four days after that the escape of flatus and fæces through the wound showed unmistakably the mischief which had been done. On referring to the authorities for the best mode of proceeding in such a dilemma, I found them somewhat contradictory. Desault's advice is immediately to divide the rest of the gut down to the anus; and Liston says:—"The earlier the sphincter of the anus is divided, as for the cure of the complete fistula in ano, the better will be the patient's chance of being freed from the annoyance."* On the other hand, Mr. S. Cooper was of opinion that Desault's advice "is entirely erroneous, as numerous instances have proved that the wound may heal up very well without anything of this kind being done. I know of a recent example in which the rectum was wounded with a lithotomy knife; but the cut in the bowel healed up of itself, and never gave any trouble."† Still later writers, Fergusson and Coulson, are wholly silent on the subject. I felt the more anxious, from having been present at an operation on a child of about the same age as my patient, thirty years ago, when the same accident occurred, and the boy for many years suffered much inconvenience from the involuntary escape of fecal matter from the urethra, and pain and tenesmus from the presence of urine in the rectum.

Finding on the twelfth day that the fæces passed wholly by the wound and by the urethra, and that the wound was assuming an irritable and unhealthy look, I divided the sphincter by passing a bistoury from the nearest point of the wound in the perineum on to my finger in the bowel. The part divided was very slight, the wound into the rectum being near the anus. After this I had no further trouble, the parts healing, and resuming their natural functions very satisfactorily.

Rochdale, April 21, 1852.

THE LIFE OF THE BLOOD, AS VIEWED IN THE LIGHT OF POPULAR BELIEF.

FROM
NOTES OF AN INTRODUCTORY LECTURE DELIVERED
BY THE PROFESSOR OF GENERAL PATHOLOGY IN THE
FACULTY OF MEDICINE OF MONTPELLIER.

BY STANHOPE TEMPLEMAN SPEER, M.D.,
CHELTENHAM.

In considering this subject, viz., the blood and the life which animates it, I omit for the present all allusion to any organic demonstration of the fact, dwelling simply upon a proof, always misunderstood, though self-evident and never investigated, albeit peremptory. This proof I shall deduce from popular belief. In medicine it unfortunately happens that this species of evidence is too much neglected; and yet there is no science upon which it is capable of throwing so much

light. On the blood itself volumes have been written; its vitality has been sharply contested; some have gone so far as to deny it *in toto*. Borden was the first to raise his voice against those who harboured the doubt. He alone it was who viewed the question in its true light and in its varied aspects. In treating of it he has left the inimitable impress by which we recognize the master thinker; for no writer upon the blood has exhibited so much genius and so little pretension; and his "*Analyse Médicinale du Sang*" may be considered as a storehouse of ideas, profound, ingenious, and original. But among the proofs adduced by Borden in favour of the "*Life of the Blood*," that which I purpose to consider has been passed over unnoticed. In the investigation, however, of any given subject the science of medicine should accept evidence everywhere and from everything. Is it not the history of human existence? In truth, of all sciences, that of medicine is the most extensive, embracing, as it does, man, in the fullest acceptance of the word; his organization, as well as his capabilities; his development and his necessities; the powers of his mind, and the changes wrought upon him through the influence of external agents; the works he undertakes, the habits he acquires, the passions he exhibits, the manners he adopts, and the belief he entertains.

Now, we know that popular belief has always testified that the blood was at once the receptacle and propagator of the life. I purpose, then, to investigate this belief—to exact an accurate reason for its existence; for if it really exists there must be some grounds for such existence; and the promotion of an instinctive fact to the rank of one supported by mature reasoning, may be truly regarded as the highest mission of the medical philosopher. What, then, is the foundation upon which popular belief usually stands? Under this head we are forced to combine facts bearing no apparent relationship, prejudices and trustworthy opinions, revolting practices and rites (whether civil or religious) eminently useful and worthy of preservation. A people, like one individual, leaves its imprint upon all it touches; its soul is found upon its acts; but as such acts derive their origin from a previous belief, to consult such belief is at once to address ourselves to its very existence. Much difficulty here presents itself in the choice of a plan by which the mass of diversified and incoherent facts bearing upon this subject may be made to assume a uniform but comprehensive whole; the first object being to seize upon that centre or centres around which popular opinions naturally group themselves.

