

wealth, possessions, and interests, to the exclusion of his own immediate relatives, who, by this arrangement, became dependent on their good behaviour and conduct towards his widow, for any benefit they might hereafter hope to possess. The power of gold, like the power of destiny, has its secret and irresistible influence; it wrought a miraculous change in the situation of the lady; her name, which had been before whispered in the breathings of calumny and disrespect, was now uttered by the loud tongue of praise and adulation. Princes bowed at her shrine, and the most illustrious by birth and courtesy deigned not to pay their meed of compliment to her virtues and her wealth. Her gold won its way to the heart of a simple duke, young enough to be her offspring, and she rose in due time to the elevation of the highest rank in the peerage of England, with certain privileges beyond her compeers, attendant on the hereditary office of her lord. Gold again, and the great influence it had worked in certain obligations conferred on needy scions of royalty, soon paved her way to the palace, and she thus by a chain of fortuitous events, reached the very climax of prosperity, beyond which the most ambitious of her sex could not hope to progress, and was pinnacled on a height that her most flattering visions had never pictured she could soar to. This lady so favoured of fortune, has since paid the debt of nature, and has left behind her a property approaching the amount of two millions of money!

Compare the foregoing instances with the fate of the many names on record, whose talent and intellect have enlightened the world, and opened to the human understanding the sources of knowledge and power, whose lives have been passed in indigence and comparative obscurity, and whose prospects have been clouded by the world's ingratitude; the same world that, to their solicitations for bread when living, has given them a stone, when death alone has discovered the just estimate of their worth.

Is it, we repeat, from ordinary causes that such results emanate? Is it not rather to the secret and irresistible workings of destiny, the inscrutable ordinations of providence, that directs and shapes all things to its own omniscient ends?

To those kind stars and hidden powers of fate,
That made Ventidius rise and Tullus great!

From 'Report of Poor Law Commissioners,' Appendix, June 8, 1838.

SOURCES OF FEVER.

It is a matter of experience that, during the decomposition of dead or organic substances, whether vegetable or animal, aided by heat and moisture, and other peculiarities of climate, a poison is generated, which, when in a state of concentration, is capable of producing instantaneous death, by a single inspiration of the air in which it is diffused.

Experience also shows that this poison, even when it is largely diluted by admixture with atmospheric air, and when consequently, it is unable to prove thus suddenly fatal, is still the fruitful source of sickness and mortality, partly in proportion to its intensity, and partly in proportion to the length of time and the constancy with which the body remains exposed to it. Facts without number, long observed, such as the great amount of sickness and mortality in marshy districts, the fevers and dysenteries incident to armies on their encampment in certain localities, several hundred men being sometimes seized with disease in a single night, and great numbers dying within twenty-four or thirty hours; the dreadful destruction which occasionally took place in ships' crews, in ships in which cleanliness had been neglected, and especially in which the bilge water had been allowed to collect and putrefy, sufficiently attested the presence, in certain situations, of a deadly poison. But this poison was too subtle to be reduced to a tangible form. Even its existence was ascertainable only by its mortal influence on the human body; and although the induction commonly made as to its origin, namely, that it is the product of putrefying vegetable and animal matter, appeared inevitable, seeing that its virulence is always in proportion to the quantity of vegetable and animal matters present, and to the perfect combination of the circumstances favourable to their decomposition, still the opinion could only be regarded as an inference.

But modern science has recently succeeded in making a most important step in the elucidation of this subject.

It has now been demonstrated by direct experiment, that in certain situations in which the air is loaded with poisonous exhalations, the poisonous matter consists of vegetable and animal substance in a high state of putrescency. If a quantity of air in which such exhalations are present be collected, the vapour may be condensed by cold and other agents: a residuum is obtained, which on examination is found to be composed of vegetable or animal matter, in a state of high putrefaction. This matter constitutes a deadly poison. A minute quantity of this poison, applied to an animal previously in sound health, destroys life, with the most intense symptoms of malignant fever. If, for example, ten or twelve drops of a fluid containing this highly putrid matter be injected into the jugular vein of a dog, the animal is seized with acute fever; the action of the heart is inordinately excited, the respiration becomes accelerated, the heat increased, the prostration of strength extreme, the muscular power so exhausted that the animal lies on the ground wholly unable to stir, or to make

the slightest effort; and after a short time it is actually seized with the black vomit, identical in the nature of the matter evacuated with that which is thrown up by a person labouring under yellow fever. By varying the intensity and the dose of the poison thus obtained, it is possible to produce fever of almost any type, endowed with almost any degree of mortal power.

