[FOR THE CRITIC.]

LET THE DEAD REST.

Alas for the rarity
Of Christian charity
Under the sun!

So wrote Hood, when picturing the desolation of a girl who had drowned herself. He did not note in his immortal poem that the unfeeling world, not content with driving some unhappy people to suicide, often proceeds to insult their remains and memories.

It has always seemed to me that coroners are rash in judging the act or motives of any one man who has appealed, wisely or unwisely, from the tender mercies or judgment of his fellows to the supreme tribunal of his Maker; and that those lawmakers were presumptuous who inflicted indignities upon his corpse. And if, as has been fancied, all suicides are insane, forfeitures of their estates or insults to their remains have been simply barbarous. These posthumous punishments of suicides, however, have been abolished in most countries, and society is gradually coming to see the fitness of "leaving with meekness their sins to their Saviour." The progress of this charitable tendency is shown in almost all of the many comments on the tragical death of King Louis of Bavaria.

None of your readers, it is to be hoped, will be silly enough to infer from these remarks that the writer approves of suicide. He holds that in almost every case those who kill themselves must be fools or cowards or criminals. He only pleads for a merciful suspension of judgment, on the ground that every suicide is *ultra vires* of any human court of law or opinion, and because that he can imagine circumstances under which some suicides might conceive their rejection to be justified. Nobody can reproduce the whole train of reasoning that has led a man to destroy himself. And, without entering on a profound study of the guilt of suicide, I may state my belief that it differs essentially from the guilt of ordinary murder. The aim of the former act is to benefit a willing victim, and the aim of the latter usually to injure an unwilling one.

I have just had the pleasure of finding a kindred thinker in the American poetess, Mrs. S. M. B. Piatt, who contributes these two feeling quatrains to the July *Atlantic*:—

AT THE GRAVE OF A SUICIDE.

Yet set in judgment on him, you, whose feet
Were set in pleasant places; you, who found
The bitter Cup he dared to break still sweet,
And shut him from your consecrated ground.

Come, if you think the dead man sleeps a whit
Less soundly in his grave,—come, look, I pray:
A violet has consecrated it.
Henceforth you need not fear to walk this way.

A few years ago the present writer published in the *Canadian Monthly* a couple of stanzas on a man, once of high promise, who destroyed himself in a fit of despondency. It may not be out of place to quote them here:—

"FELO DE SE."

Oft by that fountain 'neath the summer sky
He yearned, impatient for the strife to be,
To see, to know, to mount, the world defy,
And drink the mirage of futurity!

But by that fountain on a wintry day
Was laid a harp that burst from over-strain
And, cased in God's unconsecrated clay,
Is waiting, tuneless, to be strung again.

F. BLAKE CROFTON.

[FOR THE CRITIC.]

OF INTEREST TO ALL.

(Continued).

By some mischance an error crept into my last letter where it was stated that twelve bones entered into the formation of the toes, the number should have given as fourteen: also the hip-bones cannot be properly said to belong to the lower extremities, as they are placed one on each side of the *pelvis*, which is the inferior division of the trunk.

Having thus given all the information which I consider necessary concerning the anatomy of the skeleton, I will next proceed to give a brief description of the circulation of the blood, one of the most interesting subjects connected with the study of anatomy.

There are in the living body two circulatory systems. The first, and greater, is that by which the blood is conveyed from the heart to the various organs and tissues of the body to supply them with new material, to take the place of that which, having undergone the natural process of decay to which all living substances are subject, is now carried away by vessels belonging to the same system. The second is that system of blood-vessels by which the impure blood, which has already passed through the first system, is conveyed from the heart to the lungs, where it is brought into contact with external air, and there undergoes a purifying process by which it is made to give off carbonic acid and other poisonous substances, and to take up a supply of oxygen, after which it is conveyed back to the heart, whence it is once more distributed throughout the various tissues of the body.