The ties of blood have at all epochs appeared to form the most inevitable and indissoluble of bonds. The idea which they express regulates all the relationships, both of the family circle and of society at large. It is probable, indeed, that in it we may see that secret chain which mysteriously connects together the whole human race. A chain, powerful as it is invisible; attaching without violence, binding without restraining, inculcating union without authority, of which the precepts are impulses, the laws invincible instincts, and which, while

* Practical Surgery, page 617.

† First Lines, Vol. ii, page 355.

existing within and reacting upon us, guides and directs man, independent of voluntary participation.

To imitate these ties of blood, or to draw them more closely together, much pains have ever and anon been taken, and artificial consanguinity, in default of that of nature, has appeared an indissoluble link. A sufficient proof of this assertion is to be found in the history of the passions, those beacons of vitality and self-consciousness.

To the instinct of the passions, then, has the blood at various periods been rendered subservient; and the most horrible denunciations of vengeance on the one hand, and the most tender vows of friendship or love on the other, have often assumed the blood to be the type of the object sworn to.

By a refinement of ferocity Cataline presented to the conspirators a cup filled with blood;—they drank of it, and bound themselves by a fearful oath. But this is no solitary instance; Herodotus, Plato, Tacitus, and Valerius Maximus, in describing the manners of the ancients, attest the frequency of this procedure. Equally terrible is the description given by Æschylus relative to the oath of the seven chiefs before Thebes, when standing around a dying bull they plunge simultaneously their hands in its flowing blood, (emblematical of ebbing life,) and swear by Mars and Bellona to be revenged.

Again, we have an antithesis to the above in the part which the blood is made to perform in the oath of mutual affection taken by the Scythians. The following is their own version, as related by Lucian:—"When (say they) we wish to swear a mutual friendship, we each prick the point of the finger, and receive the blood in the same cup; we then dip the point of our swords into the mixed blood, and carrying to the mouth, suck the precious fluid. This is amongst us the strongest possible mark of inviolable attachment, and the most infallible proof of an intention on either party to shed his last drop of blood for the other."

I might here adduce examples of a similar nature to show that friends, lovers, conspirators, and avengers, have been not unfrequently in the habit of instituting among themselves an indissoluble connection, whether from design or from affection, through the medium of the blood. It constitutes in such cases the link that binds, the sign that recalls, and the symbol that personifies; for the blood is looked upon by many as the life, and as an object of invocation second only to the Deity. They call it to interest them, at one time, as in the case of the ancient Scythians, by mingling together and drinking the blood of friends;—by drinking the blood of an animal, as in Tarquin;—by drinking their own individual blood, as in Poland, when swearing fidelity to a new King;—by sacrificing a victim, in imitation of the sons of Brutus in their oath relative to Tarquin;—by plunging their hands into flowing blood; or by writing in the blood of the individual himself an engagement to remember a promise, or to preserve through life an unalterable affection.

Drink the blood of another!—swear by the blood!—testify by the blood! What does this signify? Regarded

in the light of a symbol, it is to identify one individual with another;—to unite the separate existence of two in one;—to live together the same life. Viewed in a moral light, it indicates a determination to undergo the same misfortunes;—to run the same risks and dangers;—to pursue the same enterprises;—to be united by the same ties of affection. In these mutual and reciprocal engagements the blood serves as a type of the moral tie that is contracted; and just as two individuals, if animated by the same blood, would be liable to the same diseases, so the ancient practice above alluded to produced a species of moral unity, whether of action or sentiment. And in the instinctive performance of the rite a man may have tacitly agreed to more than he would have given utterance to had he known the full import of the symbol.

