

ment, especially if that one be an author of any note. It never once occurs to him that the habitual author holds all the affairs of the press in as much abhorrence as the doctor does his own drugs, and instead of desultorily any concern with the blackened paper of another man, can hardly endure the sight of his own. He thinks only of the pleasantness of getting praise from one who is himself much praised. Having his work read by one whose own writings are extensively perused, seems to him the next thing to being extensively perused himself. Since he is to have only one stray reader now and then, he likes that he should be one of some importance. Thus the man who by his compositions can delight thousands, is often detained from that glorious employment, by a necessity in courtesy to the reader of that which never could, by any possibility, give pleasure to a single human being. Nor is it solely to gain a reader. The literary idler always entertains a kind of hope, that, by thrusting a manuscript now and then before the eyes of a regular man of the press, some of them will some day in some way or other catch; that, as it were—just pop into types by mistake—and thus afford him the dear and long-looked-for pleasure of seeing his thoughts in another form than that wearisome and everlasting holograph. The patient wishfulness, the untiring laboriousness, the endless shapes of vanity and folly, which some men thus display before others, would, if carefully delineated, present a new and striking chapter in the science of human nature. Some are a great deal more easily dealt with than others. The least word of discouragement is sufficient; they assent hastily to the very first hint of dislike, and thrust the manuscript back into their pockets, fearful to provoke the telling of the whole truth. With such modest and diffident natures there is a pleasure in dealing. But others are of a very different temperament. Totally unacquainted with the extent of labour and experience, which, in addition to native ability, must go to the production of successful composition, they may have thrown off some sketchy, scrappy, endless, senseless, ill-concocted, ill-arranged stuff, which in their sublime conceit is good enough for the world, and thus they bring to you, rather with a demand of your admiration than a request of your judgement. With such gentlemen a vague and courteous sentence of insufficiency will not do: they must have particulars. You mention with much reluctance one unfavourable peculiarity: they question it, battle it, and perhaps beat you out of it. You then present another: this they also contest. You all the time fight in the manacles of politeness and good nature, which of course gives them a great advantage. In the end, perhaps, they leave you in much the same condition with the gentleman who did not like Dr. Fell. You have declared you do not approve of the article or the work, and yet you are shown to have not one good and valid reason for entertaining any such sentiment. The enraged author then quits your house, after having destroyed not a little of both your time and your tranquility, and proclaims every where that you have used him most abominably.

Such are a few of the miseries arising from the war carried on by the idle against the busy. It is a war in which only one party can be worsted, for the assailants have nothing to lose, while the assailed have hardly any means of defence. Seeing that, as long as the idle exist, they will prey upon the busy, I would suggest that some means be devised for providing legitimate and useful employment for these unhappy persons. It is not desirable that they should enter the regular labour market, and, by virtue of their independent circumstances, undersell those who work for bread. There are innumerable other ways in which they might at once benefit their species, and amuse themselves. They might form great distinct societies for benevolent purposes, become the all-pervading missionaries of knowledge and morality, or, like the knights of old, make a profession of succouring all that were injured and oppressed. If they were to do nothing more than interest themselves in persons who become idle through unfortunate circum-

stances—of whom every large town has always a large number, and a very pitiable class they are—and if by a little trouble they could form a kind of medium by which such persons might regain employment, they would be doing a very considerable service to humanity. If those who have a literary ambition would content themselves with becoming the acting and presiding persons in little associations for diffusing literature, and in guiding the thoughts of useful writers to their proper objects, they would oblige instead of tormenting the public, and would soon, I am persuaded, find more pleasure in one week of such employment, than in an age of fiddle-faddle authorship.—*Chambers' Edin. Journal.*

CIRCULATION OF THE BLOOD.

The heart, which is the principal organ of circulation, is placed within the breast between the two lobes of the lungs. It is a fleshy substance, and has two cavities, which are separated from each other by a valve. From the left ventricle, a large blood vessel, called the *aorta*, proceeds, and soon divides into several branches, which ascend and descend by innumerable ramifications, become smaller as they proceed, and penetrate every part of the body. When the right ventricle contracts, the blood is propelled into arteries with so much force that it reaches the minutest extremities of their most remote ramifications. This motion is called the *pulse*, which is merely the effect of the pulsation of the heart, and is quicker or slower according to the frequency of its contractions.

When the blood arrives at the extremities of the arteries distributed through the body, Nature employs it in the wisest manner. Certain vessels absorb the watery, oily, and saline parts. In some parts of the body, where the arteries are distributed, the secretion of milk, fat, and various fluids is performed: the remaining portion of blood flows into the extremities of the veins. These vessels gradually enlarge in size, till they form very large tubes, which return the blood back to the right ventricle of the heart. The blood is then propelled into the *pulmonary artery*, which disperses it through the lungs by innumerable small branches. It is there exposed to the action of the air, is afterwards received by the pulmonary veins, and by them is conveyed to the left auricle of the heart. This contracts, and sends it into the left ventricle, which, also contracting, pushes it into the *aorta*, whence it circulates through every part of the body.