The heart is placed very nearly in the centre of the chest, lying behind the breast-bone, to the right of which a small portion of its base, or upper part extends. The left edge of the breast-bone passes directly down its middle. It is in the form of a triangle, the base of which lies on a level with the third rib, and the apex of which lies on a level with the sixth rib, midway between the left edge of the breast-bone and the nipple. The nipple lies over the *fourth* rib. The heart, therefore, lies diagonally from right to left. It is contained in a loose sac—*pericardium*—and is freely suspended from the two great blood-vessels which are attached to its base. It is divided into four compartments, two of which lie superiorly, and are called *right* and *left auricles*, and two inferiorly called *right* and *left ventricles*. Each auricle communicates with its corresponding ventricle by means of an opening called the *auriculo ventricular orifice*, and each opening is supplied with a valve, which opens downwards into the ventricle; the valve upon the right side is called the *tricuspid valve*, and that which is upon the left side is called the *mitral valve*. Each ventricle communicates with an artery which leaves it at its base by an opening which is supplied with valves which open out into the vessel. The artery which leaves the right ventricle is called the *aorta*. The valves between the ventricles and the arteries derive their names from the latter, and are called, respectively, the *pulmonary* and *aortic* valves; each set of valves consists of three parts, shaped like crescents, and named from that circumstance, *right* and *left semilunar* valves. The pulmonary artery leaves the right ventricle and conveys the blood to the lungs for the purpose of aëration, whence it is returned to the heart by the pulmonary vein, and emptied into the left auricle. From the left auricle the blood falls into the left ventricle, whence it is conveyed by the aorta to the various parts of the body, and again returned to the heart by two veins which empty their contents into the right auricle. The heart is itself nourished by blood which is supplied by the general circulation. The heart is a muscle, and performs the part of a force pump. The arteries are those vessels which carry the pure blood from the heart for distribution among the tissues; the veins are those vessels which convey the *impure* blood back to the heart. But while this is the case with the general circulation, the contrary is the case with the pulmonary circulation, by which the arteries convey the *impure* blood from the heart to the lungs to be purified, and the veins carry *the pure blood* back again to the heart. It would be more correct, therefore, to say the arteries are those vessels which carry the blood *from* the heart, the veins are those which return the blood *to* the heart. *Arterial Blood, i. e.*, blood which flows through the arteries, is of a bright red color; *venous blood, i. e.*, blood which flows through the veins, is of a very dark red color; the veins are supplied with valves which serve to prevent the backward flow of their contents; the arteries have no valves, but their strong muscular coats serve to urge the blood onwards. The *capillaries* are minute, hair like vessels, which form a connecting link between the arteries and the veins, and through them the blood passes on from the former to the latter. The arteries pulsate, the veins do not; the capillaries have no contracting power nor valves.

Having thus briefly described the machinery by means of which the circulation of the blood is carried on, we will now turn our attention to the manner of its performance, and the course which it takes, beginning at the left chamber of the heart, that is, *left ventricle*. When the heart contracts, the walls of the left ventricle are brought forcibly together, and the blood which is contained therein is driven into the aorta, which may be aptly compared to the trunk of a tree, of which the numerous smaller vessels into which the artery is divided are the branches. As soon as the blood enters the aorta that vessel contracts, throwing its contents back against the aortic valves, and closing them so effectually as to prevent any return of the stream into the ventricle. The next contraction of the heart sends forth a fresh supply of blood into the aorta, the previous contents of which are thus driven onwards. The arteries contract and dilate alternately with the heart, and thus the *pulse* is produced. The blood having thus entered upon its course through the general circulatory system, is urged along through numberless ramifications, until it comes into communication with the capillary vessels. The walls of these vessels are extremely thin, and allow the fluid to pass slowly through them into the tissues in order to supply them with nourishment, while, at the same time, the waste material of the body in a state of solution, being of no further use in the animal economy, but, on the contrary, having become injurious thereto, passes through the walls from without into the interior of the vessels, and there mixes with the blood, and is carried away with it. The work of supply and removal having been thus completed, the altered and impure blood is forced onward until the capillaries become united with the smallest branches of the venous system, through which it flows into larger branches, as tributary streams unite to form a river, and terminate in two large veins which empty into the right auricle. The blood then passes through the right auricle and falls into the corresponding ventricle, and the great circulatory system is completed.

The blood which, during its course through the body, has become loaded with poisonous material, is now sent forth upon its course through the lesser circulatory system, where it undergoes the process of aëration. The *right ventricle* having become filled now contracts. The auriculo-ventricular valve floats upwards and effectually closes the opening; the onward rush of blood presses back the pulmonary valves, which fall outwards against the walls of the pulmonary artery, that artery contracts with the same effect as we have already seen in the case of the aorta, and its contents having been brought into close contact with the external air by means of capillary branches, are at length returned to the left auricle, passes into the left ventricle, and the pulmonary or lesser circulation is completed.

Having thus briefly explained what is meant by the *greater* and *lesser circulatory systems*, I wish to point out the courses of certain special arteries, the positions of which it is absolutely necessary to know in dealing with certain injuries. The *Carotid* artery of the right side is given off from the first branch of the aorta, behind the place where the collar-bone is joined to the breast-bone, and passes upwards along the side of the neck until it reaches a point midway between the *mastoid process* of the *temporal bone*, and the angle of the lower jaw, where it divides into two branches, *facial*, which supplies the side of the face, and *temporal*, which sends branches to the side of the head. The *axillary artery* begins about the middle of the collar-bone, and continues to a point on the inner-side of the arm, which