The sympathy between blood and blood—an idea in its nature both medical and moral—the foundation of the dearest ties, the tenderest affections, was doomed to degenerate, and quackery stepped in to assist, acquitting itself of the task, as usual, marvellously well. Has it not been of old asserted, that individuals might be acted upon at a great distance, provided some of their blood could be procured? Upon this idea was founded the sympathetic powder, (that of Digby, in particular, attaining an astonishing celebrity,) a fragment of cloth, dipped in the blood of a sick man, and sprinkled with this powder, caused him to experience an extreme sensation of cold when the cloth was placed in an ice-house, and a feeling of burning heat when brought near a raging fire. In England this powder turned the heads of multitudes; persons of the highest rank took part in experiments upon it, and the sympathy of the blood appeared to do away with the necessity for scientific research. If sick, the invalid forthwith sent to such and such a one a compress, soaked in his own blood; the physician, on receiving the same, sprinkled over it the necessary remedy, and sympathy achieved the remainder.

The sympathetic lamps mentioned by a Polish naturalist of the 17th century, likewise derived their imaginary prophetic virtues from the same source of vitality. Made with human blood, they constituted a species of vital thermometer, indicating the sadness, the joy, the health, or the disease, even the life or death of the individual, by the feebleness, the brilliancy, or the extinction of their light. Barbarous nations are careless of life, and still more so of the blood which represents it; civilized nations, on the other hand, look upon life and its symbol in a far more sacred light.

The parallel to be drawn from this fact is, in more ways than one, pregnant with contrast; to follow it out may not be amiss. The Scythians drank the blood of their conquered enemies; an inhuman custom, little in accordance with the reputation for virtue and justice, attributed to them by writers posterior to Homer.

Juvenal, in his 15th Satire, relates the narrative of a combat between the inhabitants of two Egyptian towns, and assures us that they took a pleasure in drinking human blood; "for (says he) the last comer,

seeing the bodies of the conquered already devoured, and nothing left for him, in despair gathered up with his fingers the blood that had fallen on the ground, and swallowed it."

Marco Polo, whose credulity upon some points cannot weaken his veracity upon others, says, in speaking of the Chinese, of the province of Koncha, "that in war, after slaying their enemies, they hasten to drink their blood, and then to drown their carcasses."

What a contrast here exists between customs of so atrocious a character, and the humanity of modern nations, each, when at war, tending the wounded of the other. But, well may we regard with horror the fact of drinking the blood of an enemy, when its use, as a simple aliment, inspires us with profound disgust, and can be conceived as existing only in legendary fables, or in the history of a madman. Polyphmeus could feed upon the blood of the companions of Ulysses; and Tarran, the more hideous of Polyphagi, upon the blood drawn from diseased individuals, and upon that of dead bodies.

But is the blood noxious; is it a poison, as some assert; or is it harmless? The question assumes now a different aspect. I do not, for instance, believe that the death of Lucan can reasonably be attributed to the blood which his wife caused him to swallow. True, it is said, that the blood of a bull was considered by the ancients as being poisonous. I cannot, however, believe, that it was by this that Themistocles destroyed himself. What would become of the Saminds, who drink that of their reindeers, and attribute to it an immunity from scurvy. Again, the Huns, in the time of Ovid, are reported to have drank the blood of their horses. Voltaire, in order to test the truth of this ancient idea relative to the noxious character of the blood, confesses that on one occasion he ordered a young bull to be bled, and drank a cupful of the blood with impunity. He asserts, moreover, that the peasants of the canton were in the daily habit of using it. What a contrast. While certain animal secretions, milk for example, are considered as nourishment, and taken without preparation, and without repugnance, the blood, similarly taken, inspires disgust; it is, because the blood is the life. Instinct, on the other hand, warns us, that a fluid secretion is a product, but not the life from which it emanates. What a holy horror its mere aspect will often inspire. Did not the bloody robe of Cæsar do more to rouse the spectators than all the eloquence of Antony?