For this complicated function, four cavities, as we have seen, become necessary, and four are accordingly provided: two called *Ventricles*, which send out the blood; viz. one into the lungs, in the first instance, the other into the mass after it has returned from the lungs. Two others called *Auricles* which receive the blood from the veins; viz. one as it comes immediately from the body, the other as the same blood comes a second time, after its circulation through the lungs, for without the lungs one of each would have been sufficient.

Such is the admirable circulation of the blood in man and most animals. But there is still much obscurity in this interesting subject. We meet with wonders here, that prove how incapable the human mind is of explaining this work of Divine wisdom. "The wisdom of the Creator," saith Hamburgler, "is in nothing seen more gloriously than the heart;" and how well doth it execute its office! An anatomist, who understood the structure of the heart, might say before hand that it would play; but he would expect, I think, from the complexity of its mechanism, and the delicacy of many of its parts, that it should always be liable to derangement, or that it would soon work itself out. Yet shall this wonderful machine go night and day, for eighty years together, at the rate of 100,000 strokes every twenty-four hours, having at every stroke a great resistance to overcome, and shall continue the action for this length of time without disorder and without weariness!

From Keil's *Anatomy*, we learn that each ventricle will contain at least one ounce of blood. The heart contracts 4000 times in one hour, from which it follows that there pass through the heart every hour 4000 ounces, or 250 pounds, of blood. The whole mass of blood is said to be about 25 pounds, so that a quantity equal to the whole mass of blood passes through the heart 11 times in one hour, which is about once in every four minutes.

"Consider," says Paley, "what an affair this is, when we come to very large animals. The *aorta* of the whale is larger in the bore than the main pipe of some water-works; and the water roaring in its passage through a pipe of that description is inferior in impetus and velocity to the blood gushing from the whale's heart." Dr. Hunter, in his account of the dissection of a whale, says, "The *aorta* measured a

foot diameter. Ten or fifteen gallons of blood are thrown out of the heart at a stroke, with an immense velocity, through a tube of a foot diameter. The whole idea fills the mind with wonder."

The account here given will not convey to a reader ignorant of anatomy any thing like an accurate notion of the form, action, or the use of the parts, or of the circulation of the blood (nor can any short and popular account do this); but it is abundantly sufficient to give him some idea of the wonderful mechanism bestowed on his frame, for the continuance of life, by the hand of a Being who is all-wise, all-powerful, and all-good, and whose bountiful care is equally extended to the preservation and happiness of the humblest creature in existence, which has been, equally with ourselves, called into life at his Divine behest, and for a wise and good purpose.—*Saturday Magazine.*

BIOGRAPHY.

JOSIAH WEDGEWOOD.

This ingenious and amiable man, to whom England was indebted for many valuable improvements in pottery, was the younger son of a Staffordshire potter, who possessed a small entailed estate. He was born in July 1730, and received from his father a very limited education, and a very small patrimony. At an early period of life he applied himself to his father's profession, which was then limited to the production of only the coarsest kinds of earthenware.

The art of fabricating vessels from clay, which was known to the Egyptians and other nations of antiquity, and also to the Chinese (who made the superior kind called *China Ware* so early as the fifth century), was practised at Burslem and some adjacent places in Staffordshire, in, and perhaps before, the reign of Charles II. The possession of extensive fields of clay and coal, and the unfitness of the soil for agriculture, seem to have been the original causes of establishing the earthenware manufacture in this part of England. At the time mentioned, the art was in a very rude state, the ware being all extremely clumsy, the colours both coarse and very unskillfully applied, the glazing consisting entirely of lead ore, or calcined lead, a substance in a high degree pernicious to human life. Some improvements were introduced about the year 1690 by two brothers from Holland, named *Ellers*, who settled at Burslem, but were obliged soon after to return to their native country, in consequence of the fumes of their furnaces having led to a quarrel with their neighbours. These improvements were not lost sight of among the Staffordshire potters, and another was in time added by a Mr. Astbury, who suggested the admixture of calcined flint with clay, while a greater precision was given to the movements of the potter's wheel by an ingenious mechanic named *Alsager*. The Staffordshire ware continued nevertheless, at the beginning of the reign of George III., to exhibit little elegance, and to be of very limited utility. The paraphernalia of the tea table were regularly imported from China. The articles of the dinner-table were generally of metal among the higher ranks, and of wood among the lower. The porcelain which had been produced at Dresden since an early period of the century—the invention of a German chemist named *De Böttcher*—was then little known in Britain. And almost the only ware of a superior order, besides *China*, which had obtained a footing in the country, was an improved kind which for a few years had been imported from France. It was reserved for Mr. Wedgwood first to apply effectually the principles of science and of taste to this department of our national manufactures.

The subject of our memoir had entered into business on his own account, in partnership with a Mr. Bentley, and, by the assistance of that gentleman, and of an eminent chemist named *Chisholme*, whom he liberally rewarded, had made considerable improvements in the composition, form, and colour of the common wares, when, in 1763, he attracted general notice to a species of ware, greatly superior in beauty and