mechanisms of Man” I did my best—not altogether with the success I had hoped for—to show that the divine and human mechanisms are distinct, and that the human are not mere imitations of the divine; nothing more clearly demonstrates this fact than the valve. Nature and man are one as mechanists, and, although Nature is primary, are one and the same. Even pain has its analogue.

The body on the earth, as an instrument forming a part of the earth, is a visible and obvious thing—obvious in its parts as in its whole: a temporary

instrument, acted upon by an influence which lies around it outside, we may truly say, in the air, invisible and immortal.

To a medical mind the distinction is as clear as day. The charged instrument plays to nature just as it is allowed. It is the prime duty of the doctor to keep it in tune, and, as far as he can, to keep it alive—that is to say, ready to receive vibrations or impressions. This duty gives a higher position to medical men than was ever assigned to them in the ages that have passed, intimating that they ought to lead the living world and keep it in order. To man generally the distinction indicates that the visible instrument spoils or degenerates, while the invisible spirit lives in it according as the instrument is in a condition for the reception of the spirit. There once was no instrument. Then one was made: "God breathed into his nostrils the breath of life, and man became a living soul."

It seems to me that this view best of all explains qualities and most clearly differentiates species. All living beings breathe life and are under the universal influence. How they develop the influence depends on the form they take, singly or combinedly, whether it be physical or mental. Hence variety of character and hence variety of species and even the difference of sex. In other words, if two animal instruments were in every respect the same, they would be in act one instrument, and, though they might appear

as two, would behave as one. The varieties of what is vulgarly called constitutional formation or temperament are necessary, in order to have differences of kind or species, and the instrument is according to its construction. Memory itself in this way becomes nothing more than an impression, fixed or fleeting, according to the condition of the surface that receives it and, so to speak, retains it. To the common view there is an endless variety of instruments,—but that is not the fact: the moulds are comparatively few, although there may be many shades which seem to indicate a large number; and there are outside influences which create changes of appearances without instituting actual change of substance. A black animal is not essentially black because of its possession of a particular colouring principle, but because it absorbs the colours which come from the sun, while a white animal reflects them—facts which constitute the difference between the white and the black races with intervening modifications.

The force that is evolved by the instrument, and which to us is invisible, is known only by its effects as we are enabled to see them in animal movements. Once I was summoned to see a sick man and when I arrived he was dead, so I could enter into no converse with his force or spirit as manifested in him himself. And yet I did so. Some hours before he ceased to breathe he had wound up his timepiece by his bedside, and it was still going; that is


to say, his vibrating, indestructible part was still manifesting itself in another instrument that was giving me certain information his lips, earlier in the day, might have given me. The hands of the clock he wound up told me the hour, in fact, in another language, and he, although dead, was still speaking.

To treat the animal body as the instrument of a superior power is reasonable; is in accordance with speculation, and with the fate of everything that has been, is, and is to be. The power is eternal; the instrument, through which it displays itself, mutable, so that seven ages of the instrument would mean seven men. The endowed instrument may make the race better, raising all that is below the common towards the highest. We civilise the earth in this way, and construct out of it many things that before were practically dead.

As instruments we are everything, so long as we are endowed with the power that animates us; but when we cease to be endowed and are dead, we are no more than matter waiting to be resolved, recast, and filled with life.

CHAPTER XXIII.

UNIVERSITY ECHOES.

N the borders of the northern sea there lies a city, the university of which has, until recent years, been almost forgotten. The university I refer to is that of St. Andrews. This, the oldest university in Scotland, was once the light of learning of the country. A pope organised it. It was the seat of much commotion in the Reforming period; and one of the leaders of the Church, Cardinal Beaton, was killed there. John Knox, a leader of the reforming Church, preached there, and his pulpit still remains. It is said that the cap which the Principal puts on the head of a candidate for a doctorship as he pronounces the ancient Declaration is made out of a remnant of the nether garments of the Reforming hero. Dr. Samuel Johnson and Boswell visited this venerable city, and the first of them made the anglicised grace delivered at dinner the subject of critical remark. The university, full of history, unfortunately did not at all times retain its fame or its magnitude. The more active living centres of Edinburgh,