Again, is there to be found a passage of horror in the ancient writers and poets, in which the blood does not figure, or a public disaster of which its real or imaginary appearance has not been a sign? We have but to read the *Æneid* of Virgil, and the history of Titus Livius, to be convinced of the truth which I advance.

Among the prodigies which preceded the second Punic war, Livy reports, that in one locality bloody waters were seen to flow.—Lib. xxij., Chap. 1.

During the same war, rivulets of blood were seen to flow for a whole day in the public forum.—Livy, Book xxvj., Chap. 23.

In the capital, in the forum, drops of blood were seen.—Livy, Book xxxiv., Chap. 45.

Near Mantua, the river Mincio having overflowed its banks, formed a lake, the waters of which were of the colour of blood.—Lib. xxiv., Chap. 10.

Among the prodigies which followed the death of Cæsar, Virgil relates, that springs of blood were seen to flow.—Georgic j., 483.

Quintus Curtius, again, in his description of the prodigies which accompanied the siege of Tyre, lays much stress on the different circumstances under which a supernatural appearance of blood was reported to have taken place. On the side of the Tyrians streams of blood were seen to flow through the flames in which they were forging the necessary weapons of defence; while in the Macedonian army, the soldiers were terrified at the sight of blood flowing from the bread they cut.

If we now turn our attention to the religious rites of Paganism, and compare them with our own, we shall derive a similar confirmation of the popular belief in the vitality of the blood. "It is better," says Bacon, "to ignore the Deity, than to have a low and unworthy opinion of him: the one is indeed an error, but the other is an outrage." "I would rather," says Plutarch, hear it asserted that no Plutarch ever lived than to hear it said that there was a Plutarch who devoured his children at their birth, as the poets say of Saturn."

These words of Bacon and Plutarch show at once the atrocious rites of Pagan religion. The effusion of blood was connected with all their practices and ceremonies. Was it necessary to implore the Gods to appease them, to make a promise, undertake an enterprise, engage in battle, or celebrate a victory? To satisfy the manes of the dead under either of these circumstances, the blood of a victim must needs begin and end the ceremony. So intimately, indeed, was the material idea of the blood, (through their belief in its vitality,) mingled with their religious ceremonies, that during the oblation denominated the *Taurobolus*, and to imbue the act of expiation with all the virtue of this fluid, it was necessary for the priest to expose his forehead, cheeks, lips, nostrils, and hands to the horrible shower of blood, which fell from the flanks of the sacred bull; his clothes were to be soaked, and his body saturated as it were with it. Then, stepping out of the pit in the most hideous condition, and adored as a God, he regained the temple, where his bloody garments were religiously preserved, a certain token of the pardon of the Gods. The walls of Narbonne still retain reminiscences of one of their famous sacrifices made to Cybele, for the cure of an obstinate gout, which tormented Severus during his whole existence. But the priests of Paganism, not content with the blood of animals, inundated their altars with that of man. At one time it was the blood of the dearest relatives, as when the Carthaginians sacrificed their children to Saturn; at another time it was the blood of the purest and fairest of her species; and Iphigenia was led to the sacrificial altar. At another, again, it was the blood of the hated and abhorred enemy, as when the Druids slew the hundredth part of their

prisoners, and Achilles offered twelve Trojans to the manes of Patroclus. But under all circumstances it was blood that was shed—it was life that was sacrificed! Once it had begun to flow on the altars it was no longer possible to arrest it. From the first and most innocent of expiations, the offerings of which consisted simply of bread, milk, wine, and honey, Paganism proceeded to the immolation of animals, then of children, and then of man, until this barbarous custom was arrested by the glorious advent of Christianity.

The religion of the ancients sanctioned mortal combats between gladiators: Christianity appears, and its first veto is upon these sanguinary conflicts. At a later period, tournaments are forbidden upon the same principle. Later still she forbids priests the innocent pleasures of the chase, and alike prevents physicians, who were then priests, from exercising surgery, all with a view to avoid the sight of blood; for, says the councils, the Church holds it in abhorrence.

This horror of blood, this respect for human life, is alone sufficient to separate Christianity from other forms of worship; and this single idea places the widest interval between the world of Paganism and that of Christianity.