It is proved further, that when this poison is diffused in the atmosphere, and is transported to the lungs in the inspired air, it enters directly into the blood, and produces various diseases, the nature of which is materially modified, according as the vegetable or the animal matter predominates in the poison. In the exhalations which arise from marshes, bogs, and other uncultivated and undrained places, vegetable matter predominates; such exhalations contain a poison which produces, principally, intermittent fever or ague, and remittent fever.

The exhalations which accumulate in close, ill-ventilated, and crowded apartments in the confined situations of densely populated cities, where no attention is paid to the removal of putrefying and excrementitious substances, consist chiefly of animal matter; such exhalations contain a poison which produces continued fever of the typhoid character. There are situations, as has been stated, in which the poison generated is so intense and deadly, that a single inspiration of it is capable of producing instantaneous death; there are others in which a few inspirations of it are capable of destroying life in from two to twelve hours; and there are others, again, as in dirty and neglected ships, in damp, crowded, and filthy goals, in the crowded wards of ill-ventilated hospitals, filled with persons labouring under malignant surgical diseases, and some forms of typhus fever in the crowded, filthy, close, unventilated, damp, undrained habitations of the poor, in which the poison generated, although not so immediately fatal, is still too potent to be breathed long, even by the most healthy and robust, without producing fever of a highly dangerous and mortal character.

But it would be a most inadequate view of the pernicious agency of this poison, if it were restricted to the diseases commonly produced by its direct operation. It is a matter of constant observation, that even when not present in sufficient intensity to produce fever, by disturbing the function of some organ, or set of organs, and thereby weakening the general system, this poison acts as a powerful predisposing cause of some of the most common and fatal maladies to which the human body is subject.

The deaths occasioned in this country by diseases of the digestive organs, for example, by inflammation of the air-passages and lungs, and by consumption, form a large proportion of the annual mortality. No one who lives long in, or near, a malarian disease district is even for a single hour free from some of the digestive organs. By the disorder of the digestive organs, the body is often so much enfeebled that it is wholly incapable of resisting the frequent and sudden changes of temperature to which this climate is subject; the consequence is that the person thus enfeebled perishes in inflammation set up in some vital organ, and more especially in the air-passages and lungs, or by consumption, the consequence of that inflammation. If then, as is commonly computed, of the total number of deaths that take place annually over the whole surface of the globe nearly one-half is caused by fever in its different forms, to this sum must be added the number who perish by the diseases caused by the indirect operation of this poison.

SINGULAR PRESERVATION OF A LIFE.

The following anecdote of a life preserved under extraordinary circumstances, is related in *Varilla's History (French) of Charles IX.* The incident occurred at the siege of Rouen in 1562:—

"An accident which happened to the most daring and hardy of the besieged, deserves to be told. Francois de Cville, a young Calvinistic nobleman in the neighbourhood of Rouen, had entered that city before it was besieged, and had been appointed, by Montgomeri, to command a company of foot soldiers, with orders to guard a station between the gate of St Hilaire and les Fourches. In this place he was shot in the right cheek by a musket ball. The violence of the ball, which penetrated a long way into his head, threw him from the top of the ramparts down to the ground, where the pioneers were working at an intrenchment. These unfeeling men, too much familiarised with scenes of blood to be moved by pity, considered Cville as dead, or at least they imagined that he would very soon be so: despoiling him of his clothes, they paid themselves beforehand for the sepulture they were about to give him; and, although he was but half dead, they cast him into a grave by the side of a soldier whom they were then interring. He had been buried six hours when the assault terminated. His groom, who was waiting with his horse for him, observing that he did not return, and hearing a confused rumour that he was dead, went to Montgomeri to ascertain the fact, who told him in what manner he believed Cville had been killed. The groom, much grieved, begged that at least they would show him the place where his master was buried, in order that he might take away his body, and convey it to his relatives. Jean le Clere, a lieutenant in the guards of Montgomeri offered to show him the place. The night was very dark, and they durst not take a light with them, as the enemy would have

fired at them immediately. However, the lieutenant had marked the grave so exactly, that the groom found the two bodies; but the wounds that they had received in the face, and the mud which they were besmeared, had so disfigured them, that it was not possible to distinguish Cville from the other; thus the groom was compelled to replace them in the grave whence he had taken them. The danger to which he exposed himself in performing this melancholy duty, and the distraction of his mind occasioned by his singular adventure, allowed him to do it with so little exactness, that he left one of the arms uncovered. He returned, overwhelmed with grief; but as he was about to enter the street and had lost sight of the spot where he had buried his master, he turned his head to look at it once more. The moon, which was rising, enabled him to perceive the arm lying out of the ground, and the fear lest it might allure the dogs to grub up the bodies and devour them, had so much influence over him as to induce him to go back for the purpose of covering the arm. In taking hold of it he found a ring on one of the fingers, which had escaped the observation of the pioneers, who had been in too great haste to make a particular examination. He recognised the diamond that Cville had been accustomed to wear; then unburied his master; and finding, on taking him up, that he was still warm, placed him on his horse, and conveyed him to the monastery of St Claire—the place destined for the wounded. The surgeons having examined Cville, deemed it useless to dress his wounds, and restored him to the groom, who, not knowing what to do, took him to the inn where he abode. In this place he remained four days without taking any nourishment, and on the fifth day, Grente and le Gras, two celebrated physicians, having heard that he was still alive, went to visit him, more from curiosity than with any hope of being able to afford him relief. They forced his mouth open, cleansed his wounds, and discovered, on applying the first dressing, that nature had yet sufficient strength to recover, provided she were seconded by art: and, indeed, he began to recover to the great astonishment of the inhabitants of Rouen. When that city was taken, some Catholic officers who had had a quarrel with the brother of Cville, ran to the inn where he had heard he resided. The persons who had informed them were mistaken, for the two brothers bore the same name. The intention of the officers was to kill their enemy; and their vexation when they found that he had escaped their revenge (for he had already left Rouen) was so great, that they wreaked their vengeance on his unfortunate brother. However, they were not willing to finish it entirely themselves, but commanded their servants to throw him through the window, which order was immediately executed. But nothing can take away the life of a man when his last hour is not arrived. Cville fell upon a dunghill that was unobserved by those who threw him through the window, and as their thoughts were only fixed on pillaging the room as speedily as possible, in order that they might hasten to do the same elsewhere, they put themselves to no more trouble about what was become of him than their masters had done, who had gone out after having given their order. He remained three days on the dunghill without receiving any nourishment, until his servant informed his relatives of what had happened to him. One of the most charitable of them, by means of a bribe, prevailed on the Catholic soldiers to remove him from that place, and to convey him to a country-house near Rouen, where he recovered, and lived almost fifty years afterwards."

This story appeals so strongly to the feeling of wonder, that the mind is almost disabled for forming a steady judgment as to its perfect naturalness. Yet, quite natural it most of course has been. The explanation is, that Cville experienced much of what seems usually to produce or attend death, but yet never received exactly that kind or amount of injury which is sufficient for the purpose. On the other hand, death is often produced from apparently trivial causes—sitting in a draught, or the cutting of a toe-nail. The uninformed mind, seeing some resist what appears so much, and others sink under what appears so little, are apt to think it is all a matter of fatality. If better informed on the subject, they would in every case find that the apparently small injury was in reality the greatest—the sitting in a draught, for instance, producing a general stoppage of one great function of the system, and the cut toe leading to such a derangement of the nervous apparatus that no other derangement could be equal to it. The same explanation serves for another too common wonder—the deaths of the young and strong, while the old and feeble linger on to old age. All depends on the acuteness of the injury. The feeble body, properly nursed and protected, will long retain life, if it escape severe attacks; while the healthiest and most robust frames are unable to stand against fevers, inflammations, and other short and sudden maladies. We have sometimes flung an useless piece of paper upon the coals, and been surprised half an hour after to find it not consumed; whereas, on other occasions, useful papers, flung in by mistake, have perished instantaneously. But, in the first case, the flame was just beginning to burst through the superior cake of black coal, while, in the second, the fire was glowing like a furnace. To suppose here a fatality against useful papers, would be exactly the same absurdity as to conceive that healthy lives ever give way before injuries less severe than those which feeble lives are enabled to endure.