We now come to a species of testimony still more decisive. I deduce this from the fact, that, wherever science, on the one hand, or ignorant prejudice on the other, has endeavoured to purify life, to prolong it, to take it as a witness, to remove it from bodies which enjoy it, or to diminish its energy, it has been through the blood that the attempt has been made.

In a religious light, spiritual purification has always gone hand in hand with corporeal cleansing, and in this last point of view, the blood, as the receptacle of the life, has attracted the attention of the chief of all creeds. I shall not much insist upon proofs of this nature, generally, indeed, well known, I content myself with saying that a vague but instinctive presentiment appears to have taught the ancients, that the life is in the blood.

Moses says in *Livit. 17, v. 11*. “*Anima omnis carnis in sanguine est*,” and if the Almighty forbids his people the blood of certain animals, it is because, as the sacred text says,—“*Eorum anima, in sanguine est*.” Their life is in their blood. The soul is not here confounded with the life, it is expressly said:—“The soul of the flesh, the soul of the body—*alias* the life—the existence, and not the soul of the intelligence. The ancients admitted three species of existence:—the intellectual, the animal, the vegetative. Of these three, the “*anima carnis*” of the scriptures, could be no other than that denominated by Hoffman, (“*l’ami medicale*,”) or what we should now designate as the vital force, a power unconsciously regulating the functions of the body, and superintending all those acts which do not emanate from the intelligence or the will. In this sense alone can we interpret the text above mentioned; and moreover, such is the only interpretation which can legitimately be placed upon similar expressions occurring in the ancient writers, whose metaphorical language often bears a considerable analogy with that of the Hebrew legis-

lator. In no other way, again, can we interpret Virgil, when speaking of those who perish from loss of blood. He says:—“*Purpuream vomit ipse animam*.”

[To be continued]

Hospital Reports.

MANCHESTER ROYAL INFIRMARY.

CASES

Reported under the terms proposed by the Association.

BY MEDICUS.

Calculus Vesicæ: Lithotrixy.

DANIEL PLUMMER, aged 50, engraver to calico printers, was admitted into the Manchester Royal Infirmary, October 7th, 1851. He states that his family are healthy, not suffering from urinary affections. His habits have been rather intemperate, until about seven years ago; during the latter period he has been tolerably sober. His habits are active; has enjoyed good health, and always had plenty of food. About five years ago, symptoms of calculus began to make their appearance. Pain in the loins and abdomen; pain on going to stool; micturition frequent, painful, and at times the flow was stopped suddenly; urine loaded with mucus and tinged with blood, at times small bits of gravel passed. When admitted the symptoms were still more marked. Micturition painful and frequent, often every five or ten minutes, which disturbs his rest at night; urine scanty, light coloured, and acid; pain in passing his motions; bowels constipated; skin dry; pulse regular; tongue rather coated. His health is suffering, and he complains of debility and want of appetite. On passing the sound a stone was at once discovered, which was supposed to be small and soft. He was ordered:—Extra diet. R. Decoct. Pereiræ Bravæ, oz. viij.; Liq. Potassæ, dr. iiss.; Tinct. Hyoscy., dr. iij. M. Cap., oz. j., quartis horis. Ol. Ricini, pro re natâ, Tinct. Opii., m. xl., omni nocte horâ somni sumend.

Lithotrixy having been determined on, the lithotrite was ordered to be passed twice a week. At first it caused some pain, but this speedily subsided as he became accustomed to the operation. Under the above treatment he improved very much; was able to keep his water for two hours at a time, and he was sometimes not disturbed in the night at all. At the latter part of October his health seemed to be suffering from the air of the hospital, and he was sent out for a fortnight.

November 14th.—Readmitted.

15th.—It was determined to crush the calculus. He was brought into the operating theatre, laid on a low couch, knees bent and kept separate, hips raised, and body well clothed. About ten fluid ounces of water, lukewarm, were slowly injected, causing little or no pain,